

New Hampshire Rivers Management and Protection Program

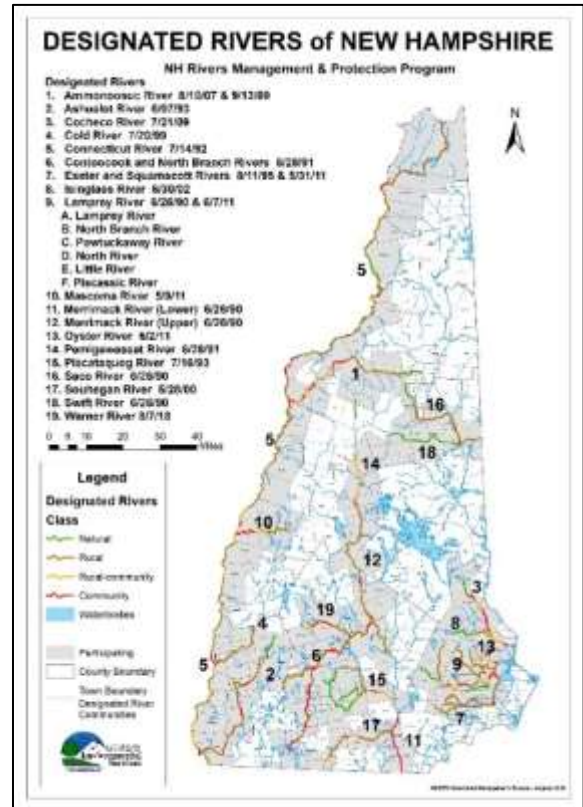
Rivers Management Advisory Committee

DRAFT Biennial Report: Fiscal Years 2018-2019



The purpose of the Rivers Management and Protection Program (Rivers Program), established in 1988 through RSA 483, is to protect certain New Hampshire rivers nominated by their communities, called designated rivers, for their outstanding natural and cultural resources. The program is administered by the New Hampshire Department of Environmental Services (NHDES) and uses a unique state and local two-tier approach to manage and protect rivers through the advisement of the statewide Rivers Management Advisory Committee (RMAC) and the local river management advisory committees (LACs).

As of June 30, 2019, 19 rivers or river segments were designated under RSA 483 totaling approximately 1,010 river miles and representing 130 communities, unincorporated places, and state parks. These 19 rivers had approximately 200 volunteers in 22 LACs overseeing their management (the Connecticut River has five local subcommittees due to its length).



During the July 1, 2017 to June 30, 2019 biennium, one full-time and one part-time position were added to the program, bringing the staff to two full-time and one part-time for the administration of the Rivers and Lakes Programs, and one full-time and one part-time staff to administer the Instream Flow Program.

With the support of this staff, the Rivers Program remains primarily a volunteer-based program, and many of its achievements are the result of the work of the volunteer members of the RMAC and the LACs. The Governor and Executive Council appointed RMAC is composed of 17 members representing various business, conservation, public service, and state agency interests. LAC members are nominated by their local communities, appointed by the RMAC, and represent interests including local government, business, conservation, recreation, agriculture, and riparian landowners. During this biennium, the RMAC convened nine regular business meetings, two joint meetings with the Lakes Management Advisory Committee, and four Policy and Legislation Subcommittee meetings. In addition, the RMAC hosted a site tour and public hearing for the nomination of the Warner River. RMAC representatives spent approximately 424 hours supporting river protection efforts valued at \$10,885.¹ During this same period, LAC volunteers spent a total of approximately 16,480 hours valued at \$422,578.¹ The total of all Rivers Program volunteer hours is valued at approximately \$433,463 for fiscal years 2018 and 2019.

¹ Calculated using both the 2017 New Hampshire volunteer rate of \$25.52 an hour and the 2018 rate of \$25.76 an hour.
<https://www.independentsector.org/resource/the-value-of-volunteer-time/>

Rivers Program Accomplishments

Warner River Becomes the 19th New Hampshire

Designated River: On August 7, 2018, the entire 19-mile length of the Warner River and one mile of the West Branch Warner River were designated into the Rivers Program by the legislature and signed into law by Governor Sununu.

The rivers flow east through the towns of Bradford, Warner, Sutton, Webster, and Hopkinton, supporting native brook trout within their banks and the tributaries that feed them.

