

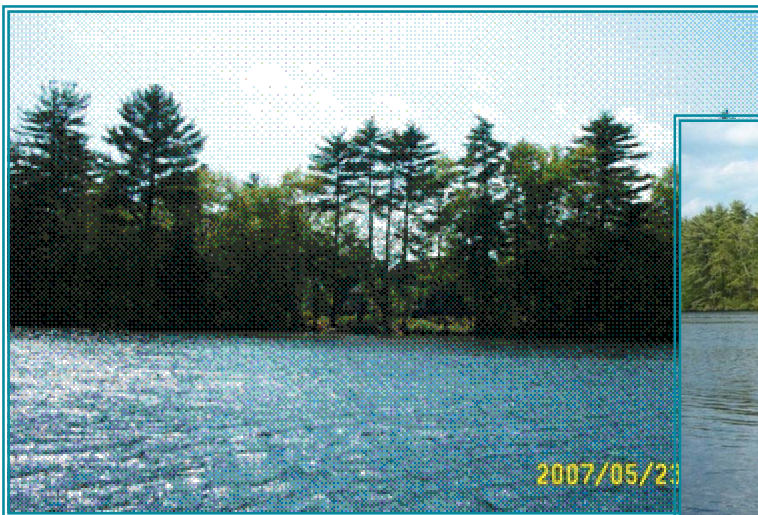
# Blackstone River Watershed Association



## West River Stream Team

### Shoreline Survey Report & Action Plan

June 30, 2007

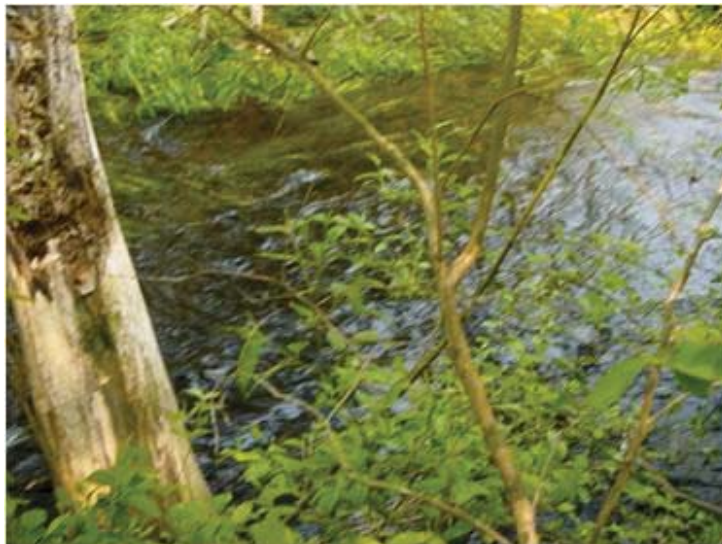


Thanks to:



Commonwealth of Massachusetts Riverways Adopt-A-Stream Program and UNIBANK for their assistance in funding this project.

Special thanks go out to our valued Stream Team members without whom this project would not be possible; West River area residents, businesses, and landowners for their cooperation; the Blackstone River and Canal Heritage State Park at River Bend Farm; and the Town of Uxbridge, especially the Uxbridge Conservation Commission.



# Preface

## **The West River Stream Team members**

Erin, Steve, Jeremy, and Jack Bennett

John and Elaine Czebotar

William Dausey

Barbara Johnson

Mike, Tom, and Phil McMullin

Gwyn Mills

Joel Morgenstern

Joan Newton

Scot, Marie, and Andrea Pendleton

Katherine Smith

Charley Sweet

James Plasse

Michael Pouliot

Michelle Walsh

## **Commonwealth of Massachusetts Riverways Adopt-a-Stream Advisor**

Gabrielle Stebbins, Adopt-A-Stream Program Coordinator

## **Blackstone River Watershed Association Project Coordinator**

Michelle Walsh, *Environmental Outreach Coordinator*

# Project Coordination

Michelle Walsh, Environmental Outreach Coordinator for the Blackstone River Watershed Association (BRWA) advertised for volunteers in various media throughout the Blackstone Valley area including but not limited to press releases in local newspapers, announcements on local cable channels, letters to environmental organizations, high schools, Boy Scout troops and town officials, flyers and e-mails to various environmental organizations.

A shoreline survey training session was scheduled at River Bend Farm in Uxbridge, MA on May 14, 2007. Approximately forty volunteers attended the meeting. At this meeting, volunteers were instructed on how to conduct a shoreline survey and were given survey sheets.

After the meeting, the West River was sectioned into 9 reaches; volunteers were organized in teams and selected a section of the River to survey. Each team had until June 11, 2007 to complete its survey and return it to the BRWA. The findings are summarized by section on the following pages. During this time, Gabrielle Stebbins of Mass Riverways acted as technical advisor to the BRWA.

Once the surveys were completed, the stream team members, along with Mass Riverways, met to discuss their findings and formulate an action plan that is found at the conclusion of this report. Volunteers spent approximately 30 hours on the project. Additionally, Ms. Walsh spent fifty hours on this project.

Coordination of this project went very well. It would be helpful for the coordinator to go out, run the length of the River, and make notes on potential problem areas such as new construction, businesses, golf courses, farms, dams or any structure that looks like it's impeding the health of the River. In turn, the coordinator can instruct the teams to inspect and photograph those areas.

# Introduction

The West River Stream Team is comprised of local citizens who are concerned with protecting and restoring the health of local rivers. The Blackstone River Watershed Association's (BRWA) goal is to educate the area residents and businesses about the impact they have on rivers and what can be done to help protect and restore them. BRWA's advocacy can also help convey ideas about improving land use; water quality; and enhancing wildlife and recreational opportunities.

