A Guide to River Corridor Management Plans

The New Hampshire Rivers Management and Protection Program

Department of Environmental Services
6 Hazen Drive
Concord, New Hampshire 03301

October, 1997

R–CO–97–3

A Guide to River Corridor Management Plans

The New Hampshire Rivers Management and Protection Program

October 1997

Prepared by:
NH Department of Environmental Services
6 Hazen Drive
Concord, New Hampshire 03301

Robert W. Varney, Commissioner
G. Dana Bisbee, Assistant Commissioner
James M. MacCartney, Rivers Coordinator

With the assistance of:
Central New Hampshire
Regional Planning Commission
12 Cross Street
Penacook, New Hampshire 03303

Printed on recycled paper

Acknowledgments

This document was made possible by the contributions of many dedicated individuals, often donating their time and serving in a volunteer capacity. The original draft and subsequent revisions were prepared by staff of the NH Department of Environmental Services, Rivers Management and Protection Program, including Katherine Groves, Margaret Watkins and James MacCartney, NHDES Rivers Coordinator, as well as Lindley Kirkpatrick of the Central New Hampshire Regional Planning Commission. Final editing and composition were done by Kerrie Diers of the Central New Hampshire Regional Planning Commission and James MacCartney of NHDES.

In addition, several Local River Advisory Committee members, Regional Planning Commission staff members, and other resource managers provided additional input. These individuals include: Michele Tremblay, Upper Merrimack River Local Advisory Committee; Roger Sweet, Ashuelot River Local Advisory Committee; Adair Mulligan, Connecticut River Joint Commissions; Jeff Porter, Southwest Regional Planning Commission; Stephanie Vaine, Central New Hampshire Regional Planning Commission; and Shelley Hadfield, Upper Valley/Lake Sunapee Regional Planning Commission.

Upon completion of the guide, several reviewers provided valuable input and comments. These reviewers included: Adair Mulligan, Connecticut River Joint Commissions; Judith Spang, Lamprey River Advisory Committee; Roger Sweet, Ashuelot River Local Advisory Committee; Michele Tremblay, Upper Merrimack River Local Advisory Committee; Sarah Kimball, Saco River Local Advisory Committee and Swift River Local Advisory Committee; Margaret Watkins, NH Department of Environmental Services; Jamie Fosburgh, National Park Service; Jeff Porter, Southwest Region Planning Commission; Francesca Latawiec, NH Office of State Planning; and Kelly Short, New Hampshire Rivers Council. Additional reviewers included Dick Flanders and Chuck Knox of the NH Department of Environmental Services.

Graphics were prepared by Virgo Design of 239 North Village Road, Loudon, NH 03301.

Table of Contents

Preface
How to Use This Guide i
The Guide in Brief ii

Introduction — River Corridor Management and Protection in New Hampshire
The New Hampshire Rivers Management and Protection Program v
State Responsibility: Instream Resource Protection vi
Table One: Protection Measures by River Classification vii
Local Responsibility: River Corridor Management Plan viii
The Rivers Coordinator viii
River Nomination and Designation ix
Map of Designated Rivers xi

Chapter One — Getting Organized
The Local River Management Advisory Committee (LAC) I–1
Committee Structure I–2
Meetings I–3
Decision-making I–3
Networking I–3
Setting Work Plan and Time Frame I–4
Sample Work Plan I–5
Introduce and Publicize the Group I–6
Plan a Public Involvement Process I–6

Chapter Two — Identifying River Values and Threats
Determining Scope and River Corridor Boundary II–1
Table Two: Approaches to Determining River Corridor Width II–2
Conducting a Resource Assessment II–3
Threats to River Values II–4
Assessing Land Use II–5
Assessing Zoning Regulations II–5
Mapping the River Corridor II–6

Chapter Three — Setting River Corridor Management Goals and Defining Management Options
Defining Need III–1
Identifying Goals and Objectives III–1
Defining Management Options III–4
Education III–4
Improvement of River Corridor Resources III–5
Acquisition of Land, Access and Development Rights III–6
Table Three: Land Protection Mechanisms III–7
Land Use Planning and Regulation III–7
Table Four: Existing Plans III–8

Chapter Four — Creating the Plan
Identifying Implementation Methods and Responsibilities..... IV–1
Writing the Plan..... IV–1
Sample Outline IV–2

Chapter Five — Putting the Plan into Action
Getting the Plan Approved V–1
Implementing the Plan..... V–2

APPENDICES:
Appendix A — RSA 483 (New Hampshire Rivers Management and Protection Program)

Appendix B — Sources of Assistance for Resource Assessment

Appendix C — Sources of Technical Information and Assistance

Appendix D — Outlines of River Management and Protection Plans

Appendix E — List of Model Ordinances, Regulations and References for Water Resources Protection

Appendix F — Federal and State Laws Relating to River Management

Appendix G — Glossary

PREFACE - How to Use This Guide

This guide is intended to help individuals and groups in New Hampshire develop river corridor management plans. Such planning efforts are critical to protecting and effectively managing New Hampshire's rivers. The guide is specifically designed for Local River Management Advisory Committees working under the guidelines of the Rivers Management and Protection Program, but it can also be used by other groups.

Each time a group develops a new plan, the process is slightly different. Groups who have completed a river corridor management plan can provide valuable insight into the process, as can the State Rivers Coordinator, who also has experience in creating plans. This document attempts to summarize that experience and knowledge in one easy-to-use guide.

There are six basic tasks in developing a management plan:

1. **Getting Organized**
2. **Identifying River Values and Threats**
3. **Setting River Corridor Management Goals and Defining Management Options**
4. **Creating the Plan**
5. **Getting the Plan Approved**
6. **Implementing and Updating the Plan**

The guide considers the first four steps and introduces the latter two. The final two steps will depend on the management plan, situation, resources, and conditions in the area. The Rivers Coordinator and others are available for consultation on steps 5 and 6.

As you go through the process of creating a river corridor management plan, it is important to keep in mind that the end product will be a written document. It is essential that you maintain accurate written records of any studies you undertake, as well as of any findings and evaluations you make. If you draft portions of your river corridor management plan as you progress, you can save a lot of time in the long run. As you read Chapters 2, 3 and 4 in this guide, note that you will be spending the majority of your time conducting these activities and, correspondingly, they will encompass the meat of your river corridor management plan.

This guide is not intended to be a cookbook or template that can be copied verbatim and applied to any river in New Hampshire. Rather, it presents a framework for understanding the process involved in preparing a management plan. In part, the guide seeks to identify and present concepts that are common to most, if not all, river management plans. Where possible, specific examples from existing management plans are used to illustrate the concepts presented. The guide also discusses elements that have been included in some, but not all, management plans.

The Guide in Brief

The organization of this guide follows the six basic tasks in developing a management plan, as outlined above.

Introduction provides background about river corridor management in New Hampshire. The State Rivers Management and Protection Program is discussed, including a description of state and local responsibilities.

Chapter One discusses how to get started, including group organization, planning a public involvement process, publicizing the group's efforts, and creating a work plan.

Chapter Two covers how to define the boundaries of the corridor and details how to identify river resources and threats to those resources.

Chapter Three describes how to set goals and objectives and define management options for those goals.

Chapter Four outlines components of a river corridor management plan.

Chapter Five discusses briefly approval and implementation of the management plan.

The guide also includes several appendices that contain important related or background information. These include: RSA 483 (the Rivers Management and Protection Program), relevant state and federal laws, sources of assistance, and outlines of several existing river corridor management plans. Words or phrases which appear in **bold print** appear in the Glossary (Appendix G).

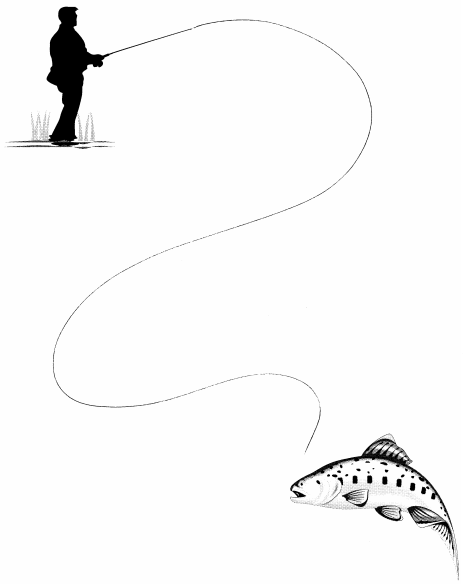
Carefully read through the entire guide at least once before beginning the process. Remember that this document is a guide, not a blueprint or a standard plan. It is up to individual groups to shape, change, and make the process work for their particular river. The purpose of the guide is to provide a general overview of how to transform concern for the river into action.

INTRODUCTION

River Corridor Management and Protection in New Hampshire

INTRODUCTION - River Corridor Management and Protection in New Hampshire

"Rivers are refuges for the soul, places of spiritual refreshment where the natural flow and play of running water mirror the movements of life itself"
-W. Kent Olsen



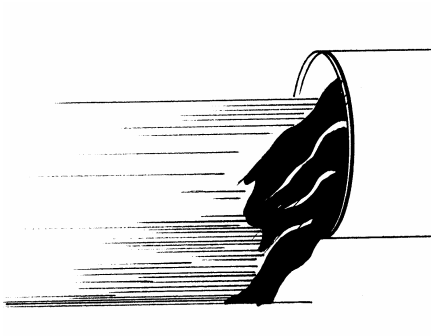
We all have a favorite river. In New Hampshire there are plenty to choose from, and each one is unique and special. The Merrimack, the Piscataqua, the Connecticut, the Saco, and the Androscoggin name only a few, and there are countless streams and brooks that serve as their tributaries.

Think of your favorite river, and a multitude of images and memories come to mind. You may remember swimming in cool waters, fishing knee-deep in a rushing current, slipping quietly along calm surfaces in a canoe, or just sitting and watching the water roll by. You can easily imagine a blue heron motionless among green reeds, a trout struggling against the current, or a white-tailed deer beneath dark spruce, bending its head to drink.

In an earlier time, Native Americans fished the rivers and named these natural wonders. Later, along their banks, colonial settlements developed that became some of the State's largest cities: Manchester, Concord, Nashua, Dover and Rochester. Impressive dams, great paper mills, bustling trading companies and busy red brick factories converted the river's power into industrial and commercial progress. Mill and factory jobs attracted the immigrant groups who gave these communities their diverse ethnic character.

When considering the rivers that grace our state, the river and the land beside it are seen as a whole because a river exists within a watershed, which is the surrounding land that drains into the river. Our perception of a river should include not only the water and the surrounding land, but also the human uses of that land for residence and recreation, industry and agriculture.

From the time of the Cohas and Pennacook tribes, land use along New Hampshire rivers has changed the natural character of the river and affected water quality and habitat integrity. For the most part, our predecessors respected the land and water, and their activity and life near the rivers was largely benign.



In the past one hundred years, however, increasing demands have been placed on rivers, the immediately adjoining land (often referred to as the **river corridor**), and the remaining land area draining to the river, commonly referred to as the watershed. Often, there has been little understanding of what detrimental impacts these demands have caused. Untreated industrial and municipal waste was dumped into rivers, chemical fertilizers and pesticides washed off agricultural fields, and unchecked recreational and residential development reduced available river corridor habitat. Rivers throughout the state became polluted and unsightly, fisheries decreased, and wildlife declined. Good fishing sites became scarce, canoeing on certain rivers was unheard of or unpleasant, and swimming in others became a thing of the past. The balance that had existed for so long between human use of the river and its natural character was almost lost.

More recently, we have begun to better understand the various effects of our activities on nature. Local citizens, state and federal governments, scientists and environmentalists have searched for and found ways to restore the health of aquatic ecosystems and to control pollution. The Federal Clean Water Act Amendments of 1972, in particular, were designed to improve and protect rivers and other surface waters. The past twenty years have seen striking improvements to water quality in New Hampshire rivers, and most are once again fishable and swimmable. These improvements depended on local action, with state and federal legal and financial support.

The Federal Water Pollution Control Act (33 U.S.C. 1251-1376), commonly called the Clean Water Act, is the primary Federal legislation that protects surface waters, such as lakes, rivers and coastal areas. The Clean Water Act, administered by the U.S. Environmental Protection Agency (EPA) and state agencies, sets pollution control standards and provides Federal funding for clean water infrastructure.

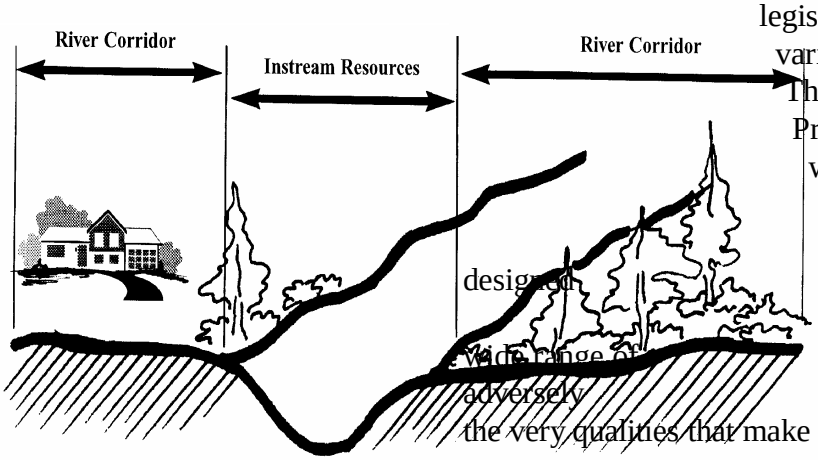
Sensible use of the river corridor and lands throughout the watershed helps to protect the river and ensure our enjoyment of its bounty. We recognize and can measure the impacts of different land uses on rivers. For example, impervious areas such as parking lots and buildings increase the volume and velocity of runoff, which in turn increases erosion. Runoff from impervious areas can carry with it road salt, oil, gasoline, anti-freeze, and other pollutants. Agricultural, residential and recreational developments have the potential to degrade waters with sediments, nutrients, pesticides and herbicides.

The Clean Water Act and other state and local laws have helped to clean up and protect rivers across the nation. In

New Hampshire, we have taken an additional step in river conservation and management. We have coupled state protection of instream values with local management of our river corridors through RSA 483 - The Rivers Management and Protection Act (see Appendix A).

The New Hampshire Rivers Management and Protection Program

Improved water quality has led to competing river uses, such as water withdrawal for public water supplies or snow making, and maintaining adequate water levels for aquatic life. In 1988, the legislature recognized these various demands by enacting The Rivers Management and Protection Act (the Act), which established the Rivers Management and Protection Program. The Act is designed to help communities accommodate a wide range of uses without adversely affecting the very qualities that make rivers such rich resources.



The Act relies on both local residents and state agencies to share in protecting New Hampshire's rivers by dividing the responsibility into two parts:

- the state protects instream resources; and
- local residents develop and implement river corridor management plans to further protect shorelines and adjacent lands.

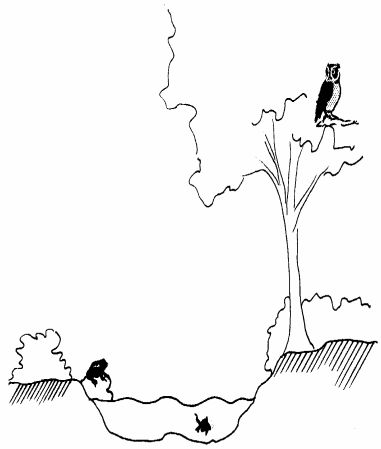
This does not mean that there is no overlap. The state assists in developing corridor plans and local plans can address instream resources.

Local residents will develop and implement management plans that balance local needs and river conservation. Unlike some local planning efforts, which are contained within a single community, these management plans will encompass multiple communities and include people throughout the river's watershed.

Local advisory committees also have the responsibility of reviewing applications for projects proposed within the river corridor that require a state permit or approval.

No new land use control measures are contained in the legislation. The Act specifically states that "nothing in this chapter shall preempt any land and zoning authority granted to municipal bodies." The only land use restrictions in the Act refer to solid and hazardous waste facilities along rivers, which are already regulated by the state.

State Responsibility: Instream Resource Protection



When a river is nominated into the Rivers Management and Protection Program, it is classified as natural, rural, rural-community, or community. Each category reflects a different degree of development within the river corridor and has different protection measures associated with it. The same river may have more than one classification. For example, the river may originate in a remote, forested, essentially "natural" setting, become more "rural" as it flows through an agricultural area, and "community" where it flows through an urban center (see Appendix A, 483:7a).

For each river classification, the Act establishes distinct instream resource protection measures related to dams, water quality, protected flows, channel alterations, interbasin transfers, waste disposal facilities, and motorized boating. These are summarized in the table on the next page. The New Hampshire Department of Environmental Services (NHDES) is responsible for their enforcement. In addition, the Rivers Coordinator reviews all activities and projects affecting designated rivers.

TABLE ONE
PROTECTION MEASURES BY RIVER CLASSIFICATIONS

PROTECTION MEASURE	*NATURAL RIVER*	*RURAL RIVER*	*RURAL-COMMUNITY RIVER*	*COMMUNITY RIVER*
DAMS & ENCROACHMENTS				
Construction of New Dams	No*	No*	No*	Yes
Reconstruction of Breached Dams	No*	No*	No*	Yes
Channel Alterations	No*	Yes (with conditions)	Yes (with conditions)	Yes (with conditions)
WATER QUALITY/QUANTITY				
Water Quality	Class A/B	Class B	Class B	Class B
Interbasin Transfers*	No	No	No	No
Protected Stream Flow*	Yes	Yes	Yes	Yes
WASTE DISPOSAL				
New Landfills	No (within 1/4 mile)	No (within 500 year floodplain)	No (within 500 year floodplain)	No (within 500 year floodplain)
New Hazardous Waste Facilities	No	-- --	-- --	-- --
Other New Solid Waste Facilities	No (within 250 ft)	No (within 250 ft)	No (within 250 ft)	No (within 250 ft)
FERTILIZER				
Manure, Lime, and Wood Ash*	Yes	Yes	Yes	Yes
Other Fertilizers*	No (within 250 ft)	No (within 250 ft)	No (within 250 ft)	No (within 250 ft)
RECREATION USE				
Motorized Watercraft	No*	Yes (only "headway" speed within 150 ft of shore)	Yes (only "headway" speed within 150 ft of shore)	Yes (only "headway" speed within 150 ft of shore)

**Denotes new protection measures in RSA 483*

Local Responsibility: River Corridor Management Plan

The Act provides for local residents developing and implementing a river corridor management plan. (Under the Act, Local River Management Advisory Committees have additional responsibilities, summarized on page I-1.) The plan will address the use and conservation of the river, its shoreline and adjacent lands which make up the river corridor, identify the goals that local communities have for the river and its corridor, and outline the actions to achieve them.

The plan is an excellent tool for planning and managing development within the corridor and is intended to advise local government in land use planning and decision-making. The plan may also recommend appropriate actions at the state and federal levels. It is most effective when there is coordinated, intermunicipal cooperation as well as individual town action in implementing the plan.

The Rivers Coordinator

The Rivers Management and Protection Program is administered by NHDES through a State Rivers Coordinator. The Rivers Coordinator assists individuals and groups with river nominations and management plans, regardless of whether the river is designated under the Rivers Management and Protection Program. The Rivers Coordinator helps groups connect with resource people at NHDES and other state agencies, federal agencies such as US Fish & Wildlife Service, environmental organizations in New Hampshire and other local river groups. The Rivers Coordinator also meets with individual Local River Management Advisory Committees, commonly referred to as Local Advisory Committees (LACs), periodically and by request.

The Rivers Coordinator also serves as staff to the State Rivers Advisory Committee, a committee of individuals representing a variety of interests appointed by the Governor and Executive Council to help set program policy, review river nominations, and advise the program in other ways.

River Nomination and Designation

It is important to remember that the Rivers Management and Protection Act does not automatically apply to every river in the State. To be protected by the Act and become part of the Rivers Management and Protection Program (the Program), a river must be first nominated by a citizen or local group and then designated by the General Court (the legislature). However, there is nothing to prevent local citizens from working together to develop a river corridor plan for a river not designated. The advantage of nomination and designation of a river into the Program, among other things, is the additional level of instream protection that the state will provide, using resources and expertise that most communities do not have.

Designation can also serve as a catalyst to initiate regional or multi-town planning efforts focused on river resources and adjacent lands.

River Nomination and Designation Process

Any New Hampshire citizen or group may nominate a river or river segment for state designation into the Rivers Management and Protection Program. The nomination and designation process has several steps:

Submitting the Nomination: A group or individual in New Hampshire decides to nominate a river or river segment for designation. A nomination is prepared by gaining the support of local boards and commissions and working with them to submit the nomination to the Rivers Coordinator.

For a more in depth discussion of the nomination process, refer to ***A Guide to River Nominations*** available through NHDES**.**

Informing the Public: The sponsor works with the Rivers Coordinator to advertise and hold at least one public meeting in a community along the river to introduce the nomination.

Review, Public Comment and Recommendation to the Commissioner: The Rivers Coordinator and the Rivers Management Advisory Committee (RMAC) evaluate the nomination and hold at least one public hearing to gather comments.

DES Commissioner Review: The Commissioner considers the Rivers Coordinator and the RMAC recommendations, the public comments, and the river's significant features identified in the nomination, and decides whether to pass the nomination to the legislature.

General Court Approval: The Commissioner forwards nominations to the General Court for review and legislative action. If the General Court approves the nomination, it adopts a bill that designates the river as part of the Rivers Management and Protection Program (RMPP).

As of 1997, there were 11 rivers in the state that have been designated into the Rivers Management and Protection Program for special protection. (See map on next page.)

River corridor management plans for many of the rivers have been completed, and plans for the others are in progress. The Rivers Coordinator can help new groups benefit from the lessons learned in preparing these plans.

CHAPTER ONE

Getting Organized

CHAPTER ONE - Getting Organized

The Planning Process:
1. Getting Organized
2. Identifying River Values and Threats
3. Setting River Corridor Management Goals and Defining Management Options
4. Creating the Plan
5. Putting the Plan into Action

This chapter will focus on how to organize a group so that it can begin to create a river corridor management plan and build public support for and interest in the river. While the chapter specifically refers to Local River Management Advisory Committees (LACs), it is relevant to any group preparing to work on a management plan.

The Local Advisory Committee

Once a river or river segment is designated into the Program, the DES Commissioner appoints a Local River Management Advisory Committee. Committee members are drawn from a list submitted by the governing bodies of the towns in the river corridor. The advisory committee must have at least seven members, each of whom serves a three-year term. The LAC is required to include individuals who represent a broad range of interests including local government, business, conservation, recreation, agriculture, and riparian (river front) landowners from the towns and cities along the river. This all sounds very formal, but in practice many of these representatives are often the same people who have been active in getting the river nominated and designated.