By October 2018, the Warner River LAC was established, and in less than a year has begun developing a Warner River corridor management plan, commented on state

permits for projects impacting the river, provided input on FEMA's floodplain mapping update for the watershed, and continued the Volunteer River Assessment Program water quality monitoring they began prior to the river's designation.



RMAC representatives tour the Warner River as part of the nomination process.

Instream Flow Studies Underway on the Cold and Warner Rivers: With the revised Instream Flow Program rules, Env-Wq 1900, effective as of December 20, 2018, Instream Flow Program staff immediately began the river selection and contracting process to develop protected instream flows on the Cold and Warner rivers. These rivers were chosen based on their size, the availability of stream gages, and the support of local stakeholders. The protected instream flow studies will take two years and incorporate the lessons learned in the pilot program on the Lamprey and Souhegan rivers.

QPPQ Stream Flow Method Estimates Daily Streamflow at Ungaged Sites: Because many designated river segments lack the historical stream flow data necessary to determine the protected flows, NHDES contracted with HYSR to develop a reliable method of estimating daily streamflow at ungaged sites. HYSR's "QPPQ Transform Method" uses known flows from a USGS stream gage located nearby, together with statistical probabilities and local soil, climate, and topographic data from the ungaged site's watershed, to generate estimated daily flows. Results demonstrate the QPPQ method's ability to provide accurate daily streamflow data and is described in ["A Final Report on the Further Assessment of QPPQ Transform Method for Estimating Daily Streamflow at Ungaged Sites in New Hampshire."](#)



Target Fish Communities Defined for Each Designated River: Target Fish Communities (TFCs) are the fish species population distributions that should be naturally present in a designated river. Because fish habitat is the most flow-dependent use of our rivers, the Instream Flow Program uses TFCs to determine the critical flows for these fish in each river during each season. In 2018, [TFC assessment reports](#) were published for each designated river segment, with the exception of the Connecticut and lower Merrimack rivers due to their large size.

RMAC Proposes Legislation to Reduce NHDES Administrative Burden: The RMAC successfully recommended an amendment to 2019 House Bill 228 to take on the role of appointing LAC members to their respective committees, relieving the NHDES commissioner of this duty. Overall, the RMAC submitted a total of 48 letters of testimony to the state legislature on river-related bills during the biennium, including two for 2018 Senate Bill 445 in support of the designation of the Warner River.

Rivers Program and New Hampshire Rivers Council Host Workshop for LAC Volunteers: On March 23, 2019, 28 LAC members representing 15 designated rivers gathered to network and learn more about the Aquatic Resources Mitigation Fund, proposed wetland rule revisions, the legislative process and how LACs can make an impact, understanding construction project plans, and how LACs can use social media and other communications to advertise events and recruit members.

Local River Management Advisory Committee Activities

LACs are the voice of the river in the municipalities through which the river flows, provide a forum for discussion of river management, and are valuable conduits for educating community members about river protection. LAC members review and comment on permit applications, sample water, and host events to promote stewardship of their rivers.

Lamprey and Piscataquog LACs Promote Multiple Uses of New Hampshire Rivers: In the spirit of managing our rivers for the benefit of people, wildlife, and business, the Lamprey and Piscataquog committees are finding ways for paddlers to enjoy these rivers while supporting wildlife habitat and working around hydropower generation. In 2017, the Lamprey River LAC began a project, funded by the New Hampshire Charitable Foundation, to open canoe passage on a vegetated 4.8-mile stretch the river while retaining all instream wood for its ecological value to fish and other animals. In a similar vein, the Piscataquog River LAC is exploring the feasibility of a portage stairway below the Mill Street dam in Goffstown center, part of their ongoing effort to encourage paddling on all three branches of the Piscataquog River that began with the development of a recreational map.

