

# Adopt a Stream

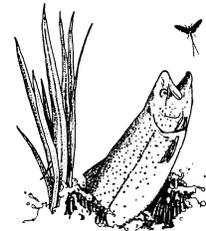
## Shoreline Surveys: Action Tool

Adopt-A-Stream Shoreline Surveys lead to actions to protect and restore rivers. By identifying and reporting problems to municipal and state officials, by designing projects to enhance existing conditions, and by raising awareness of communities and individuals, groups are able to achieve milestones in

- \* restoring water quality
  - \* protecting and restoring healthy river flows
  - \* protecting and restoring habitat
    - \* protecting land adjacent to rivers
    - \* enhancing recreational opportunities that are compatible with the river ecosystem.

As part of their work to protect and restore rivers, stream surveyors and watershed associations have used Shoreline Surveys to

- \* build a strong constituency for the river
  - \* generate baseline data from field observations
  - \* determine priorities
    - \* create an Action Plan for the river
    - \* take action and achieve successes.



More resources available at [www.mass.gov/der](http://www.mass.gov/der)

### **Constituency building:**

Shoreline Surveys are excellent tools for building river constituencies and awareness.

### **Forming new groups:**

Town boards, such as Conservation Commissions, Watershed Associations and interested individuals use Shoreline Surveys as a focus to bring people together to learn about the stream and form a Stream Team, an on going river protection group, which provides stewardship and advocacy on behalf of a brook or a part of the mainstem.

### **Building coalitions:**

Shoreline Surveys unite people from adjacent towns and bring together town officials, citizens and business people for river protection. These individuals can join with civic groups, Rotary Clubs, high schools, land trusts, anglers and sportsmens' clubs, scouts, Leagues of Women Voters and garden clubs to form Stream Teams that work to protect and restore local rivers and brooks.

### **Strengthening existing watershed associations:**

Watershed associations attract enthusiastic members, raise awareness and forge stronger relationships with town boards through a Shoreline Survey.

### **Supporting The Watershed Initiative:**

Stream Teams and Shoreline Surveys have been part of the Watershed Initiative since its beginnings in 1993. Many watershed associations use Shoreline Surveys as the first step in creating Stream Teams. Once the Shoreline Surveys and action plans are complete, this information can be shared with town officials, watershed associations, EOE Watershed Teams and state and federal agencies. In the Neponset and the Shawsheen Watersheds, Stream Team Action Plans have become part of the watershed action plan. By working together, sharing data and local information, tackling local problems and protecting resources, Stream Teams make stream protection happen.

# Case Study: Shoreline Survey by the Hop Brook Protection Association

## Six-month Case Study

The Case Study describes a Shoreline Survey completed by the **Hop Brook Protection Association (HBPA)**, with materials and assistance from the Riverways/Adopt-A-Stream Program.

Hop Brook begins its ten mile journey in the City of Marlboro and travels through the Town of Sudbury to the Sudbury River. HBPA is concerned about high levels of phosphorus in the brook which results in dense algal blooms, decay and odor. A wastewater treatment plant discharges treated waste into this small brook. HBPA has been working with town governments, EPA, DEP and has received grants to study solutions for this point source problem. As a part of their work to identify other issues, HBPA decided to conduct a Shoreline Survey.



## Getting started: The Steering Committee

After reviewing a copy of the **Adopt-A-Stream Shoreline Survey** manual, HBPA appointed a steering committee (consisting of a coordinator, a publicity chair, and an environmental specialist) to plan and coordinate the survey.

## Town involvement

One of the Steering Committee's first steps was to meet with the Conservation Commission. The Conservation Officer immediately understood that the survey would result in field data about the brook, could serve as eyes and ears for the Commission, and would create a constituency for the brook. The Conservation Officer provided support for the project from the early planning stages to implementation of action items. The Conservation Officer shared her expertise and knowledge about the brook and provided access to town maps, copiers and mailing service.

## Landowner notification

The steering committee mailed a letter to residents and businesses abutting Hop Brook notifying them about the upcoming Shoreline Survey. The letter invited their participation, and gave them an opportunity to ask questions and raise concerns about stream surveyors crossing their property. Of the 130 people notified, only one homeowner objected. Other groups have dropped

notices at abutters' doors inviting their participation and providing a number to call with questions or objections.

## Publicity

The publicity chair wrote articles and contacted reporters to alert them to meetings and progress. There was excellent press coverage throughout the process. In addition, the steering committee arranged for the local cable TV station to film the training session, the reporting session, and the action planning session. All of these were shown repeatedly on cable TV. As a result, local residents called HBPA expressing interest in the Survey.

## Mapping

Stream survey maps were made for all 16 segments at a scale large enough to let surveyors mark locations of problem pipes, erosion, habitat, potential canoe access, where photographs were taken, etc.

## Preparation of Survey kits

The coordinator prepared kits for each team containing:

- \* a segment map
- \* AAS data sheets & explanations (see AAS Shoreline Survey manual)
- \* a letter identifying them as Shoreline Surveyors
- \* the date of the follow up meeting for reporting and setting priorities for future work.

## Outreach for Shoreline Surveys

The HBPA coordinator called townspeople, neighbors and others, inviting them to join the Survey. Newspaper articles on the Shoreline Survey were distributed at meetings of other organizations, to the Selectmen, and town boards. Members of the Planning Board and Conservation Commission joined residents in the Survey. The HBPA Coordinator made reminder calls for each meeting.

## Shoreline Survey Training Workshop

The 55 people who attended the training session were well-prepared for the Survey by

- an interactive slide show, presented by the Adopt-A-Stream Coordinator. Stream Surveyors discussed each slide in terms of the data questions in the Shoreline Survey manual.
- an orientation from the Conservation Officer and environmental specialist about riverine habitat and specifics about each segment.