The Act spells out the specific duties of the LAC. They include:

1. **Advising** the DES Commissioner, the Rivers Management Advisory Committee, and the towns along the designated rivers on management of the river and its corridors.

2. **Reviewing and commenting** on applications at any level of government for projects that could affect the resource values and characteristics for which the river is designated. These include state wetlands applications or local subdivision applications within the LAC's jurisdiction.

3. **Reporting annually** to the DES Commissioner and RMAC on compliance with laws and regulations that apply to the river and its corridor.

4. **Developing** a river corridor management plan.

Above all, local advisory committees serve as the driving force to ensure that river corridor management plans are created, effectively implemented, and reviewed and revised over time. Committee duties continue long after the management plans have been created.

"It would be worthwhile if in each town there were a committee appointed to see that the beauty of the town received no detriment."
-Henry David Thoreau

Committee Structure

Each LAC generally has a chairperson, vice-chairperson, and secretary. Many LACs adopt bylaws which establish operating procedures, permanent officers, and other ground rules. It is recommended that your group do so. The Rivers Coordinator, as well as established LAC's, can assist new groups in developing these bylaws or suggest other ways to organize and run a committee.

Subcommittees can address different aspects of the plan, such as water quality, wildlife, mapping, and recreation, or different tasks, such as outreach and media or land protection.

To deal with the varied and numerous tasks involved in developing and implementing their management plans, many LACs have created subcommittees of varying longevity, depending on the issue they were designed to deal with.

A critical note to remember is to prioritize responsibilities. *Getting the management plan put together should be the first priority* because it will help guide all other efforts. You should arrive at and maintain a clear sense of what you want to accomplish. What does your committee aim to do for the short term (one year) and over the long term? Why are you doing this? How will you do it? Who needs to be involved? These are some of the questions that should help clarify the group's goals and structural issues.

A **temporary subcommittee** can develop the committee's response to a permit application for activity within the corridor or plan a special event.

Experienced groups suggest that it is important for a group to create its own identity by meeting regularly and setting the agenda.

Meetings

Most LACs meet on a regular basis (usually monthly); subcommittees should also meet regularly. The main purposes of regular meetings are to:

- share correspondence, general information and committee reports
- identify tasks
- assign tasks to subcommittees
- review progress on earlier tasks

Meetings are also a time to remember what your group is all about and enjoy the experience of cooperating with others to achieve a common goal.

Decision-making

Some groups make decisions based on majority vote, others adopt a consensus method. A helpful reference is *Robert's Rules of Order*, which describes meeting procedures. It is important that your group decide upon a way of making decisions early on so that you will be able to act in a timely fashion. The Rivers Coordinator can recommend several resource books on group decision making.

Networking

It is useful to communicate with local groups or associations who may share your concerns or have a similar interest in the river as part of your planning project. These interests vary from place to place, but can include watershed associations, fishing clubs, river outfitters, snowmobile associations, hydropower producers, conservation commissions, and water suppliers (see Appendix B). Using the resources of the Rivers Coordinator, as well as the knowledge of local organizations by individual members in your group, you can identify stakeholders and potential partners in your area. By establishing a working relationship with these interests at the outset, the group will be in a better position to incorporate their concerns and ideas, and attract their support. One way of attracting these other organizations is to publicize your meetings as open to the public.

"Consensus is a key component to a successful plan."
-Adair Mulligan
Connecticut River Joint Commissions

Setting Work Plan and Time Frame

The group should develop a work plan, which identifies tasks, and a

time frame for completing the tasks. An initial meeting should be used to sketch out a tentative month-by-month work plan and time frame, with deadlines for task completion by month. It is unlikely that you will be able to keep completely to schedule, but an action plan will help keep you from wasting your time and ensure that the project is completed in a reasonable period.

A key to a successful work plan is to remain flexible in order to take advantage of opportunities or unexpected developments as they arise.

It has taken LACs different amounts of time to create river corridor management plans, but 1½ to 2 years is a realistic estimate. The following is a sample work plan that gives a visual example of the planning process. A more detailed description of the process follows in subsequent chapters.

Possible subcommittees which could be responsible for different items on the Sample Work Plan include:

Public Involvement Sub-Committee
Media Sub-Committee
Resource Assessment Sub-Committee
Management Options Sub-Committee
Implementation Method Sub-Committee
Writing Sub-Committee
Local River Management Advisory Committee

These are not the only possible sub-committees that your LAC could form -- the varieties are endless, and up to you and what direction you want your work plan to take.

SAMPLE WORK PLAN

1. **Get Started** *(Estimate completion by 3 months)*
   a. Organize LAC
   b. Set work plan and time frame
   c. Plan Public Involvement Process
   d. Introduce and Publicize LAC
2. **Identify River Values and Threats** *(Estimate completion by 6 months to 1 year)*
   a. Conduct Resource Assessment
      i. Field work and research (library, DES, etc.)
      ii. Meet with town officials, key individuals/interests
   b. Write draft Resource Assessment
   c. Discuss, revise and approve draft Resource Assessment at LAC meetings
3. **Set Goals and Define Management Options** *(Estimate completion by 1 ½ years)*
   a. Discuss need, goals and scope
   b. Design and Distribute Questionnaire (optional)
   c. Collect and Evaluate Questionnaire (optional)
   d. Set Goals and Objectives
   e. Define Management Options based on Goals and Objectives
      i. Background research
      ii. Meet with key organizations and town officials
      iii. Review existing plans and land use regulations
      iv. Write Options List draft
      v. Discuss, revise and choose Options at LAC meetings
4. **Create the Plan** *(Estimate completion by 1½ to 2 years)*
   a. Develop Implementation Methods
      i. Background research
      ii. Meet with key organizations and town officials
      iii. Write Implementation Methods draft
      iv. Discuss, revise and approve Implementation Methods at LAC meetings
   b. Write Plan (this process can be used for each section)
      i. Write first draft
      ii. Circulate draft to key individuals/interests for comment
      iii. Discuss Draft at LAC meeting
      iv. Write second draft based on comments and LAC meetings
      v. Discuss second draft at LAC meeting and approve for presentation at Public Meeting(s)
      vi. Present at Public Meeting(s) for comments and suggestions
      vii. Write third draft based on Public Meeting(s)
      viii. Discuss third draft at LAC meeting and approve
5. **Implement and Monitor Plan** *(Ongoing process)*
   a. Present Final Plan at Public Meeting(s)
   b. Submit to town officials for approval
   c. Coordinate Plan Implementation
   d. Monitor Plan

Introduce and Publicize the Group

It is important to let people know early and throughout the process what you are doing, why you are doing it, and how they can participate. As you probably know from living in your town and being an active citizen, a project such as this will be of interest to everyone affected. You should plan to issue a press release announcing the appointment of the group and its purpose. Follow up with regular press releases about the groups activities and seek out press coverage for major events. Press coverage is key to raising public awareness about your group and its goals. You can also arrange to meet with local boards and interested groups and organizations to familiarize them with your work, and ask for their ideas and support. Materials that could aid in your presentations and in distributing information about your group include:

- a large map of the river
- an historical display showing changes in river usage
- a slide show of the river and its corridor
- a brochure explaining the group and its goals
- completed river corridor management plans from other communities and LAC's
- information about the Rivers Program

Ideas to stir public interest in group activities:

- Create mailing lists to send out meeting minutes, notes, or agendas

- Have meetings noticed in newspapers

- Conduct Surveys

Plan a Public Involvement Process

River protection and corridor management elicit many different, and sometimes conflicting, ideas and perspectives. The most enduring plans emerge from a process which reshapes these conflicting ideas into a coherent whole. This is easier said than done! Only a few people will have the time to be committee members, but many people will want to have some say in a process whose outcome may affect their property or their use and enjoyment of the river. One of your goals should be to create a balance between the group and town residents who will be affected by the plan you will create. Compromise and consensus will allow everyone to have a voice in the plan.

The best time to plan a public involvement process is after the LAC has been appointed or organized, and before the group begins the work of actually creating the river corridor management plan.

Addressing public involvement early on prepares you to communicate effectively in both directions. Fellow town residents will know what you are doing, and they will be able to share their ideas, suggestions, and concerns. Devote one of your early meetings to discussing your ideas about public participation and brainstorming about a process.

Your group can identify opportunities for public participation that can be used at various stages in your work (see "Sample Work Plan" on page I-5). The following outline is only one possible schedule of LAC work and the associated public involvement activity. Remember that these public involvement activities are only a suggestion, and not a template for action.

The 16 day "Source to Sea" canoe trip from the headwaters of the Merrimack down to the River's mouth in Massachusetts is a grand scale example of a river trip that generated extensive publicity and involved a wide range of people. More typical river trips follow only a segment of a river.

Many innovative and fun activities, while not directly part of the planning process, can be great opportunities to meet people, build support for LAC activities, increase interest in the river, and simply enjoy the river together (which after all is the whole point). These can include clean-up days, river festivals, children's activities, river hikes, fishing derbies, canoe trips and slide shows. Plan activities for all seasons in conjunction with groups like the local conservation commission, area businesses or the local school department.

LAC Responsibility	Public Involvement Activity
1. Introduce and Publicize LAC Identity, Purpose, Work Plan, and Time Frame. *(1c in Sample Work Plan)*	1. Media Outreach (ongoing): Regular press releases and articles distributed to local media (newspaper, radio, cable TV).
2. Establish Goals and Objectives of River Corridor Management Plan. *(2b,c in Sample Work Plan)*	2. Survey/Questionnaire: A telephone or written survey of riverfront landowners and town residents' opinions of key river characteristics, vital resources, and most important needs.
3. Conduct Resource Assessment. *(3a in Sample Work Plan)*	3. Topical Presentations: Individuals with special knowledge of the river or professional expertise, and key interest group representatives are invited to LAC meetings to present their data, observations, and information.
4. Identify Management Options. *(4a in Sample Work Plan)*	4. Meet with Town Officials: Review current regulations and ordinances and discuss options with town officials and boards.
5. Form Rough Draft of Plan. *(4c in Sample Work Plan)*	5. Public Meeting I: Discuss the rough draft and gather comments, proposed changes, and additions. The rough draft should be available to the public before the meeting.
6. Revise Plan. *(4c in Sample Work Plan)*	6. Meet with Interest Groups: Review the comments and suggestions from the public meeting with key interest groups and revise sections of the plan related to their activities, as appropriate.
7. Finalize Plan, Including Conclusions & Recommendations *(4c in Sample Work Plan)*	7. Public Meeting II: Present final plan prior to submission to local governments for approval.
8. Implement and Monitor Plan *(5 in Sample Work Plan)*	8. Seek Volunteers to Assist Plan Implementation: Recruit various groups or individuals to assist in implementation of sections of the plan.

CHAPTER TWO

Identifying River Values and Threats

CHAPTER TWO - Identifying River Values and Threats

The Planning Process:
1. Getting Organized
2. Identifying River Values and Threats
3. Setting River Corridor Management Goals and Defining Management Options
4. Creating the Plan
5. Putting the Plan into Action

The process of discovering the special things about your river offers a great opportunity to reconnect with it and visit parts of which you might not be familiar. The activity of researching the river can also be an important way to draw attention to it and to get a variety of community members interested.

Keep in mind that the result of this process will be a written river corridor management plan, so it is essential to keep accurate records of your evaluations and findings. Your work will be easier in the long run if you draft sections of the plan as you progress through the process. That way, when you are ready to complete your management plan, it will be a matter of pulling the pieces together rather than facing the monumental task of writing down all of the information in a comprehensive and cohesive form after the fact. The next few chapters will focus on the major pieces of your river corridor management plan.

Determining Scope and River Corridor Boundary

"...ten thousand river commissions, with the mines of the world at their back, cannot tame that lawless stream, cannot say to it "Go here," or "Go there," and make it obey..."

-Mark Twain,
Life on the Mississippi

As you begin the process of creating your river corridor management plan, one of the first decisions you must make is to determine the land area of where you will focus your efforts. Will you concentrate on the whole river and its watershed, or are you concerned about a specific segment? In making this decision, you should consider both river segment length and corridor width. If your river has been designated under RSA 483, it is assumed that your plan would address the designated segment.

If you are not a Local River Management Advisory Committee (LAC), the length of the river segment that is covered by the plan depends on your group's initial purpose. If your purpose is to maintain water quality within the river or to provide a wildlife corridor along the shoreline, inclusion of the entire river length would be beneficial. If the purpose is focused toward a specific recreational site within a municipality, a shorter length might be your group's choice.

No scientific formula exists to determine the optimum width for the river corridor in a management plan. LAC's typically focus on the area located within ¼ mile of each side of the river as the corridor, whereas watershed associations tend to look at the entire watershed. Several approaches can guide your determination. The table below outlines some of these approaches. You will want to identify a corridor boundary that is wide enough to encompass all of the significant resources and potential threats associated with the river, but narrow enough to be manageable. Once research has been completed on the resources and potential threats, the corridor boundary may be altered to include significant findings.

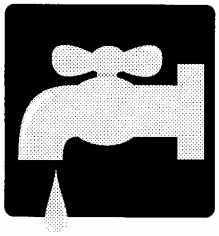
TABLE TWO
APPROACHES TO DETERMINING RIVER CORRIDOR WIDTH

APPROACHES	***MEASURE OF RIVER CORRIDOR BOUNDARY***
National Park Services Wild, Scenic, and Recreation River Program Guidelines	1/4 mile from the ordinary high water mark on each side of the river
Federal Emergency Management Agency Floodplain Boundaries	100 or 500 year floodplain
Department of Environmental Services Rivers Program Guidelines	The land area located within a distance of 1320 feet of the normal high water mark on either side of the river or to the landward extent of the 100 year floodplain, which ever distance is larger.
Towns	Boundaries of each town that border the river.
Identifiable Features	Roads, railroads, development, and natural geographic features in cliffs.
Natural Systems	Watershed boundary of the river, or the extent of unique habitats or natural communities.

Conducting A Resource Assessment

Once you have selected your focus area, you will need to know about its existing conditions. When you have a good grasp of the river in its parts and as a whole, you can decide which features are most threatened and which are most important to protect.

A **resource assessment** will enable you to identify and describe a river's features. To organize your resource assessment, you might start with the resource categories from the NHDES *Guide to River Nominations* listed below. If a resource assessment has already been conducted for your river during the nomination process, you need only to verify that the information is accurate and up-to-date (you may also want to add information through special studies or more research). Otherwise, you will need to gather information specific to each of the categories. Categories may be added or subtracted to the assessment at the discretion of your group.



Natural Resources

Geologic Resources
Wildlife Resources
Vegetation/Natural Ecological Communities
Fish Resources
Water Quality
Natural Flow Characteristics
Open Space

Managed Resources

Impoundments
Water Withdrawals and Discharges
Hydroelectric Resources

Cultural Resources

Historical or Archaeological Resources
Community Resources

Recreational Resources

Fishery
Boating
Other Recreational Resources
Public Access

Other Resources

Scenic Resources
Land Use
Land Use Controls
Water Quantity
Riparian Interests/Flowage Rights

There are several prime sources of information for the resource assessment. You can obtain base maps of the river corridor from the New Hampshire Office of State Planning, regional planning commissions, or your town. State, federal and regional agencies are a further source for essential information (see Appendix C). A wealth of up-to-date information can be obtained from local individuals and organizations, such as conservation commissions, local bird watchers, riverfront landowners, historical societies, recreation committees, sports groups, or watershed associations. Finally, you should travel the river and its corridor yourself, recording what you observe.

Be sure to highlight resources of national or statewide importance such as sites on the National Register of Historic Places and state or federally listed rare, threatened, or endangered plant or animal species. See Appendix F for a more in-depth discussion of the eighteen categories.

Threats To River Values

In order to protect the resources that you have identified, you also need to determine what conditions and circumstances in the river corridor could damage, degrade, or destroy these resources. Thus, the parallel activity to describing and assessing river resources is to identify and gauge the threats to those resources.

For example, surface water suitable for drinking (resource) can be imperiled by over-sedimentation, poor erosion control, and point and non-point source pollution (threats). Surface water can be threatened by a concentration of faulty septic systems, leaking underground storage tanks, existing or potential large-scale development of shorelands, or industries in violation of their discharge permits. The NHDES Water and Waste Divisions may be able to help you identify some of these threats. One good reference is the *Groundwater Hazard Inventory*. The Rivers

Coordinator and other river groups can also assist you in what to look for. Compile a list of specific threats which may later become a source for recommendations in your plan.

Assessing Land Use

One of the purposes of the resource assessment is to compare local land use and zoning with environmental conditions existing in the river corridor. You should be able to describe and assess the land uses observed in the corridor and outline general development patterns and also have detailed information on the types of activities in the corridor.

A community's master plan is also a good source of information for determining community values.

For each activity you observe in the river corridor, you should outline the current positive and negative impacts on river resources and potential future changes in these impacts. For example, you might consider the environmental record of a nearby factory and its plans to install new pollution control equipment, or the current use and plans for future expansion of a public access site.

Other important information to include is:

- location and size of large tracts of open space
- location and size of municipal land
- the location and effectiveness of sewage and wastewater treatment plants
- areas of existing river degradation and sources of potential pollution
- existing and potential public access points

The existing land use should be described in a text form and mapped for additional explanation and understanding. The information gathered in this section is vital to understanding the river corridor as it exists today.

Keep in mind that rivers are dynamic and our knowledge of them will change over time. We must be alert to the river's needs and modify what we do based on the best information.

Assessing Zoning Regulations

While land use mapping describes present river corridor conditions, zoning is a blueprint for the future of the corridor. If zoning allows industry or high density housing on the banks of the river, you must decide whether this represents the vision of your management plan. If not, then it may be a threat to river values such as water quality, aesthetic quality, wildlife habitat. Along with a description of the

land use present in the communities along the river, your assessment should include a narrative of the existing zoning regulations and map of zoning districts in the corridor. The question to ask here is,

See Chapter Three for descriptions of land use planning regulations.

> *"Do land use plans and implementation mechanisms, including zoning and other controls, provide adequate protection of environmentally critical areas (floodplains, wetlands, significant wildlife habitats, scenic and historical features, riparian vegetation, and agricultural areas) within the river corridor?"*

The answers to this question will provide valuable information on potential land use in areas that have a possibility for high density development, areas already protected, areas zoned for industrial use, and areas zoned for light residential (large lots) and agricultural use.

Mapping the River Corridor

After you determine your river corridor boundary, identify its resources and threats to those resources, and assess existing land use and zoning, the next step is to map the area. Regional planning agencies can be very helpful with this process. Your base map should display features such as roads, municipal boundaries, hydrography and the river corridor or watershed. Additional features you may want to overlay on the base map are natural resources such as wetlands, conservation lands, the items you have identified in your resource assessment, or existing land uses and present zoning.

GIS information is of great value - ask your regional planning commission for more information. They may have a base map for your region and suggestions on how to overlay the corridor area on that map.

Your river corridor management plan should contain a brief narrative which corresponds to the maps. This description should include the municipalities in the river corridor, the length of the river or river segment, the land area included in the corridor, and the extent of the watershed.

CHAPTER THREE

Setting River Corridor Management Goals
and
Defining Management Options

CHAPTER THREE - Setting River Corridor Management Goals and Defining Management Options

The Planning Process:
1. Getting Organized
2. Identifying River Values and Threats
3. **Setting River Corridor Management Goals and Defining Management Options**
4. Creating the Plan
5. Putting the Plan into Action

Once the group is organized, has a regular meeting schedule, and has completed or is in the process of conducting the resource assessment, it is ready to set goals and define some management options for the river corridor.

Defining Need

The results of your resource assessment will help you to frame your goals and objectives. Your group should have a firm grasp of why the river is important to the community and region. Specify various reasons why people care about the river, such as recreation, environmental issues, or business interests.

Early public meetings will help the group identify issues and river values which are important to various segments of the community. Participants can also provide perspectives on local visions for the river's future. Not only will this information be important for writing the river corridor management plan, but it will also deter unexpected reactions to the completed plan by the community.

Identifying Goals and Objectives

"Any river is really the summation of a whole valley...To think of any river as nothing but water is to ignore the greater part of it."
-Hal Borland

You must establish goals and objectives in order for the river corridor management plan to become a document that results in action. The goals and objectives that your committee chooses should reflect the vision and aspirations that your communities share for the river. Goals are about long-term accomplishments. They are the overlying aims of managing and protecting a regional and community resource. Objectives are specific achievements you wish to make on the way to reaching your goals. Your objectives may change as the condition of the river and river corridor changes over time.

On the following pages are sample goals and their associated objectives. Your committee goals and objectives may be similar, but specific to the prevalent values and threats on your river.

A **goal** is a general statement of policy, usually with a long-term perspective.

An **objective** is a specific, task-oriented statement aimed at achieving a goal. Objectives are often quantifiable, while goals are more nebulous. The objectives, when implemented or reached, will satisfy the related goal.

The best way to identify goals and objectives is through dialogue and brainstorming.

1. Water Quality (Sample Goal and Objectives)

Goal To restore, protect, and enhance water quality and associated aquatic resources and water supplies.

Objectives

- To prevent the accelerated enrichment of streams and contamination of waterways from runoff containing nutrients, pathogens, organics, heavy metals, and toxic substances.

- To work with landowners to maintain or restore a natural vegetative canopy along streams to ensure that mid-summer stream temperatures do not exceed tolerance limits of desirable aquatic organisms.

- To maintain the stream or waterway free of litter, trash, and other debris.

- To minimize the disturbance of the streambed and prevent streambank erosion and, where practical, to restore eroding streambanks to a natural or stable condition.

2. Flood Management (Sample Goal and Objectives)

Goal To minimize the threat to life and the destruction of property from flooding, and preserve (or reestablish) natural floodplain hydrologic functions.

Objectives

- To ensure that runoff from developing and urbanizing areas is controlled such that it does not unnecessarily increase the frequency and intensity of flooding at the risk of threatening life and property.

- To adopt appropriate land use controls and performance standards for controlling development of floodplains.

3. **Amenities Conservation (Sample Goal and Objectives)**

Goal To restore, protect, develop, and enhance the historic, cultural, recreational, and visual amenities of rural and urban stream corridors.

Objectives

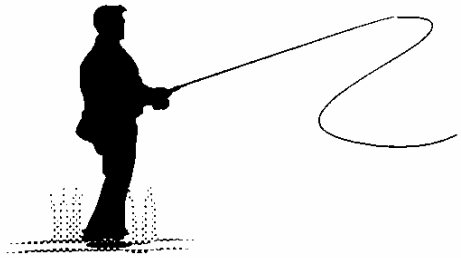
- To ensure that development in the stream corridor is consistent with the historical and cultural character of the surroundings and fully reflects the need to protect visual amenities.