Outreach, Education, and Clean-ups Raise Awareness of Riverine Ecosystems: LACs hold workshops, attend community events, host river trips, organize cleanups, and develop educational materials in support of river health and to promote river stewardship. Activity highlights during 2017 and 2018 include:

- A presentation on the river ecosystem and its inhabitants hosted by the Cold River LAC for 30 attendees of all ages.
- Fourth grade school curriculum and field trips, plus other special programs for children, led by the Lamprey River Advisory Committee.
- Annual “Septic Smart” workshops organized by the Connecticut River Mt. Ascutney subcommittee for New Hampshire and Vermont community landowners.
- Participation by the Piscataquog River LAC in the Goffstown’s Annual Pumpkin Regatta to raise public awareness of the river.
- A guided river eco-paddle on the Lamprey River.
- Publication of the [*“A Homeowner’s Guide to Water Quality Protection in the Connecticut River Valley”*](#) and [*“The Importance of Riparian Buffers for Your Land and Your Environment”*](#) fact sheets by the Connecticut River Joint Commission.
- Redesigned websites for the Isinglass and Cold River LACs highlighting river resources.
- Hosting or participation in river clean-ups by the Ashuelot, Contoocook and North Branch, Exeter-Squamscott, Isinglass, Lamprey, Mascoma, Pemigewasset and Piscataquog river LACs.
- The Lower Merrimack River LAC’s support of the City of Nashua to obtain permits and funding for the 2020 restoration of a public boat ramp on the lower Merrimack River.



Family aquatic insect hunt on the Lamprey River.

LACs Work with Communities on Potential River Restoration Projects: In 2017, the Exeter-Squamscott River LAC partnered with the towns of Brentwood and Fremont as well as University of Massachusetts graduate students to organize and host a public information meeting about long-term dam management, including the potential removal of the Mill Road Dam in Brentwood to alleviate a hazardous dam and improve fish passage on the Exeter River. With similar habitat improvement goals in mind, the Oyster River LAC supported a grant to replace an undersized culvert at Emerald Drive in Barrington and the Souhegan River LAC adopted a list of 10 recommendations for construction projects along the river including requirements for snow, salt and sand storage, open-bottom culverts, gravel wetlands, and outdoor lighting.

Permit Applications Reviewed to Support Clean Rivers: One of the LACs' primary duties is to review permit applications for proposed construction projects in and near the designated river. In 2017 and 2018, LACs reviewed 428 actions requiring a federal, state, or local permit, submitting comments to permit reviewers in support of clean water and healthy riparian habitat. Most of the permits reviewed were state wetland, shoreland, and alteration of terrain permit applications, such as the alteration of terrain application reviewed by the re-activated Cocheco River LAC for waterfront development and river bluff excavation in Dover, but a few were not. For example, the Ashuelot River LAC followed two proposed hydro-electric projects at existing dams in Keene and Marlow. The Keene proposal for a new generating facility has been withdrawn, but review of the relicensing process at the existing Marlow facility continues.

River Volunteers Submit Influential Comments on Proposed Wetland Rule Revisions: Six LACs and the RMAC submitted comments to NHDES outlining concerns specific to their rivers and the time needed by volunteer groups to review proposed project plans. Letters received from the Ashuelot River LAC, the Mt. Ascutney subcommittee of the Connecticut River Joint Commission, the Lower Merrimack River LAC, the Upper Merrimack River LAC, the Piscataquog River LAC, and the Warner River LAC ensured that the committees would continue to have the opportunity to comment on wetland permit applications for proposed projects within designated river corridors.

Eleven Rivers Monitored for Water Quality: LACs assist NHDES by collecting and reporting water quality information for their rivers. The data is used to determine which rivers are impaired for water quality, which is submitted to EPA biennially. Rivers monitored are the Warner, Souhegan, Piscataquog, Pemigewasset, upper and lower Merrimack, Isinglass, Contoocook and North Branch, Cold, Ashuelot, and Ammonoosuc. The Upper Merrimack Monitoring Program goes one step further to determine the health of the river by cataloging the species and quantity of stream insects that inhabit it. "Bug Nights" continues its popularity with dozens of volunteers providing sampling, sorting, and identification assistance.

