

Lower Merrimack River Corridor Management Plan



Prepared by:



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On behalf of:
Lower Merrimack River Local Advisory Committee

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CHAPTER 1 CORRIDOR PLAN PURPOSE AND NEED

This Plan is an update to the original Lower Merrimack River Corridor Management Plan adopted in September 1989 pursuant to requirements contained in the New Hampshire Rivers Management and Protection Program (RMPP). The Lower Merrimack River was originally included as one of five rivers provided protection under the New Hampshire Rivers Management and Protection Program. In 1990 the Lower Merrimack River Local Advisory Committee (LMRLAC) was formed to provide an advisory role on matters pertaining to the management of the river and to comment on development plans which might affect the resource values for which the river was designated. The LMRLAC must also develop a local river corridor management plan and update those plans every five to ten years as necessary under RSA 483:10. In addition, RSA 483:8-a, III(c) allows the corridor management plan to be adopted as part of a communities master plan. Educating, informing, and assisting the four corridor communities in formal adoption of the corridor management plan as part of each corridor community's Master Plan is one of the chief responsibilities the Lower Merrimack River Local Advisory Committee will perform as part of the plan update process. However, even if adopted within the four corridor communities, responsibility for managing, monitoring, and implementing the Corridor Management Plan will remain with the Local Advisory Committee.

1.1 Purpose and Need for the Plan

The purpose of the Merrimack River Corridor Management Plan (the Plan) is to provide guidance to the communities adjacent to the Lower Merrimack River as they make decisions having the potential to affect the Lower Merrimack River watershed, its river corridor, and the Lower Merrimack River itself. While the document is specifically advisory to the corridor communities of Merrimack, Litchfield, Hudson, and Nashua, the Plan's goals, objectives, and recommendations may also be applicable to decision-makers in other neighboring watershed communities, and even upstream environments not included in the Lower Merrimack River Watershed.

In addition to satisfying the statutory requirements of the RMPP, the corridor plan provides a comprehensive and consistent voice to the management of the Lower Merrimack River corridor throughout its watershed and across municipal boundaries. The Plan provides a regional focus for management in an area where growth rates continue to challenge both manmade and natural environments. Overall, the Local Advisory Committee has adopted a single guiding principle that serves as the driving force for all of LMRLAC's activities:

***Preserve the character and integrity of the Merrimack River and its corridor
by protecting its natural, historic, and scenic resources
and to ensure its continued utilization as a multiple use river.***

1.2 Scope of the Plan

The Merrimack River begins at the confluence of the Pemigewasset River and the Winnepesaukee River near Franklin, New Hampshire and flows 115 miles to Newburyport, Massachusetts where it meets the Atlantic Ocean. The Lower Merrimack River Corridor is a 15-mile segment of the Merrimack River beginning at the northern borders of the towns of Merrimack and Litchfield, New Hampshire, flowing south through the town of Hudson and city of Nashua to the Massachusetts border. The corridor itself contains the land area within one-quarter mile from the ordinary high water mark on each side of the river (or to the landward extent of the 100-year floodplain, whichever distance is greater) as shown in Figure 1.



Legislation was enacted in 1990 to designate segments of the Lower Merrimack River into RSA 483, the New Hampshire Rivers Management and Protections Program. The following factors were considered during the nomination process:

- Recreational uses and activities
- Non-recreational uses and activities
- Prohibited uses
- Existing land uses
- Floodplains, wetlands, fish and wildlife habitat, open space, and other significant natural resource protections
- Locations of dams, bridges, and other water-related structures
- Access
- Dredging, filling, mining, or other earth-moving activities

This plan is designed to incorporate the topics discussed initially in the nomination of the Lower Merrimack River, thereby continuing the discussion of these important river features into the management of the river corridor.

1.2.1 Description of the Corridor Area

The Merrimack River watershed extends from the White Mountain Region of northern New Hampshire southward into east-central Massachusetts. The fourth largest river watershed in New England, it encompasses approximately 5,010 square miles and 76 percent of the watershed (3,810 sq mi) lies in New Hampshire. The Merrimack River is formed by the convergence of the Pemigewasset and Winnepesaukee Rivers in Franklin, New Hampshire. The River travels through varied terrain past the cities of Concord, Manchester, and Nashua, and on into Massachusetts where it flows southeasterly and empties into the Atlantic Ocean at Newburyport. Major New Hampshire tributaries to the river include the Contoocook, Piscataquog, and Nashua Rivers. Other smaller tributaries include the Turkey, Soucook, Suncook, and Souhegan Rivers.

In 2006, an estimated 146,895 people lived within the towns and cities of the Lower Merrimack River corridor. These population figures indicate a population density of 1,269 persons per square mile within the four adjacent communities of Merrimack, Litchfield, Hudson, and Nashua.