The West River is a tributary of the Blackstone River and has been designated a cold water fishery by the Commonwealth of Massachusetts. The River originates in West Upton and flows in a southeasterly direction through the Upton State Forest where much of the riparian zone is undeveloped creating excellent wildlife habitat but limiting access by foot. Very few foot trails exist along this portion of the River. Canoe access is also limited due to deadfall and beaver dams in certain areas.

As the River flows in a southerly direction through Northbridge into Uxbridge, it meets the West Hill Dam. This dam was built in the late 1950's and early 1960's to control floodwaters during heavy rains. It is currently maintained by the Army Corps of Engineers. In this area, there are several hiking trails and an abundance of wildlife can be seen. The River widens to form a swimming hole known as Harrington Pool that includes sandy beaches and other recreational facilities.

South of the West Hill Dam, the River runs across Hartford Avenue in Uxbridge. This section of the River abuts several residential developments that open onto the West River Pond. Below this section, the shoreline returns an undeveloped area with many trees and shrubs on both sides. This is a problem spot, invaded by Asian Water Chestnuts that the BRWA continues to try to eradicate.

The River meets the Wacantuck Mill Dam and an old mill building across Route 16 in Uxbridge. This dam is in serious disrepair and needs to be

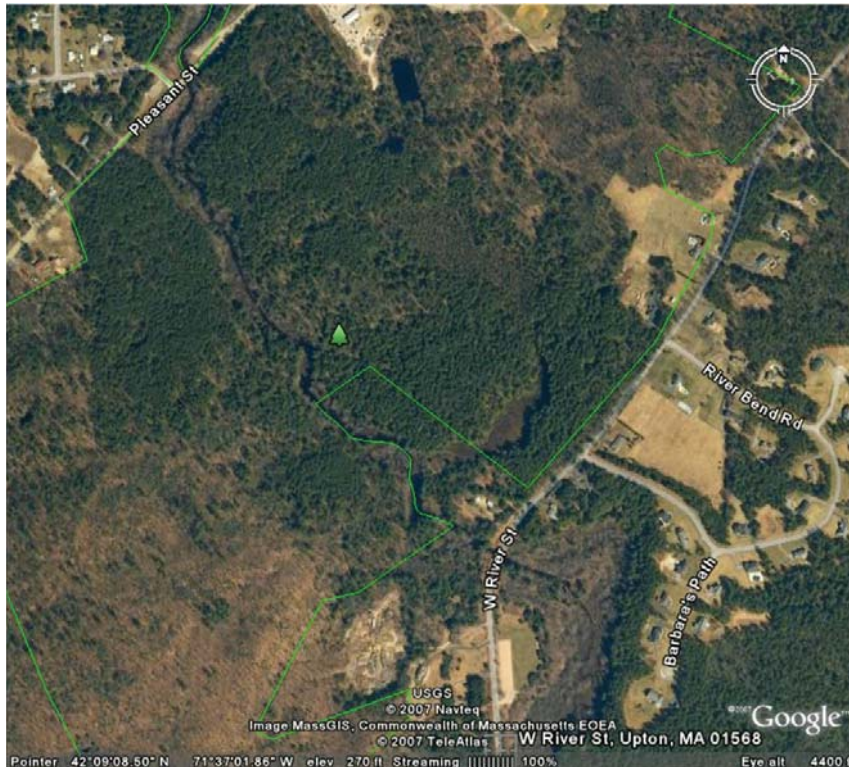
maintained in order to avoid future problems. Downstream from the dam, there are several residences and the Uxbridge Town Wells.

The last section of the River includes many residences, an old canal bed (The Hecla Canal), and a dumpsite that should be investigated. At this point, the West River converges with the Blackstone River.

In summary, the Stream Team identified that the West River has great potential for recreational use. Several areas along the River have been identified as future canoe access sites and possible River awareness projects. As a group, Stream Team members prioritized projects and many volunteers became active in addressing areas of need with their local town officials. Other surveyors chose to participate in water quality monitoring projects, invasive species removal, or in other Stream Team surveys. All of these activities work to enhance the quality of health and life throughout the Blackstone River Valley.

