

Executive Summary

The Eightmile River Watershed is an exceptional natural and cultural resource. The 62 square mile watershed is a rolling forested landscape with over 150 miles of pristine rivers and streams, large areas of unfragmented habitat, an abundant array of rare and diverse wildlife, beautiful vistas, high water quality, unimpeded stream flow and historic features making it a unique example of an intact and functioning watershed ecosystem in Southern New England. The watershed is almost entirely located within the three towns of East Haddam, Lyme and Salem, Connecticut. Designation as a component of the National Wild & Scenic Rivers System is being pursued for the entire watershed area.

This management plan was created as a part of the Eightmile River Wild & Scenic River Study to establish recommended tools and strategies for ensuring this watershed ecosystem is protected and enhanced for generations to come. The plan was developed by the locally-led Eightmile River Wild & Scenic Study Committee with input from town land use commissions, local citizens, the state and other key stakeholders. This plan and Wild & Scenic designation have been formally endorsed by all seven land use commissions in the three towns. In addition, the Connecticut General Assembly unanimously passed and the Governor signed an act supporting Wild & Scenic designation and the Department of Environmental Protection's participation in the implementation of the plan.

The Eightmile River Watershed Management Plan is a non-regulatory document, reflecting a partnership where local, state and federal interests all voluntarily agree to participate in its implementation and the realization of its purpose and goals. The roles and responsibilities of land use planning and regulatory commissions and agencies do not change if Wild & Scenic Designation occurs as there are no federal mandates or new regulatory powers created with a designation.

Implementation of the management plan through Wild and Scenic designation potentially offers a net financial gain for Eightmile towns and local partners. Costs associated with implementing the management plan are to be funded through new annual funding available through designation. In addition, other sources of funding can be more easily leveraged using the "clout" of a designation. If designation is delayed or unsuccessful or if annual funding levels provided by the National Park Service after designation is insufficient, towns have no obligation to expend funds. However, many of the costs associated with implementing the management plan are negligible and towns and partners can elect to go forward with implementation regardless of the status of new funding.

The development of the management plan was guided by three fundamental principles:

- (1) Resource Conservation and protection relies on existing authorities.
- (2) Management of the Eightmile River Watershed is based on a cooperatively developed plan that is implemented through the cooperation of all river and watershed interests.
- (3) Any land conservation initiatives related to a Wild & Scenic designation will be based solely on voluntary willing seller arrangements.

The National Wild & Scenic Rivers System

The National Wild & Scenic River System was established by Congress in 1968 to protect certain outstanding rivers from the harmful effects of new federal projects such as dams and hydroelectric facilities. Since then over 160 rivers or river segments have been protected nationwide, including six in New England. To be considered a “Wild & Scenic” river it must be free flowing and have at least one outstanding natural, cultural, or recreational value.

Today, a subset of the Wild & Scenic Rivers system called Partnership Rivers is being used effectively to create river protection approaches that bring communities together in protecting and managing local river resources.

- Partnership Wild & Scenic Rivers are a unique subset of nine rivers along the East Coast that share some common management approaches including: no federal ownership of lands; river management through existing local and state authorities; management strategies that are developed and implemented through the locally led study committee and are locally approved prior to designation; responsibilities associated with managing and protecting river resources are shared among all of the partners – local, state, federal, and non-governmental; and volunteerism is a consistent backbone of success.
- The Eightmile River Watershed is being recommended for designation as a Partnership Wild & Scenic River.

Benefits of a Wild & Scenic Designation

A National Wild & Scenic River designation can bring a river system many benefits. Through National Park Service funding and staff support resources could be made available to help all the partners achieve the protection of the watershed’s outstanding resource values resulting in:

- Preservation of a clean and plentiful water supply
- Protection of the rural character that defines the local communities
- Robust and diverse plant and animal populations that reflect a healthy ecosystem
- Possible funding support to help towns achieve their open space conservation goals
- Sound scientific information to help local land use commissions perform their functions
- Small grants to help local schools, towns, civic groups, private landowners and others on projects which support the purposes and goals of the plan

In addition, if designation is achieved, the National Park Service is required to review and comment on all projects that are either federally funded or federally permitted to ensure such activities are consistent with the protection and enhancement of the outstanding resource values that made the river eligible for designation.



