

Piscataquog River Report to the General Court 1993

Prepared by
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I. Introduction

The Piscataquog River consists of three branches: South, Middle and North. The three branches run through the communities of Deering, Frankestown, Lyndeborough, New Boston, Weare, Goffstown and Manchester. All three branches have been nominated by the Piscataquog Watershed Association for designation into the New Hampshire Rivers Management and Protection Program. The Piscataquog River has been evaluated by the Department of Environmental Services and found to qualify for the designation.

The Rivers Management and Protection Program Act was passed by the General Court in 1988. The Act states in part: "It is the policy of the state to ensure the continued viability of New Hampshire rivers 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 in-stream 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, and community significance so that these valued characteristics shall endure as part of the river uses to be enjoyed by the New Hampshire people."

The Act directs the Department of Environmental Services to receive and evaluate nominations for the designation of rivers or river segments to protect outstanding values and characteristics under the Rivers Management and Protection Program. The Commissioner must forward approved nominations to the General Court for review and approval.

In fulfillment of this statutory directive, the nomination of the Piscataquog River is hereby forwarded to the General Court. The Department of Environmental Services recommends that the Piscataquog River be designated into the Rivers Management and Protection Program. The following three sections are recommended to be classified a "natural river": from the Deering Dam to Abijah Bridge on the North Branch, from the outlets of Scobie Pond to the mouth of the Middle Branch, and from the outlet of Pleasant Pond to NH Highway Route 13 on the South Branch. The river is recommended to be classified a "rural river" as follows: from the outlet of Lake Horace Dam to the Everett Dam flowage on the North Branch, from the outlet of Everett Dam to the mouth of the North Branch, and from the NH Highway Route 13 to the mouth of the South Branch. The "rural-community" classification is recommended from the confluence with the North Branch to the confluence with the Merrimack River. The outstanding values and characteristics which qualify the Piscataquog River for designation are described in this report.

II. The Piscataquog River Nomination

A. Description

The Piscataquog River is predominantly a quiet stream with a total length of 136 miles. Much of the land along the river is protected and open to the public, providing multi-recreational and educational use. Large tracts of forest are carefully managed for both timber production and protection of natural habitat.

Today the river offers a multitude of values to New Hampshire's southern populations. During the spring high waters, the river is used for canoeing and kayaking. The summer offers fishing along the private pools and deep forest-lined stretches of ripples. Scores of historical sites echoing early colonial commerce line its riverbanks. The Piscataquog is free-flowing for 95 percent of its length, a claim few streams can make.

B. River Values and Characteristics

The Rivers Management and Protection Program Act (RSA Ch. 483) lists nine river values and characteristics which may qualify a river for designation into the program. The Piscataquog River supports many of these natural, managed, cultural, and recreational resource values at a level of either statewide or local significance. The resources which qualify the Piscataquog River for designation include geological resources; wildlife, plant and fish resources; water quality; open space protection; natural flow and impoundment; withdrawals and discharges; community and recreational resources; scenic resources; and historic and archaeological resources.

1. Natural Resources

a. Geological Resources: The Piscataquog is rich in geologic formations. Most notably is an esker train along the South Branch which runs four miles along the river. Others include glacial kettles, a gorge on the Lyndeborough/New Boston town line, and "the plains," a glacial deposit of sand and gravel which may have been the site of New Boston's first settlement. There is also an ever-running natural spring southeast of the Lyndeborough/New Boston town line.

b. Wildlife and Plant Resources: The Piscataquog River supports diverse habitat for a wide variety of wildlife and plant species, including endangered and threatened species. Birds observed in the Piscataquog Watershed on the state endangered species list include the pie-billed grebe and the peregrine falcon. Those on the threatened species list include the common loon, osprey, northern harrier, cooper's hawk, and the common nighthawk. In addition to a multitude of mammals living in the watershed, several species of reptiles of special concern have been observed there. They are the eastern hognose snake, blanding's turtle, eastern box turtle, and the spotted turtle. Wildflowers deserving special protection that are now surviving within the Piscataquog Watershed include the small spike-rush; gall-of-the-earth; one-sided rush; piled-up sedge; slender crabgrass; and small whorled pogonia. In addition, the Piscataquog River has a large ironwood (*Carpinus caroliniana*) community along the banks of Dudley Brook and its mouth in Piscataquog's Middle Branch which is unusual in that these trees do not normally cluster in such a large group.