- To ensure that environmental resource constraints are fully considered in establishing land use patterns in stream corridors.

- To ensure that the recreational and fisheries potential of a stream corridor are developed to the fullest extent practicable.

- To retain and preserve open space and visual amenities in urban and rural areas by establishing and maintaining greenbelts along stream corridors.

- To maximize the use of creative and imaginative resources to rehabilitate and transform urban stream corridors into attractive community assets consistent with historical or other cultural amenities.



Defining Management Options

HELPFUL HINT:
Writing sections of your river corridor management plan as you go through the activities (conducting the resource assessment, setting your goals and objectives and defining your management options) will keep the material fresh and the momentum going instead of attempting to recreate it months or even a year later!

Once you have established management goals and objectives, you will need to select **management options** to match your defined goals. This is the most difficult part of creating a management plan because you must turn your focus from the present and articulate your vision and plan for the future.

Adopted management plans in New Hampshire have included a wide variety of management strategies, each tailored to the specific needs of the individual river (see Appendix D). In general, management options can be divided into four groups:

- **education** of landowners, river users, industries, municipal leaders and the general public about the river's resources and how to protect them
- **improvement** of river corridor resources
- **acquisition** of land, access, or development rights to preserve river resources and enhance public access
- **land use planning and regulation** to protect river resources

The options you select will be designed to correct existing problems or alleviate potential threats. For each significant resource you have identified in the assessment, consider the most likely threats. Then decide which of the options will alleviate the threat most effectively. The Rivers Coordinator can assist you in this process and can suggest local, regional, state and federal agencies, and nonprofit organizations that will be useful to you as well (see Appendix C).

Education

One of the most important goals of a river corridor management plan should be increasing public awareness and understanding of the river, its many resources and the impact of our actions on the river and its resources. Educational programs should be tailored to the intended audience: riverside landowners, recreational users, elected officials, school children, civic groups, business and industry, conservation and preservation groups, and many others. Virtually all adopted management plans have included strong educational and public awareness components such as:

Educational Activities	*Public Awareness Activities*
Workshops	Brochures
Special Presentations	Stories to local media
Newsletters	River Trips
	Photo Contests

Improvement of River Corridor Resources

A variety of innovative, effective, and fun volunteer activities can enhance the resources of the river and its corridor. People of all ages and interests can undertake trail construction, maintenance workshops, water quality monitoring, and habitat restoration. Improvement projects also actively engage local residents in management of the river corridor, build a sense of stewardship for, understanding of, and connection to the river. The Rivers Coordinator is a good source of ideas for these activities.

River cleanups can be sponsored in part with local businesses, towns along the river, scout groups, or other volunteers. The provision of canoes by liveries or other river outfitters can be invaluable.

A very effective way to engage the community and improve aesthetics and the water quality of the river is to conduct a river cleanup. It is important to publicize your river cleanup efforts in the local newspapers, television and radio stations well in advance. Invite local dignitaries and elected officials, and report on the success of the event afterwards. Make a point to recycle as much as possible and include the quantity of material collected in your press releases.

A water quality monitoring program can be designed to allow an individual or group, say a family or a school class, to 'adopt' a stretch of the river for regular testing and monitoring. Many of these programs also incorporate a litter prevention and collection component.

Several rivers across the state have active volunteer water quality monitoring programs resulting from their river corridor management plan. These programs provide an important supplement to the water testing done by regulatory and resource agencies. Volunteers, together with a local lab, most often test for basic chemical and physical indicators such as temperature, pH, dissolved oxygen and bacteria. Some river groups have expanded into biological indicators, monitoring the diversity and quantities of macroinvertebrate species.

Improving recreational access to the river can be a very effective way of bringing people in contact with the unique resources of the river. All of the adopted river corridor management plans in the state have addressed recreational use and access to the river.

An example of the effort to improve trails in the river corridor is the New Hampshire Heritage Trail. This trail is designed to run the entire length of the state, following the Merrimack, Pemigewasset and Connecticut Rivers, highlighting the importance of rivers in New Hampshire.

In addition to publicly owned access, most rivers have informal access points that are located on private land. In order to encourage landowners to continue to permit such informal access, your group may want to promote the responsible use of private land through regular clean-up days and public awareness activities.

Recreational uses of the river corridor are not confined to boating, fishing and swimming. River management plans that incorporate scenic trails will appeal to a broad base of recreational users. Trails raise the issue of maintenance, liability, wildlife disturbance and erosion from overuse, all of which can be addressed in the management plan.

Conservation groups, such as local conservation commissions, land trusts, the Nature Conservancy, or the Audubon Society of New Hampshire may be interested in assisting with wildlife habitat protection or improvement. Habitat development projects can range from educating key landowners about simple and low cost management techniques to acquiring and protecting unique habitats.

Acquisition of Land, Access and Development Rights

River corridor conservation, through purchase or donation of land or development rights, is an important tool for protecting critical environmental areas, acquiring access for recreation, and protecting the natural aesthetics of a river corridor. **Acquisition** might target key wetlands or critical habitat for endangered species. It is the most effective river corridor management approach from the conservation perspective because it guarantees that the land will be preserved in its natural state through time. Purchase of land or development rights can be very expensive, but combinations of federal, state and local support may be available. Appendix C lists many of the federal, state, regional and local agencies that may be able to provide assistance.

Several land conservation techniques can be used, each with different levels of capital cost and control over use and management. Even with donations of land or easements, there will be expenses for surveys, appraisals, and legal fees that must be absorbed by landowners or organizations. The Rivers Coordinator and some of the groups listed in Appendix C can provide more

detailed information on land conservation through acquisition. The table below compares the cost of these land protection mechanisms to the relative level of control provided by the technique.

Several researchers have shown that open space and other conservation land, while paying little in taxes, demands very few services. The net result is a gain, as the cost of services provided is less than the amount of taxes paid. Forests and fields do not send children to school or demand that their roads be improved. For more information, see: *Does Open Space Pay?*, Philip A. Auger, UNH Cooperative Extension, 1996; *Cost of Community Services Study*, Stratham, NH, 1991; and *Is Land Conservation Bad for the Tax Base*, Lincoln Institute of Land Policy, 1993.

TABLE THREE
LAND PROTECTION MECHANISMS

METHOD	*COST*	*CONTROL*
Purchase	high	high
Donation	none, or low	high
Tax Default	low	high
Bargain Sale	moderate	high
Deed Restriction	moderate	depends on type
Conservation Easement	moderate	depends on type
Current Use	Low	depends on type

Land Use Planning and Regulation

Regulation of land use provides a more affordable and realistic management option than direct acquisition. Though challenging and sometimes contentious to enact (and requiring monitoring and enforcement to succeed), if designed carefully and implemented efficiently, land use regulations can provide protection of river resources.

It is a good idea to check existing land use plans and regulations to determine what goals and protections are already available to the river corridor. By examining these regulations, you will be able to determine gaps in protection or enforcement and make recommendations in your plan to address these areas. The table on the next page shows what land use plans and regulations are available and where they might be found.

TABLE FOUR
EXISTING PLANS AND REGULATIONS

PLANS AND CONTROLS	***RESPONSIBLE AGENCY***
Local Master Plan	Municipality
Zoning Ordinances/Land Use Regulations	Municipality
State Controls	DES; DRED; Dept of Safety
Regional Transportation Plan	Regional Planning Commissions (RPC); OSP
Regional Master Plan	RPC
Water Resource Management and Protection Plans	Municipality; RPC; OSP

After evaluating existing plans, you might identify gaps in the protection of river resources and want to make recommendations in your river corridor management plan. The following are some regulatory techniques that may assist you in making your recommendations:

1. traditional land use regulations, including zoning ordinances, subdivision regulations, site plan review and historic district regulations

2. innovative land use regulations, including **planned unit developments**, cluster development, and the **transfer of development rights**

3. alternative zoning methods, including **overlay zones** and **river districts**

4. other regulatory tools, such as **health ordinances**

These regulations can provide river protection which will maintain or improve the scenic, economic, and recreational values of the river and thus the value of the community as a whole. Some of these regulations are summarized below.

Traditional Land Use Regulations

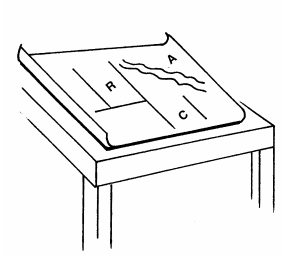
Zoning Ordinances:

- controls land use
- manages community growth
- promotes orderly development of the community by separating land uses
- can only be adopted by vote of the town meeting or city council

Subdivision Regulations:

- regulates the division of land to avoid adverse impacts on the community, the property owner, or the general public
- addresses adequacy of the street layout, provisions for water, sewer and other utilities, fire protection and other public services, open space and recreation
- are adopted and implemented by local planning boards
- can conserve river corridors by requiring the applicant to identify and protect, where applicable, critical water resources

Site Plan Review Regulations:



- control the development of nonresidential and multi-family land uses
- can include both small and large scale proposals
- since some types of land uses are more likely to exhibit qualities that may pose potential threats to river resources, site plan review regulations can be very effective in river and river corridor protection

Historic District Regulations:

- preserves and protects community culture and heritage

Innovative Land Use Regulations

Planned Unit Development:

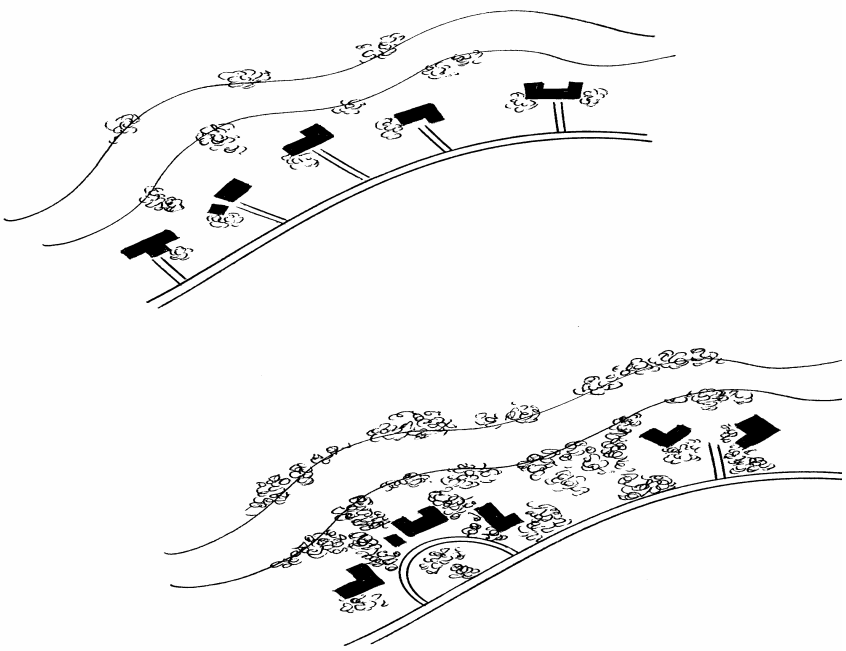
- is a diversified development project which does not fit a municipality's standard zoning districts
- permits development to mix housing types and other structures

- allows flexibility in site design where buildings can be clustered
- better design and arrangement
- controls open space (preserves rivers and corridors)

Cluster Development:

- allows residential development on smaller lots, provided that the remaining lot areas are maintained as permanent open space
- does not increase total density of residential development
- preserves larger tracts of open space

Cluster development: A tract of land with 100 acres of buildable land is zoned to allow 50 dwellings to be built on individual lots of two acres apiece. Cluster development would permit those 50 dwellings to be grouped on, say, 30 acres, leaving the remaining 70 acres devoted to open space preservation.

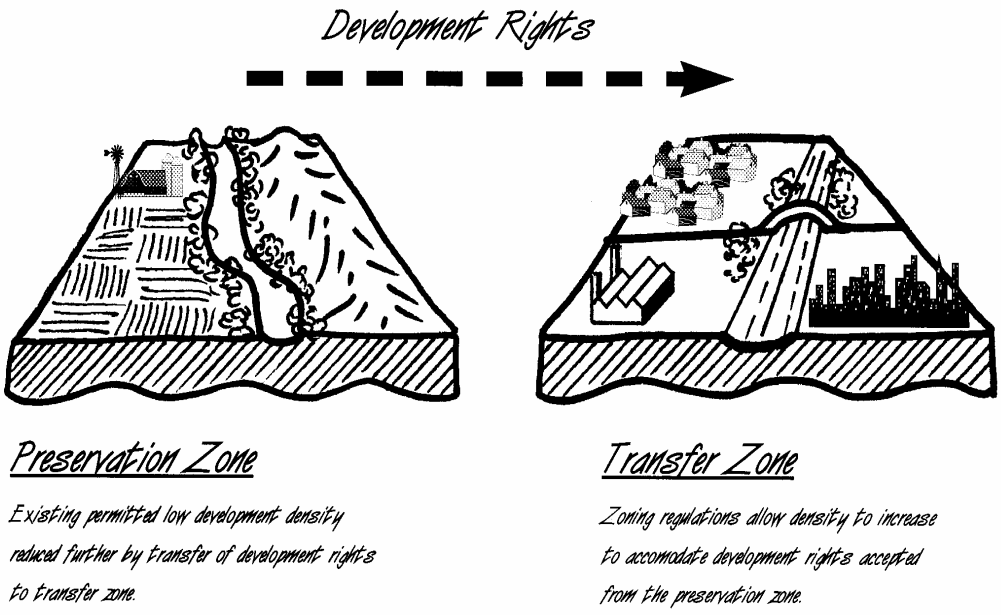


Cluster Development Along River

Transfer of Development Rights:

- permits all or part of the density potential of one tract of land to be transferred to another
- protects significant natural resources such as river corridor areas while also allowing development to continue in the community

A person owning two house lots, one on upland soils in a designated growth area and the other with river frontage, an area that should not be intensively developed, is allowed to transfer to the upland lot the "right" to build on the riverfront lot in return for a covenant not to develop the latter.



Alternative Zoning Methods

Overlay Zones:

- delineates areas of critical resource importance and superimposes that boundary, with its set of regulations, standards and requirements, on existing zoning areas
- applies the more stringent standards to the zone
- allows a list of prohibited uses, additional permitted and conditional uses and some special site development requirements (lot size, setbacks, etc.)

River Districts:

- added to an existing zoning ordinance to include provisions which specify permitted activities and site development requirements along the river corridor
- addresses the objectives and requirements of managing a local river and its corridor
- focuses attention on regulations designed to achieve a very specific set of public objectives that are identified in a river management and protection plan

Your regional planning commission is an invaluable resource for information on land

use regulations, including those discussed here and others. In most regions, workshops, special studies and model ordinances are prepared to address important local and regional issues.

Other Regulatory Tools

Health Ordinances:

- regulates potential nuisances and threats to public health and safety, such as on-site disposal of sewage, private wells, and underground and above-ground storage tanks
- enables the local health officer to propose regulations that establish standards for septic system design, as well as siting criteria, and operational standards or requirements for reporting the size, location, nature and contents of above ground and underground storage tanks

Legal Issues in Land Use Regulations

You should be aware of the legal issues that play a part in regulating land use. Two issues which may arise are takings and technical support for regulations. Local officials and regional planning commissions can be of great help with these issues. It is best when your group works directly with town planning boards and conservation commissions, since they are the boards that will enact regulations. The Rivers Coordinator can also assist you in obtaining model ordinances (see Appendix E).

A taking of property can occur when land use restrictions are so severe that no reasonable use of the property is legally permitted and no compensation is provided to the landowner. A landowner cannot necessarily claim that a taking has occurred if he or she cannot use the land to its highest economic benefit; if there is a reasonable use permitted then it is not a taking. Key questions to consider in order to distinguish between a legitimate regulation and a taking are those concerning the framing, content and effect of the ordinance.

For example, ordinances must be based upon a reasonable plan or preliminary studies, and follow all statutory procedures. The content of the ordinance should contain a reasonable, clear, valid zoning objective, and the means used to accomplish the stated objectives are reasonable. The ordinance should bear a reasonable relationship to public health, safety and general welfare, be only as restrictive as is necessary to achieve the stated public objectives, and property owners permitted a reasonable use of their property.

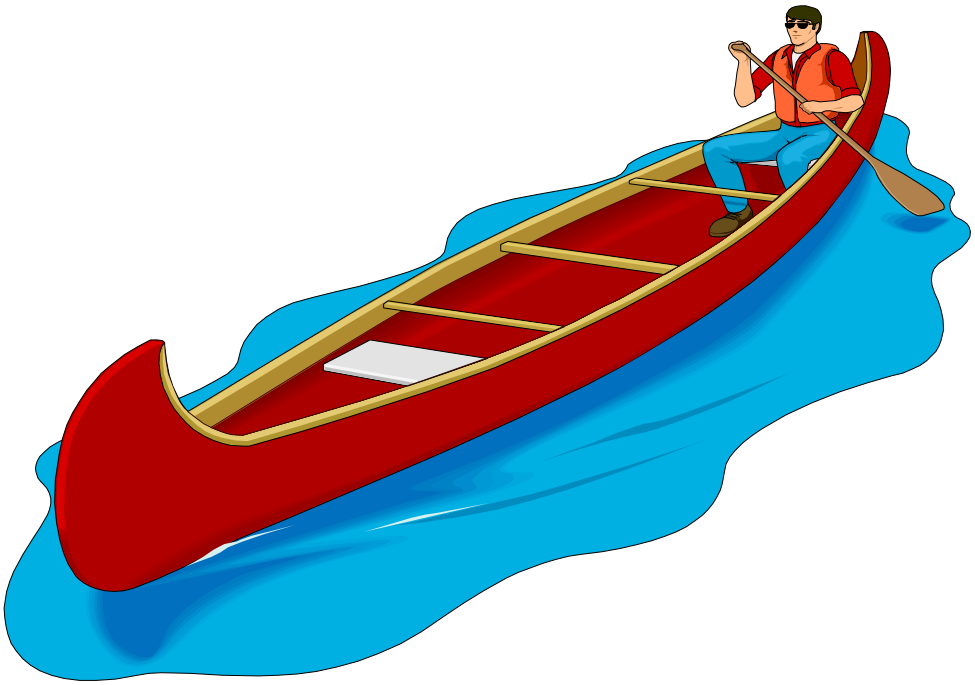
For other references on legal assistance on land use regulations ask The New Hampshire Bar Association or The New Hampshire Municipal

Any proposed regulations should have some supporting scientific background justifying the restrictions placed on private property for the public benefit. Municipalities need to consider the scientific

Association.

information that is available and use that information to draft an ordinance with a technical basis.

Whatever additional regulations, if any, that your river management plan recommends, be sure to research the technical basis for such decisions and be ready to explain your reasoning. Technical and scientific assistance can be provided by your regional planning commission, the Department of Environmental Services, or the Natural Resources Conservation Service.



CHAPTER FOUR - Creating the Plan

The Planning Process:
1. Getting Organized
2. Identifying River Values and Threats
3. Setting River Corridor Management Goals and Defining Management Options
4. Creating the Plan
5. Putting the Plan into Action

"To walk by a river or flow with it down rapids and through quiet stretches, to swim in it, to feel on your skin the power of its currents, is to have a direct experience of the flow of time and history and the cycles of the earth that bring the rain and snow, the winds and the waters that flow down the mountains to the valleys and to the ocean again."

-Harold Gilliam

This chapter brings together all of the pieces you have been working on for the past several months. If you have drafted sections of your river corridor management plan as you went through the process, you will have a head start in creating the completed written document.

Identifying Implementation Methods and Responsibilities

How the management options will be implemented and who will implement them should be written in the recommendations section of the plan document. For example, a recommendation to offer assistance to landowners who allow public access would be accompanied by a description of how to do so (e.g., "clean ups, maintenance, signs") and who would do so (e.g., "LAC "). Not all of the adopted river corridor management plans from across the state have designated specific groups or individuals responsible for implementation. However, the management plans that have been implemented most effectively have designated responsible parties.

Improvement and educational activities can and should involve everyone, and are probably the management approach that can best build a sense of stewardship and common purpose among residents of the river corridor. Land protection through donation of conservation easements could be the task of a variety of people, from individual owners to non-profit groups to the towns themselves. While your group may have recommended a variety of regulations, it will be up to various town officials and boards to implement and enforce them. Wherever possible, you should try to identify your vision of how each of your recommendations in your plan will be carried out.

Writing the Plan

The Rivers Management and Protection Act stipulates that your river corridor management plan include discussion and description of:

- permitted recreational uses and activities
- permitted non-recreational uses and activities
- existing land uses
- protection of flood plains, wetlands, wildlife and fish habitat, and other significant open space and natural areas
- dams, bridges, and other water structures
- access by foot and vehicles
- setbacks and other location requirements
- dredging, filling, mining, and earth moving
- prohibited uses

If you have proceeded through the steps as outlined in this guide, or a similar process, you will already have identified the above elements and can focus on writing. Appendix D contains outlines of seven management plans which may give you some ideas about organizing your document. Also included in Appendix D is a summary table that presents common elements found in most of the plans and additional elements that have been included in some plans that address unique local conditions.

Sample Outline

The following pages contain a possible outline of the major elements of a river corridor management plan. As you go through the planning process, you will no doubt create your own outline to meet the specific needs of your river.

I. Introduction

A. Identification and Description of River Segment

1. Explain necessity of the river corridor plan

2. Introduce the goals and objectives of the plan

3. Detail the scope of the plan and the corridor's boundaries

B. Process and Participants

II. Resource Identification and Assessment

A. River Values - Identification and Description

1. Describe and assess all river resources

2. Outline key river values

3. Describe and evaluate present and potential river corridor land use

B. Assess Threats to Values

C. Assess Land Use

1. Present area zoning regulations and map zoning districts

2. Analyze how well these regulations protect environmentally sensitive areas

III. Management of River Corridor

A. Management Approaches Defined

1. Introduce and describe each management approach

2. Explain how each option will protect your river's resources

B. Implementation Methods and Responsibilities
Discuss how the implementation of the plan will be monitored, and how the progress of implementation will be reported to the public

IV. Recommendations

A. List and briefly describe the actions your group recommends to manage and protect the river and river corridor

B. Identify how each measure will be implemented and which persons, groups, agencies or organizations are responsible for each action

C. Present a timetable for implementation

D. Identify a time frame for updating the plan

V. Summary

A. Articulate the goals and vision of the plan

B. Review main findings of your background, research, and field work

C. Summarize the main points of the plan

D. Encourage on-going dialogue and revision of the plan, as a dynamic process

Note: This section should be no more than two to four pages long, and written to stand alone, without the rest of the plan. It can be reproduced and distributed to the local media, landowners, developers, the general public, and state, federal and town officials.