Insert
Figure 1 – Base Map

Scroll Down for Figure 1

Many competing demands are placed upon the Merrimack River as it flows from northern New Hampshire to the Atlantic Ocean. Water supply, industrial use, waste assimilation, irrigation, fisheries and wildlife, and recreation are only a few. In fact, the “Community River” classification the Lower Merrimack River corridor nicely reflects this balance of competing interests within the range of uses present in the river corridor. “Community Rivers” are those where the natural, scenic, recreation, and community values of the river are to be protected, while still accepting of agricultural, residential, and commercial uses of the river that do not impact public instream uses. Public instream uses include activities that are flow-dependent, such as navigation, recreation, fishing, and protection of water quality. Finding a balance between these competing demands forms the basis for prioritizing management issues developed in this plan.

1.3 Priority Management Issues

The Lower Merrimack River Local Advisory Committee distributed approximately 1,600 questionnaires in the fall of 2005 to property owners within the river corridor in order to determine the relationship between area residents, business owners, municipal officials, and river users and the Lower Merrimack River. Two hundred thirty-five responses were received; results included the following findings:

| | Range | Value | Opinion | Objectives that Address Identified Values |
|----------------------|---|---|---|---|
| Strengths | Out of ten natural resource categories, residents indicated: | Open Space Water Supply and Scenic Value | Contribute most to residents’ quality of life. | 2.3 7.1 9.1 |
| Opportunities | Out of seven natural resource characteristics, residents indicated: | Water Quality Open Space and Wildlife/Waterfowl Habitat | Are most important in considering corridor protections. | 2.3 8.2 8.3 10.2 |
| Threats | Out of four negative corridor characteristics, residents indicated: | Loss of Farmland to Development and Abusive Recreational Behaviors | Were noted as being most noticeable. | 2.2 |
| Needs | Out of eight protection measures, residents indicated: | Community Education School Education and Conservation Planning | Were noted as being most necessary. | 1.1 3.1 3.2 |

**Note: Corridor Plan goals and objectives are discussed in Chapter 2.*

These priority management issues inform a number of objectives identified for management of the Lower Merrimack River corridor in Chapter 2 of this plan. Since the priority management issues identified in the 2005 survey are rather broad, LMRLAC has focused its attention on those priority management issues that represent needs in the corridor, including community/school education and conservation planning. The specific plan objectives which directly relate to these priority management needs are listed below:

1.4 Process and Participants

1.4.1 Sources of Data and Technical Assistance

Information on the Merrimack River is available from numerous sources, most of which was available in printed reports from other organizations and agencies. Many of these sources were used during the preparation of this plan, and a complete bibliography is provided at the end of the Plan. We would like to take this opportunity to acknowledge the support of the following agencies that provided funding or assistance with the creation of this Plan:

NH Department of Environmental Services, Water Division
Nashua Regional Planning Commission
Lower Merrimack River Local Advisory Committee
Town of Hudson
Town of Merrimack
Town of Litchfield
City of Nashua

1.4.2 Corridor Plan Process

The Lower Merrimack River Local Advisory Committee kicked off the corridor plan update in the Summer of 2004 with an initial public outreach program to familiarize citizens and municipal officials with the role of the LMRLAC. In the fall of 2005 citizen surveys had been completed providing LMRLAC with a solid framework for the priority management issues as identified by corridor town residents. Watershed audits were then completed in order to better understand the existing regulatory framework for watershed and rivers protection within the four corridor towns. Town Master Plans, zoning, and site plan review regulations were also reviewed at this time. During this background research period, Conservation Commissions, Planning Boards, and the public at large were notified of LMRLAC activities and encouraged to attend meetings and field trips organized by the committee.

Updating the corridor plan formally began in January 2007 and an initial draft for public review was completed in May 2008. The completed document was provided to the NH Department of Environmental Services Rivers Management and Protection Program on May 5, 2007.

CHAPTER 2 GOALS AND OBJECTIVES

Many of the goals and objectives for this corridor management plan were amended from the goals contained within the previous September 1989 plan. The goals were originally developed by an advisory committee composed of representatives from the four member communities, Litchfield, Merrimack, Nashua, and Hudson. The goals and objectives appearing in this Chapter build upon those original goals and were reviewed by the Lower Merrimack River Local Advisory Committee (LMRLAC) throughout the preparation of this management plan. Each of the overall goals and objectives are described below, arranged by topic area, listed in order of importance.

Objectives that relate to the priority management values discovered through the 2005 public survey, are shown in italics below.

These goals and objectives form the basis for the Recommended Actions in this Plan (Chapter 5), which contain detailed action items that will be used for implementing the Lower Merrimack River Corridor Management Plan. It is recognized that some of these goals and objectives may inherently conflict. To remedy this, a vision statement which provides additional guidance and direction for future corridor management actions has been developed.