**West River Shoreline Survey Findings  
By  
Section**

## Section 1



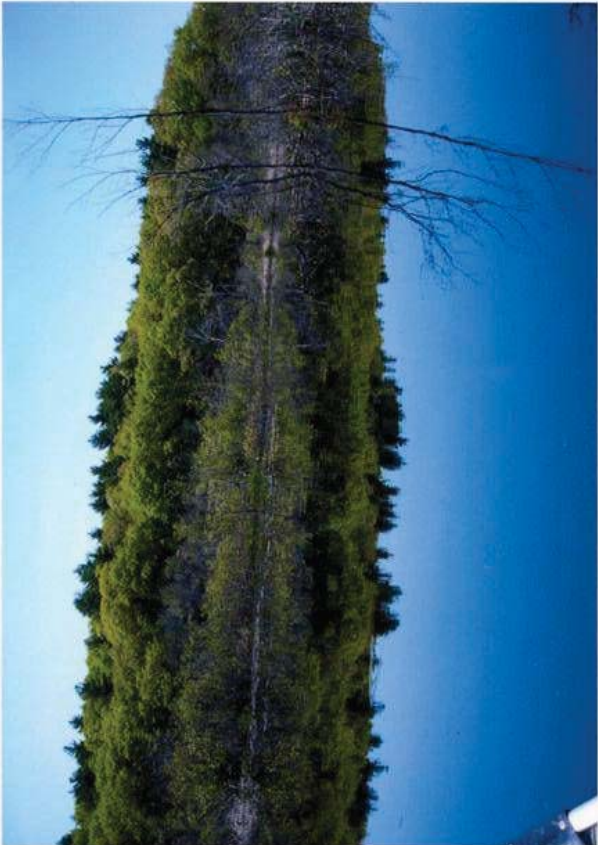
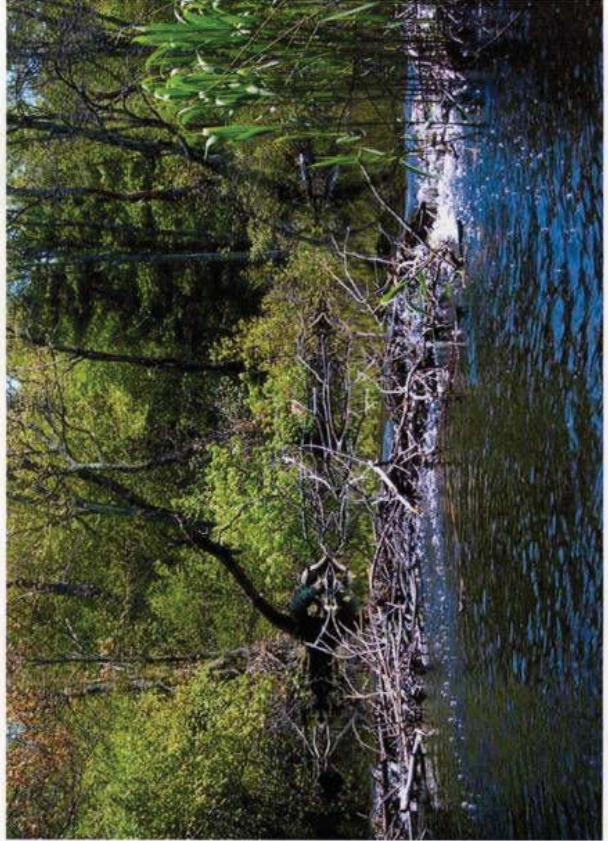
Pleasant Street  
to  
Hartford Avenue  
South,  
Upton MA

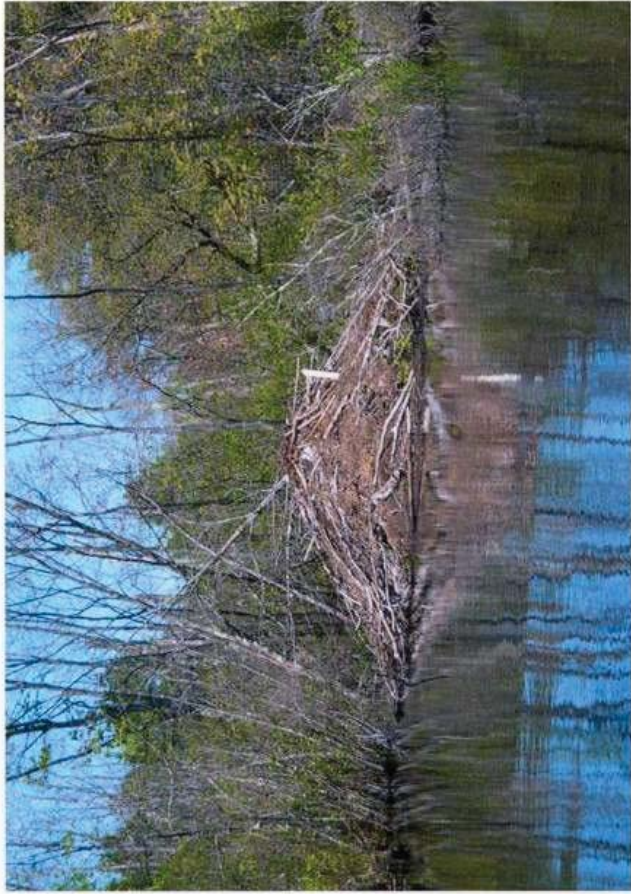
**Conducted by:**  
John and Elaine  
Czebotar

### Via Canoe

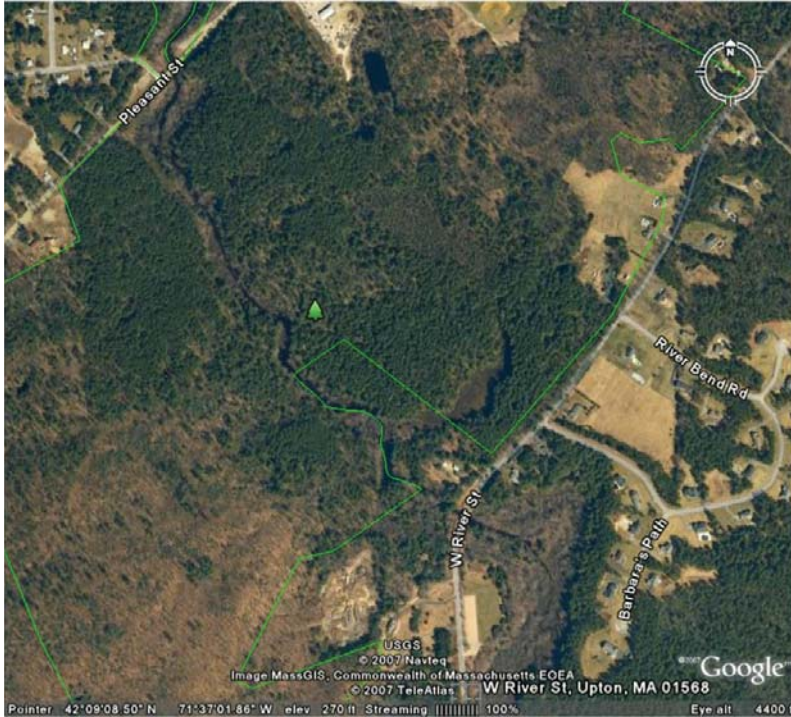
A mainly undeveloped riparian zone, this section was surveyed by canoe in a northerly direction up to Zachary Pond where deadfall and beaver dams made it impossible to travel any further. The surveyors observed this area to be good wildlife habitat with an abundance of shaded overgrowth.