The Eightmile River Wild & Scenic Study

Recognizing the watershed was a very special place with a host of unique resource values worth preserving, a local campaign was undertaken by town boards, area land trusts, river-fronting landowners and residents requesting Congressman Rob Simmons and Senator Chris Dodd to pursue authorization and funding from Congress to undertake a national Wild & Scenic River Study. The entire Connecticut congressional delegation supported the bill and on November 6, 2001 it was signed into law by President Bush (Public Law No. 107-65).

The study has been conducted by the locally-led Eightmile River Wild & Scenic Study Committee. The Committee's membership includes the First Selectmen from the communities of Lyme, Salem and East Haddam, representatives of the three area land trusts, representation from a land use commission in each town, the CT River Estuary Regional Planning Agency, the Natural Resource Conservation Service, the CT Department of Environmental Protection, and The Nature Conservancy. The National Park Service provides staff support and overall coordination.

The Eightmile River Wild & Scenic Study Committee was responsible for three major tasks: (1) Discover and/or prove what is special about the Eightmile River Watershed; (2) Develop a watershed management plan that will facilitate the protection and enhancement of these special values; and, (3) Demonstrate to Congress that community members, local land use decision makers, the State of Connecticut and other watershed stakeholders support Wild & Scenic designation of the Eightmile River Watershed. A complete study report that summarizes all of the study's findings and recommendations will be published as a separate document, and have a public comment period, at the end of the study process.

A key decision was made early on by the Eightmile River Wild & Scenic Study Committee to pursue a watershed based Wild & Scenic designation. This decision was made in recognizing that of all its many special qualities, the most outstanding is that the Eightmile River Watershed is a rare example in the Northeast of a whole river system that is fully intact. Furthermore, taking a watershed ecosystem approach to conservation recognizes protection and management strategies cannot just consider a single river segment, plant or animal species, or wetland system in isolation from all that is around it. All of these components are interconnected and if any one is disturbed or altered, all of the others can be affected. The watershed ecosystem approach is comprehensive and based on the interconnectedness of all the natural and cultural resources within the watershed.

Outstanding Resource Values

To prove what is special about the Eightmile River Watershed the Study Committee researched and identified six Outstanding Resource Values (ORVs) in the Watershed. To be an ORV the resource must be natural, cultural or recreational in character and convey unique, rare or exemplary qualities on a regional or national scale. Local, regional and state resource professionals determined the six outstanding resource values that make the Eightmile Watershed exceptional include the cultural landscape, geology, water quality, watershed hydrology, unique species and natural communities, and most importantly, the watershed ecosystem. Complete descriptions of these resources and why they are considered outstanding are available in the appendices.

Purpose of the Management Plan

The Eightmile River Watershed Management Plan achieves many purposes. Some key ones include:

1. Providing stakeholders a clear recommendation of how to protect and enhance the watershed's outstanding resource values and the role a Wild & Scenic designation would have in implementing such recommendations.
2. Substantiating to Congress the suitability of the Eightmile River Watershed for designation as shown through the support of the local communities, the state and other stakeholders to be partners in the plan's implementation.
3. Providing strategies to measure the quality of the watershed's outstanding resource values over time.
4. Providing measurable indicators and guidance to future decision-makers about what constitutes sufficient protection if goals for the outstanding resource values are to be met.
5. Establishing management recommendations that rely principally on locally-led and locally implemented strategies. Regardless of achieving a designation, the Plan serves to help all the stakeholders protect the watershed's ORVs.



Members of the Eightmile Study Committee with watershed sign.
Photo courtesy of J. Rozum.

Implementing the Plan

To oversee the implementation of the Plan a non-regulatory advisory committee would be established called the Eightmile River Wild & Scenic Coordinating Committee (ERWSCC). The responsibilities of ERWSCC include: overseeing the implementation of the Eightmile River Watershed Management Plan; monitoring of the outstanding resource values with respect to the degree they are protected, degraded or enhanced during implementation of the plan; addressing river-related issues that arise in the watershed; reviewing and updating the Eightmile River Watershed Management Plan; and preparing periodic status reports on the quality of the watershed and progress in implementing the Plan.

The membership of ERWSCC will include representatives from all key stakeholders including municipalities, landowners, the State, local land trusts, The Nature Conservancy and, if designated, the National Park Service. If designated congressional appropriations may become available to provide funding and staff resources to support the work of ERWSCC. The Committee is encouraged to leverage any potential federal or non-federal funding to maximize the impact of these resources.