VI. Appendices

A. List any additional sources of information about the river

CHAPTER FIVE - Putting the Plan into Action

The Planning Process:
1. Getting Organized
2. Resource Identification and Assessment
3. Setting River Corridor Management Goals and Defining Management Options
4. Creating the Plan
5. **Putting the Plan into Action**

Congratulations! You have created a river corridor management plan that demonstrates the hard work, time, and commitment you have spent on this project. Not only does the plan contain your goals and aspirations, it is also the blueprint for the next steps you will take in the process: getting the plan approved and implemented.

Plan approval does not necessarily occur prior to implementation. In some instances, approval and implementation are simultaneous. In other cases, part of the plan is implemented as an example of its potential value and importance in order to gain the support from local officials for the entire plan. How your group will proceed depends on your local situation. For clarity's sake, the two steps are discussed separately below.

Getting the Plan Approved

If your group is a Local River Management Advisory Committee (LAC), RSA 483:8-a(III)(c) applies to your river corridor management plan; "The local planning board, or in the absence of a planning board, the local governing body, may adopt such plans pursuant to RSA 675:6 as an adjunct to the local master plan adopted under 674:4. No such plan shall have any regulatory effect unless implemented through properly adopted ordinances." If your group is not a LAC, it is nonetheless important to have the endorsement and approval of your local planning board or legislative body. It provides a background for popular support and lends official weight to your management plan.

There are several ways to begin the approval process. One is to present your final plan for adoption at a public meeting, such as the town meeting or city council. This is effective if you already have built broad support in your communities, given local officials a voice in the process and there are no major controversial issues left to be resolved.

A good example of this is the Lamprey River Management Plan. The Plan was supported by local planning boards, who endorsed its

approval to selectmen and town residents. The Durham Town Council unanimously approved the Plan, the Town of Lee

overwhelmingly approved the Plan at its Town Meeting, and the Town Council of Newmarket approved it as well. Other groups who assisted in gaining approval for the Plan included conservation commissions and regional planning commissions.

If your group needs to build greater support, one idea is to give presentations about your completed plan to planning boards, conservation commissions, selectmen and town councils. To create a strong foundation of support, focus on each town separately. If your group chooses this route, this may also be a good time to begin implementing selected parts of your plan and to use your experiences to help persuade local officials to approve the plan.

One example of this is the Upper Merrimack River Local Advisory Committee (UMRLAC). The group worked in conjunction with the Central New Hampshire Regional Planning Commission. The Planning Commission worked on the approval process, focusing on each town individually, while the UMRLAC put certain elements of the plan into action such as the water quality monitoring program. By focusing on specific projects and towns, the participants can gain support for the plan.

KEYS TO SUCCESSFUL IMPLEMENTATION:

RECRUIT

REVIEW

REVISE

Implementing the Plan

Implementation is the ultimate goal that your group has been working toward. Your plan is written and ready to go, but where do you begin to bring the ideas in your plan into reality? In your plan, you may have identified actions and parties responsible for implementation. If so, you can begin with that list to create a strategy. Without a strategy for implementation, your plan will sit on a shelf collecting dust. To create an implementation strategy, you will need to revisit your actions and responsible parties.

HOW - Develop a Work Plan

The first thing that you need to do is to sit down and look through your management plan. Each person in your group should spend time rereading the document, especially the proposed actions section. Think about how to make the proposed actions reality.

Then, get together and brainstorm. Put all of your ideas on paper,

no matter how far-fetched they may seem.

WHAT - Select Actions
From your brainstorming list, select a few activities that seem most realistic to achieve and are important to you. For example:

Actions:
1 - provide access to the river for boating, swimming, fishing
2 - provide for trash removal at access points or posting "carry in, carry out" signs
3 - conduct river clean ups
4 - promote awareness of private landowners by posting signs

Evaluate each action in terms of complexity, cost, resources, overall importance or feasibility. Who will take the lead on a particular action? How long will it take to organize and implement? What is really involved? Once the group has identified a number of actions you can start to prioritize and establish a work plan. Use your work plan to lay out the tasks for the next year (see sample work plan at the end of a chapter).

List of Potential Contacts for Volunteers:
--Fishing Groups
- -Teachers
- -Students
--Landowners
--Watershed Associations

WHO - Action implementors
After identifying possible actions, you need someone to carry them out. Your group is the natural place to start the search for your action implementors (individuals, agencies, and/or organizations who will initiate, carry out or oversee an action). Those members willing to take on a specific task will most likely be apparent, and you can easily persuade others to take on particular actions. There may be enough people in your group to cover all of the proposed actions, however, some things may require a larger effort. It is always a good idea to continuously recruit volunteers to take on tasks to keep group members from becoming overloaded and to make new members or contacts for the group.

List of Potential Partnership Organizations
-Planning Boards
-UNH
-Colleges
-National Park Service
-Selectmen
-Planning Commissions
-Civic Organizations
-State/Federal Agencies

At this point in the process, you have spent a lot of time educating people and informing them about your plan. Now you need to get them excited and interested in taking an active role. To effectively recruit people to participate in implementing the plan, you have to find out what people are interested in and capable of doing and appeal to those interests. From your previous public awareness activities, such as river trips, recreational walks or clean-ups, you already have a good sense for what will get your communities

motivated. What was the turn-out for events? Did a certain activity in particular get a large response? Save the sign-up sheets from activities and contact those people to get involved. Ask them to recruit others who they think might be interested.

Other ideas to create a volunteer network are to place a notice in the local/community section of your newspapers, or call local colleges that have environmental or planning courses - they might have student groups willing to take on a project or two. Newspaper coverage is essential to spread the word about your group. Local churches or schools are other possibilities. There are many opportunities to make connections with people willing to give their time to your plan.

ırtant person is the individual who will take charge or have responsibility for carrying out the actions and reporting the results to the entire group. There may be a person or organization already performing the actions or doing something similar. Find out if they are capable or willing to be responsible for that element of the action plan.

A major consideration is resources. Money, or the lack thereof, is a big obstacle for many volunteer groups. There are a number of ways to get things done with little or no money. Use your volunteer network as a valuable resource of time, labor and knowledge. Collaborate with organizations willing to donate their time and knowledge. Seek out funds from foundations, businesses, agencies and municipal boards which have an interest in river protection. By state law, LAC's are authorized to receive money from any source to carry out their responsibilities and are considered tax-exempt organizations.

Three things to keep in mind when working with volunteers:

RECOGNITION!
recognition!
recognition!

Don't forget to recognize their effort and dedication!

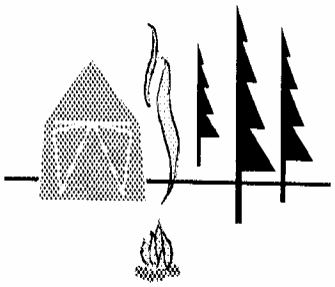
One way to gain both financial and popular support is to implement a visible demonstration project such as water quality monitoring or other high profile project. One such example is the Upper Merrimack River Local Advisory Committee's Monitoring Program. Its success is due to its partnerships and enthusiastic volunteers ranging from high school students to retired citizens.

Action implementors are not only volunteer citizens. In your river corridor management plan, you may have also recommended or identified federal and state agencies, local municipal boards, or non-profit organizations that could take specific actions. Contact key people in those organizations to determine if they are willing to give support for your recommendations. If your recommendations fit into their area of expertise, they may fit into their work program naturally. If not, ask if they would dedicate or volunteer staff time to carry out specific actions.

In New England, several federal agencies have formed an association to collaborate and streamline federal efforts in the environmental arena. This association, called the New England Federal Partners for Natural Resources, consists of the Environmental Protection Agency, the Army Corps of Engineers, the Departments of Transportation, Agriculture, Interior and Commerce, as well as the Federal Energy Regulatory Commission. Groups such as this may provide a good resource for groups to draw upon. Contact the State Rivers Coordinator for more information.

Review

Implementation of a plan is a lot of work and requires long term commitment. You don't want to lose momentum at this point. A good way to keep things flowing is to set up a system to monitor your success in implementing your work plan. One idea is to set up an annual or semi-annual review for yourselves and other participants to evaluate your progress. It can be a short survey or checklist to determine if things are going according to plan. You will want to know about unforeseen issues, what could be done differently to improve the plan, and what avenues would be better traveled. Also, periodic visits to the communities in the corridor helps to keep the plan current with their needs.



Some groups create a new work plan on a yearly basis, others update their current work plans. It is important to assess your work plan in terms of questions such as:

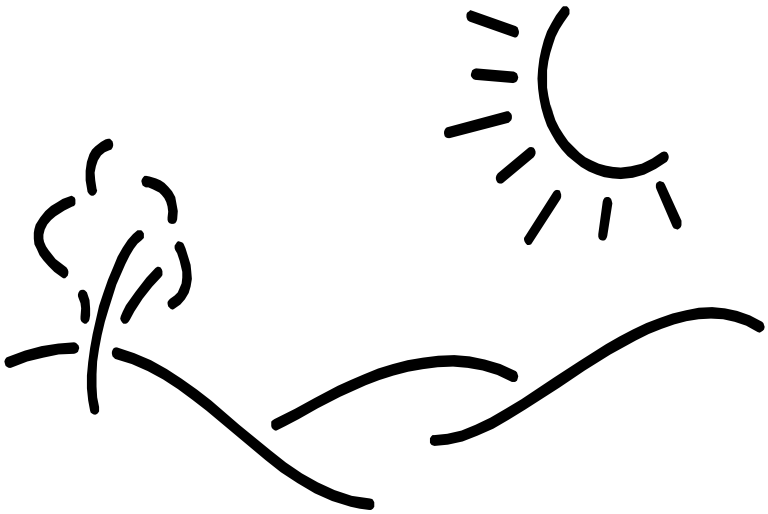
-It is realistic based on the people involved and their capabilities?

-Does it really achieve your goals?
-What modifications need to be made?

See the following page for a good example of an annual work plan.

Revise
An important element is to be flexible. Your work plan is not cast in stone. Think of it as a work always in progress, reflecting the changing needs and conditions of your river. When your periodic review indicates change - do it. It will keep everyone interested and participating. As your work plan progresses, conditions and issues will evolve. You should be continually recruiting, reviewing and revising to keep your organization and plan fresh, interesting and active.

It is also important to update your river corridor management plan every five to ten years. Your group should have a mechanism built into the plan for periodic review. Evaluate your corridor management plan for items you have accomplished, and recommendations which were implemented, or may no longer be relevant. Add new recommendations which reflect the river's conditions. As rivers perpetually change their courses, so should river corridor management plans.



Merrimack River Local Advisory Committee
1996 Work Plan

? *Continue to seek recognition by government agency heads and other organizations*

? *Upper Merrimack Monitoring Program, a citizen water quality monitoring program:*
- *-Continue water sampling and macroinvertebrate collection and identification*
- *-Expand project to include sites from Boscawen to Bow*

? *Recognition of Management and Implementation Plan by planning boards, inclusion in Master Plans*
- *-Work with CNHRPC to develop model for segment communities*

? *Education (river guide, interpretive trail/signs, river etiquette), BMPs, press releases*
- *-Nonpoint source education workshop*
- *-Community storm drain stenciling project*
- *-Riverday clean-up program*

? *Report to statewide committee on UMRLAC activities*

? *Report to each community's annual report*

? *Develop fundraising strategies*

Appendix A

Chapter 483
New Hampshire Rivers Management and Protection Program
(Compiled by the NH Department of Environmental Services - July 1997)

483:1 Statement of Policy
483:2 Program Established; Intent.
483:3 Rivers Coordinator.
483:4 Definitions.
483:5 Coordination With Federal Statutes.
483:6 Nominations; Criteria.
483:7 Legislative Designation.
483:7-a River Classification Criteria; Management.
483:8 Rivers Management Advisory Committee; Establishment.
483:8-a Local River Management Advisory Committees; Establishment; Duties.
483:9 Natural Rivers Protection.
483:9-a Rural River Protection.
483:9-aa Rural-Community Rivers Protection.
483:9-b Community Rivers Protection.
483:9-c Establishment of Protected Instream Flows.
483:10 Rivers Corridor Management Plans.
483:10-a Long-Range River Management Plans.
483:10-b Withholding of Section 401 Certification.
483:11 Rulemaking.
483:12 Consistency of State Action.
483:12-a State Action; Notification of Rivers Coordinator; Petition for Review.
483:12-b Subject to Other Laws; Existing Hydroelectric Facilities.
483:13 Acceptance and Expenditure of Funds.
483:14 Disposition of State Property.
483:15 Rivers Designated for Protection.

483:1 Statement of Policy. New Hampshire's rivers and streams comprise one of its most important natural resources, historically vital to New Hampshire's commerce, industry, tourism, and the quality of life of New Hampshire people. It is the policy of the state to ensure the continued viability of New Hampshire rivers as valued economic and social assets for the benefit of present and future generations. The state shall encourage and assist in the development of river corridor management plans and regulate the quantity and quality of instream flow along certain protected rivers or segments of rivers to conserve and protect outstanding characteristics including recreational, fisheries, wildlife, environmental, cultural, historical, archaeological, scientific, ecological, aesthetic, community significance, agricultural, and public water supply so that these valued characteristics shall endure as part of the river uses to be enjoyed by New Hampshire people.

483:2 Program Established; Intent. There is established within the department of environmental services the New Hampshire rivers management and protection program. It is the intent of the legislature that the New Hampshire rivers management and protection program shall complement and reinforce existing state and federal water quality laws, and that instream flows are maintained along protected rivers, or segments thereof, in a manner that will enhance or not diminish the enjoyment of outstanding river characteristics pursuant to RSA 483:1. It is also the intent of the legislature that, through said program, the scenic beauty and recreational potential of such rivers shall be restored and maintained, that riparian interests shall be respected, and that nothing in this chapter shall be interpreted to preempt any land and zoning authority granted to municipal bodies under RSA title LXIV.

483:3 Rivers Coordinator. There is established in the office of planning, department of environmental

services, a state rivers coordinator, who shall be a classified employee qualified by reason of education and experience, and who shall administer the New Hampshire rivers management and protection program.

483:4 Definitions. In this chapter:

I. "Advisory committee" means the rivers management advisory committee established in RSA 483:8.

II. "Agriculture" means agriculture as defined in RSA 21:34-a.

III. "Breached dam" means any dam which impounds water at less than 80 percent of its original design level at seasonal high flows and for which the original configuration of the dam can still be determined.

IV. "Channel alteration" means any human activity which changes the character of a river or stream channel including, but not limited to, filling, dredging, relocating, excavating, cleaning, deepening, widening, straightening or riprapping.

V. "Commissioner" means the commissioner, department of environmental services.

VI. "Dam" means any artificial barrier, including appurtenant works, across a river which impounds or diverts water.

VII. "Department" means the department of environmental services.

VIII. "Designated river" means that portion of a river which has been specifically designated by the general court pursuant to RSA 483:15.

IX. "Existing dam" means any dam which has not deteriorated or been breached or modified to the point where it no longer impounds water at 80 percent or more of its original design level at seasonal high flows.

IX-a. "Flowage right" means an easement to flow water over the land of others.

X. "Free-flowing," as applied to any river or river segment, means existing or flowing in a natural condition without artificial impoundment, diversion, channel alterations, or other modifications and without consideration of upstream flow management.

XI. "Instream public uses" means those uses which comprise the state's interests in surface waters including, but not limited to: navigation; recreation; fishing; storage; conservation; maintenance and enhancement of aquatic and fish life; fish and wildlife habitat; wildlife; the protection of water quality and public health; pollution abatement; aesthetic beauty; and hydroelectric energy production.

XII. "Interbasin transfer" means any transfer of water for use from one river drainage basin to another.

XIII. "New dam" means any dam which requires the construction or enlargement of any impoundment or diversion structure.

XIV. "New hydroelectric power facilities" means the construction, operation, or installation of electric generating units at dams where no hydroelectric power generation has occurred for a period of 6 years or more.

XV. "Office" means the office of planning, department of environmental services.

XVI. "Protected instream flow" means a constant minimum stream flow level established to maintain water for present and future instream public uses.

XVII. "River" means a flowing body of water or a segment or tributary of such water body.

XVIII. "River corridor" means the river and the land area located within a distance of 1,320 feet of the normal high water mark or to the landward extent of the 100 year floodplain as designated by the Federal Emergency Management Agency, whichever distance is larger.

XIX. "River drainage basin" means the Androscoggin, Coastal, Connecticut, Merrimack, Piscataqua, and Saco river basins as delineated on a map compiled by the department.

483:5 Coordination With Federal Statutes. For the purposes of section 10(a)(2)(A) of the Federal Power Act, those rivers or segments designated under this chapter and any state or local management plans developed pursuant to this chapter shall constitute one element of the state comprehensive plan for river conservation and development. Designated rivers or segments shall constitute protected waterways under the provisions of the Public Utilities Regulatory Policies Act, section 210(j)(2), 16 U.S.C. section 824a-3(j)(2).

483:6 Nominations; Criteria.

I. Any New Hampshire organization or resident may nominate a river or any segment or segments of such river for protection by submitting to the commissioner a description of the river or segment or segments of such river and its values and characteristics. The completed nomination shall be submitted to the rivers coordinator on or before June 1 in order for it to be considered in the next legislative session. This nomination shall include, but not be limited to, an assessment of fisheries; geologic and hydrologic features; vegetation; wildlife; historical and archaeological features; open space and recreation features and potential; water quality and quantity; dams, buildings, and other man-made structures; riparian interests, including flowage rights known by the nominating individual or group, and other pertinent instream and riverbank information. The nominating party shall hold at least one public meeting on the information prior to final submittal to the commissioner. The nominating party shall advertise the meeting in cooperation with the rivers coordinator and shall give written notice to the governing body of any municipality where segments of the river are located. The rivers coordinator shall provide assistance to the nominating party in the presentation of the nomination at the public meeting.

II. The rivers coordinator shall assist and cooperate with the nominator or nominating organization and shall, within 120 days of receipt of a nomination, review the nomination and prepare a recommendation for review by the commissioner under the criteria established in paragraph V and adopted by rules under RSA 483:11, II.

III. The rivers coordinator, in cooperation with the advisory committee, shall hold at least one public hearing in a community along the nominated river or segment of such river to receive public comment on the nomination. Public hearing comments on the nomination, comments on the nomination from local boards and commissions, factors listed in RSA 483:6, IV(a) as further defined in rules adopted under RSA 483:11, II, and other public comments on the nomination submitted to the rivers coordinator shall be considered by the rivers coordinator and the advisory committee when preparing a recommendation for review by the commissioner.

IV. The commissioner shall review the nomination within 45 days. The commissioner shall, in reviewing a nomination under this chapter, consider the following factors:

(a) Whether the river, or segment or segments of such river, contain or represent either a significant statewide or local example of one or more of the following:

(1) Scenic or recreational resource.

(2) Open space or natural resource.

(3) Fisheries, wildlife, vegetation, and rare species or habitat.

(4) Cultural, historical, or archaeological resource.

(5) Hydrological or geological resource.

(6) Water quality.

(7) Scientific resource.

(8) Community resource.

(9) Current and projected withdrawals, discharges, or both, by public utilities and commercial or industrial users.

(b) Public hearing comments on the nomination and other public comments submitted to the rivers coordinator.

(c) The recommendation of the rivers coordinator.

(d) The recommendation of the advisory committee.

V. If the commissioner, after reviewing a nomination and considering the factors in RSA 483:6, IV, determines that designation of the river, or segment or segments of such river, would be consistent with the purpose of this chapter, the commissioner shall forward the nomination to the general court for review and legislative approval according to RSA 483:7.

483:7 Legislative Designation.

I. Any nomination approved by the commissioner shall require review and approval by the general court prior to inclusion in the program. Such action shall be filed as a bill in the next legislative session following the nomination.

II. Any nomination which is forwarded to the general court for review and approval shall include:

(a) A map showing the boundaries of the river or segment;

(b) A report which specifies the values and characteristics which qualify the river or segment for designation; and

(c) The classifications of the proposed designation pursuant to RSA 483:7-a.

483:7-a River Classification Criteria; Management.

I. Those rivers or segments designated for inclusion in the program shall be classified as one or more of the following:

(a) Natural rivers are free-flowing rivers or segments characterized by the high quality of natural and scenic resources. River shorelines are in primarily natural vegetation and river corridors are generally undeveloped. Development, if any, is limited to forest management and scattered housing. For natural rivers, the following criteria and management objectives shall apply:

(1) The minimum length of any segment shall be 5 miles.

(2) Existing water quality shall be not lower than Class B level pursuant to the water quality standards established under RSA 485-A:8.

(3) The minimum distance from the river shoreline to a paved road open to the public for motor vehicle use shall be 250 feet, except where a vegetative or other natural barrier exists which effectively screens the sight and sound of motor vehicles for a majority of the length of the river or segment.

(4) Management of natural rivers and segments shall perpetuate their natural condition as defined in this chapter and shall consider, protect, and ensure the rights of riparian owners to use the river for forest management, agricultural, public water supply, and other purposes which are compatible with instream public uses of the river and the management and protection of the resources for which the river or segment is designated.

(b) Rural rivers are those rivers or segments adjacent to lands which are partially or predominantly used for agriculture, forest management and dispersed or clustered residential development. Some instream structures may exist, including low dams, diversion works and other minor modifications. The following criteria and management objectives shall apply to rural rivers:

(1) The minimum length of any segment shall be 3 miles.

(2) Existing water quality shall be at least Class B level pursuant to the water quality standards established under RSA 485-A:8 or have the potential for restoration to that level.

(3) There shall be no minimum distance from the shoreline to an existing road. Roads may parallel the river shoreline with regular bridge crossings and public access sites.

(4) Management of rural rivers and segments shall maintain and enhance the natural, scenic, and recreational values of the river and shall consider, protect and ensure the rights of riparian owners to use the river for agricultural, forest management, public water supply, and other purposes which are compatible with the instream public uses of the river and the management and protection of the resources for which the river or segment is designated.

(c) Rural-community rivers are those rivers or segments which flow through developed or populated areas of the state and which possess existing or potential community resource values such as those defined in official municipal plans or land use controls. Such rivers have mixed land uses in the corridor reflecting some combination of open space, agricultural, residential, commercial and industrial land uses. Such rivers are readily accessible by road or railroad and may include impoundments or diversions. The following criteria and management objectives shall apply to rural-community rivers:

(1) The minimum length of any segment shall be 3 miles.

(2) Existing water quality shall be at least Class B level pursuant to the water quality standards established under RSA 485-A:8, or have the potential for restoration to that level.

(3) Management of rural-community rivers and segments shall maintain and enhance the natural, scenic, recreational and community values of the river and shall consider, protect, and ensure the rights of riparian owners to use the river for such uses as agricultural, forest management, public water supply, residential, recreational, commercial, industrial, flood control, and other community uses which are compatible with the instream public uses of the river and the management and protection of the resources for which the river or segment is designated.