## Section 2



Pleasant Street  
to  
West River Street,  
Upton, MA

**Conducted by:**  
Scot, Marie, and Andrea  
Pendleton

### Via Kayak

The surveyors set their kayaks in at Pleasant Street in Upton using a canoe launch area that included parking for approximately ten vehicles. Access via pathway to the River is limited due to an overgrowth of poison ivy. The surveyors observed moderate River flow and a fisherman that had caught three rainbow trout and a large mouth bass on a stringer.

The water was a light tea color, and water temperature registered at 65°F with a depth ranging from 11 to 33 inches. The average width of the River was approximately 25 feet. The shoreline was mostly inaccessible for the first 2/3 of this segment of the River. The final 1/3 of the River had some accessibility on the right bank.

Approximately 500 feet downstream from Pleasant Street, the River appeared to be clogged with tall grass and weeds. Trees were blocking River access about 1/3 to 1/2 of the way downstream. Trees overhung most of the shoreline on both sides providing adequate shade for wildlife.

The banks contained a mixture of tall grass and shrubs, including wild blueberry bushes and poison ivy, mixed with the trees. Ferns covered the forest floor under birch, maple, and immensely tall old-growth pine trees. Surveyors found a lichen-covered stone wall abutting a small walking trail about 2/3 of the way downstream. Beyond the wall, a small spillway was found where the surveyors were able to portage their kayaks.

The final portion of the segment had several riffles. Logs obstructed the River approximately 200 yards upstream from West River Street in Upton. Bubbly yellowish foam collected in the logs but could be broken up with a stick. Numerous dragonflies, damselflies, moths, spiders, and mosquitoes were seen. Other aquatic and wildlife species included trout, hornpout, largemouth bass, crayfish, owls, mallards, catbirds, goldfinch, blue jay, bullfrog, beaver and deer.



## Section 3



West River Street,  
Upton, MA  
to  
Mendon Road,  
Northbridge, MA

**Conducted by:**  
Joan Newton,  
Katherine Smith, and  
Michelle Walsh

### Via Foot – Kathy Smith and Michelle Walsh

This section of the River is mainly undeveloped and inaccessible by foot. There is limited accessibility to the River at three points along its west side consisting of overgrown vegetation and deadfall in the River. Surveyors identified a couple of beaver dams, but could not determine any aquatic species due to limited accessibility to the River. The River was flowing moderately. From the first access point, the bottom of the River was tea-colored whereas the third access point had a silty/sandy and slightly cloudy appearance.

Remnants of old stone bridges were found and these were in good shape adding to the aesthetics of the River. At the second access point along West River Street, the surveyors came across a bulkhead containing a pump that couldn't be identified. About 25 feet from the bulkhead, near the River's edge was an in-ground cemented round hole filled with stagnant water and a pipe that seemed to be directed into the River. Approximately 50 feet from the River's edge, the homeowners had dumped all sorts of

household objects behind their property. An old engine was found in the same area.

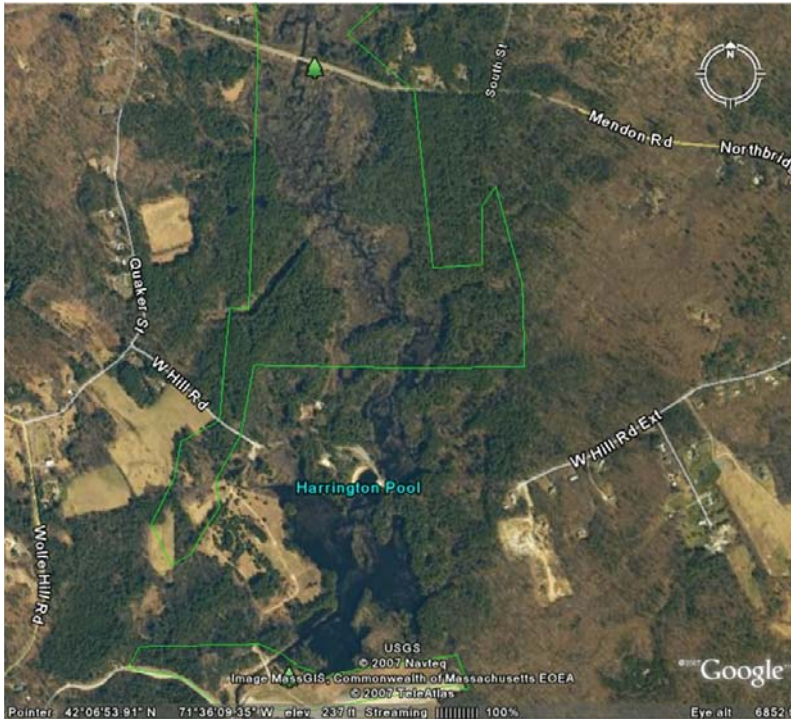
**Via Kayak** – Joan Newton

The surveyor was able to canoe the entire section down to Mendon Road. This journey took about 4 hours due to deadfall and beaver dam obstacles. Limited aquatic vegetation and shade were noted on both banks throughout. A few small, unidentified fish were seen but no waterfowl were visible. There was abundant evidence of beaver dams.





## Section 4



Mendon Road,  
Northbridge, MA  
to  
Harrington Pool,  
Uxbridge, MA

**Conducted by:**  
William Dausey  
and  
Charley Sweet

### Via Foot – William Dausey

Due to overgrown vegetation and marshland along the riverbank, this segment had limited access on foot. It is believed that the Army Corps of Engineers manages the area. There are no residences, farms, businesses, or other activities in the area that could contribute to river pollution. The surveyor spoke with some anglers who indicated that many rainbow trout are caught here. The same anglers also reported seeing snapping turtles and beavers in this area.