## Determining Purposes for the Survey

In addition, at the training workshop, the stream surveyors determined their goals for the Shoreline Survey. These goals included:

- \* discovering sources of nonpoint source pollution
- \* identifying habitat
- \* finding potential access and recreational areas
- \* creating baseline data



- \* building constituency and raising awareness about the brook
- \* working more closely with town boards, businesses, and residents to protect the brook.

**Shoreline Survey - field work**

The field work - making observations using data sheets and photographs - was completed by the volunteers within three weeks.

**Follow up Reporting Session**

All Stream Surveyors brought their information to share with the group at a follow up session. Reporting by sections, stream surveyors described problems (discharging pipes, erosion, trash), resources (habitat, potential trails, canoe access points, potential land to be protected), and determined priorities for protection and restoration. This material can be organized in a priority matrix.

**Action Planning**

The group then decided how to accomplish their priorities. Some of the priority items would be reported to

Priority Matrix

Problems	Resources	Priorities
Segment 1 1) 2) 3)	1) 2)	1) 2) 3)
Segment 2 1) 2) 3)	1) 2) 3) 4)	1)

town officials immediately. Other priority items would become short term projects. Still other priorities became part of the group's long range action items. (See the matrix on the following page for a summary of the consensus made at this meeting.)

**Implementation of Action Plan**

Even as the group prepared the Action Plan, evidence from the Shoreline Survey and local press coverage was being used by the Conservation Commission and Highway Department to remedy problems found on Highway Department land.

To set realistic goals, the group prepared a draft Time Line (see Shoreline Survey manual). Also a subcommittee began writing the *Report of the Status of Hop Brook* based on data sheets, maps and photographs and on the stream surveyors' narratives in the summary sheets. The subcommittee and the Conservation Officer began the Report with an executive summary describing stream conditions found in 1995. At the same time, the subcommittee and the Conservation Commission began writing a management plan for the brook. Six months after they began the project, HBPA gave its completed report to Town Boards at the Selectmen's Town Forum. Based on the detailed work of the Shoreline Survey and the Management Plan, HBPA is implementing its recommendations as the group works to protect and restore Hop Brook.

*This six-month Case Study, a description of strategies for a successful Shoreline Survey, is intended to stimulate ideas for other groups considering Shoreline Surveys. For a hands-on guide to planning and conducting Shoreline Surveys, order the Adopt-A-Stream Shoreline Survey Manual from the Riverways Office at 617-626-1544. Adopt-A-Stream staff will be happy to talk with you about the survey and to assist your efforts.*



# Massachusetts *Adopt a Stream*

## **ACTION PLANNING MATRIX: Hop Brook Protection Association (HBPA)**

**I. Reporting Problems to Officials.** *From their priority items, the group determined which items must be reported. Because these are seen as problems that directly threaten the stream, reporting to appropriate local or state agencies is usually a first step. HBPA reported problems*

To the Conservation Commission

1. Paved swale on pond
2. Bulldozed farm swath on stream
3. Illegal (?) structure on conservation land
4. Illegal activities on conservation land
5. Problems on Highway department land (resolved)
6. Manure dumped next to wetland
7. Shopping center dumpster directly adjacent to stream is source of trash
8. Paved swale at town department parking lot
9. Broken pipe into wetlands

Building Inspector

1. Old cars stored next to brook

Board of Health

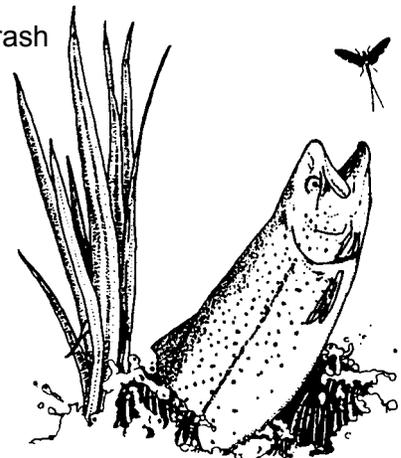
1. Restaurant dump leaching into pond
2. Orange substance in water

Highway Department

1. Road runoff in Section 2
2. Broken culvert
3. Leaking road drainage

Water District

1. Broken dam on Water District land



**II. Short Term Projects.** *From groups' priority lists, they plan some short term projects that can be accomplished in the next few months. For some groups, these projects can be the first step of their long-term action and involve people immediately in stream protection.*

**HBPA's short term projects are to**

1. Write a shoreline Survey Report for town officials which includes
  - \* Executive summary
  - \* Section Reports
  - \* Photos, data sheets, and maps
2. Support an Earth Day cleanup of Hop Brook
3. Support Conservation Commission's grant proposals with Shoreline Survey data
4. Support US Fish & Wildlife's proposed purchase of land with letter of support
5. Watch hearing notices and articles at town meeting for opportunities to advocate for Hop Brook
6. Work on Conservation Commission projects to improve trails, bridges, etc.

**III. Long Range Action.** *These activities can be the glue that holds a group together. They are the major issues on which a group chooses to focus. HBPA's Long Range Action decisions were to*

1. Develop Management Plan
2. Promote public awareness and good stewardship of Hop Brook and adjacent land
3. Protect/restore water quality
  - a) continue working with Town Boards, Marlboro WWTP, DEP & EPA, and pilot projects to remove phosphorous from point source discharge
  - b) continue to do Shoreline Surveys either seasonally or yearly to note changes
  - c) support town boards in requiring Best Management Practices (BMPs)
  - d) promote establishment of vegetated buffers between Hop Brook and development
  - e) consider a water quality monitoring program
  - f) Support proposals for ISTEA and S. 319 grants
4. Protect land adjacent to Hop Brook and promote access