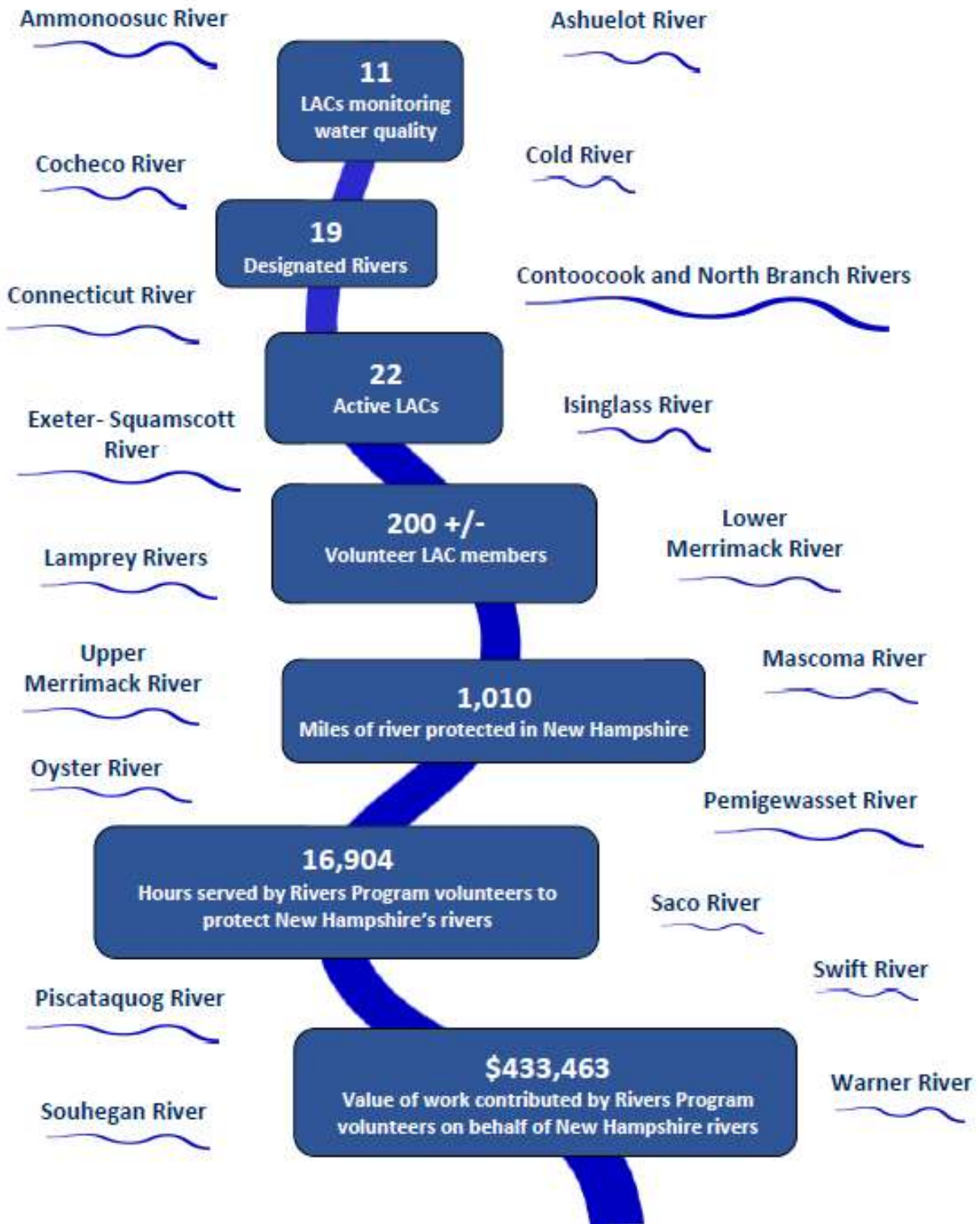


Upper Merrimack River Bug Nights flyer

River Corridor Management Plans Prioritize Future LAC Activities:

During this biennium, the Isinglass River LAC updated their [Isinglass River Corridor Management Plan](#) to set new priorities and develop river protection action plans around these priorities. As newer LACs, both the Mascoma River and Warner River LACs began work on river corridor management plans for their designated rivers. These management plans provide a blueprint to protect each river's unique natural, recreational, cultural, and historic resources for the present and the future, and become part of the state's natural resource planning documents.

New Hampshire Rivers Management and Protection Program Fiscal Years 2017-2018 – By the Numbers



For More Information about the New Hampshire Rivers Management and Protection Program, please visit the NHDES website at <http://des.nh.gov/organization/divisions/water/wmb/rivers/index.htm> or contact the Rivers Coordinator, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095; (603) 271-2959; riversprogram@des.nh.gov.