I. Introduction

The Saco River begins at Saco Lake in the town of Carroll, New Hampshire, and flows south and east to the town of Conway before entering Maine and continuing on to the Atlantic Ocean. The main stem of the Saco River has been nominated by the Saco River Advisory Council for designation into the New Hampshire Rivers Management and Protection Program. The Saco River has been evaluated by the Department of Environmental Services and found to quality for 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, aesthetic, and community significance so that these valued characteristics shall endure as part of the river uses to be enjoyed by 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 Saco River is hereby forwarded to the General Court. The Department of Environmental Services recommends that the Saco River be designated into the Rivers Management and Protection Program and classified a "Natural River" from the base of the dam at Saco Lake to the Harts Location-Bartlett town line, and a "Rural River" from the Harts Location-Bartlett town line to the Maine border under the provisions of the protection measure amendments to RSA Ch. 483. The outstanding statewide and local resource values and characteristics which qualify the Saco River for designation are described in this report.

II. The Saco River Nomination

A. Description

The Saco River flows for approximately 40 miles through east-central New Hampshire. Beginning high in the White Mountains at Crawford Notch, the river drops in elevation from
1887 feet to 395 feet as it passes through the towns of Harts Location, Bartlett, and Conway and then crosses into Maine at Fryeburg (see map). Major tributaries to the Saco River in New Hampshire include the Dry River, Sawyer River, Rocky Branch River, Ellis River, Swift River, and the East Branch of the Saco River. Another major tributary, the Ossipee River, originates in New Hampshire and then flows into Maine before joining the Saco River. With the exception of two small dams on the upper river that do not influence its flow, the Saco River is free-flowing for its entire length in New Hampshire.

The drainage basin of the Saco River upstream from the New Hampshire-Maine border is approximately 427 square miles, of which 80 percent is within the White Mountain National Forest. Land use along the river and throughout the watershed is predominantly forestland. In the upper portion of Harts Location, the Saco River flows through the narrow valley of Crawford Notch State Park and is closely paralleled by Route 302 and an abandoned railroad line. Below the boundary of the state park, the river flows past both federally and privately-owned lands. With the exception of some scattered residential housing, private lands in the river corridor are generally undeveloped. Further downstream, in the intervals areas of Bartlett and Conway, the river meanders through floodplains used for agricultural purposes. The town centers of Bartlett, North Conway, and Conway are located near the Saco River, but land use along the river has remained a mixture of agriculture and low-density residential uses.

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 Saco River supports many of these natural, managed, cultural, and recreational resource values and characteristics at a level of either statewide or local significance. The resource values which qualify the Saco River for designation are: geologic resources; wildlife, plant and fish resources; water quality; scenic values; historic and archaeological resources; community resources; and recreational resources.

1. Natural Resources

   a. Geologic Resources: In Harts Location, the Saco River flows through Crawford Notch, a spectacular, narrow, steep-sided valley with exposed rock cliffs. The upper Saco River is characterized by fast-moving water, tumbling over rocks and boulders with frequent cascades. Near the mouth of Nancy Brook, the river has cut a narrow gorge into the bedrock, forming a short turbulent waterfall. A number of steep, sheer cliffs or ledges are also present near the river, including Frankenstein Cliffs, Humphrey's Ledge, Cathedral Ledge, and White Horse Ledge.

   b. Wildlife and Plant Resources: Because the Saco River flows primarily through the White Mountain National Forest, the presence of a large forested habitat surrounding the river is assured. Three breeding pairs of the federally-endangered peregrine falcon are known to be nesting along the Saco River. Under the state Endangered Species Act (RSA 212-A), the Department of Fish and Game lists a number of endangered and threatened birds, one endangered mammal, and one threatened mammal which are known to occur in the Saco River watershed. A 1983 Saco River Basin Study by the US Department of Agriculture listed 56 species of mammals, 165 species of birds, 32 species of amphibians and reptiles, and 36 species of fish which are supported by the Saco River Watershed.
According to the New Hampshire Natural Heritage Inventory, a state endangered plant species, the Inflated Sedge, occurs near Saco Lake at the headwaters of the Saco River. A rare natural community, the New England riverwash hudsonia barrens, is located in five different places along the river. Within this community is a shrub, the hairy hudsonia, that is critically-endangered at the state level. Also found along the Saco River is a small, state threatened perennial herb, the White Mountain silverling.