The Partners

The Partnership Wild & Scenic Rivers effort is based on a clear understanding of the roles and responsibilities of each partner. The primary partners in the Eightmile River Watershed include landowners, local municipalities, and the state and, if Wild & Scenic designation is achieved, the National Park Service.

- **Landowners** – Landowners are considered key to overall management plan success. While landowners are under no new regulations or mandates as a result of this plan or a Wild & Scenic River designation, it is hoped they will be supportive of land stewardship practices that are consistent with the Plan and the spirit and goals for protecting the watershed's outstanding resource value goals. It is recommended that landowners are represented and actively participate on ERWSCC.
- **Local Municipalities** – The role of each municipality is voluntary and the actions each town may take are solely up to the towns to decide. The plan calls for each town to be an active participant on ERWSCC and in achieving the goals for the watershed's outstanding resource values.
- **State of Connecticut** – Similar to the towns, the state's role is to be an active participant on ERWSCC, working cooperatively with all the partners to implement the management plan.
- **National Park Service (NPS)** – If Wild & Scenic River status is achieved NPS will be an active participant on ERWSCC and coordinate any funding that is authorized by Congress for use in implementing the Management Plan. In addition, as discussed above, NPS would be responsible for reviewing and commenting on all federally funded or federally permitted projects to ensure compatibility with protecting and enhancing the outstanding resource values.

The Management Recommendations – Tier One and Tier Two

In establishing the management recommendations a comprehensive assessment was completed that identified: a protection goal for each outstanding resource value (ORV); the level of existing local, state and federal protection available for each ORV; threats and management issues that could degrade ORV quality; gaps in existing local, state and federal protection and threats/management issues that might lead to long-term impairment of the ORVs; and, recommended tools that could be implemented to achieve adequate protection and enhancement of all the ORVs. The management recommendations are organized into two categories: Tier One and Tier Two.

Tier One – Tier One recommended tools are high priority items that have been identified as important to implement in the short-term to ensure protection of the outstanding resource values. Management partners, including local communities, the state and others are asked to begin the process of implementing Tier One tools within 6-12 months of achieving affirmative votes of support for Wild & Scenic designation at town meetings. As an initial step in pursuing implementation of the Tier One tools, each partner is asked to first establish a timeline and approach for completing implementation.

It is recognized that it is unlikely designation and securing of funds to support designation will be achieved in the 6-12 month timeframe that has been suggested to begin implementation of the Tier One tools. As such it is recommended that the Eightmile River Wild & Scenic Coordinating Committee be established upon dissolution of the Eightmile River Study Committee. This action will not only provide continuity and continued momentum between the end of the study process and formal designation, it will also show Congress the high level of partner commitment to the long-term preservation of the watershed. As there would be no congressional authorization for the National Park Service to participate as a member of ERWSSC prior to designation, the agency's involvement may be limited.

The implementation of some of the Tier One tools will take significant human resources, time and possibly funding to complete. As such, if a designation occurs, it will be the intent of the Eightmile River Wild & Scenic Coordinating Committee and the National Park Service to prioritize any funding or technical resource support on implementation of these items. Management Plan partners, including local communities and the state, while not expected to implement all the recommended tools if a designation does not occur, are strongly encouraged to implement those parts of the plan that can be done without undo stress on human or financial resources.

It is important to note that all the recommendations for local commissions are just that: recommendations. This planning document or the powers of a Wild & Scenic designation can not force a community to adopt them. The actual implementation of these recommendations will require all the formal procedures the commissions must follow, especially in considering and potentially adopting any new regulations, including public notice, public hearings, and commission deliberation prior to making a final determination.

Tier One recommendations include:

1) Riparian Corridor Protection – Riparian corridor lands, those lands adjacent to rivers and streams, are the first line of defense for a river system. Maintaining and protecting these areas in a natural native condition is the most important action that can take place to ensure the long-term quality of river and watershed resources.

Recommended Action: To protect riparian corridor function adopt a River Protection Overlay Zone for all perennial streams and rivers in the Eightmile River Watershed that provides a 50 foot protection area along small headwater streams, and a 100 foot protection area along larger streams.