### Via Boat – Charley Sweet

This portion of the West River, from the swimming area at Harrington Pool north to Mendon Road, is within a protected wildlife area. The stream meanders through a broad flat area with discernible banks. On both sides, beyond this wetland/flood plain area, there are mature white pine/oak forest uplands.



This section begins at a pool that is a swimming area below the bridge. The pool transitions to a stream above the bridge. Approximately the lower 1/3 is a wider (20-30 feet) channel with meandering S-turns, followed by a stretch with a narrow channel, ending with a wider stream and pool below the Mendon Road Bridge. Brush and a log or two had been trimmed to keep some of the narrower sections passable. Throughout the course, shrubs (willow, alder and others), areas of fern tussocks and occasional small maple trees line the channel. Arrowhead and yellow lilies are widespread. With the exception of the two or three sand bars less than a foot deep, the channel is generally more than 3 to 5 feet deep.

The birdlife is prolific. Without binoculars, the surveyor identified eleven species and heard a couple of warblers and probable flycatchers. Several muddy bank areas were slick from apparent access by mammals. These suggested otter activity but could have been from raccoon or beaver. The surveyor did see two small shrubs that may have been gnawed off, but couldn't rule out that it was done with an ax. Many damselflies with black wings and turquoise bodies were flying about but only one mosquito.

Two pieces of litter and trimmed branches in a few places were the only signs of human activity.

**Bird List:**

Grackle  
Red-winged blackbird  
Blue Jay  
Song Sparrow  
Common Yellowthroat  
Yellow Warbler  
Robin  
Baltimore Oriole  
Cardinal  
Great Crested Flycatcher  
Wood Ducks  
Hawk (Buteo, probably broad-winged)



## Section 5



West Hill Dam  
to  
Hartford Avenue East,  
Uxbridge, MA

**Conducted by:**  
Erin, Steve, Jeremy, and  
Jack Bennett

Walking along the West River above the Dam, the surveyors observed that the River level looked high and flooded in parts. The banks of the River above the Dam were forested. There were a few large fallen trees along the bank. Below the dam, the water was flowing fast and there was some foam that broke up with a stick. Tall grasses extended above the water level below the Dam. Several anglers were fishing below the Dam. Beyond 20 to 30 feet, the path was flooded and impassable.

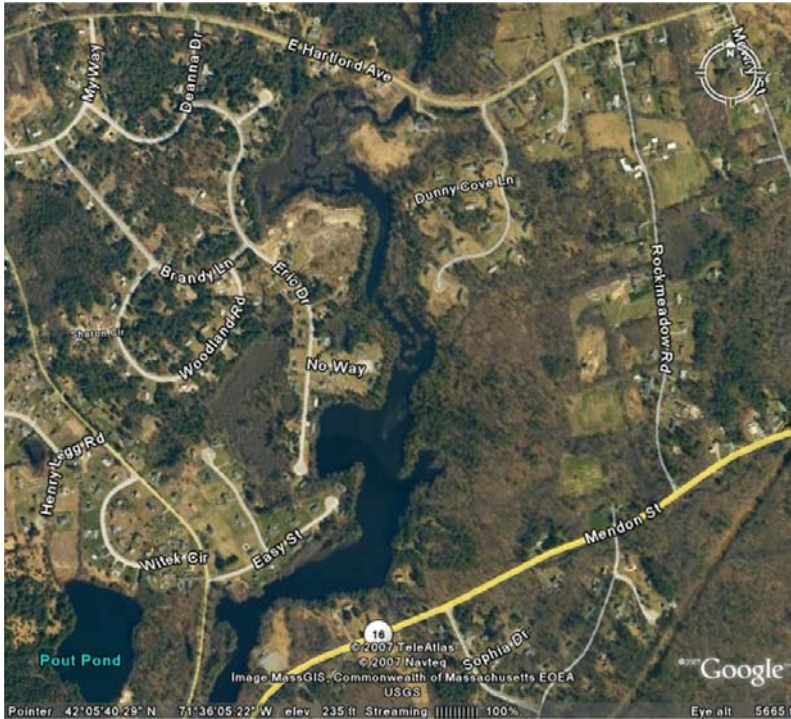
On a separate visit, the surveyors inspected the River by canoe. The man-made channel straightens below the Dam and then returns to a meandering River. The shrubs and trees hang over the River providing a good habitat for fish. One tree was downed across the River. Many birds were seen and heard, including Red-Wing Blackbirds, two herons, ducks, Gold Finches, and Swallows.

Additionally, surveyors checked the River on foot from a logging road off of Hartford Avenue East in Uxbridge, MA. Two microwave ovens were

dumped on the side of the entrance to the logging road. There were sounds of trees being cut and trees were tagged with blue paint. A tackle box was floating in the meandering section of the River.

In general, surveyors observed a healthy, natural, and aesthetically appealing River.

## Section



Hartford Avenue East  
to  
West River Pond,  
Uxbridge, MA

**Conducted by:**  
Joel Morgenstern  
and  
Mike, Tom and Phil  
McMullin

Starting at the Hartford Avenue East culvert, the surveyors proceeded south by canoe. Two outflow pipes on each side flanked the culvert. The banks in this area abut residential cleared land, and anglers are seen fishing here from time to time.