Vision Statement for the Lower Merrimack River Corridor:

To preserve the character and integrity of the Merrimack River and its corridor by protecting its natural, historic, and scenic resources to ensure its continued use as a multiple use river.

| | | |
|---------------|----------------------------|--|
| Goal 1 | Administration | <i>Coordinate the implementation of LMRAC goals, objectives, and actions with corridor towns.</i> |
| Objective: | 1.1 | <i>Strengthen relationships with local or regional entities involved in protection or management of the Lower Merrimack River or its tributaries by coordinating at least one joint activity or meeting with these groups, yearly.</i> |
| Objective: | 1.2 | Internally improve LMRLAC as an organization by evaluating membership, duties, and public awareness of the organization on a yearly basis. |
| Objective: | 1.3 | Contribute to enforcement activities by partnering with state and local authorities |
| Goal 2 | Conservation | <i>To retain open space along the Lower Merrimack River corridor.</i> |
| Objective: | 2.1 | Preserve the natural character of undeveloped/underdeveloped properties along the Lower Merrimack River by partnering with municipalities in conservation efforts. |
| Objective: | 2.2 | <i>Conserve prime and active farmland within the Lower Merrimack River corridor through purchase of easements and/or development rights and adoption of local regulations which protect farmlands.</i> |
| Objective: | 2.3 | <i>Retain the existing character of the Lower Merrimack River shoreline by planning a "greenbelt" system along the Lower Merrimack River shoreline.</i> |
| Goal 3 | Corridor Management | <i>To promote the conservation, protection, and sound management of the Lower Merrimack River corridor.</i> |
| Objective: | 3.1 | <i>Introduce Low Impact Development (LID) techniques and strategies into regulatory approaches to achieve more efficient developments in the Lower Merrimack River corridor.</i> |
| Objective: | 3.2 | <i>Implement regulations to address setback, buffer, and shoreland protection issues within the Lower Merrimack River corridor.</i> |
| Objective: | 3.3 | Implement mitigation requirements that counteract development impacts to corridor resources and values. |
| Objective: | 3.4 | Encourage connectivity in the management of Lower Merrimack River corridor resources. |

| | | |
|----------------|--------------------------------------|---|
| Goal 4 | Historic Resources | <i>To promote, preserve, enhance, and protect the historic sites, buildings, character, and settings of the Lower Merrimack River corridor.</i> |
| Objective: | 4.1 | Identify and protect the historic resources of the Lower Merrimack River corridor. |
| Objective: | 4.2 | Increase public interest in and knowledge of Lower Merrimack River corridor historic resources and historic preservation tools. |
| Goal 5 | Public Access and Awareness | <i>To increase public access to and use of the Lower Merrimack River.</i> |
| Objective: | 5.1 | Increase the recreational use of the Merrimack river corridor by at least 20% as measured in numbers and types of recreational users over the next 10 years by increasing the quality of the recreational resource. |
| Objective: | 5.2 | Increase the recreational use of the Merrimack river corridor by at least 20% as measured in numbers and types of recreational users over the next 10 years by increasing the quantity of the recreational resource. |
| Objective: | 5.3 | <i>Increase the knowledge of local citizenry of the Lower Merrimack River corridor resources by conducting at least yearly information dissemination efforts.</i> |
| Goal 6 | Restoration | <i>To restore river conditions to those ecologically endemic to the natural state of the River.</i> |
| Objective: | 6.1 | Restore and enhance the Lower Merrimack River corridor streambank to more natural conditions. |
| Goal 7 | Scenic Quality | <i>To promote the appreciation and protection of special scenic vistas associated with the Lower Merrimack River and its corridor.</i> |
| Objective: | 7.1 | <i>Protect the significant views from the Lower Merrimack River by adopting local regulations that protect views from river user vantages.</i> |
| Goal 8 | Water Quality | <i>To protect water quality in the Lower Merrimack River.</i> |
| Objective: | 8.1 | Compile current data on physical, chemical, and biological indicators of water quality in the Lower Merrimack River corridor. |
| Objective: | 8.2 | <i>Maintain, restore, and enhance the Class B water quality standard and minimize any further degradation of important biological and chemical indicators through water quality monitoring and inspections.</i> |
| Objective: | 8.3 | <i>Implement local ordinances and performance standards that further the protection of water quality through regulation of land uses within the Lower Merrimack River corridor.</i> |
| Objective: | 8.4 | Participate in state processes which directly or indirectly benefit the protection of river resources within the State. |
| Goal 9 | Water Quantity | <i>To restore and protect water quantity in the Lower Merrimack River.</i> |
| Objective: | 9.1 | <i>Maintain flow conditions that will support the outstanding natural, cultural, and recreational resources associated with and dependent upon the Lower Merrimack River by participating in the process for adopting an instream flow for the Lower Merrimack River under RSA 483:9-c.</i> |
| Goal 10 | Wildlife and Aquatic Habitats | <i>To maintain and enhance wildlife and wildlife habitat residing within or dependent upon the Lower Merrimack River and its associated corridor.</i> |
| Objective: | 10.1 | Increase the variety of protected wildlife habitats by at least 10% to promote greater diversity in the kinds of wildlife species present within the river corridor. |
| Objective: | 10.2 | <i>Support informed management of habitat and species using information contained in the NHF&G Wildlife Action Plan.</i> |

*Note: Objectives shown in italics support priority management issues identified in the 2005 public surveys, results of which are discussed in Section 3.1 – Priority Management Issues.