

The Wild and Scenic St. Croix Riverway

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UNLIKE THE WESTERN RIVERS DESIGNATED IN THE 1968 WILD AND SCENIC RIVERS ACT, which largely flow through federal lands under the authority of a single agency, the St. Croix National Scenic Riverway passes through a variety of jurisdictions and is managed cooperatively by federal, state, and local entities (Figure 1). The course of management at the riverway over the past 40 years illustrates the challenges of multiple-jurisdiction management, the successes that can be attributed to its wild and scenic status, and current issues.

It was the threat of a 610,000-kilowatt power plant in Oak Park Heights, Minnesota, proposed in the 1960s, which triggered action leading to designation of the St. Croix National Scenic Riverway, one of the first eight rivers designated as part of the 1968 Wild and Scenic Rivers Act. The riverway includes the St. Croix River and a major tributary, the Namekagon.

Other river development proposals had been debated since the 1800s, including an idea that persisted for decades to connect Lake Superior with the Mississippi via the Namekagon and St. Croix Rivers. As early as 1870, the U.S. Army Corps of Engineers had considered damming the Lower St. Croix to create a reservoir and control navigation on the Mississippi (Merritt 1979:72–77, 289).

By the late 1920s, Northern States Power Company (now part of Xcel Energy) had acquired almost 30,000 acres along the St. Croix for power-generating facilities. In the 1940s, struggling farm cooperatives in northern Wisconsin and Minnesota wanted the Corps of Engineers to create a “little TVA of the north” along the St. Croix

River. The Izaak Walton League was instrumental in fighting off this proposal (Karamanski 1993:29–30, 33).

By 1953, there were 23 dams and hydroelectric plants in the St. Croix Basin, including five small dams on the upper Namekagon River. However, the middle and lower St. Croix remained a free-flowing North Woods stream, popular among canoeists and anglers (Karamanski 1993:38).

By the 1960s, the Twin Cities metropolitan area was growing rapidly, extending farther out from the core cities of Minneapolis and St. Paul. Blufftop, floodplain and farmland property along the St. Croix was being subdivided for homes and commercial developments. Ever more people were coming to the river to swim, boat, fish, sail, water-ski, canoe, camp, and enjoy the scenery.

The Oak Park Heights plant, proposed by Northern States Power, would have been one of the largest in the nation, and it set off a firestorm of public opposition. Activists formed the Save the St. Croix Committee, with representatives from both Wisconsin and Minnesota (Karamanski 1993:50).



Figure 1. The St. Croix River, about midpoint on its course from Solon Springs, Wisconsin, to the confluence with the Mississippi River. While there are places along the riverway where communities or rural private residences are visible, large stretches remain undeveloped and provide undisturbed, natural views. Photo courtesy of the author.

The notion that the St. Croix and Namekagon deserved protection was not new. But not until the late 1950s did these rivers come to be perceived as national, rather than local, resources.

A newspaper editor in Chisago County, Minnesota, was among the early advocates for national protection, writing in 1958: “If Mr. Public has a place or places to play in the future, now is the time to consolidate all efforts here in the upper Midwest and ask for a gigantic St. Croix Federal Park, perhaps named the ‘River of Pioneers National Park’” (Norelius 1958).

Wisconsin Senator Gaylord Nelson first championed the cause of St. Croix and Namekagon protection in response to the controversial Oak Park Heights power plant

proposal. At a January 1965 hearing in response to the proposal, he made a moving appeal for river protection, stating: “Call the roll of the great American rivers of the past . . . the mighty Hudson, the thermally polluted Delaware, the Ohio, the Mississippi, the Missouri, and even the Minnesota. . . . The story in each case is the same: they died for their country” (Nelson 1965).

In the national political arena, Nelson was joined by Walter Mondale, then a junior senator from Minnesota (and later, vice president), to introduce a 1965 senate bill (S. 897) to establish a St. Croix National Scenic Waterway (Karamanski 1993:73–75). Both men had ties to the rivers and their dedication to protection would be lifelong.

The 1965 bill passed the Senate, but was laid over in the House. Controversy had developed, largely over concerns about possible condemnation of land by the National Park Service. In 1967, Nelson and Mondale again introduced legislation to create a St. Croix National Scenic Riverway (S. 368). Representative Joseph Karth introduced a companion bill in the House of Representatives. The Nelson/Mondale and Karth bills were virtually identical to one another and to the earlier S. 897.