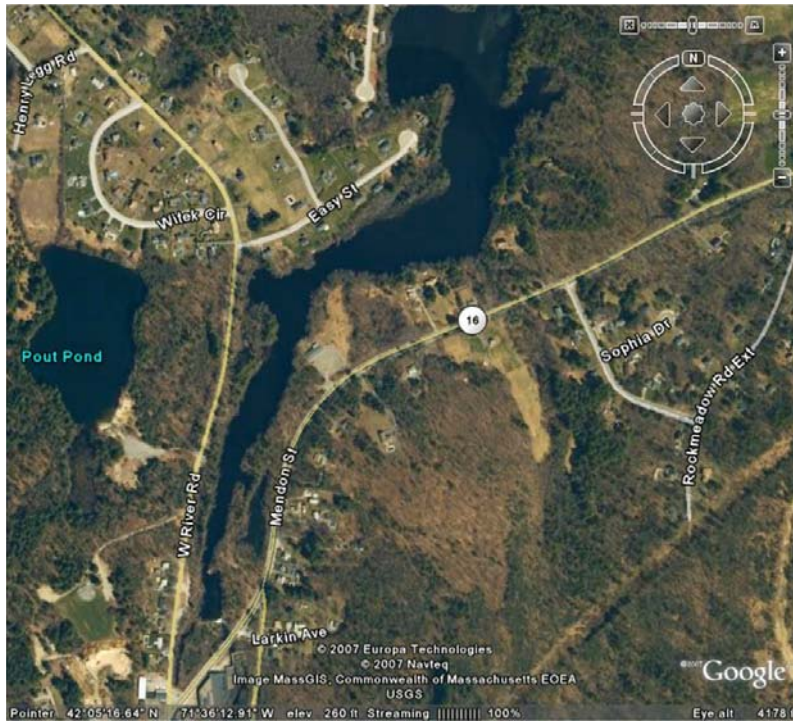
The River narrows and meanders south for the next 1,500 feet. The strong current here is very noticeable, and confirmed by looking at the vegetation in the water. Along each side of this section, surveyors observed about 100 feet of bush-type vegetation (no large trees). The sound of birds was heard here.

After meandering, the River widens to between 50 and 75 feet for about another 1,500 feet. The current slows at this point. The banks are lined with mature trees and bushes. There are small areas of cleared land that seem to be for residential use (canoe launch, picnic tables, chairs, campfire pits). Visible surface trash is minimal to non-existent, but a tire was spotted in the River.

The River opens up into a pond that is about 500 feet wide and Blue Herons and Canada Geese are seen here regularly. In addition, there were several swans present. The surface of the water is covered with vegetation (typically Asian Water Chestnuts and Variable Milfoil).



## Section 7



Easy Street  
to  
Route 16, Uxbridge, MA

**Conducted by :**  
Gwyn Mills  
and  
Barbara Johnson

The shore is bordered by trees and shrubs on both sides. There are many wild blueberry bushes along with oak and pine trees. Both banks are well shaded by shrubs and trees and there were a number of fallen trees along the shore.

The surveyors saw many turtles, a few mallards, and one Blue Heron. Aquatic vegetation included water lilies and Asian Water Chestnuts. No fish were seen but a few people were fishing from the shore and in a boat.

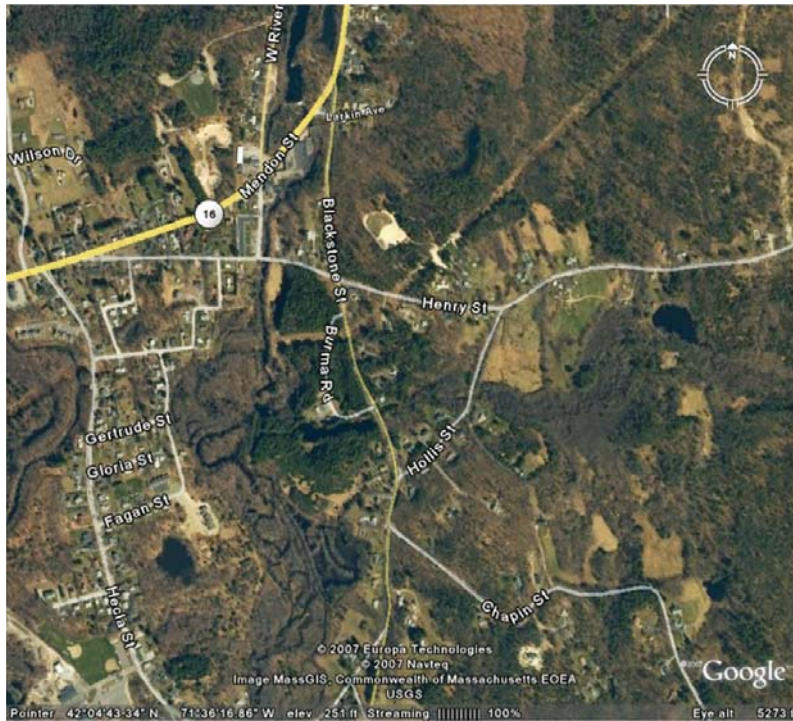
Public access to the River can be found off of West River Road and there is access from the Uxbridge Italian/American Club on Route 16.

Surveyors noted that one homeowner was clearing shrubs from the shoreline on Easy Street. Orange fencing was noticed along the shore just after the dam on Route 16. There was no evidence of construction.