Note: The effect of this proposal on property owners is very small. Only 5% of all lands in the watershed would be within the proposed overlay. Of that, 97% of the proposed overlay protection area is already regulated by local Inland Wetlands Commissions as wetlands or are under review by the local Inland Wetlands Commission as an upland review areas. The proposal is sensitive to ensuring landowners are not unduly burdened through its potential implementation. Details of the proposal, its purpose and limitations can be found in **Appendix 9 – Tier One Tools Recommendation Details**.

2) Habitat Fragmentation – Habitat size directly effects species distribution, migration and population size, and is critical for maintaining overall biological diversity and ecosystem functions. Fragmentation of habitat occurs when a large region of habitat has been split into a collection of smaller patches. For example, a forest habitat may become fragmented when a road is built across it splitting it into two smaller disconnected patches. Fragmentation can cause, among other things: a reduction of total habitat area; vulnerability for species forced to migrate to other habitat patches; the isolation of populations leading to a decline in population size and quality; and edge effects altering habitat, species composition, microclimates, and vulnerability to predation.

Recommended Action: Commit to making protection of important habitat blocks an open space conservation priority, work with partners to identify voluntary land conservation opportunities, and be a partner in pursuing federal funding to support such types of acquisitions.

3) Increases in Impervious Surfaces – Impervious surfaces, including rooftops, parking lots, and roadways can cause significant impacts to overall water quality and watershed hydrology. Impervious surfaces block rainfall from infiltrating into the soil, increasing surface runoff and decreasing groundwater infiltration. Among other things this can lead to reduced groundwater recharge causing a decreased base flow, which in turn can cause streams to become intermittent or dry. Water quality can also be affected as impervious surfaces increase polluted stormwater runoff, impacting variables such as nutrient levels, temperature, bacteria and heavy metals.

Recommended Action: Each community sets a maximum impervious surface goal of 10% for any sub-basin within the local watershed, and 4% for the Eightmile River Watershed as a whole. In addition, each community supports working with the Eightmile River Committee to 1) refine modeling of current and future impervious levels, 2) use the modeling to predict future increases in imperviousness in each town and 3) adopt appropriate tools to address limiting impervious surface increases to meet impervious surface goals.

4) Stormwater Management – Poor stormwater management can affect a host of issues associated with overall watershed quality including impacts to: overall hydrology; stream channel morphology; floodplain function; water quality; habitat; and overall ecological function.

Recommended Action: Three actions have been identified including: (1) Require the design, implementation and maintenance of all new stormwater systems to be consistent with the 2004 CT DEP Stormwater Quality Manual; (2) Complete a Stormwater Management Plan for each municipality's stormwater system as described in the State's General Permit for Small Municipal Stormwater Systems; (3) Adopt the University of Massachusetts guidance for watercourse crossings, an approach that is promoted by the Army Corps of Engineers (New England Region).

Tier Two – Tier Two recommended tools are longer-term actions that partners can take to further protect watershed resources. There are a host of recommendations that if pursued will provide a strong combination of sound science and good stewardship to substantially enhance the long-term protection of the resources. Many of the Tier Two tools recommend establishing additional scientific baseline information and monitoring outstanding resource values. This information is critical to the overall success of the plan and ERWSCC’s ability to assess and document the level of protection and enhancement achieved through the plan’s implementation. In addition, other important tools include supporting the use of voluntary open space conservation to protect important values and outreach and education initiatives to important target audiences such as landowners, school groups and land use commissions.

It is highly recommended that towns attempt to pursue these tools in addition to and generally after implementation of the Tier One tools. It is understood and anticipated that it will take 2-5 years or more to implement the majority of the Tier Two tools. Again, this will partially depend on the ability of the ERWSCC to provide support to the partners where and when needed.

Outreach & Education

The goal of outreach and education is to engage the public, including landowners, recreational users, towns and the state to be continually involved and active in protecting and enhancing the outstanding resource values of the Eightmile River Watershed Key actions. These include publish periodic newsletters and other publications, provide annual protection progress reports, establish and maintain a website, offer pertinent workshops and training, provide volunteer opportunities to keep the public engaged, pursue publicity and media coverage when necessary, and engage the local schools in activities that help promote awareness and stewardship of watershed resources.

Summary

Implementation of the Eightmile River Management Plan and achievement of a Wild & Scenic Designation for the Eightmile River Watershed will provide long lasting benefits to all the Eightmile River communities. This partnership approach will support and enhance the quality of life residents of the watershed have come to expect, while ensuring local communities remain in control of their own futures.



Opening day on the Eightmile. Photo courtesy of D. Bingham.