At the same time, Nelson and Mondale were backing efforts to enact national river protection legislation. When it became apparent that a national bill had momentum, they used that as a vehicle for the St. Croix legislation. As a result, the St. Croix River upstream of the communities of Taylors Falls (Minnesota) and St. Croix Falls (across the river in Wisconsin), along with the entire Namekagon River, were designated as the 252-mile St. Croix National Scenic Riverway in the 1968 Wild and Scenic Rivers Act.

The lower 52 miles of the St. Croix (downstream of Taylors Falls/St. Croix Falls) were not included in the original designation. The National Park Service (NPS) was concerned that this stretch of river, particularly the last 25 miles before the confluence with the Mississippi River (known as Lake St. Croix), did not have wild and scenic river characteristics because of its lake-like quality and the level of existing development.

The governors of Wisconsin and Minnesota petitioned the secretary of interior to include the lower 52 miles in the federal wild and scenic rivers system, and Congress designated the Lower St. Croix National Scenic Riverway in 1972, with direction that the states would have man-

agement responsibility for the Lake St. Croix stretch of river and NPS responsibility for the remaining 27 miles.

While there were two separate designations, the entire Namekagon and St. Croix Rivers are considered the St. Croix National Scenic Riverway. The Namekagon and St. Croix above Taylors Falls/St. Croix Falls are referred to as the Upper St. Croix; the Lower St. Croix is the river downstream of these two communities.

At the time of designation, supporters were concerned primarily with maintaining free flow, protecting scenic resources, eliminating industrial pollution, and preventing loss of public access and recreational opportunities. Early management focused on acquiring land and scenic easements within the riverway boundary, removing structures, and developing landings, campsites, visitor centers and other public facilities. Over the years, NPS initiated programs for facility maintenance, resource protection, interpretation, and resource management. Today, river management has evolved to address a host of concerns that likely were not in the forefront of people's minds forty years ago.

Mixed land ownership and multiple management entities

The St. Croix and Namekagon rivers flow through multiple jurisdictions. The wild and scenic boundary is roughly a quarter-mile on either side of the river and, within the 252-mile federally administered portion of the riverway, encompasses about 97,500 acres, including land and water surface. Of this, NPS has acquired 20,503 acres (above the ordinary high water line) in fee simple at a cost of \$37.3 million, and holds easement interests in about 14,137 acres of privately owned land (above the

ordinary high water line) at a cost of \$8.6 million. The remainder of land within the boundary is a mix of other public land (about 28,000 acres), municipal and private land, and Indian trust land. Thus, NPS has direct management authority over only about one-fifth of the riverway.

A variety of other entities own, manage, regulate, or have other interests in land and facilities within the riverway boundary, including the following federal, state, tribal and local government agencies:

- Wisconsin Department of Natural Resources (land use, water quality, wildlife areas, state parks, state forests, public landings, trails, law enforcement);
- Minnesota Department of Natural Resources (land use, state parks, landings, law enforcement);
- Minnesota Pollution Control Agency (water quality);
- The U.S. Army Corps of Engineers (wetlands, in-stream disturbance);
- U.S. Forest Service (a small portion of the Chequamegon National Forest);
- Eleven counties (private land use, forests, parks, landings, roads, bridges, trails, law enforcement);
- Thirty-three townships and seven municipalities (private land use, roads, parks, docks, landings, trails, law enforcement);
- Indian tribes (Indian trust lands and treaty rights for traditional resource uses);
- Transportation agencies (roads and bridges);
- Utilities (electrical transmission lines, oil and gas pipelines, cell towers); and
- Private landowners (residences, retreat centers, camps, docks).

It is essential for NPS to work with these

other parties when wild and scenic river management intersects with their interests and activities, or visa versa.

Cooperative management

The riverway is managed through a variety of formal and informal partnerships. For example, separate management commissions are in place for the lower and upper portions of the riverway. NPS, Wisconsin Department of Natural Resources, and Minnesota Department of Natural Resources are represented on the Lower St. Croix Commission. These three agencies, along with Xcel Energy (formerly Northern States Power Company, which donated significant acreage for the riverway) comprise the Upper St. Croix Management Commission, which addresses management of the Namekagon and the St. Croix above Taylors Falls/St. Croix Falls.