## Section 8



Route 16 at the  
Wacantuck Mill Dam,  
Uxbridge, MA

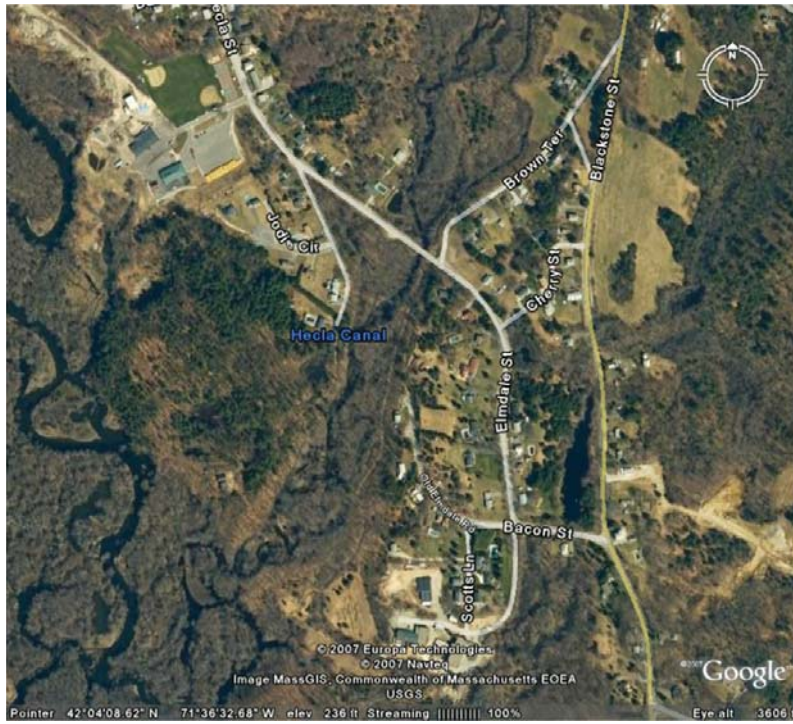
**Conducted by:**  
James Plasse

The surveyor inspected the concrete dam and noticed that the concrete was crumbling. The remains of a release gate was blocked with sticks, logs and other organic debris. An old canal gate by West River Road was dammed up with debris. The surveyor assumed that the gates were removed in the past to keep pressure off the aging dam but the blockages are again adding pressure to the dam.

The dam is upstream from the old Wacantuck Mill, the Uxbridge Town Wells and several residences. If the dam were to break, there would be a significant impact on the Town Wells and residences. Surveyor suggested maintenance and repair of the dam.



## Section 9



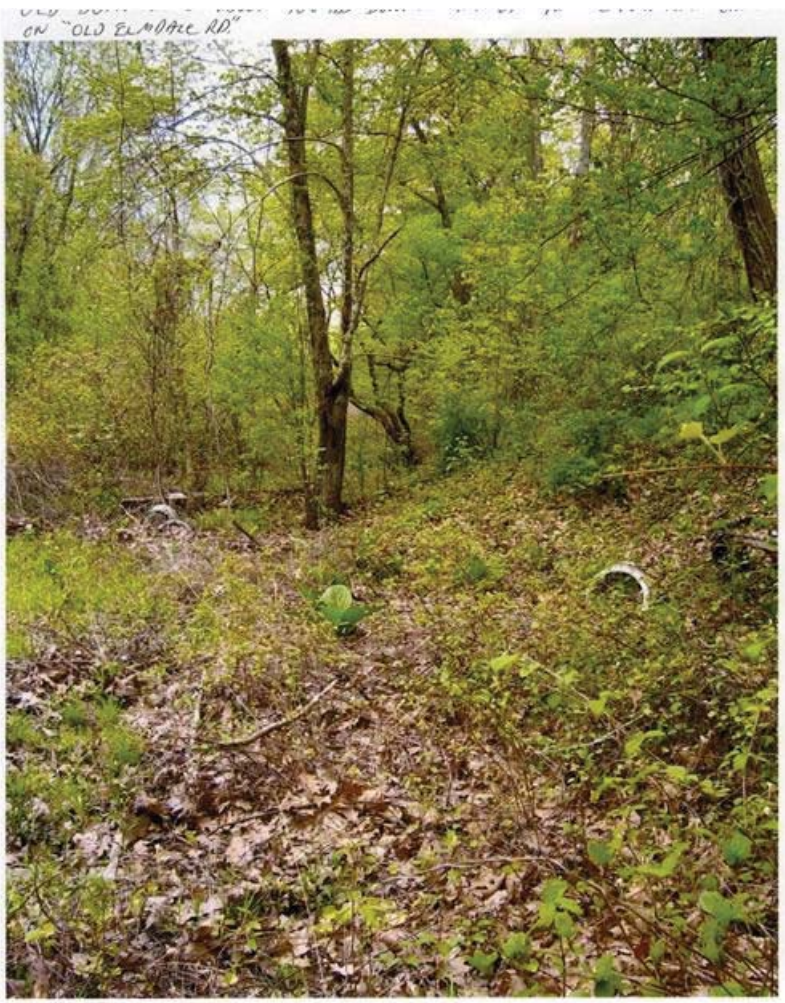
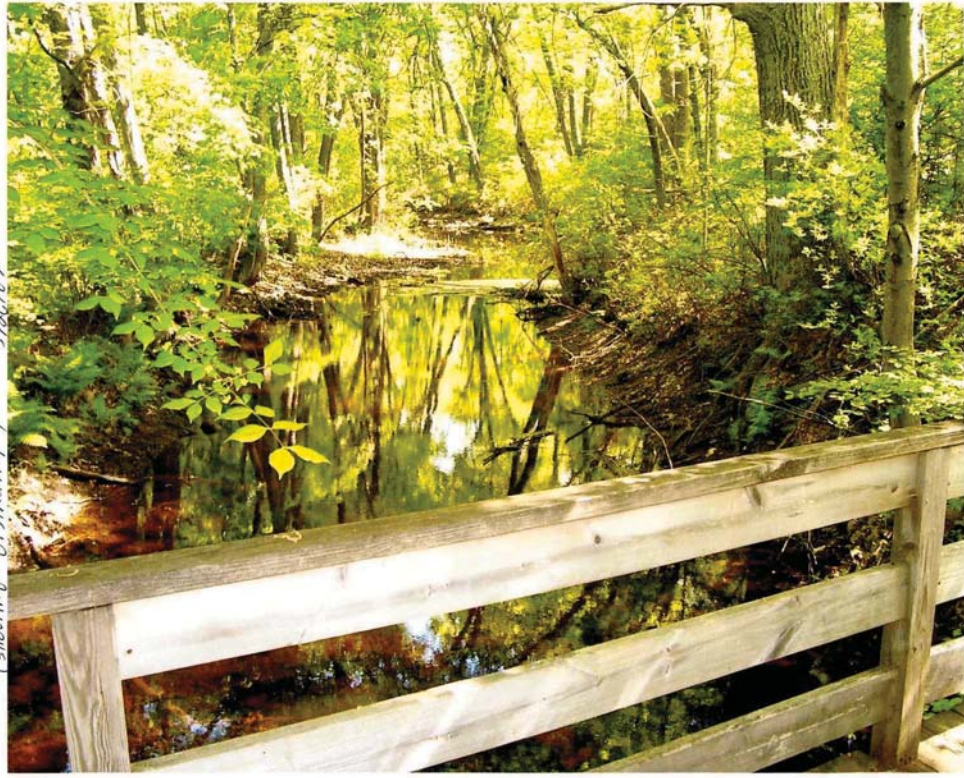
Brown's Terrace  
to  
the Blackstone River,  
Uxbridge, MA