(d) Community rivers are those rivers or segments which flow through developed or populated areas of the state and which possess existing or potential community resource values, such as those identified in official municipal plans or land use controls. Such rivers have mixed land uses in the corridor reflecting some combination of open space, agricultural, residential, commercial and industrial land uses. Such rivers are readily accessible by road or railroad, may include existing impoundments or diversions, or potential sites for new impoundments or diversions for hydropower, flood control or water supply purposes, and may include the urban centers of municipalities. The following criteria and management objectives shall apply to community rivers:

(1) The minimum length of any segment shall be one mile.

(2) Existing water quality shall be at least Class B level pursuant to the water quality standards established under RSA 485-A:8, or have the potential for restoration to that level.

(3) Management of community rivers and segments shall maintain and enhance the natural, scenic, recreational and community values of the river and shall consider, protect, and ensure the rights of riparian owners to use the river for such uses as agricultural, forest management, public water supply, residential, recreational, commercial, industrial, flood control and hydroelectric energy production purposes which are compatible with the instream public uses of the river and the management and protection of the resources for which the river or segment is designated.

II. The existence of limited exceptions to the criteria for a certain classification under this section shall not necessarily exclude a river or segment from that classification. The river or segment shall be examined as a whole, and the classification of such river or segment shall be based on the overall values and characteristics of such river or segment.

483:8 Rivers Management Advisory Committee; Establishment. There is established a rivers management advisory committee appointed by the governor and council. At least 3 committee members shall represent the North Country and all members shall be New Hampshire residents.

I. The advisory committee shall include:

(a) A representative of public water suppliers who shall be an officer or employee of any municipal or privately owned water works in the state.

(b) An elected municipal officer nominated by the New Hampshire Municipal Association.

(c) A member of the fish and game commission.

(d) A representative of the Business and Industry Association chosen from a list of 3 nominees.

(e) A representative of the Granite State Hydropower Association chosen from a list of 3 nominees.

(f) A conservation commission member chosen from a list of 3 nominees submitted by the New Hampshire Association of Conservation Commissions.

(g) A representative of the conservation community chosen from a list of 3 nominees submitted by the Society for Protection of New Hampshire Forests, Audubon Society, and the New Hampshire Wildlife Federation.

(h) A representative of recreational interests chosen from a list of 3 nominees submitted by the New Hampshire Rivers Campaign and the Appalachian Mountain Club.

(i) A representative of historic/archaeological interests chosen from a list of 3 nominees submitted by the New Hampshire Historical Society.

II. The director of the office of state planning, the executive director of the fish and game department, the

commissioner of resources and economic development, and the commissioner of the department of agriculture or their designees shall serve as nonvoting members of the committee.

III. The terms of state agency members shall be the same as their terms in office. The members shall serve 3-year terms, except that the terms of the initial members appointed under subparagraphs I(a), (d), and (g) shall be one year, and those appointed under subparagraphs I(b), (e), and (h) shall be 2 years.

IV. The commissioner shall convene the first meeting no later than September 15, 1988. The committee shall elect a chairman and vice chairman. Subsequent meetings shall be at the call of the chair, or at the request of 5 or more committee members. The rivers coordinator under RSA 483:3 shall serve as secretary and staff to the committee.

V. The advisory committee shall advise the commissioner and rivers coordinator in implementing the purposes of this chapter.

VI. No state-owned property adjacent to or providing access to a river or river segment shall be recommended for disposal by the council on resources and development except upon the review and recommendation of the advisory committee established under this section.

483:8-a Local River Management Advisory Committees; Establishment; Duties.

I. The commissioner shall appoint a local river management advisory committee for each designated river or segment. Committee members shall be chosen from lists of nominees submitted by the local governing bodies of the municipalities through which the designated river or segment flows. The commissioner shall appoint at least one person from each municipality to the local river management advisory committee. All members of such committees shall be New Hampshire residents.

II. Each committee shall be composed of at least 7 members who represent a broad range of interests in the vicinity of the designated river or segment. These interests shall include, but not be limited to, local government, business, conservation interests, recreation, agriculture, and riparian landowners. If an interest is not represented by the local governing bodies' nominations, the commissioner may appoint a member from the vicinity of the designated river or segment, to the local river management advisory committee who will represent that interest. County commissioners shall be permitted to nominate members to the local river management advisory committee in unincorporated towns or unorganized places. Each member shall serve a term of 3 years.

III. The duties of such committees shall be:

(a) To advise the commissioner, the advisory committee, and the municipalities through which the designated river or segment flows on matters pertaining to the management of the river or segment. Municipal officials, boards, and agencies shall inform such committees of actions which they are considering in managing and regulating activities within designated rivers.

(b) To consider and comment on any federal, state, or local governmental plans to approve, license, fund or construct facilities that would alter the resource values and characteristics for which the river or segment is designated.

(c) To develop or assist in the development and adoption of local river corridor management plans under RSA 483:10. The local planning board, or, in the absence of a planning board, the local governing body, may adopt such plans pursuant to RSA 675:6 as an adjunct to the local master plan adopted under 674:4. No such plan shall have any regulatory effect unless implemented through properly adopted ordinances.

(d) To report annually to the advisory committee and the commissioner on the status of compliance

with federal and state laws and regulations, local ordinances, and plans relevant to the designated river or segment and corridor.

IV. In the case of the Connecticut River, the commissioner shall appoint the New Hampshire Connecticut River Valley resource commission as the local river management advisory committee to work with the Vermont Connecticut River Watershed Advisory Commission as provided in RSA 227-E. A minimum of 5 subcommittees shall be established by the Connecticut River Valley resource commission along the river between Vermont and New Hampshire as provided in RSA 483:8-a, II. Vermont residents may be appointed in an advisory capacity to the local river management advisory committee, except where the Connecticut River is exclusively intrastate.

V. In order to establish the tax exempt status of local river management advisory committees established under this section, such advisory committees are deemed to be governmental instrumentalities having a distinct legal existence separate from the state and shall not be considered as departments of state government. The exercise by a local river management advisory committee of any authority granted by this section shall be deemed to be the performance of public and essential governmental functions not otherwise fulfilled by state government.

483:9 Natural Rivers Protection. The following protection measures shall apply to a river or segment designated as a natural river:

I. No dam or other structure or improvement that impedes or significantly alters the free-flowing condition or natural character of the river or segment shall be permitted, certified, constructed, or operated in such river or segment.

II. No interbasin transfers of water from a designated natural river or segment shall be permitted.

III. No channel alteration activities shall be permitted, except that the commissioner may approve temporary channel alterations in conjunction with the repair or maintenance of a bridge, road, or riprap which is in place at the time a river or segment is designated.

IV. A protected instream flow level shall be established by the commissioner for each designated natural river or segment and any upstream impoundment or diversion facility which may affect the free-flowing condition or natural character of the designated river or segment pursuant to RSA 483:9-c.

V. Water quality shall be maintained at, or restored to the Class A level, or maintained at the Class B level. Each designated natural river or segment shall constitute an outstanding natural resource water pursuant to the standards adopted under RSA 485-A:8. The department shall review and consider adopted local river corridor management plans prior to issuing any permit under RSA 485-A:13 or RSA 485-A:17.

VI. Any new solid waste storage or treatment facility, as defined in RSA 149-M:1, VIII shall be set back a minimum of 250 feet from the normal high water mark of a designated natural river or segment and screened with a vegetative or other natural barrier to minimize visual impact, except:

(a) New solid waste landfills shall not be permitted within the corridor of a designated natural river or segment;

(b) Existing, permitted and secure solid waste landfills shall not be expanded within the 500 year floodplain of a designated natural river or segment and any expansion of such a landfill located within the corridor of a designated natural river or segment shall be set back a minimum of 100 feet from the landward extent of the 500 year floodplain and screened from the river with a vegetative or other natural barrier to minimize visual impact;

(c) Any land application of solid waste as defined in RSA 149-M:1, XIX, except manure, lime and wood ash used for fertilizer, and sludge and septage shall be immediately incorporated into the soil and shall be set back a minimum of 250 feet from the normal high water mark of a designated natural river or segment;

(d) An existing solid waste facility which is located within 250 feet of the normal high water mark of a designated natural river or segment may continue to operate under an existing permit provided it does not cause degradation to an area in excess of that area under permit at the time of designation; and

(e) The department may permit a resource recovery operation at an existing landfill located within 250 feet of the normal high water mark of a designated natural river or segment.

VII. No new hazardous waste facilities as defined in RSA 147-A:2 which store hazardous waste for more than 90 days, shall be permitted within the corridor of a designated natural river or segment.

VIII. No motorized watercraft shall be permitted to operate on a designated natural river or segment, except for emergency purposes.

483:9-a Rural River Protection. The following protection measures shall apply to a river or segment designated as a rural river:

I. No new dams shall be permitted, certified, constructed, operated or maintained in such river or segment. The repair of a structural failure of a dam which is in place at the time a river or segment is designated shall not be considered to be a new dam if such dam is repaired or reconstructed at the same location and with the same impoundment level within 6 years of the date of failure.

II. Notwithstanding paragraph I, the department may approve permits and certificates for the construction, operation, or maintenance of new hydroelectric power facilities at existing dams provided that:

(a) The operational mode of any proposed facility shall be run-of-the-river, with project outflow equal to project inflow on an instantaneous basis and the project does not significantly alter the natural flow characteristics of the river; and

(b) The proposed facility does not provide for diversion of the river above or below the existing dam for a significant distance; and

(c) The height of the impoundment is constant and is not raised above the maximum historic level of impoundment at that site.

III. No interbasin transfers of water from a designated rural river or segment shall be permitted.

IV. No new channel alteration activities shall be permitted which interfere with or alter the natural flow characteristics of the river or segment or which adversely affect the resources for which the river or segment is designated. However, the commissioner may approve such channel alterations as may be necessary for the construction, repair, or maintenance of a project, including public water supply intake facilities in the river or river corridor. The department shall encourage the use of native vegetation to stabilize streambanks of designated rural rivers.

V. A protected instream flow level shall be established by the commissioner for each designated rural river or segment and any upstream impoundment or diversion facility which may affect the natural flow characteristics or natural character of the designated river or segment pursuant to RSA 483:9-c.

VI. Water quality shall be restored to or maintained at least at the Class B level. Significant adverse impacts on water quality or other instream public uses shall not be permitted. The department shall review

and consider adopted local river corridor management plans prior to issuing any permit under RSA 485-A:13, RSA 485-A:17, or RSA 482-A.

VII. Any new solid waste storage or treatment facility, as defined in RSA 149-M:1, VIII shall be set back a minimum of 250 feet from the normal high water mark of a designated rural river or segment and screened with a vegetative or other natural barrier to minimize visual impact, except:

(a) New solid waste landfills shall not be permitted within the 500 year floodplain of a designated rural river or segment and any new solid waste landfill located within the corridor of a designated rural river or segment shall be set back a minimum of 100 feet from the landward extent of the 500 year floodplain and screened from the river with a vegetative or other natural barrier to minimize visual impact;

(b) Any land application of solid waste as defined in RSA 149-M:1, XIX, except manure, lime and wood ash used for fertilizer, and sludge and septage shall be immediately incorporated into the soil and shall be set back a minimum of 250 feet from the normal high water mark of a designated rural river or segment;

(c) An existing solid waste facility which is located within 250 feet of the normal high water mark of a designated rural river or segment may continue to operate under an existing permit provided it does not cause degradation to an area in excess of that area under permit at the time of designation; and

(d) The department may permit a resource recovery operation at an existing landfill located within 250 feet of the normal high water mark of a designated rural river or segment.

VIII. Any motorized watercraft operating within 150 feet of the shoreline of a designated rural river or segment shall travel at the slowest possible speed necessary to maintain steerage way, but at no time shall exceed 6 miles per hour.

483:9-aa Rural-Community Rivers Protection. The following protection measures shall apply to rivers or segments designated as a rural-community river:

I. No new dams shall be permitted, certified, constructed, operated or maintained in such river or segment. The repair of a structural failure of a dam which is in place at the time a river or segment is designated shall not be considered to be a new dam if repaired or reconstructed at the same location and with the same impoundment level within 6 years of the date of failure.

II. Notwithstanding paragraph I, the department may approve permits and certificates for the construction, operation, or maintenance of new hydroelectric power facilities at existing dams provided that:

(a) The operational mode of any proposed facility shall be run-of-the-river, with project outflow equal to project inflow on an instantaneous basis and the project does not significantly alter the natural flow characteristics of the river; and

(b) The proposed facility does not provide for diversion of the river or segment above or below the existing dam for a significant distance; and

(c) The height of the impoundment is constant and is not raised above the maximum historic level of impoundment at that site.

III. No interbasin transfers of water from a designated rural-community river or segment shall be permitted.

IV. No new channel alteration activities shall be permitted which interfere with or alter the natural flow characteristics of the river or segment or which adversely affect the resources for which the river or segment is designated. However, the commissioner may approve such channel alterations as may be necessary for the

construction, repair, or maintenance of a project including public water supply intake facilities in the river or river corridor. The department shall encourage the use of native vegetation to stabilize streambanks of designated rural-community rivers.

V. A protected instream flow level shall be established by the commissioner for each designated rural-community river or segment and any upstream impoundment or diversion facility which may affect the natural flow characteristics of such river or segment pursuant to RSA 483:9-c.

VI. Water quality shall be restored or maintained at least at the Class B level. Significant adverse impacts on water quality or other instream public uses shall not be permitted. The department shall review and consider adopted local river corridor management plans prior to issuing any permit under RSA 485-A:13, RSA 485-A:17 or RSA 482-A.

VII. Any new solid waste storage or treatment facility, as defined in RSA 149-M:1, VIII shall be set back a minimum of 250 feet from the normal high water mark of a designated rural-community river or segment and screened with a vegetative or other natural barrier to minimize visual impact, except:

(a) New solid waste landfills shall not be permitted within the 500 year floodplain of a designated rural-community river or segment and any new solid waste landfill located within the corridor of a designated rural-community river or segment shall be set back a minimum of 100 feet from the landward extent of the 500 year floodplain and screened from the river with a vegetative or other natural barrier to minimize visual impact;

(b) Any land application of solid waste as defined in RSA 149-M:1, XIX, except manure, lime and wood ash used for fertilizer, and sludge and septage shall be immediately incorporated into the soil and shall be set back a minimum of 250 feet from the normal high water mark of a designated rural-community river or segment;

(c) An existing solid waste facility which is located within 250 feet of the normal high water mark of a designated rural-community river or segment may continue to operate under an existing permit provided it does not cause degradation to an area in excess of that area under permit at the time of designation; and

(d) The department may permit a resource recovery operation at an existing landfill located within 250 feet of the normal high water mark of a designated rural-community river or segment.

VIII. Any motorized watercraft operating within 150 feet of the shoreline of a designated rural-community river or segment shall travel at the slowest possible speed necessary to maintain steerage way, but at no time shall exceed 6 miles per hour.

483:9-b Community Rivers Protection. The following protection measures shall apply to rivers or segments designated as a community river:

I. The department may approve permits for the construction of new dams for public water supply, flood control or hydroelectric energy production purposes if such construction is consistent with management and protection of the resources for which the river or segment is designated.

II. The department may approve permits and certificates for the construction, operation, or maintenance of new hydroelectric power facilities at existing or breached dams provided that:

(a) The operational mode of any proposed facility shall be run-of-the-river, with project outflow equal to project inflow on an instantaneous basis and the project does not significantly alter the natural flow characteristics of the river; and

(b) The proposed facility does not provide for diversion of the river or segment above or below the

existing dam for a significant distance; and

(c) The height of the impoundment is constant and, for existing or breached dams, is not raised above the maximum historic level of impoundment at that site.

III. No interbasin transfers of water from a designated community river or segment shall be permitted.

IV. No new channel alteration activities shall be permitted which interfere with or alter the natural flow characteristics of the river or segment or which adversely affect the resources for which the river or segment is designated. However, the commissioner may approve such channel alterations as may be necessary for the construction, repair, or maintenance of a project including public water supply intake facilities in the river or river corridor. The department shall encourage the use of native vegetation to stabilize streambanks of designated community rivers.

V. A protected instream flow level shall be established by the commissioner for each designated community river or segment and any upstream impoundment or diversion facility which may affect the natural flow characteristics of such river or segment pursuant to RSA 483-A:9-c.

VI. Water quality shall be restored or maintained at least at the Class B level. Significant adverse impacts on water quality or other instream public uses shall not be permitted. The department shall review and consider adopted local river corridor management plans prior to issuing any permit under RSA 485-A:13, RSA 485-A:17 or RSA 482-A.

VII. Any new solid waste storage or treatment facility, as defined in RSA 149-M:1, VIII shall be set back a minimum of 250 feet from the normal high water mark of a designated community river or segment and screened with a vegetative or other natural barrier to minimize visual impact, except:

(a) New solid waste landfills shall not be permitted within the 500 year floodplain of a designated community river or segment and any new solid waste landfill located within the corridor of a designated community river or segment shall be set back a minimum of 100 feet from the landward extent of the 500 year floodplain and screened from the river with a vegetative or other natural barrier to minimize visual impact;

(b) Any land application of solid waste as defined in RSA 149-M:1, XIX, except manure, lime and wood ash used for fertilizer, and sludge and septage shall be immediately incorporated into the soil and shall be set back a minimum of 250 feet from the normal high water mark of a designated community river or segment;

(c) An existing solid waste facility which is located within 250 feet of the normal high water mark of a designated community river or segment may continue to operate under an existing permit provided it does not cause degradation to an area in excess of that area under permit at the time of designation; and

(d) The department may permit a resource recovery operation at an existing landfill located within 250 feet of the normal high water mark of a designated community river or segment.

VIII. Any motorized watercraft operating within 150 feet of the shoreline of a designated community river or segment shall travel at the slowest possible speed necessary to maintain steerage way, but at no time shall exceed 6 miles per hour.

483:9-c Establishment of Protected Instream Flows.

I. The commissioner, in consultation with the advisory committee, shall adopt rules under RSA 541-A specifying the standards, criteria, and procedures by which a protected instream flow shall be established and enforced for each designated river or segment. Each protected instream flow shall be established and enforced to maintain water for instream public uses and to protect the resources for which the river or

segment is designated. Instream public uses shall include the state's interests in surface waters, including, but not limited to, navigation; recreation; fishing; storage; conservation; maintenance and enhancement of aquatic and fish life; fish and wildlife habitat; wildlife; the protection of water quality and public health; pollution abatement; aesthetic beauty; and hydroelectric energy production.

II. One public hearing shall be held in at least one municipality along the designated river or segment to receive public comment on the establishment of a proposed protected instream flow.

III. The procedure adopted under this section shall include an assessment of the effect of a protected instream flow upon existing hydroelectric power generation, water supply, flood control, and other riparian users. For any portion of a designated river or segment where a protected instream flow would affect the operation of an existing hydroelectric power facility within or upstream from the designated river or segment, the commissioner shall request the assistance of the public utilities commission in order to assess the effect of a protected instream flow upon such facility.

IV. The protected instream flow levels established under this section shall be maintained at all times, except when inflow is less than the protected instream flow level as a result of natural causes or when the commissioner determines that a public water supply emergency exists which affects public health and safety.

V. The maintenance of protected instream flows shall constitute a condition of any permit issued by the department for any project or activity within a designated river or segment and corridor.

VI. Any party who is aggrieved by a determination establishing such protected instream flows may petition the commissioner for a hearing to review such determination within 30 days of the date the determination is issued. The filing of such petition shall stay the implementation of the determination until a final decision has been rendered on the petition or an appeal taken pursuant to RSA 541.

483:10 Rivers Corridor Management Plans.

I. The rivers coordinator, with the cooperation and assistance of the office of state planning, shall develop detailed guidelines for river corridor management plans, including but not limited to model shoreline protection ordinances. The rivers coordinator shall hold a public hearing regarding the proposed guidelines and model ordinances. The rivers coordinator shall provide technical assistance to regional planning commissions, municipalities, and river corridor commissions and shall encourage the development and implementation of river corridor management plans.

II. River corridor management plans developed pursuant to paragraph I shall include, but not be limited to, the following:

(a) Permitted recreational uses and activities.
(b) Permitted non-recreational uses and activities.
(c) Existing land uses.
(d) Protection of flood plains, wetlands, wildlife and fish habitat, and other significant open space and natural areas.
(e) Dams, bridges, and other water structures.
(f) Access by foot and vehicles.
(g) Setbacks and other location requirements.
(h) Dredging, filling, mining, and earth moving.
(i) Prohibited uses.

483:10-a Long-Range River Management Plans. The department shall prepare and adopt a

long-range comprehensive plan for each designated river or segment which shall address the management and protection of instream values and state lands within the corridor. State land within the designated river corridor shall be administered and managed in accordance with the plan, and state management of fisheries, streams, waters, wildlife, and boating shall be consistent with the plan. In developing this plan, the department shall cooperate with the department of resources and economic development, the department of fish and game, the office of state planning, the department of agriculture, and the local rivers management advisory committee.

483:10-b Withholding of Section 401 Certification. The general court finds that the development of any dam or channel alteration activities within a natural river or segment or the development of any new dam within a rural or community river or segment, except as provided in RSA 483:9-a, II and RSA 483:9-b, II, will alter the physical and chemical characteristics of that river and will constitute violation of the water quality standards established under RSA 485-A:8. The commissioner shall deny certification of any federally licensed or permitted activity on such designated rivers or segments under section 401 of the Federal Water Pollution Control Act, P.L. 92-500, as amended.

483:11 Rulemaking. The commissioner, with the advice of the advisory committee, shall adopt rules, pursuant to RSA 541-A, relative to the following:

I. Content and submission of nominations under RSA 483:6, I.

II. Criteria for acceptance of nominations by the commissioner, including criteria listed in RSA 483:6, IV(a).

III. Preparation for legislative designation of nominated rivers or segments of such rivers under RSA 483:7.

IV. Development of standards, criteria, and procedures for establishment and enforcement of protected instream flow levels for designated rivers and segments under RSA 483:9-c.

483:12 Consistency of State Action. Upon enactment of this chapter, all state agency actions affecting rivers or segments of such rivers which may be designated for protection under this chapter shall conform to the provisions of this chapter.

483:12-a State Action; Notification of Rivers Coordinator; Petition for Review.

I. Any state agency considering any action affecting any river or segment designated under this chapter shall notify the rivers coordinator prior to taking any such action. Such agency shall forward to the rivers coordinator for review and comment copies of all notices of public hearings, or, where a public hearing is not required, a copy of the application for issuance of a permit, certificate, or license within the designated river or corridor under RSA 485-A, RSA 12-E, RSA 270:12, RSA 482, RSA 482-A, RSA 149-M, or RSA 147-A. If an agency is notified by the rivers coordinator that a proposed activity would violate a protection measure under RSA 483:9, 483:9-a, or 483:9-b, such agency shall deny the application.