c. Fish Resources: Historically, the Saco River was one of the premier trout fishing rivers in New England. The natural reproductive capability of native fish populations has been exceeded by angler demand, and stocking of hatchery-reared brook, brown, and rainbow trout is carried out each year by the Fish and Game Department and the local chapter of Trout Unlimited. The Saco River supports extensive spawning habitat for anadromous fish (fish that live in saltwater, but return to freshwater to spawn), but seven dams in Maine currently prevent the salmons return to New Hampshire. An effort is underway to require fish passage facilities on the dams in Maine, thereby restoring anadromous fish runs to the New Hampshire portion of the river.

d. Water Quality: The water quality of the Saco River is generally good to excellent. The General Court has designated the Saco River a Class B water and the river is supporting the standards of this water quality goal. The upper portions of a number of the river's tributaries are Class A waters. The Saco River Basin is the only river basin in the state which is currently meeting all of the surface water standards of the federal Clean Water Act. The maintenance of a high level of water quality in the Saco River is significant: although none of the towns along the main stem of the river withdraw water directly from the river for public water supply, many wells withdraw water from the large groundwater aquifers associated with the river. Aquifers supply water for the Lower Bartlett Water Precinct, the North Conway Water Precinct, the Attitash Ski Area, and a number of residential developments.

e. Scenic Values: The natural beauty of the Saco River has been attracting visitors to the region for over 150 years. After cascading through the peaks of the White Mountains, the river widens and meanders quietly through pastoral scenes. Outstanding visual characteristics of the river include waterfalls, rapids with rock-strewn bottoms and banks, large clear pools, and slow meandering bends. Surrounding these river features are a variety of forest types, including spruce-fir, mixed northern hardwoods, and aspen birch intermingled with open meadows and fields in a mosaic pattern. A regional boater's guide describes the Saco River Watershed as the "most impressive in all New England." The guidebook further describes the "majesty of this view" as "breathtaking" on a clear spring or summer day.

2. Cultural Resources

a. Historic and Archaeological Resources: The Saco River Valley was inhabited by Indian peoples as early as 1642. Major Indian trails are known to have existed along the river and the potential for further archaeological discoveries exists. In the early 1800s, small farmsteads dotted the valley, particularly in lowland areas adjacent to the river. Numerous stone fences, dug wells, cellar holes, and the famous paddleford style covered bridges remain as evidence of early settlers. Two sites along the Saco River corridor are listed on the National Register of Historic Places: the Crawford Depot and the Crawford Artists Studio.

b. Community Resources: The Saco River is one of the major natural resources that attracts visitors to the Mt. Washington Valley, providing opportunities for canoeing, swimming, sightseeing, fishing and camping. The protection and management of the Saco River is of major
importance to the both the quality of life of river communities and the health of the regional economy.

3. Recreational Resources

a. Boating: The Saco River and its tributaries are used by thousands of people annually from throughout the Northeast for canoeing, kayaking, and rafting. In early spring, the upper section of the river offers one of the most exciting whitewater runs in all of central New England. Between the Gorge at Notchland and the center of Bartlett, five miles of continuous rapids and occasional drops require whitewater expertise to navigate. From Bartlett to Conway, the river offers a popular run of medium difficulty with quickwater and intermittent rapids. From North Conway to the Maine border, the river is primarily smooth water with the exception of a few rapids between Conway and Center Conway.

b. Fishing: The Saco River and its tributaries are trout streams. The cold, clear, fast-moving water between Crawford Notch and Conway was one recognized as one of the premier trout fishing streams in the Northeast. Fishing for trout is the most popular recreational fishing activity on the river. On weekends, anglers congregate in the fly-fishing only section of the Saco River from Humphrey Ledge pool to Artist Brook.

c. Other Recreation: The presence of clear, clean water and sandy beaches along the Saco River provide excellent opportunities for swimming, tubing, and other water-based recreational activities in all sections of the river throughout the summer. Campgrounds are located along the river from Crawford Notch State Park to Conway; both private and publicly owned facilities provide a full spectrum of camping experiences. Wilderness camping is available within the White Mountain National Forest and on isolated sandbars and private lands along the river.

d. Public Access: Route 302 runs along the entire length of the Saco River and provides numerous access sites to the river. Canoeists and fisherman frequently use bridge crossings over the river as access points. The town of Conway maintains three public access sites and the town beach in Bartlett is located on the river.

