

Appendix D:

Special Designations in the Massachusetts Portion of the Nashua River Watershed

by Warren Kimball



Two anglers on the Nissitissit River. Photo: Cindy Knox Photography.

The Nashua River and its tributaries have received numerous designations by Massachusetts agencies that substantiate its significant resource value. This Appendix describes several special designations that are most relevant to this Wild and Scenic Rivers study.

Outstanding Resource Waters

Outstanding Resource Waters (ORWs) are designated in the Massachusetts Surface Water Quality Standards [314 CMR 4.04(3)]. These waters are determined by the Massachusetts Department of Environmental Protection based on their outstanding socio-economic, recreational, ecological and/or aesthetic values. These are waters whose high quality will be protected and maintained. With minor exceptions new or increased discharges of pollutants are prohibited to these waters assuring that existing high water quality is preserved. Those waterways

designated in the Squannacook and Nissitissit Rivers Sanctuary (see below) are designated as ORW's.

Coldwater Fisheries Resources

A Coldwater Fisheries Resource (CFR) is a body of water that is used by coldwater fish species to fulfill one or more of their life history requirements. These species include trout and slimy sculpin, among others. These fish require cold, well-oxygenated water and suitable habitat for spawning, feeding and refuges. Such requirements make these habitats particularly sensitive to alterations or pollution. Changes in land and water use can reduce the ability of these waters to support coldwater fish. The Massachusetts Division of Fisheries and Wildlife identifies CFR's and maintains a list that is updated annually.

Coldwater Fisheries are also designated in the Massachusetts Surface Water Quality Standards

(SWQS) and are given more stringent temperature and dissolved oxygen criteria than other inland waters. However, these SWQS regulations (314 CMR 4.00) are updated less frequently and do not reflect the most recent information available from Massachusetts Fish and Wildlife. There are 90 CFR's in the Nashua River watershed, although many are unnamed streams, since naming a water body as a CFR is generally considered to include its unnamed tributaries.

Areas of Critical Environmental Concern

Areas of Critical Environmental Concern (ACEC) are designated by the Massachusetts Executive Office of Environmental Affairs pursuant to 301 CMR 12.00. ACECs are those areas within the Commonwealth where unique clusters of natural and human resource values exist and which are worthy of a high level of concern and protection. The aim is to preserve and restore these areas and all EOEEA agencies are directed to take actions with this in mind.

Three ACECs exist in the Nashua River Watershed:

- The Squannassit ACEC includes over 37,000 acres on the west side of the Nashua River in Ashby, Ayer, Groton, Harvard, Lancaster, Lunenburg, Pepperell, Shirley and Townsend.
- The Petapawag ACEC includes over 25,000 acres in Ayer, Dunstable, Groton, Pepperell and Tyngsborough on the east side of the Nashua River.
- The Central Nashua River valley ACEC contains nearly 13,000 acres in Bolton, Harvard, Lancaster and Leominster.

It is important to state that the Nashua River corridor is a central feature of all three ACEC's.

The Squannacook and Nissitissit Rivers Sanctuary

The Massachusetts General Laws Chapter 132A, Section 17 establishes the Squannacook and Nissitissit Rivers Sanctuary (SNRS). The sanctuary comprises the surface waters of both rivers and their tributaries. A small section of the Squannacook River is excluded: from the Hollingsworth and Vose Dam to the confluence with the Nashua River.

In these sanctuary waters, no new discharge of treated or untreated sewage or other wastewater is permitted. Storm water discharges and conveyances must be approved by the planning board and conservation commissions of the affected towns. The Attorney General has the authority to enforce these rules. This sanctuary was subsequently designated as an ORW in the Surface Water Quality Standards underscoring the desire to preserve these waters.