Land use on non-public lands within the riverway is governed by state and local governments. The states have established special riverway land use regulations that must be adopted and implemented by local units of government for both the federal and state-administered portions of the Lower St. Croix. There are no riverway-specific land use regulations on the Upper St. Croix, although state wetland, shoreland, and land use regulations apply.

NPS has no legal authority over local land use. Our role is to support the states and “encourage” local governments or individual landowners to follow land use practices that will protect the river. We must interact with the various local governments on a regular basis, attending town board and city council meetings where river-related matters are on the agenda, communicating regularly with local zoning officials, reviewing proposals for subdivisions, cell

towers, wind towers, gravel mining, roads, and other developments, and otherwise engaging in matters affecting the river. We are frequently asked why we “can’t do something” about an issue and, despite the fact that we exercise no authority, are often held accountable if there’s a decision unfavorable to the river.

In addition to the two management commissions, a number of coordinating groups and less formal partnerships are in place to address specific resources or resource issues at the field level. Some examples:

- The St. Croix Basin Water Resources Planning Team has pooled resources to

conduct extensive research on water quality and take cooperative action to protect water quality (Figure 2). Members include NPS, U.S. Geological Survey, the Minnesota and Wisconsin departments of natural resources, Minnesota Pollution Control Agency, the U.S. Army Corps of Engineers, the Twin Cities Metropolitan Council, the Science Museum of Minnesota/St. Croix Watershed Research Station, several counties, soil and water conservation districts, and nonprofit organizations.

- The Interagency Mussel Coordination Team, comprising staff from the U.S. Army Corps of Engineers, U.S. Fish

Figure 2. Maintaining good water quality is crucial to the survival of freshwater species such as mussels. Here, NPS aquatic biologist Byron Karns (right), filters water to obtain mussel veligers for the Interagency Mussel Coordination Team. Dan Kelner, with the U.S. Army Corps of Engineers, is driving the boat. Photo courtesy of the author.



and Wildlife Service, the state natural resource departments, and the Lac Courte Oreilles Indian community, is working to control the spread of zebra mussels, protect the riverway's 40-plus species of native freshwater mussels, and propagate and reintroduce two threatened and endangered species of freshwater mussels.

- The St. Croix Conservation Collaborative meets regularly to share information on methods of protecting land and coordinating land acquisition and land protection efforts of various land trusts and agencies. The group has established priority areas for land protection within the watershed.
- An interagency Fisheries Committee formed to develop a fisheries management plan for the riverway and is cooperating to carry out research and habitat improvement projects.
- NPS and state park biologists work together to control invasive plants, monitor rare plants, and carry out restoration projects.
- U.S. Fish and Wildlife Service and NPS staff are pooling resources to carry out prescribed burns.
- A Lower St. Croix Partnerships Team, comprising local government representatives, meets every other month to review land use decisions that have been made by individual communities, with a goal of achieving consistency in implementing riverway land use rules.
- Law enforcement officers from NPS, the states, counties, and local governments meet regularly about fishing, hunting, boating and other regulations and coordinate response to emergencies and enforcement needs.

Use and limitations of easements

For a number of years following designation of the riverway, NPS emphasized protecting land within the park. The Wild and Scenic Rivers Act allows fee-simple acquisition of up to 320 acres/mile. Where NPS was unable to acquire land in fee simple, because of the acreage limitation or an unwilling seller, purchase of scenic easements offered an alternative method of land protection. In the acquisition heyday, as many as ten NPS lands specialists were working at St. Croix. As more land was protected, the acquisition needs diminished and so did the lands staff. However, the work did not end with purchase of the easements.

Today, NPS holds 1,163 scenic easements within the riverway—about 37% of the scenic easements in the entire national park system. It holds an additional 65 riverway conservation easements (about 1.5% of the system total). At the time of enactment of the Wild and Scenic Rivers Act, easements were a relatively new tool that, because of acreage limitations on fee ownership, offered a means to protect more land within the riverway boundary. In retrospect, their limitations are apparent, not only because NPS is geared more to managing land held in fee-simple title than easements, but also because the easements provide only partial protection.

The St. Croix's scenic easements do not prohibit subdivision or development that conforms to local land use regulations. They place conditions on activities that would diminish the integrity of the view from the river, such as cutting vegetation or building a structure that would be visible, but they do not address ecological integrity by protecting rare or sensitive habitat.