c. Fishery Resources: The Piscataquog River is a relatively steep gradient stream with a predominantly cobble and gravel substrate. It is dominated by riffle/pool habitat. It is a favored

fishery of the Manchester Chapter of Trout Unlimited, who have selected the river in its "Adopt-a-River Program." The Piscataquog River is considered to be one of the two most important salmon nursery tributaries in southern New Hampshire. The river yields higher production levels of juvenile parr, on average, than any other site.

d. Water Quality: Water testing of the Piscataquog River performed in the summer of 1991 by the NH Volunteer River Assessment Program, a division of the NH Department of Environmental Services Biology Bureau, resulted in an overall outcome report of excellence. Both biological and chemical results indicate a healthy aquatic environment.

e. Scenic Values: The Piscataquog River has high quality scenic value. Views include farms, fields, forests, and wetlands. One can find exposed bluffs, caves, cliffs, rapids, gorges, and open meadows along the river. Many villages and towns have evidence of lost water-powered millworks and long-forgotten stone masons reflecting the richness of earlier days.

f. Open Space Protection: For 22 years the Piscataquog Watershed Association, the Society for the Protection of New Hampshire Forests, the New England Forestry Foundation, the Audubon Society of New Hampshire, river towns, state agencies and dozens of private landowners and river stewards have worked to protect the watershed acres of the Piscataquog River. As a result, 4,356 acres of land along the river are protected as well as 85% of the open space within the Piscataquog Watershed.

2. Managed Resources

a. Natural Flow and Impoundment: Of the total Piscataquog River length (136 miles), 95.7 percent is free flowing, with 5.91 miles being impounded. Hydroelectric dams are Greg Falls Hydro Association, capacity 3820 KW; Hadley Falls, capacity 260 KW; and Kelly Falls Hydro Company, capacity 450 KW. Other dams on the river are used for storage which amounts to approximately 1,000 acres of stored water. This total includes the Everett Dam which is not in a nominated segment.

b. Water Withdrawals and Discharges: Berry Good Farm in Goffstown, a commercial blueberry operation, irrigates its plants with river water. This is the only withdrawal from the Piscataquog River. There are no discharges to the Piscataquog River.

3. Cultural Resources

a. Historic Resources: The Piscataquog River played a pivotal role in the settlement and development of the region. Large white pine and red oak drew attention to the area, and the water provided resources for early inhabitants. The primary use of the river in the late 1700s and into the 1800s was as a source of power for numerous mills and shops. The towns of Frankestown, Deering, Weare, and New Boston still contain many reminders of their early history in the ruins of the mills and shops along the river's banks. The lower end of the Piscataquog was an important link in the transportation of cargo around Manchester.

b. Community Resources: The Piscataquog River provides many significant resources for the area, including sightseeing, swimming, boating, and fishing. The importance of these qualities must not be overlooked both in terms of aesthetic value and the economic value that tourists provide to the communities of the region.

4. Recreational Resources

a. Boating: The Piscataquog River is home to hundreds of boating enthusiasts. Whether it be on the quiet, more private sections or on the lakes, boaters can enjoy three seasons of rural New Hampshire at its finest. The lakes provide space for water skiing as well as other recreational endeavors favored by the boating public. Access points abound along the river.

b. Fishing: The three branches of the Piscataquog River, together with its tributaries and lakes, provide both the novice and knowledgeable fisherpersons fine and rewarding fishing. With the many diversified river bottoms and the impoundments, the river supports a large warm water fishery as well as a notable trout fishery.

c. Other Recreation: The Piscataquog River offers tremendous recreational opportunities year-round. Summer finds swimmers, hikers, and picnickers enjoying the river's bounty. Commuters and travelers on the riverside highway are treated to a four-season panorama of special views. Winter hikers and cross-country skiers enjoy the scenery and camping has become a four-season recreational opportunity along the river and its watershed.

d. Public Access: Public access including launch sites, parking, bathhouses, restrooms, and picnic areas are available and adequate along many stretches of the river. Some of this access is offered free of charge and others are offered with various fees.

III. Local Support

From the first series of informational meetings to the presentations made before each town board, council or association, support for the nomination has been strong. Following the first meetings a questionnaire was sent to river-front landowners. Twenty-two percent (22 percent) of the documents were returned. Eighty-eight percent (88%) indicated strong attachments to the Piscataquog River and support of this nomination.

The Piscataquog River Watershed Association held meetings in each of the seven towns through which the river flows describing the New Hampshire Rivers Management and Protection Program and the Piscataquog River nomination to selectmen, planning boards, conservation commissions, private clubs, and to the Southern New Hampshire Planning Commission. Support has been overwhelmingly positive.