III. Local Support

Local support for the designation the Saco River into the Rivers Management and Protection Program is strong. At Town Meeting in March 1989, the towns of Harts Location, Bartlett, and Conway voted to support the Saco River Advisory Council for the purpose of making recommendations to the towns and the Rivers Management Advisory Committee on the protection and management of the river. In June 1989, the Saco River Advisory Council prepared and distributed a questionnaire to riparian landowners in Harts Location, Bartlett, Conway, and Albany. Thirty-seven percent of the landowners responded to the survey. Respondents indicated that they value the natural beauty, good water quality, recreation, free-flowing character, and undeveloped character of the Saco River. Ninety-seven percent indicated that the river contributes to the quality of life in the community. Eighty-six percent of the respondents believe that the Saco River is worthy of designation as a special river in New Hampshire.

A public hearing was held on December 11, 1989, to receive public comments on the nomination of the Saco River. The hearing was held at the John Fuller School in North Conway and was amended by more than 50 people. In general, an overwhelming majority of those in attendance
expressed support for the designation of the river. Some landowners in Harts Location and Bartlett expressed concern that a prohibition against new channel alterations under the proposed protection measures for a Natural River would prevent the safeguarding of privately-owned property against movement of the river channel. Many landowners who expressed this concern also voiced support for the designation of the river in Harts Location as a Rural River.

The Conway Board of Selectmen has formally indicated its support for the designation of the Saco River into the Rivers Management and Protection Program. The White Mountain National Forest has also expressed support for the state designation of the Saco River.

IV. Summary and Recommendations

As it flows through the towns of Carroll, Harts Location, Bartlett, and Conway, the Saco 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 main stem of the Saco River Into the Rivers Management and Protection Program and classifies the Saco River as a "Natural River" from the base of the dam at Saco Lake to the Harts Location-Bartlett town line and as a "Rural River" from the Harts Location-Bartlett town line to the Maine border.

Under the provisions of the protection measure amendments to RSA Ch. 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 portion of the Saco River that flows through the towns of Carroll and Harts Location is being recommended for a "Natural River" classification. Under the protection measure amendments to RSA Ch. 483, natural river 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 the towns of Carroll and Harts Location, the Saco River meets this definition. The New Hampshire portion of the Saco River is free-flowing. Two minor dams on the upper portion of the river do not affect the natural flow characteristics of the river: a small dam maintains the level of Saco Lake and a few miles downstream a small dam near the Willey House in Crawford Notch State Park forms a reflecting pond during the summer months. The location of the river within the White Mountain National Forest ensures the continued presence of a high quality natural and scenic resource and a generally undeveloped river corridor on the upper Saco River. As stated earlier, there are privately-owned lands along the river in Harts Location and some property owners have expressed concerns that a Natural River classification will prohibit channel alterations which may prevent erosion of their property, particularly during storm events. The Department of Environmental Services has given careful consideration to these concerns and has determined
that the outstanding public resources of the Saco River in Harts Location warrant a Natural River classification.

In Bartlett and Conway, a "Rural River" classification is recommended for the Saco River. Under the protection measure amendments to RSA Ch. 483, rural rivers are "those river or segments adjacent to lands which are partially or predominantly used for agriculture, forest management, and dispersed or clustered residential housing. Some instream structures may exist, including low dams, diversion works, or other minor modifications." As the Saco River flows through Bartlett and into the floodplains of Conway, the river clearly meets the definition of a Rural River.

The designation of the Saco River as both a "Natural" and "Rural" 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. This attention will help to insure greater scrutiny of plans and proposals which have the potential to significantly alter or destroy those river values and characteristics which qualify the river for designation.

Recommendation 2: The towns of Carroll, Harts Location, Bartlett, and Conway should continue to work toward the protection of the Saco 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 Saco River's valuable contribution to the overall quality of life in the Mt. Washington Valley 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 government officials. Upon request, the Department of Environmental Services will provide technical assistance to any of the communities along the Saco River 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 by local governments and residents to protect and manage the river corridor through sound land use decisions will ensure that the outstanding resources of the Saco River will "endure as part of the river uses to be enjoyed by New Hampshire people."