I-a. The rivers coordinator shall develop, in conjunction with affected state agencies and local river management advisory committees, the procedure by which the state shall notify the appropriate local river management advisory committee when state action is being considered which affects a designated river.

II. If an application is denied solely because the proposed activity would violate a protection measure under RSA 483:9, 483:9-a, or 483:9-b, the applicant may petition the commissioner for a review. Within 30

days of receiving such a petition, the commissioner, in consultation with the advisory committee and the appropriate local rivers management advisory committee, shall review the application. If the commissioner determines that the proposed activity is consistent with the character of the designated river or segment or that the proposed activity would provide a public benefit sufficient to outweigh the public benefit of a protection measure under this chapter, the commissioner shall submit to the speaker of the house and the president of the senate a recommendation that the proposed activity be allowed to proceed. Such recommendation shall require review and approval by the general court and shall be filed as a bill in the next legislative session following the petition.

483:12-b Subject to Other Laws; Existing Hydroelectric Facilities.

I. Any activities permitted under this chapter shall be subject to all applicable state and federal laws and regulations.

II. Nothing in this chapter shall prohibit the continued operation, repair and maintenance of hydroelectric storage and generation facilities existing on the effective date of this paragraph.

483:13 Acceptance and Expenditure of Funds.

I. The commissioner may apply for and accept, from any source, gifts; donations of money; grants; federal, local, private, and other matching funds and incentives; and interests in land for the purposes of this chapter.

II. The rivers coordinator, with the approval of the commissioner and the advisory committee, may expend any funds received under paragraph I for the purposes of this chapter, and such funds are hereby appropriated.

III. Local river management advisory committees may apply for and accept, from any source, gifts, grants, and donations of money. The committees may, without further authorization, expend any funds so received to carry out their duties pursuant to RSA 483:8-a.

483:14 Disposition of State Property. No state-owned property adjacent to or providing access to a river shall be disposed of by the state except upon the review and recommendation of the advisory committee.

483:15 Rivers Designated for Protection. The following rivers and river segments are designated as protected:

I. Lamprey River - main stem from the Epping-Lee town line to the Durham-Newmarket town line as a "rural river." Notwithstanding any other provisions of this chapter, the division of water resources shall not approve the use of flashboards under RSA 482:29 to increase the height of any existing dam within this segment of the Lamprey River.

II. Merrimack River - main stem from the Bedford-Merrimack town line to the New Hampshire-Massachusetts state line as a "community river." Nothing in this chapter shall be construed to limit complete capacity utilization, not to exceed 30 million gallons per day, or any construction or repairs required to achieve such utilization of the existing intake facilities of Pennichuck Water Works situated on the western bank of the Merrimack River in the vicinity of Chase Brook, so-called. This paragraph shall not affect any private right in the Merrimack River and shall not relieve Pennichuck Water Works, or its

successors and assigns, from compliance with other laws or rules under the state's police power.

III. Merrimack River - main stem from the confluence of the Winnipesaukee and Pemigewasset Rivers in the city of Franklin to Garvins Falls in the town of Bow as a "rural river."

IV. Saco River - main stem from the base of Saco Lake dam to the southern boundary of Crawford Notch State Park as a "natural river" and from the southern boundary of Crawford Notch State Park to the New Hampshire-Maine state line as a "rural river." Nothing in this chapter shall prohibit the normal repair or maintenance of the Willey House dam in Crawford Notch State Park.

V. Swift River - main stem from its headwaters to the Albany-Conway town line as a "natural river" and from the Albany-Conway town line to its confluence with the Saco River in Conway as a "rural river."

VI. Pemigewasset River:

(a) As a natural river from the outlet of Profile Lake in Franconia to the southern boundary of Franconia Notch State Park.

(b) As a rural river from the Holderness-Ashland town line to the Franklin Falls flood control dam.

(c) As a rural-community river from the northernmost Thornton town line to the I-93 bridge in Plymouth.

(d) As a community river:

(1) From the I-93 bridge in Plymouth to the Holderness-Ashland town line.

(2) From the Franklin Falls flood control dam to its confluence with the Merrimack River.

VII.(a) Contoocook River - main stem:

(1) As a "rural river":

(A) From the Old Sharon Road bridge in Jaffrey to Noone Falls dam in Peterborough.

(B) From the North Peterborough dam to the monument on the Peterborough-Hancock town line.

(C) From the North Bennington Road bridge in Antrim and Bennington to the confluence of the north branch of the Contoocook River in Hillsborough.

(D) From the Hosiery Mill dam in Hillsborough to the twin iron bridges in West Henniker.

(E) From the Henniker-Hopkinton town line to the Riverhill bridge in Penacook.

(2) As a "community river":

(A) From the outlet of Poole Pond in Rindge to Old Sharon Road bridge in Jaffrey.

(B) From the Noone Falls dam in Peterborough to North Peterborough dam.

(C) From the monument on the Peterborough-Hancock town line to the North Bennington Road bridge in Antrim and Bennington.

(D) From the confluence of the north branch of the Contoocook River in Hillsborough to the Hosiery Mill dam in Hillsborough.

(E) From the twin iron bridges in West Henniker to the Henniker-Hopkinton town line.

(F) From the Riverhill bridge in Penacook to the confluence with the Merrimack River.

(b) Contoocook River - north branch:

(1) As a "rural river," from the outlet of Rye Pond in Stoddard to the outlet of Franklin Pierce Lake.

(2) As a "community river," from the outlet of Franklin Pierce Lake to the confluence of the Contoocook River.

VIII. Connecticut River:

(a) As a rural river from the outlet of the Fourth Connecticut Lake to a point .3 miles above the Second Connecticut Lake Dam.

(b) As a community river from the point above the Second Connecticut Lake Dam to a point .3 miles below the Second Connecticut Lake Dam.

(c) As a rural river from the point below the Second Connecticut Lake Dam to a point .3 miles above the First Connecticut Lake Dam.

(d) As a community river from the point above the First Connecticut Lake Dam to a point .3 miles below the First Connecticut Lake Dam.

(e) As a rural river from the point below the First Connecticut Lake Dam to a point .3 miles above Murphy Dam.

(f) As a community river from the point above the Murphy Dam to a point 2 miles below the Murphy Dam.

(g) As a rural river from the point 2 miles below the Murphy Dam to Bishop Brook in Stewartstown.

(h) As a community river from Bishop Brook to Leach Creek in Canaan, Vermont.

(i) As a rural river from Leach Creek to the confluence with the Mohawk River.

(j) As a rural community river from the confluence with the Mohawk River to the Columbia-Colebrook town line.

(k) As a rural river from the Columbia-Colebrook town line to Wheeler Stream in Brunswick, Vermont.

(l) As a natural river from Wheeler Stream to the Maidstone-Stratford Bridge.

(m) As a rural river from the Maidstone-Stratford Bridge to a point one mile above the breached Wyoming Valley Dam in Northumberland.

(n) As a community river from one mile above the breached Wyoming Valley Dam site to a point one mile below the Wyoming Valley Dam Site.

(o) As a rural river from one mile below the breached Wyoming Valley Dam site to a point .3 miles above the Simpson Paper Company Dam.

(p) As a community river from the point above the Simpson Paper Company Dam to .3 miles below the Simpson Paper Company.

(q) As a rural river from the point below the Simpson Paper Company Dam to .4 miles above the Moore Dam.

(r) As a community river from the point above the Moore Dam to a point .6 miles below the Moore Dam.

(s) As a rural river from the point below Moore Dam to a point .3 miles above the Comerford Dam.

(t) As a community river from the point above the Comerford Dam to a point .2 miles below McIndoes Falls Dam.

(u) As a rural river from the point below the McIndoes Falls Dam to a point .3 miles above the Ryegate Dam.

(v) As a community river from the point above the Ryegate Dam to a point .2 miles below the Ryegate Dam.

(w) As a rural river from the point below the Ryegate Dam to the Ammonoosuc River in Bath.

(x) As a community river from the Ammonoosuc River to the point where routes 135 and 10 meet in Haverhill.

(y) As a rural river from the intersection of routes 135 and 10 to Storrs Pond Brook in Hanover.

(z) As a rural-community river from Storrs Pond Brook to Dothan Brook outlet in Hartford, Vermont.

(aa) As a community river from the Dothan Brook to .3 miles below the Wilder Dam.

(bb) As a rural-community river from the point below the Wilder Dam to the Lebanon-Plainfield

town line.

(cc) As a rural river from the Lebanon-Plainfield town line to the Blow-Me-Down Brook in Cornish.

(dd) As a rural-community river from the Blow-Me-Down Brook to the northern end of Chase Island in Cornish.

(ee) As a rural river from the north end of Chase Island to the southern side of the Williams River in Bellows Falls, Vermont.

(ff) As a community river from the southern side of the Williams River to the Saxtons River in Westminster, Vermont.

(gg) As a rural-community river from the Saxtons River to the bridge between Westminster Station and Walpole.

(hh) As a rural river from the bridge at Westminster Station to the Brattleboro-Dummerston, Vermont town line.

(ii) As a rural-community river from the Brattleboro-Dummerston, Vermont town line to Sprague Brook.

(jj) As a community river from Sprague Brook to a point .3 miles below the Vernon Dam.

(kk) As a rural river from the point below the Vernon Dam to the Massachusetts border.

IX. Ashuelot River:

(a) As a natural river from the dam at Butterfield Pond to and including the falls above Ashuelot Pond.

(b) As a rural river from the falls above Ashuelot Pond to Symondsville Road in Marlow.

(c) As a community river from Symondsville Road in Marlow to the Audio Accessories dam.

(d) As a rural river from below the Audio Accessories dam in Marlow up to the breached Blackstock dam located above the town of Gilsum.

(e) As a community river from the breached Blackstock dam above the town of Gilsum to the stone arch bridge in Gilsum.

(f) As a rural river from the stone arch bridge in Gilsum to the Court Street bridge in Keene.

(g) As a community river from the Court Street bridge in Keene to the Branch River in Keene.

(h) As a rural river from the Branch River in Keene to the unnamed brook entering on the west bank near the intersection of Winchester Street and route 10 in West Swanzey.

(i) As a community river from the unnamed brook on the west bank near the intersection of Winchester Street and route 10 in West Swanzey to the Denman Thompson Bridge.

(j) As a rural river from the Denman Thompson Bridge in West Swanzey to and including the oxbow on the west bank before the A.C. Lawrence building in Winchester.

(k) As a community river from the oxbow on the west bank before the A.C. Lawrence building in Winchester to the route 119 bridge.

(l) As a rural river from the route 119 bridge in Winchester to the Winchester dam owned by G.E. Robertson and Company in Hinsdale.

(m) As a community river from the Winchester dam owned by G.E. Robertson and Company in Hinsdale to the route 63 bridge.

(n) As a rural river from the route 63 bridge in Hinsdale to the mouth of the Ashuelot River at the Connecticut River.

X. (a) Piscataquog River - north branch:

(1) As a natural river from the outlet of Deering Lake Dam in Deering, 6.25 miles to the Abijah bridge in Weare.

(2) As a rural river:

(A) From the outlet of Lake Horace Dam in Weare, 8 miles to the Everett Dam flowage in Weare.

(B) From the outlet of Everett Dam in Weare, 8 miles to the river's convergence point with the south branch.

(b) Piscataquog River - middle branch. As a natural river from the natural outlet of Scobie Pond in Francestown to the inlet of the upper cranberry bog at the New Boston town line, approximately 11.5 miles to its mouth in New Boston.

(c) Piscataquog River - south branch:

(1) As a natural river from the outlet of Pleasant Pond in Francestown, 11.5 miles to New Hampshire Route 13 in New Boston.

(2) As a rural river from New Hampshire Route 13 in New Boston, 7 miles to the confluence with the north branch.

(3) As a rural-community river from the confluence with the north branch, 1.7 miles to New Hampshire Route 114 in Goffstown.

(4) As a community river from New Hampshire Route 114 in Goffstown, 1 mile to the Gregg Dam in Goffstown.

(5) As a rural-community river from the Gregg Dam in Goffstown, 6.9 miles to the river's mouth at Bass Island in Manchester.

XI. Exeter River. As a "rural river" from its headwaters at the route 102 bridge in Chester 29.7 miles to its confluence with Great Brook in Exeter.

Appendix B

Sources of Assistance for Resource Assessment

The following are the resource categories mentioned in chapter three. Be sure to consider each one carefully.

1. ***Geologic Resources:*** Describe important geologic resources found in the river and its corridor. Note their significance at the national, regional, statewide or local level. Geologic resources to consider include natural history, visual, or economic interest. Natural history may include interesting bedrock, rapids, waterfalls, and surrounding topography, such as evidence of glaciation. Scenic resources may include, in addition to the rapids and waterfalls listed above, gorges, cliffs, and bluffs. Economic geology may include the presence of ore minerals or materials such as sand and gravel. Significant aquifers in a river corridor are also a geologic resource.

> *For assistance with identifying geologic resources contact*: *New Hampshire State Geologist's Office, New Hampshire Office of State Planning (OSP), U.S. Geological Survey (USGS), or the Natural Resources Conservation Service (NRCS).*

2. ***Wildlife Resources:*** List animals and bird commonly found in the river corridor. List any federal or state endangered or threatened animal species which rely on the river for food and shelter. Identify significant wildlife habitat that is supported by the river, or to which the river is integral, for game and non-game wildlife populations. Report if the habitat has been determined to be exceptionally diverse, very diverse, or moderately diverse by the New Hampshire Fish and Game Department or the U.S. Fish and Wildlife Service. Finally, determine and record if the river corridor is important for movement of wildlife between large habitat areas.

The New Hampshire Fish and Game Department maintains the State's official list of endangered and threatened wildlife species. Contact the Natural Heritage Inventory of the Department of Resources and Economic Development for a listing of other wildlife species which at this time do not warrant endangered or threatened designation, but which are being tracked as there is a concern for their populations. In addition, geographic information system (GIS) maps will be a valuable source of information about wildlife habitat. The state maintains GRANIT, a GIS database with this information. Contact Regional Planning Commissions, the NH Office of State Planning, or UNH Complex Systems for assistance in obtaining these maps.

> *For assistance with identifying wildlife resources contact*: *New Hampshire Fish and Game Dept., U.S. Fish and Wildlife Service, New Hampshire Natural Heritage Inventory Program, the Department of Resources and Economic Development (DRED), the New Hampshire Wildlife Federation, or the Audubon Society of New Hampshire (ASNH); the Nature Conservancy, GRANIT -- Geographic Information Systems, the NH Office of State Planning.*

3. ***Vegetation/Natural Communities:*** List the types of plant communities commonly found in

the river corridor. List and identify the location of any federal or state endangered or threatened plant species which are found in the river corridor. If the New Hampshire Natural Heritage Inventory lists an exemplary natural community as occurring in the river community, list that community and identify its location.

> *For assistance with identifying vegetation/natural communities contact*: *NH Natural Heritage Inventory Program, DRED; or the Nature Conservancy.*

4. ***Fish Resources:*** List the common fish species which inhabit the river, including non-game species and endangered or threatened species. Note the locations of important habitat for particular fish populations (e.g., spawning grounds for anadromous salmon). Report if the habitat has been identified as being exceptionally diverse, very diverse, or moderately diverse by the NH Fish and Game Department or the U.S. Fish and Wildlife Service. Describe any on-going fisheries management programs, indicating if fisheries rely on natural reproduction or a stocking program. Identify if the river is a viable anadromous fish resource. If so, explain any ongoing or planned restoration programs.

> *For assistance with identifying fish resources contact*: *NH Fish and Game Dept. or the U.S. Fish and Wildlife Service.*

5. ***Water Quality:*** Identify whether the river or segment has been given a Class A or Class B water quality classification by the state legislature. The water quality classification for a river can be quickly obtained from the Division of Water Supply and Pollution Control at DES. The Division can also provide information on the current water quality of the river and major causes of water quality degradation. Describe any proposals or plans to improve present water quality conditions, e.g., plans to upgrade a wastewater treatment facility. Describe any present water quality monitoring programs being conducted by local schools or conservation groups.

> *For assistance with identifying water quality contact*: *DES Water Division; or the Environmental Protection Agency.*

6. ***Natural Flow Characteristics:*** Describe the flow characteristics of the river. Note if the river is substantially free-flowing (i.e., no dams regulate the flow of the river) and describe the size and duration of the spring run-off, summer flow amounts, and the frequency and duration of flood events. If the river is regulated, describe the purpose and effects of existing dams (both within and upstream from the river segment) on the natural flow of the river. Indicate the locations where the river is free-flowing. Also, if applicable, indicate flow variations caused by impoundments, significant diversions, or channel alterations, including interbasin transfers.

> *For assistance with identifying natural flow characteristics contact*: *DES Water Division, or the USGS.*

7. ***Open Space:*** For the purpose of the resource inventory, open space is defined as any undeveloped land, including floodplains, woodlands, and farmlands. Open space may be publicly or privately owned. List the type (e.g., wetlands, floodplains, woodlands, farmlands, etc.), type of ownership, and location of significant areas of open space within the river corridor. Identify any

protected lands within the river corridor (publicly owned lands or lands under a conservation easement).

For assistance with identifying open space contact: *The town conservation commissions, DRED Division of Forest and Lands, DRED Division of Parks and Recreation, NRCS, the regional planning commissions, or the Society for the Protection of New Hampshire Forests.*

8. ***Impoundments:*** List all existing and proposed dams in the river including those which are breached or in ruins. However, do not include existing or proposed dams which are used for hydroelectric energy production. These will be listed separately in the managed resources category. For dams other than hydroelectric facilities, briefly describe each structure, including its location, ownership, and purpose (for example, flood control, recreation, wildlife habitat, or water supply). If known, indicate whether minimum flow requirements exist at any of the impoundments.

For assistance with identifying impoundments contact: DES Water Division, or individual dam owners.

9. ***Water Withdrawals and Discharges:*** Water is withdrawn from rivers for such purposes as municipal water supplies, irrigation, and industrial process water. Wastewater is discharged to rivers from municipal sewage treatment plants and industrial process water returns. The DES Water Division, can provide a listing of all major water withdrawals (>20,000 gallons/day) and a listing of all facilities which hold a point-source wastewater discharge permit (NHDES permit). For subsection (1), list all major water withdrawals, their location and the purpose of such withdrawals. Note if the river is an existing or potential drinking water supply. If the river is a potential drinking, agricultural or industrial water supply, identify the study(ies) which deemed it to be, if any. For subsection (2), list all waste water discharges and note the type of discharge, source, and location and whether or not it is permitted by the state.

For assistance with identifying water withdrawals and discharges contact: *DES Water Division.*

10. ***Hydroelectric Resources:*** List all known existing and potential sites for hydropower production. Identify the owner and location of each site, and when known, whether the structure is licensed by the Federal Energy Regulatory Commission (FERC) or if the structure is exempt from FERC regulation. An excellent source of information about potential sites for hydroelectric energy production is the New Hampshire River Protection and Energy Development Project Final Report (New England Rivers Center, 1983), a copy of which can be obtained by the Rivers Coordinator.

For assistance with hydroelectric resources, contact: The DES Water Division, individual dam owners; the FERC; or the DES Rivers Coordinator.

11. ***Historical or Archaeological Resources:*** For the purposes of the resource inventory, archaeological resources refer to evidence of Native American habitations while historical resource refer to the period of European settlement to the present. Describe any archaeological

or historical resources that exist within the river or river corridor which have been listed or are eligible for listing on a federal or state resource listing (for example, the National Register of Historic Places). If known, indicate the level of significance (i.e., national, state, regional [New England], or local). In addition, note any local town histories, oral histories, or general historical knowledge about the use of the river and its corridor. For a listing of historic sites in the State contact the Department of Resources and Economic Development.

> *For assistance with identifying historical and archaeological resources contact*: *The Division of Historical Resources, Department of Cultural Affairs; The Division of Parks and Recreation, DRED; The New Hampshire Historical Society; Inherit New Hampshire; or town historical societies.*

12. ***Community Resource:*** Briefly describe what the river means to the communities through which it flows. An example would be a discussion of how the river contributed to the historical development of the towns and what it means to the towns today. Indicate for example, if parks have been created along the river, redevelopment has centered on the river or if other efforts are being carried out to protect the river. Try to answer the question, "What does the river mean to you?" from the point of view of different people in your community. If the importance of the river is recognized in any official town documents, such as a master plan, include a reference to such documents.

> *For assistance with identifying community resources contact*: *Town selectmen, conservation commissions, planning boards, historical societies, and the regional planning commissions.*

13. ***Fishery:*** Identify and describe the location and type of significant fisheries that are frequented by fishermen. Record if a river has a high quality fishery as determined by the New Hampshire Fish and Game Department. Also indicate areas that have potential to be significant fisheries.

14. ***Boating:*** Describe the types of boating experiences that the river offers, including descriptions in local or regional boating guidebooks. Note if the river attracts boaters from beyond the local area and if the river is used for motorized boating. Refer to the NH River Protection and Energy Development Project Final Report (New England Rivers Center Study, 1983) to determine the river's significance as a recreational boating river. Also identify and locate potential recreational boating sites.

15. ***Other Recreational Opportunities:*** List other recreational activities that people enjoy either in or next to the river. This may include such things as swimming, hiking, camping, biking, bird watching and hunting. Identify ownership of recreational lands and facilities where possible. If there are areas with potential to be used for recreational activities, note these as well.

16. ***Public Access:*** List any locations that provide public access to the river. That list may include both official and non-formal sites such as rights-of-way to bridge crossings which are often used as access points. Note the location, ownership, type of access (e.g., canoe only) and

related facilities (e.g., parking) provided at each of these sites.

For assistance with identifying recreational resources contact: *The town recreation departments, DRED Division of Parks and Recreation, Fish and Game Dept., OSP, Dept. of Safety, Division of Safety Services, watershed associations, the regional planning commission, the Appalachian Mountain Club River Guide, or the ASNH. For assistance with access, refer to the Outdoor Recreation Facilities Information published by the Office of State Planning*.

17. ***Scenic Resources*** Describe and identify the locations of the most scenic views along the river. Consider both views of the river and views from the river. Views of the river may be from public roads and trails and may be as diverse as a view standing on the bank of the river to a view from a vantage point overlooking the river valley. Be sure to consider the viewpoint of various river users (e.g., canoeists, birders, etc.). Beauty is in the eye of the beholder--describe and identify the location of the views which are most pleasing to you. You may wish to include photographs of these views with the nomination form.