IV. Summary and Conclusions

The Piscataquog River supports a variety of significant state and local resources. To better protect and manage these resources, the Department of Environmental Services recommends the following actions:

Recommendation 1: The General Court should adopt legislation which designates the Piscataquog River into the Rivers Management and Protection Program and classifies the Piscataquog River as a "natural river" from the Deering Dam to Abijah Bridge on the North Branch, from the outlets of Scobie Pond to the mouth of the Middle Branch, and from the outlet of Pleasant Pond to NH Highway Route 13 on the South Branch; as a "rural river" from the outlet of Lake Horace Dam to the Everett Dam flowage on the North Branch, from the outlet of Everett Dam to the mouth of the North Branch, and from the NH Highway Route 13 to the

mouth of the South Branch; as a "rural-community" river from the confluence with the North Branch to Route 114 in Goffstown, and from below the Gregg Dam in Goffstown to the river's mouth at Bass island in Manchester; and as a "community" river from Route 114 in Goffstown to, and including, the Gregg Dam in Goffstown.

Under the provisions of the protection measure amendments to RSA Chapter 483, a designation will provide increased protection for the river against new dam construction, damaging channel alterations, water quality impairment, and the siting of hazardous and solid waste facilities in the river corridor. A designation will also require the establishment of protected instream flow levels to maintain the minimum amount of water in the river that is necessary to safeguard public trust resources, including fisheries, water quality, recreation, and scenic values. A Local River Management Advisory Committee will be established to coordinate local issues related to the protection and management of the river and will provide local residents with a direct avenue for formal input to state decisions that affect the river. Finally, a designation will result in the development of a long-range management plan for the river that coordinates state planning and management of fisheries, water quality and quantity, and recreation.

The North Branch of the Piscataquog from Deering Dam to Abijah Bridge, the Middle Branch from Scobie Pond to the mouth, and the South Branch from the outlet of Pleasant Pond to NH Highway Route 13 is being recommended for a "natural river" classification. Under RSA Chapter 483, natural rivers are defined as "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." In these above named sections, the Piscataquog meets these definitions.

The North Branch of the Piscataquog River from the outlet of Lake Horace Dam to the Everett Dam flowage and the outlet of Everett Dam to the mouth of the North Branch, and the South Branch from the NH Highway Route 13 to the mouth of the South Branch is being recommended for classification as a "rural river." Under RSA Chapter 483 rural rivers are "those rivers or segments adjacent to lands which are partially or predominantly used for agriculture, forest management, and dispersed or clustered housing..." In the above named sections, the Piscataquog River meets this definition of a rural river.

A "rural-community river" classification is recommended from the confluence with the North Branch to Route 114 in Goffstown, and from below the Gregg Dam in Goffstown to the river's mouth at Bass Island in Manchester. Under RSA Chapter 483, rural-community rivers are defined as "those rivers or river segments which flow through populated areas of the state and which possess actual or potential resource values. Such rivers have some residential or other building development near their shorelines, are readily accessible by road or railroad, and may include some impoundments or diversions." As the mainstem of the Piscataquog flows into a more populated area mixed with forested areas, it clearly meets the designation of "rural-community."

A "community" river classification is recommended from Route 114 in Goffstown to, and including, the Gregg Dam in Goffstown. Under RSA Chapter 483, 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 for municipalities."

The designation of the Piscataquog River as a "natural," "rural," "rural-community," and "community" river under the Rivers Management and Protection Program will clearly express the intent of the General Court with regard to the protection and management of the river and will focus attention on the river as a natural resource of both statewide and local significance.

Recommendation 2: The towns of Weare, Frankestown, Deering, New Boston, Lyndeborough, Goffstown, and Manchester should continue to work toward the protection of the Piscataquog River through the adoption of local river corridor management plans, including comprehensive shoreland protection ordinances.

While a state designation will improve the protection and management of the river itself, continuing local efforts will be needed to address the use and conservation of the river corridor. A growing recognition by local citizens of the Piscataquog River's valuable contribution to the overall quality of life in their communities is evidenced by their desire to see it designated into the state program. Citizen appreciation and concern for the river should be reflected in the decisions and actions of local officials. Upon request, the Department of Environmental Services will provide technical assistance to these towns on the development of local river corridor management plans, including comprehensive shoreland protection ordinances.

In summary, the establishment of a clear policy and specific instream protection measures by the General Court, and a continuing commitment on the part of local governments and residents to protect and manage the river corridor through sound land use decisions will ensure that the outstanding resources of the Piscataquog River will "endure as part of the river uses to be enjoyed by New Hampshire people."