**Conducted by:**  
Mike Pouliot

From Brown's Terrace, this segment of the River takes a 90° turn and meets an old canal bed proceeding south. The streambed meanders through wetlands flowing fast. At Hecla Bridge, a fairly large but shallow pool was found. The surveyor noted that the U.S. Geological Survey recently put in a flow gauge and depth gauge. About 100 yards downstream of the bridge there is a slight drop into a pool known locally as "Round Pond". It is probably 25 to 30 yards wide and appears quite deep. In the past, the surveyor had seen several trout at this location. A couple of weeks prior to the survey, several hundred fingerling trout were stocked at the bridge.

Downstream of "Round Pond" the channel becomes narrower again and eventually converges with the Blackstone River.

OLD CANAL THAT PARAZELLS BROWN'S TERRACE  
(SHOOTING UPSTREAM) 5/30/17



# West River Action Plan Items – to be prioritized

## **Section 1**

Long Term

- Identify the landowner

## **Section 2**

Long Term

- Contact the Upton Conservation Commission to find out if portage points are public accessible and if they can be developed further (signage, clearing path) for better river access

## **Section 3**

Immediate Action

- Identify the homeowner who is dumping household debris and contact the Upton Conservation Commission

Short Term

- Contact the Upton Board of Health regarding the well pump

Long Term

- Reconnect old footbridges
- Identify the users of the trail on Mendon Road near bridge
- Contact sand and gravel pits and educate owners on best management practices
- Develop picnic area

## **Section 4**

Long Term

- Identify the landowner

## **Section 5**

### Short Term

- Remove two microwave ovens at logging road on East Hartford Avenue

### Long Term

- Contact Army Corps of Engineers to ask what is the flow release at the West Hill Dam
- Identify the landowner at the meandering section of the River south of the Dam

## **Section 6**

### Immediate

- Contact Uxbridge DPW to ask if it is placing sand near the River
- Contact (DPW) Larry Bombara to find out about outflow pipe on Eric Drive – what type of runoff?

### Short Term

- Educate the East Hartford Avenue homeowners about the importance of a riparian buffer zone
- Educate sand and gravel pit operations about best management practices – inquire about old vehicles, batteries, tires

### Long Term

- Continue with harvesting of Asian Water Chestnut and Milfoil, educate neighbors about invasive species, get them involved in harvesting

## **Section 7**

### Long Term

- Identify the landowner

- Educate neighbors on danger of invasive species

## **Section 8**

### Short Term

- Notify The Department of Conservation and Recreation's Office of Dam Safety about the failing dam at Wacantuck Mill
- Follow up with mill owner to see if he will maintain it

## **Section 9**

### Short Term

- Find out who is pumping into the pond, how much are they pumping, and are they monitored by the DEP (Water Management Act)
- Find out what zone the towns' wells are – 1 or 2?
- Find out why the USGS installed new gauges along the River

### Long Term

- Develop canal bed into a walking trail
- Cleanup area at the end of "Old Elmdale Road" - dumpsite

## **General Comments:**

- Locate all sand and gravel pits along the River and educate owners on best management practices
- Bring awareness to the general public regarding maintaining and protecting the River
- Create a Mendon Road, Northbridge to Mendon Road, Uxbridge canoe run to bring awareness to general public
- Identify landowners along the River
- Continue harvesting invasive plants

# Supplement to Report

## ***In Business for the Blackstone***

### *Activities that support Stream Team objectives*

Approximately fifty stewards, most of whom are water quality monitors, were educated on “Stormwater 101,” which was the featured presentation at the Blackstone River Watershed Association’s Water Quality Summit. This presentation explained the causes of stormwater runoff and how it becomes a primary source of water pollution for our rivers and streams. The presentation also introduced attendees to the ***In Business for the Blackstone*** program, a tool used to educate business owners on practices that will minimize the risk of contaminated stormwater on their property. Outreach materials were handed out and audience members were encouraged to distribute them to companies that are located near a river and could benefit from the awareness.

The ***In Business for the Blackstone*** also established a partnership with the Department of Public Works in Uxbridge, where the West River flows. This DPW has been very proactive in their efforts to protect the river from polluted runoff from their property as well as from the Town’s streets. This partnership and the DPW’s participation in the ***In Business*** program got a lot of publicity in various local newspapers. This exposure helped to educate all the Town’s residents on the detriments of stormwater and what actions can be taken to protect local waterways.

Lastly, the ***In Business for the Blackstone*** program and stormwater concerns were reviewed with the stream team surveyors. After surveying the River, participants were asked to identify businesses that are located in their section of the River. The program manager could then reach out to these businesses and introduce the initiative. This outreach will include a review of what the survey team found and the actions it is promoting to protect the conditions and water quality of the River and describe what the business can do to help in this effort.