For assistance with identifying scenic resources contact: the regional planning commissions, National Park Service, or U.S. Forest Service (if appropriate).

18. ***Land Use*** Describe the general patterns of current land use in the river corridor. Include the location of agricultural, residential, commercial and industrial sites, solid waste management facilities and lands used for forest management or which are undeveloped. Also include such features as roads along the river, railroads, bridges, and utility crossings. Identify the type and location of any proposals for major developments within the river corridor.

For assistance with identifying land use/corridor development contact: *the town planning boards, regional planning commissions, USGS maps, and OSP.*

19. ***Land Use Controls:*** List the municipalities within the river corridor that have existing master plans and/or zoning ordinances. Identify existing or significant local land use controls which affect the river, (e.g., zoning ordinances, easements, subdivision regulations).

For assistance with identifying land use controls contact: *OSP, the regional planning commissions, town planning boards and conservation commissions*.

20. ***Water Quantity:*** List the location along the river of all operating stream gauge stations maintained by the U.S. Geological Society, U.S. Army Corps of Engineers or DES. Indicate the number of years of record and whether it is a partial or full record.

For assistance with water quantity, contact: The U.S. Geological Survey; U.S. Army Corps of Engineers; or the DES Water Division.

21. ***Riparian Interests/Flowage Rights:*** Describe riparian interests within the corridor including flowage rights and historic water uses or legislative authorizations (for example, a town given legislative authorization to water for public consumption in the 19th century).

For assistance with riparian interests/flowage rights, contact: Town offices; or the DES Water Division.

Appendix C

Sources of Technical Information and Assistance
Federal, State, and Regional Agencies and Private Organizations

Federal Agencies:

Federal Emergency Management Agency
JW McCormick Building, Room 414
Boston, MA 02109
(617) 223-9540

Federal Energy Regulatory Commission
888 1st Street, NE
Washington, DC 20426
(202) 208-0200

National Park Service
Rivers and Trails Conservation Assistance Program
15 State Street
Boston, MA 02109
(617) 223-5123

National Park Service
Rivers and Trails Conservation Assistance Program
New Hampshire/Vermont Field Office
King Farm, 5 Thomas Hill
Woodstock, VT 05091
(802) 457-4323

US Army Corps of Engineers
696 Virgina Road
Concord, MA 01742-2751
(978) 318-8111

US Department of Agriculture
Natural Resources Conservation Service (NRCS)
Federal Building, 2 Madbury Road
Durham, NH 03824-1499
(603) 868-7581

US Department of the Interior
Fish and Wildlife Service
4th Floor, Ralph Pill Marketplace
22 Bridge Street, Unit 1
Concord, NH 03301
(603) 225-1411

US Environmental Protection Agency
New England Region 1
1 Congress Street Suite 1100
Boston, MA 02114-2023
(617) 918-1111

US Forest Service
White Mountain National Forest
719 North Main Street
Laconia, NH 03246
(603) 528-8721

US Geological Survey - NH/VT District
361 Commerce Way
Pembroke, NH 03275
(603) 225-4681

State Agencies:

NH Fish and Game Department

2 Hazen Drive

Concord, NH 03301
(603) 271-3211

NH Department of Resources & Economic Development (DRED)
172 Pembroke Road, PO Box 1856
Concord, NH 03302-1856
(603) 271-2411
- Division of Forests and Lands
  (603) 271-3456
- NH Natural Heritage Inventory
  (603) 271-3623
- Division of Parks
  (603) 271-3556
- Division of Recreation
  (603) 271-3627

NH Department of Transportation
1 Hazen Drive, PO Box 483
Concord, NH 03302-0483
(603) 271-3734

NH Office of State Planning
2 ½ Beacon Street
Concord, NH 03301
(603) 271-2155

Public Utilities Commission
8 Old Suncook Road
Concord, NH 03301
(603) 271-2431

NH Department of Environmental Services
6 Hazen Drive, PO Box 95
Concord, NH 03302-0095
(603) 271-2147

Waste Management Division
NH Department of Environmental Services
6 Hazen Drive, PO Box 95
Concord, NH 03302-0095
(603) 271-3503

UNH Cooperative Extension Service
State Office
59 College Road, Taylor Hall
Durham, NH 03824-2618
(603) 862-1520

NH State Historic Preservation Office
Division of Historical Resources
19 Pillsbury Street, PO Box 2043
Concord, NH 03302-2043
(603) 271-3483

NH Department of Agriculture
Pesticide Control Board
25 Capitol Street, 2nd Floor
PO Box 2042
Concord, NH 03302-2042
(603) 271-3550

NH Wetlands Bureau
NH Land Conservation Investment Program
2 ½ Beacon Street
Concord, NH 03301
(603) 271-3623

NH Department of Agriculture
25 Capitol Street, 2nd Floor

PO Box 2042
Concord, NH 03302-2042
(603) 271-3551

Office of the Commissioner
NH Department of Environmental Services
6 Hazen Drive, PO Box 95
Concord, NH 03302-0095
(603) 271-3503

Water Division
NH Department of Environmental Services
6 Hazen Drive, PO Box 95
Concord, NH 03302-0095
(603) 271-3503

Regional Planning Agencies:

Lakes Region Planning Commission
103 Main Street, Suite 3
Meredith, NH 03253-9287
(603) 279-8171

Central New Hampshire Regional Planning Commission
12 Cross Street
Penacook, New Hampshire 03303
(603) 753-9374

Nashua Regional Planning Commission
115 Main Street
PO Box 847
Nashua, NH 03061
(603) 883-0366

Private Organizations:

American Rivers
1025 Vermont Avenue NW, Suite 720
Washington, DC 20005
(202) 547-6900

North Country Council
The Cottage at the Rocks
107 Glessner Road
Bethlehem, NH 03574
(603) 444-6303

Rockingham Planning Commission
121 Water Street
Exeter, NH 03833-2487
(603) 778-0885

Southern New Hampshire Planning Commission
438 Dubuque Street
Manchester, NH 03101-3546
(603) 669-4664

Southwest Regional Planning Commission
20 Central Square, 2nd Floor
Keene, NH 03431
(603) 357-0557

Strafford Regional Planning Commission
259 County Farm Road, Unit 1
Dover, NH 03820
(603) 742-2523

Upper Valley - Lake Sunapee Council
77 Bank Street
Lebanon, NH 03766-1704
(603) 448-1680

National Environmental Policy Institute
1100 17th St, NE
Washington, DC 20036
(202) 857-4784

National Audubon Society
700 Broadway

New York, NY 10003
(212) 979-3000

Society for the Protection of New Hampshire Forests
54 Portsmouth Street
Concord, NH 03301
(603) 224-9945

Audubon Society of New Hampshire
3 Silk Farm Road
Concord, NH 03301
(603) 224-9909

Merrimack River Watershed Council
P.O. Box 1377
56 Island Street
Lawrence, MA 01842-2577
(508) 681-5777

Merrimack River Watershed Council
54 Portsmouth Street
Concord, NH 03301
(603) 224-8322

New Hampshire Rivers Council
54 Portsmouth Street
Concord, NH 03301
(603) 228-6472

Friends of the Earth
1025 Vermont Ave., NW
Third Floor
Washington, D.C. 20005
(202) 783-7400

The River Management Society
316 Daly Ave.
Missoula, MT 59801-4338
(406) 549-0514
email: arms.igc.apc.org

National Wildlife Federation
1400 16th Street NW
Washington, DC 20036
(202) 797-6800

Sierra Club
85 Second Street
San Francisco, CA 94105
(415) 977-5500

Trout Unlimited
1500 Wilson Boulevard, Suite 310
Arlington, VA 22209
(703) 522-0200

The Wildlife Society
5410 Grosvenor Lane
Bethesda, MD 20814-2197
(301) 897-9770
The Nature Conservancy
New Hampshire Field Office
2 ½ Beacon Street; Suite 6
Concord, NH 03301
(603) 224-5853

Appalachian Mountain Club
PO Box 298
Gorham, NH 03581
(603) 466-2721

Land Trusts:

Society for the Protection of NH Forests
54 Portsmouth Street
Concord, NH 03301
(603) 224-9945

Harris Center for Conservation Education
341 King's Highway

Hancock, NH 03449
(603) 525-3394

New England Forestry Foundation
283 Old Dunstable Road
P.O. Box 1099
Groton, MA 01450-3099
(508) 448-8380

New England Wildflower Society
Garden in the Woods
Hemenway Road
Framingham, MA 01701
(508) 877-7630

Trust for Public Lands
33 Union Street, 4th Floor
Boston, MA 02108
(617) 367-6200

Upper Valley Land Trust
19 Buck Road
Hanover, NH 03755
(603) 643-6626

Appendix D

Outlines of Adopted River Management and Protection Plans

Contoocook and North Branch Rivers Local Advisory Committee River Corridor Management Plan

I. Purpose
To preserve and protect the resources of the Contoocook and North Branch Rivers

II. Goals and Objectives
- A. Goals: Implement management plan with sensitivity to multi-use issues
- B. Objectives: Review local ordinances, develop education programs, inventory access areas, promote high water quality, coordinate and cooperate with other groups, promote equitable compliance with and enforcement of rules, investigate funding sources

III. Introduction
- A. Overview of the New Hampshire Rivers Management and Protection Program
- B. Contoocook and North Branch Rivers Nomination
- C. The Local Advisory Committee
- D. Contoocook River Corridor
- E. River Values

IV. Resources Assessment
- A. Natural Resources: Geologic, Wildlife, Vegetation, Natural Communities, Water Quality, Natural Flow
- B. Managed Resources: Impoundments, Water Withdrawals
- C. Cultural Resources: Historical, Archeological
- D. Recreation: Fishing, Boating, Access
- E. Other: Scenic, Land Use, Land Use Controls

V. Resources Management
- A. Water Resources: Quality, Quantity, Stream Channel Integrity
- B. Riparian Lands Management
- C. Outstanding Resources Management: Recreation, Wildlife, Historical, Archeological, Geologic and Natural Features

IV. Base Maps

Adopted September, 1994. For a copy of the River Corridor Management Plan or for further information, contact the Central New Hampshire Regional Planning Commission.

Lamprey River Management Plan for the Towns of Durham, Epping, and Newmarket

I. Introduction
   A. Purpose: To create a framework for long term use and protection of the Lamprey River
   B. Organization of Management Plan: Five sections on the River's ecology and use (water quality, instream flow, ecological integrity, historical and archaeological resources, and public enjoyment)
   C. Background: River designated by the National Park Service for Wild and Scenic Designation in 1982. Designated by the NH Rivers Management and Protection Program in 1988.
   D. Maps: Lamprey River Watershed, Study Area for Wild and Scenic Assessment

II. Statement of Philosophy
   TREAD LIGHTLY: Ecological awareness and minimum impact on the environment

III. Overview of Key Management Plan Elements
   Summary of principal components and recommendations for Management Plan

IV. Management and Protection of Water Resources
   A. Water Quality: Goal is to identify and minimize present pollution and prevent future degradation
   B. Instream Flow: Goal is to ensure adequate flow to protect river resources

V. Effects on Water Resources Management from Designation under the Wild and Scenic Rivers Act

VI. Ecological Integrity: Goal is to protect wildlife and aquatic habitats and plant communities; protect pristine areas; promote restoration of shad and river herring runs and preserve resident fish species

VII. Historical and Archaeological Resources: Goal is to continue research, protect important sites, and educate people

VIII. Public Enjoyment: Goal is to promote enjoyment on "Tread Lightly" philosophy

IX. Effects on Ecological, Historic, and Recreational Resources from Designation under the National Wild and Scenic Rivers Act

X. State and National Rivers Programs
   A. New Hampshire Rivers Management and Protection Program (RMPP)
   B. Designation under the National Wild and Scenic Rivers Act

Adopted January, 1995. For a copy of the River Corridor Management Plan or for further information, contact the National Park Service.

Saco River Corridor Management Plan

I. Introduction
- A. Statement of Purpose: Guide for maintaining and enhancing the corridor
- B. Definition of River Corridor
- C. Overview of the Saco River and its Resources

II. Maps

III. Goals and Recommendations
- A. Overall Goal: Maintain a balance of uses
- B. Goal 1: Maintain and enhance high water quality
- C. Goal 2: Enhance the scenic appearance of the river
- D. Goal 3: Maintain and enhance recreational opportunities
- E. Goal 4: Streambank stabilization practice without scenic degradation
- F. Goal 5: Maintain and enhance instream flows
- G. Goal 6: Maintain and protect wildlife habitats
- H. Goal 7: Protect and enhance cultural, historical, and archaeological resources
- I. Goal 8: Review and summarize regulations

IV. Resource Assessment
- A. Location and Description - Central New Hampshire and Southwest Maine
- B. Geological Resources - Mountainous; glacial silt and till
- C. Natural Flow Characteristics - Fairly uniform
- D. Forest Resources - Almost completely forested
- E. Wetlands - Small areas
- F. Wildlife Resources - Species common to forested lands
- G. Threatened and Endangered Species - many species
- H. Fish Resources - Trout
- I. Water Quality - Good to excellent
- J. Impoundments, Water Withdrawals, and Discharges - Free flowing
- K. Land Use - Forest land and agriculture
- L. Roads, Railroads, Bridges, and Rip-raps
- M. Solid Waste and Sewage Treatment Facilities - One exists and one future
- N. Historical and Archaeological Resources - Diverse cultural heritage
- O. Community Resources - Tourism
- P. Recreation Resources - Water based recreation
- Q. Scenic Resources - Outstanding visual characteristics

V. Matrix of Existing Regulations: Federal, State, Conway, Bartlett, Harts Location and White Mountain National Forest

IV. References

Adopted November, 1994. For a copy of the River Corridor Management Plan or for further information, contact the New Hampshire Department of Environmental Services.

Swift River Corridor Management Plan

I. Introduction
   A. Purpose: Provide an overall framework for the regulation and management of activities dependent on or affecting the Swift River
   B. Overall Goal: Protect and maintain the high quality of natural resources
   C. Organization of Plan: Three sections (Resource Assessment, Matrix of Existing Regulations, Goals and Objectives)

II. Maps
   A. Swift River Location Map
   B. Swift River: Upper Portion
   C. Swift River: Lower Portion

III. Resource Assessment
   A. Location and Description - White Mountain National Forest
   B. Geological Resources - Mountainous silt and till
   C. Forest land - Spruce/fir and hardwood forests
   D. Wetlands - small areas
   E. Wildlife Resources - Species common to forest land
   F. Fish Resources - Native brook trout and brown and rainbow trout
   G. Endangered and Threatened Species - 13 in Saco River Basin
   H. Water Quality - good to excellent; free flowing
   I. Water Withdrawals and Discharges - none of significance
   J. Land Use - natural forest; limited recreation and residences
   K. Community Resources - Tourism
   L. Land Use Controls - River and Wetland Conservation Districts
   M. Recreational Resources - Picnicking, camping, skiing, canoeing, fishing
   N. Public Access - Through White Mountain National Forest
   O. Historical and Archaeological Resources - Early settlements
   P. Scenic Resources - Outstanding Characteristics

IV. Matrix of Existing Regulations

V. Goals and Objectives
   A. Goal 1: To protect and maintain existing high water quality
   B. Goal 2: To protect and enhance the natural scenic appearance of the River
   C. Goal 3: To protect and enhance opportunities for recreation and resources
   D. Goal 4: Protect, maintain, and enhance riparian and aquatic ecosystems
   E. Goal 5: Protect and enhance historical, cultural, and archaeological resources
   F. Goal 6: Increase public awareness of Swift River as a valuable asset

VI. References

Adopted January, 1995. For a copy of the River Corridor Management Plan or for further information, contact the United States Forest Service, Saco River Division.

Upper Merrimack River Local Advisory Committee
River Management and Implementation Plan

I. Purpose: To manage the special resources of the upper Merrimack River
II. Introduction
III. Management Provisions of the Rivers Management and Protection Program
IV. Merrimack River Charrette
V. Organization of Plan: Water Resources Management, Riparian Lands Management, Outstanding Resources Management
VI. Water Resources Management
   A. Water Quality: Maintain and enhance the Class B water quality standard, and avoid any degradation of important biological and chemical components of that standard.
   B. Water Quantity: Maintain flow conditions that will support the outstanding natural, cultural, and recreational resources associated with and dependant upon the river.
   C. Stream Channel Integrity: Avoid alterations to natural stream channel and banks that would degrade their natural appearance and functions, unless no feasible alternatives exist, and mitigate the impacts of existing and future alterations to the greatest extent possible
VII. Riparian Lands Management: Effectively manage riparian lands to protect river uses and values.
VIII. Outstanding Resources Management
   A. Agriculture: Maintain and protect existing agricultural land uses along the Merrimack River and continue to promote the use of agricultural Best Management Practices to protect water quality.
   B. Recreation: To accommodate and provide opportunity for a variety of recreational uses of the river and river corridor while protecting the interests of landowners and the integrity of natural and cultural river values.
   C. Wildlife: Maintain and enhance wildlife and wildlife habitat dependant upon the river and river corridor given the need to balance the needs of wildlife with the needs of riparian owners and the other outstanding natural and cultural resources included in this plan.
   D. Historical and Archaeological: Monitor and protect known sites of historical and archaeological significance, and promote public appreciation and awareness of these resources.
   E. Geologic and Natural Features: Promote understanding and protection of special geologic and natural features associated with the river.
   F. Fish and Aquatic Resources: Maintain, enhance and promote populations of resident and anadromous fish, freshwater mussels, and other aquatic resources.

Adopted February, 1994. For a copy of the River Corridor Management Plan or for further information, contact the Upper Merrimack River Local Advisory Committee or the Central New Hampshire Regional Planning Commission.

Merrimack River Management Plan for Hooksett, Manchester and Bedford

I. Introduction:
   A. Federal and State Legislation
   B. Basin Overview
   C. Purpose and Scope of Plan

II. Inventory - Natural Resources: Geology, Topography, Soils, Agricultural Land, Floodplains, Wildlife Resources (Fish, Threatened and Endangered Species, Natural Communities), Views, Vistas and Scenic Areas.

III. Inventory - Recreation

IV. Inventory - Cultural Characteristics: Existing Land Use, Land Ownership, Zoning

V. Inventory - Water Resources: The Corridor Water Resource, Surface Waters, Aquifers, Wetlands, The Status of Water Quality, Water Supply Issues, Water Flow, Hydropower, Conclusions.

VI. Inventory - Road Systems

VII. Inventory - Archaeological and Historic Resources

VIII. Goals and Objectives: To preserve the character and integrity of the Merrimack River and to ensure its continuation as a multiple use river.
   A. Promote conservation, protection and sound management of the river corridor
   B. Develop a lineal system for public use along the river shoreline and enhance the existing character and to protect it from future inappropriate development.
   C. Increase public access to and use of Merrimack River.
   D. Restore and protect water quality in the river.
   E. Promote, preserve, enhance and protect the archaeological features and historic sites, buildings, character and settings of the river corridor.

IX. Recommendations

X. Bibliography

XI. Appendices

Adopted October, 1990. For a copy of the River Corridor Management Plan or for further information, contact the Southern New Hampshire Planning Commission.

Merrimack River Corridor Management Plan
for the Communities of Hudson, Litchfield, Merrimack and Nashua

I. Introduction: Scope of Plan, Sources of Data and Technical Assistance, Basin Overview, Delineation of Study Area, Regional Perspective.

II. Goals and Objectives: To preserve the character and integrity of the Merrimack River and to ensure its continuation as a multiple use river
   - A. To promote the conservation, protection and sound management of the river corridor.
   - B. Develop a greenbelt along the River shoreline to retain the existing character and to protect it from future development.
   - C. Increase public access to and use of the Merrimack River.
   - D. Develop a trail system along the shores of the River for hiking and cross-country skiing.
   - E. Restore and protect water quality and quantity in the River.
   - F. Promote, preserve, enhance and protect the historic sites, buildings, character and settings of the River corridor.

III. Natural Resources: Geology, Sand and Gravel, Topography, Soils, Agriculture, Floodplains, Wildlife and Fisheries, Fisheries, Vegetation, Scenic Views and Vistas.

IV. Water Resources: Tributaries, Ponds, Wetlands, Groundwater, Water Quality, Point Sources of Pollution, Non-point Sources of Pollution, Road Salt, Subsurface Waste Disposal, Phosphates, Erosion and Sedimentation, Underground Storage Tanks, Hazardous and Toxic Wastes, Water Supply, Water Rights, Water Flow, Hydropower.

V. Land Use: Existing Zoning, Property Ownership, Road Systems, Public Access.

VI. Recreation: Boating, Fishing, Swimming, Hiking, Trail Development

VII. Historic Resources: Overview of Archaeological Resources, Historic Period Resources, Historic Preservation Tools.

VIII. Regulations and Funding Sources: Federal and State Regulations, Local Regulations, Voluntary Mechanisms, Funding Sources.

IX. Recommendations: Community Action, State and Federal Actions, Organizational Involvement

X. Appendices: Endangered and Threatened Species, NPDES Discharges, Municipal Water Use, Local Zoning Regulations, Merrimack River Access Conceptual Design, Liability of Landowners, References.

XI. List of Maps

XII. List of Tables

Adopted September, 1989. For a copy of the River Corridor Management Plan or for further information, contact the Nashua Regional Planning Commission

Connecticut River Corridor Management Plan Outline

I. Introduction
   A. Intent and Purpose of the Plan
   B. Identification and Description of River Segment
   C. Plan Process and Participants

II. Resource Inventory and Assessment
   A. Present Conditions of the River and River Corridor
      1. River Attributes
      2. Corridor Natural Resources Attributes
      3. Corridor Land Uses and Development
   B. Existing Outstanding Uses and Development
   C. Potential Outstanding Uses
   D. Current Problem Areas
   E. Potential Problem Areas

III. Objectives of the Corridor Management Plan

IV. Recommendations to Address Problems and Threats
   A. Existing Programs
   B. Key Actions to Accomplish Objectives
   C. Identify Who Will Carry Out Key Actions
   D. Steps to Achieve Key Actions

(See following page for more detail)

I. INTRODUCTION

A. Intent and Purpose of the Plan
   1. Intent: NH Rivers Management and Protection Plan
   2. Purposes (Examples):
      *demonstrate local responsibility
      *demonstrate local stewardship
      *provide coordinated approach to river
      *guide local and state decisions and actions
      *promote understanding of river resources and opportunities

B. Identification/Description of River Segment
   (Orientation to the Area)
      *locator map
      *towns
      *river miles
      *river segment designations
      *prominent river features (dams, rapids, oxbows)
      *topography
      *prominent land uses
      *landmarks
      *demographics
      *definition of corridor

C. Plan Process and Participants
   1. How was the plan prepared?
   2. Who was involved?

II. RESOURCE INVENTORY AND ASSESSMENT

A. Present Conditions of the River and the River Corridor
   1. River Attributes
      *water quality
      *water quality classifications
      *water flow
      *water withdrawals
      *point pollution sources
         -wastewater treatment facilities
         -industrial discharges
      *nonpoint pollution sources
      *river monitoring sites
      *hydro-power facilities
      *existing and breached dams
      *water release hazards
      *white water segments
      *aquatic habitat
   2. Corridor Natural Resource Attributes
      *floodplains
      *fish and wildlife habitat
      *plant and tree distribution
      *rare/threatened/endangered species
      *natural heritage sites
      *migratory bird flyways
      *wetlands
      *soil types
      *scenic areas
   3. Corridor Land Uses and Development
      *forest land
      *agricultural
      *residential
      *commercial
      *industrial
      *urban/suburban
      *roads and railroads
      *historic and archeological sites
      *migratory bird flyaways
      *recreation trails
      *river access
      *campsites
      *land use controls
      *protected parcels

B. Existing Outstanding River Uses and Ecological Values
   1. Which existing uses and values are worthy of recognition and attention? (examples)
      *swimming
      *fishing
      *aquatic life habitat
      *wildlife habitat
      *rare/threatened/endangered species habitat
      *recreation
      *scenic areas
      *parks
      *water supply
      *waste assimilation
      *education and research
      *special places
   2. What conditions are needed to sustain those uses and values? (examples)
      *bacteria levels
      *water levels
      *unembedded riffles
      *flood storage area requirements
      *river access frequency
      *aquatic life community conditions
      *natural conditions

C. Potential Outstanding Uses
   1. Which potential uses should be encouraged in the future?
   2. What conditio

D. Current Problem
   What activ
   resource
   uses and
   *eroding a
   *waste dis
   *conflicts
   *polluted

E. Potential Problem
   What futu
   cause reso
   potential u

III. CORRIDOR M
OBJECT

Based on the resourc
are the objectives of
(examples)
   *reinforce
   outstandin
   *state futu
   outstandin
   *encourag
   areas
   *propose
   potential p

IV. RECOMMEN
THREAT

A. Existing program
   *Partnersh
   *educatio
   *discharge
   *dam re

B. Key actions to ac

C. Identify who will

D. Steps to achieve

Common Elements of River Management Plans

Goal	Saco	Swift	Lamprey	Pemi	Contoocook& N. Branch	Upper Merrimack
Statement of Purpose	Y	Y	Y	Mgmt. Phil.	Y	Y
Overall Goal	Y	(Intro)			Y	Y
Water Quality	Y	Y	Y	Y	Y	Y
Scenic Appearance	Y	Y		Y		Y
Recreation/Access	Y	Y	Y	Y	Y	Y
Wildlife Habitat	Y	Y	Y	Y	Y	Y
Cultural Resources	Y	Y	Y			
Public Awareness		Y		Y		Y
Bank Stabilization/ Stream Channel Integrity				Y	Y	Y
Multiple Uses						
Regulations	Y					Y
Water Quantity/ Instream Flow			Y	Y	Y	Y
Fish & Aquatic Res.			Y	Y	Y	Y
Geol. & Natural Res.					Y	Y
Agriculture				Y +		Y
Ecological Integrity			Y			
Objectives	N	Y		Y	Y	Y
Recommendations for action	Y	Y	Y	Y	Y	Y
Implementing body	sometimes	sometimes	always	always	always	always

Appendix E

List of Model Ordinances, Regulations, and References for Water Resources Protection

Model Ordinances and Regulations

Model Aquifer Protection Ordinance, Office of State Planning, 1997 (To be developed)

Model Health Ordinances to Implement a Wellhead or Groundwater Protection Program, Department of Environmental Services and Office of State Planning, Revised July, 1995.

Model Health Ordinance to Regulate Subsurface Wastewater Disposal Systems and Establish Local Enforcement Procedures, Office of State Planning, December, 1992.

Model River Corridor Protection Ordinance, Upper Valley Lake Sunapee Regional Planning Commission.

Model Shoreland Protection Ordinance, Office of State Planning, August, 1996

Model Stormwater Management and Erosion Control Regulation, NHACD Water Quality Committee, April, 1995

Model Subdivision Regulations for Soil-Based Lot Size, Report of the Ad Hoc Committee for Soil Based Lot Size, NHDES and Rockingham County Conservation District, June, 1994

Model Wetland Protection Ordinance, Office of State Planning, 1997 (To be developed)

New Hampshire Model Floodplain Development Ordinance for Communities with Coastal High Hazard Zones, Office of State Planning, March 1994

New Hampshire Model Floodplain Development Ordinance for Communities with Special Flood Hazard Areas, Office of State Planning, March, 1994

References

Best Management Practices for Erosion Control on Timber Harvesting Operations in New Hampshire, Resource Manual, Department of Resources and Economic Development, 1996.

Best Management Practices for Urban Stormwater Runoff, Dept. of Environmental Services, 1996

Corps of Engineers Wetlands Delineation Manual, 1987

Manual of Best Management Practices for Agriculture in New Hampshire, UNH Cooperative Extension, June, 1995

Manual of Best Management Practices to Control Nonpoint Source Pollution, DES, June, 1995

Regional Field Indicators for Identifying Hydric Soils in New England, New England Interstate Water Pollution Control Commission, May, 1995

Stormwater Management and Erosion and Sediment Control for Urban and Developing Areas in New Hampshire, DES, RCCD, 1992

Water Resources Protection and Geographic Inventory Procedures, Office of State Planning, January, 1992

Appendix F

Federal and State Laws Relating to River Management

For up-to-date information, contact the state or federal agency that administers the program, or check for the latest amendments in United States Code Annotated, and New Hampshire Revised Statutes Annotated, available to the public at the New Hampshire Supreme Court Law Library.

Federal Laws:

Clean Water Act (33 U.S.C. 1251-1387) - The Federal Water Pollution Control Act Amendments of 1972, now called the Clean Water Act (CWA), was established to restore and maintain the chemical, physical, and biological integrity of the United States's waters. It provides for the control of discharges into rivers both from point and nonpoint sources. Administered by the U.S. Environmental Protection Agency (EPA) and New Hampshire Department of Environmental Services.

Coastal Zone Management Act (16 U.S.C. 1451-1464) - Seeks to protect and enhance coastal resources such as wetlands, tidal areas, beaches, and dunes by assisting states to develop and implement management programs for coastal areas. It is a funding program for state coastal-zone management plans, and participation by states is voluntary. Federal action within coastal zones subject to approved state plans must be consistent with those plans. Details administered by the Office of Coastal Zone Management (OCZM) of the National Oceanic and Atmospheric Administration within the U.S. Department of Commerce. OCZM publishes regulations to guide state plans, provides technical assistance, and approves grants. Administered in New Hampshire by the Office of State Planning, Coastal Zone Management Program.

Department of Transportation Act of 1966 (49 U.S.C. 303) The U.S. Department of Transportation may sponsor or approve projects requiring the use of publicly owned land of a public park, recreation area, or wildlife and waterfowl refuge of a national, state, or local significance or land of an historic site of national, state, or local significance (as determined by the Federal, state or local officials having jurisdiction over the park, area, refuge, or site) ***only if*** there is no prudent and feasible alternative to using that land, and the program or project includes all possible planning to minimize harm to the park, recreation area, wildlife refuge or historic site resulting from the use.

Endangered Species Act (16 U.S.C. 1531-1544) - Requires all federal agencies to seek to conserve endangered and threatened species and shall take whatever action is necessary to ensure that their activities do not jeopardize endangered species or habitat critical to their survival. Federal agencies shall cooperate with state and local agencies to resolve water resource issues in concert with the conservation of endangered species. Administered by the Fish and Wildlife Service within the U.S. Department of the Interior.

Federal Power Act (16 U.S.C. 791a-828) - When issuing licences for construction of dams, conduits and other structures, the Commission, in addition to the power and development purposes for which the licenses are issued, shall give equal consideration to the purposes of energy conservation, the protection, mitigation of damage to, and enhancement of, fish and wildlife (including related spawning grounds and habitat), the protection of recreational opportunities, and the preservation of other aspects of environmental quality. Also requires that every hydroelectric project that is on federal land or a navigable stream or that would feed into interstate power grids be approved by the Federal Energy Regulatory Commission (FERC). Citizens have a right to participate in this process and raise environmental issues that FERC must consider. Water quality certification under section 401 of the CWA is provided by the Water Division of DES, and provides an opportunity for state input into the licensing process.

Fish and Wildlife Coordination Act (16 U.S.C. 661-666c) - Provides that wildlife conservation shall receive equal consideration with other factors in water-resource-development projects. Requires that whenever a river is altered or impounded by any federal agency or pursuant to a federal permit, then the responsible agency must consult with the U.S. Fish and Wildlife Service and similar state agencies and consider steps to conserve wildlife resources by preventing loss of and damage to such resources as well as providing for the development and improvement thereof in connection with such water resource development.

Floodplain Management Executive Order 11988 and the National Flood Insurance Program (42 U.S.C. 4001-4129) - The National Flood Insurance Program (NFIP) is an agreement between local communities and the Federal Government wherein the Government makes flood insurance available to communities, and in exchange, local communities implement and enforce floodplain ordinances which regulate land use within flood-prone lands. Executive Order 11988 directs Federal agencies to comply with local floodplain ordinances when their projects are in the floodplain. Taken together, the executive order and NFIP direct federal agencies to take action to reduce the risk of flood loss, minimize the impact of floods on human safety, and restore and preserve the natural and beneficial values served by floodplains. Special evaluation and notification requirements are placed on federal actions (projects, funding, permits, etc.) that will result in floodplain development.

National Environmental Policy Act (42 U.S.C. 4321-4370) - Requires all federal agencies to consider the impact of their actions on the human environment. Actions can be direct (dam building) or indirect (federal funding or permits). Requires filing of an environmental-impact statement (EIS) for major federal actions significantly affecting the environment. Administered by the President's Council on Environmental Quality and the U.S. EPA. Regional contact is EPA Region 1 in Boston.

The Rivers and Harbors Act (33 U.S.C. 401-467) - Makes it unlawful to construct any structure (dams, bridges, piers, etc.) in any navigable water or to deposit refuse therein without federal approval. In combination with Section 404 of the Clean Water Act and federal regulations, this law establishes a permit system for building, dredging, and filling in navigable waterways. Special emphasis is to be placed on water quality and other environmental values in issuing any permits for such activities. Administered by the U.S. Army Corps of Engineers, which must consult with the U.S. EPA and other agencies before giving approval. A State 401 Water Quality Certification must be obtained for each 404 permit, as administered by DES.

Soil Conservation and Domestic Allotment Act (16 U.S.C. 590a-q) - Directs the U.S. Natural Resource Conservation Service (NRCS) to prevent soil erosion, control floods, maintain river navigability and protect public health. The goals are carried out in a variety of ways, including collecting data, funding erosion-control projects, and providing technical assistance. The NRCS, an agency within the U.S. Department of Agriculture, works primarily with local soil conservation districts and farmers. The local districts generally have authority to impose land-use and soil-erosion control regulations and initiate watershed improvement projects.

Wetlands Protection Executive Order 11990 - Stresses the importance of protecting wetlands and directs federal agencies to take action to minimize harm to and preserve and enhance values of wetlands. Agencies are also directed to avoid undertaking construction or projects that damage wetlands unless there is no practicable alternative. Administered by Wetlands Bureau of DES.

Wild and Scenic Rivers Act (16 U.S.C. 1271-87) - Establishes a policy designating that rivers and their immediate environs that possess certain outstanding features and values shall be preserved in a free-flowing condition and shall be protected for the benefit and enjoyment of present and future generations. Also provides for technical assistance to local governments and citizen groups. Administered by the National Park Service and Fish and Wildlife Service within the U.S. Department of the Interior.

National Historic Preservation Act - (16 U.S.C. 470a et seq.) Authorizes the Secretary of Interior to expand and maintain a National Register of Historic Places, composed of districts, sites, buildings, structures, and objects significant in American History, architecture, archeology, engineering and culture. Administered by the National Park Service. Properties may be nominated for National Register status by any organization or individual as a single unity or as a district. Once the application form is completed, it is submitted to the NH State Historic Preservation Office for review by the State Review Board. Following approval at the State level, the application is forwarded to Washington for final approval and listing.

State Laws:

NH RSA 485-A Water Pollution and Waste Disposal - Prohibits the pollution of surface and groundwater resources through the discharge of point and non-point sources of pollutants. State waters have been classified based on water quality and maximum acceptable pollutant concentrations as established by the EPA. The Water Division of the Department of Environmental Services (DES) is the State agency charged with implementing RSA 485-A permitting activities and enforcing the regulations. In addition, the Water Division in 1981 adopted additional regulations under the authority of RSA 485-A:17 that require permits for construction or earth moving activities that would disturb an area of 100,000 contiguous square feet or more. The purpose of this regulation is to control water pollution that may result from increased runoff and alteration of drainage patterns.

NH RSA 483 Rivers Management and Protection Program - The program is administered by the NH Department of Environmental Services and is staffed by a Rivers Coordinator. The program is based on a two-tier approach to river management and protection: state designation of significant rivers and protection of instream values and local development and adoption of river corridor management plans to protect shorelines and adjacent lands. A river or river segment may be nominated for state designation by any citizen or organization in the state. Sponsors must submit a description of the river's values and characteristics to the Commissioner of DES. Each river nomination will be evaluated to identify significant resource values and recommend legislation needed for designation.

NH RSA 482-A Fill and Dredge in Wetlands - This law establishes the NH Wetlands Bureau as the administrative agency responsible for regulating activities in the State's wetlands. The Bureau reviews all applications to excavate, dredge, fill or construct a structure in or on the wetlands and surface waters of the State. The jurisdiction of the Wetlands Bureau overlaps that of the Army Corps of Engineers under section 404 of the Clean Water Act, however, the Wetlands Bureau regulates a broader range of activities with no allowable statutory exemptions. The provisions of the statute allow local conservation commissions to intervene in the review of the applications by the Wetlands Bureau to allow for greater consideration of the project. To obtain additional time for review of the application, the commission must give written notification within ten days of the application filing date to the Wetlands Bureau that it wishes to investigate the application.

NH RSA 482 Dams and Flowage - Regulates construction of new dams; inspects existing publicly and privately owned dams; orders repair and removal of unsafe dams; maintains state owned dams; and regulates water levels. The statute also mandates that the Water Division of the Department of Environmental Services consider the effect of any impoundment on the scenic and recreational values, fish and wildlife, natural water flows below the dam and any hazards to navigation, fishing, bathing and other public uses.

NH RSA 485-A:29 - Requires that all subdivisions with lots of less than 5 acres not serviced by public water and sewer must be approved by the Water Division of DES. In addition, the design, construction and operation of any septic or other subsurface wastewater disposal system must be approved by the Water Division. The Water Division Subdivision and Individual Sewage Disposal System Design Rules establish minimum guidelines and standards for the design and installation of subsurface waste disposal systems. Septic tanks and leachfields are required to be set back a minimum distance of 75 feet from surface water, open drainage areas, private wells, reservoirs, and neighbors' foundations. The minimum setback is 200 feet from community wells and 400 feet from municipal wells. These represent only a few of the most important requirements established by the rules. Individual municipalities have the authority to adopt more stringent standards governing septic system design and installation.

NH RSA 224:44a - Regulates the cutting of timber near public waters and public highways. The statute restricts cutting to no more than 50% of the basal area of trees to be cut within 150 feet of any pond or lake larger than 10 acres, navigable river or public highway or within 50 feet of any perennial stream, brook or river without a permit from Department of Resources and Economic Development. In addition, logging operations must comply with other statutes such as needing a Wetlands Bureau permit for permanent or temporary roads crossing perennial or intermittent streams. Also, the intent to cut form contains an agreement to conduct the operation using the appropriate best management practices to prevent surface water pollution.

NH RSA 270:12 - Allows for restrictions to be set by the Director of Safety Services if petitioned by 25 or more persons, by any association with 25 or more members, or by any governmental subdivision or agency.
Safe Passage Law - Requires boaters to reduce their speed to 6mph when they are within 150 feet of shore and/or other boats.

New Hampshire Native Plant Protection Act - NH RSA 217-A Administered by the Department of Resources and Economic Development. The Natural Areas Council set up a state Natural Heritage Inventory within the Department of Resources and Economic Development, which among its many activities, reviews proposed development, land use practices and recreational activities that may threaten protected plants.

Endangered Species Conservation Act - NH RSA 212-A Prohibits the taking of state listed species. It allows the Fish and Game Department to conserve endangered species and manage habitat by establishing conservation programs, entering into agreements with the federal government, other states, agencies, private groups and individuals, and acquiring land.

Comprehensive Shoreland Protection Act - NH RSA 483-B Recognizing that the shore lands of the State are among the State's most valuable and fragile natural resources, and that their protection is essential to maintain the integrity of public waters, the Act provides minimum standards for the subdivision, use and development of shore lands in New Hampshire.

Appendix G

Glossary

Acquisition - The acquiring of land for the sake of its protection. Acquisition is the most absolute, yet most expensive, available method of land protection.

Anadromous - Term referring to organisms which ascend rivers from the sea for breeding purposes.

Bargain Sales - The sale of land at less than full market value for which the seller may take a charitable tax deduction. The buyer pays less, while the seller is also compensated.

Best Management Practices (BMP's) - The most environmentally, socially and economically appropriate instream or land treatment measure which can be applied to control a nonpoint source water quality problem.

Building Codes - Ordinances which allow building permits only after approved inspections have taken place. Inspections include determining whether development adheres to all local regulatory requirements.

Buffer Zone - An area situated between two areas which are a possible conflict. The objective of the buffer zone is to reduce the possibility of adverse impact land use on water quality.

Cluster Development - Residential development on building lots with reduced dimensions. Such development leaves the remaining lot area to be maintained as open space. Instead of placing 100 dwellings on 100 acres, the dwellings are placed on 30 acres while the remaining 70 acres are maintained as open space.

Deed Restrictions - Land use restrictions articulated by the landowner in a deed.

Donation - The simplest and least expensive method of acquiring land. The donor is assured land protection, relieved of property taxes, and sometimes eligible for tax deduction.

Floodplain - The area of land adjoining the designated portions of the river and tributaries which will be inundated by a flood which has a one (1) percent chance of occurring or being exceeded in any given year (100-year floodplain) as determined by competent hydrologic studies; or in the absence of such detailed floodplain studies, those areas which have a history of flooding or are delineated by the best available information on flooding in the area.

Floodway - The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than one (1) foot. It is part of the 100 year floodplain.

Floodway Fringe - That area of the 100 year floodplain which can be encroached upon without increasing the water surface elevation by one (1) foot.

Glaciation - The covering of an area with a glacier.

Health Ordinance - An ordinance regulating nuisances to public health and safety matters.

Implementation Method - The way your plan will be implemented and who will carry it out.

Impoundments - A body of water gathered and enclosed for economic and other water-supply needs.

Interbasin Transfers - Any transfer of water for use from one river, stream basin, or watershed to another, usually through a canal or tunnel.

Management Options- A list of actions proposed to guide human activity in a river corridor; also known as **"Options List"**.

Nonpoint Source - Non-continuous diffuse inputs of pollutants above the inputs from undeveloped land of similar genesis.

Ordinary High Water Mark - The line between upland and bottom land which persists through successive changes in water levels below which the presence and action of the water is so common or recurrent that the character of the land is marked distinctly from the upland and is apparent in the soil itself, the configuration of the surface of the soil, and the vegetation.

Open Space - Any publicly or privately owned undeveloped land, including floodplains, woodlands, and farmlands.

Overlay Zones - The superimposing of a critical resource area boundary, with its own regulations, standards, and requirements, upon existing zoning areas.

Partial Zoning - A zoning ordinance affecting only a certain section of a municipality.

Permeability - The quality that enables the soil to transmit water or air, measured as the number of inches per hour that water moves downward through the saturated soil. Terms describing permeability are: Slow : Less than 0.20 inches. Moderately slow: 0.2 to 0.6 inches. Moderate: 0.6 inches to 2.0 inches. Moderately rapid: 2.0 to 6.0 inches. Rapid: More than 6.0 inches.

Planned Unit Development - A development project which does not fit a municipality's standard zoning regulations. It is a type of cluster development and is usually included within the district regulations of a zoning ordinance.

Point Source - A pollutant reaching a receiving water by a pipe or man-made conveyance from a discrete source.

Protected Waters - Navigable rivers, great ponds, public-owned water bodies (flowage rights maintained by state), coastal waters, other submerged lands. (RSA 483-A:1-a)

Resource Assessment - Process of identifying the conditions and features of a river by collecting information from a variety of sources as well as physical observations. A parallel activity is to analyze threats to the identified resources and determine methods for their management and protection.

Rights of First Call - A negotiated agreement between a landowner and a potential purchaser whereby the landowner agrees to grant preferential notice to the purchaser of intent to sell before the land is advertised. The purchaser may begin negotiations ahead of the competition.

Rights of First Refusal - A negotiated agreement between a landowner and a potential purchaser whereby, for a sum of money or other consideration, the purchaser gets the right to have the first opportunity to purchase real estate when it becomes available, or the right to meet any other offer made by third parties. The purchaser gets preference without reducing the landowner's price.

Riparian - Relating to the bank of a river or stream.

Rip-Rap - Large stones, rocks or boulders placed along a stream or lake to protect the banks from scouring and erosion.

River Corridor - The river and the land area located within a distance of 1,320 feet or the normal high water mark or to the landward extent of the 100-year floodplain as designated by the Federal Emergency Management Agency, whichever distance is longer. (RSA 483:4); The land around the river.

River Districts - New districts or zones created by amending existing zoning ordinances. This focuses attention on regulations designed to achieve a very specific set of objectives, as identified in a local river management and protection plan.

Site Pan Review Regulations - Regulations which detail requirements for non-residential and multi-family land uses.

Subdivision - The division of the lot, tract, or parcel of land into 2 or more lots, plats, sites, or other divisions of land for the purpose, whether immediate or future, of sale, rent, lease, condominium conveyance or building development. (RSA 672:14)

Subdivision Regulations - Measures which regulate the use of private land in the public interest by providing against scattered or premature subdivisions that would involve environmental dangers.

Taking - The transfer of dominion or control of property from a private owner to the government against the owner's consent.

Tax Default - When a municipality may acquire, through public auctions, land on which the owner has failed to satisfy property tax obligations.

Transfer of Development Rights - Zoning regulations which preserve less developed areas by transferring rights to develop to other land, which then may be more densely developed.

Wetland - Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas.

Zoning - The specification of areas within a municipality and regulation of how land and structures can be used for business, industrial, residential, and other purposes.