With funding from the St. Croix Valley Community Foundation, NPS currently is working with the West Wisconsin Land Trust to update the easement records by researching county lands data for information on tract subdivision and current ownership. With this information, we will be able to communicate with the landowners to encourage private stewardship and build a stronger relationship with the riverway.

Water quality protection

The Wild and Scenic Rivers Act was crafted largely in response to concerns about industrial pollution directly entering rivers. Today, there is widespread recognition that the health of a river depends on the health of its watershed.

The St. Croix has long been considered pristine, in part because of its wild and scenic river designation. The water quality, along with the scenery, is what has attracted recreational use for generations, and people have taken it for granted.

This year, both Minnesota and Wisconsin designated Lake St. Croix, the farthest downstream portion of the riverway, as an “impaired” water, because levels of phosphorus and chlorophyll *a* exceed Clean Water Act standards. It was a wake-up call.

Research carried out by the interagency St. Croix Basin Water Resources Planning Team over the last decade has provided a wealth of information about water quality. We now know that 80% of the nutrient and sediment loading to the St. Croix is from nonpoint sources, such as agriculture and stormwater runoff (St. Croix Basin Water Resources Planning Team 2004:5).

The Basin Team’s research has further determined that a 20% reduction in phos-

phorus loading will return water quality to the condition of the 1940s, prior to major agricultural development in the watershed. Based on this information, in 2006, Minnesota and Wisconsin entered into an agreement to work to achieve a 20% nutrient reduction goal (St. Croix Basin Water Resources Planning Team 2004:6).

While the “impaired” listing is distressing, it requires establishment of a total maximum daily load (TMDL) for phosphorus entering the St. Croix. This will be an important step toward restoration of water quality.

Because NPS has no regulatory authority over either private land use or water quality, it is imperative to work with the various agencies that have this role. The Basin Team provides a forum for cooperation and is leading efforts to set a TMDL.

In 2007, through its Great Lakes inventory and monitoring (I&M) program, NPS began comprehensive water quality sampling at 13 sites along the Namekagon and St. Croix rivers. NPS funds sampling every other year, but the St. Croix Valley Community Foundation provided funding for sampling in 2008. Through the Basin Team, NPS monitoring is being coordinated with that being done by other agencies along the riverway and key tributaries.

The work to establish a TMDL received a boost recently with notification that the St. Croix will receive 2008 NPS Centennial cost-share funding to develop a watershed model that predicts nutrient and sediment loading. The \$200,000 NPS funding for this project will be matched with contributions from the Twin Cities Metropolitan Council and the Minnesota Pollution Control Agency. The modeling will be done by the Science Museum of

Minnesota's St. Croix Watershed Research Station.

The future

Just as those who crafted the 1968 Wild and Scenic Rivers legislation could not have predicted everything that would be involved in managing rivers in 2008, we cannot foresee the complexities and challenges of river management in 2048. After all, how many of us imagined that one day human beings would tear across streambeds on all-terrain vehicles, submerged and using snorkels?

Since the riverway's designation, NPS and its partners have developed extensive knowledge about its resources. These two rivers support a wonderful diversity of species, including 350 vascular plants, 265 lichens, 270 birds, 218 aquatic invertebrates, 18 amphibians, 14 reptiles, 60 mammals, 40 native mussels, 70-plus species of fish, and more than 40 listed species. Now, we must be concerned about how climate change will affect the ecology of the riverway and management of these resources.

Three research projects currently underway by U.S. Geological Survey teams will add to our knowledge of water quality and its effect on the riverway's threatened

and endangered and native mussels and other aquatic life. One team is sampling for the presence of pharmaceuticals and chemicals in personal care products entering the river from several wastewater discharge points. Another team is studying the movement of nutrients through backwaters. The third team is studying the effect of food quality on unionid mussel survival and growth rate.

Researchers from Macalester College in St. Paul, Minnesota, are studying the impact of an increasing amount of fine sediment that is being deposited in an area identified as habitat essential for the recovery of Higgins' eye pearly mussels (an endangered species; Figure 3).

As human population grows, so too will demands for recreation (Figure 4), as well as the need to respond to evolving outdoor interests and new technology. NPS statistics indicate that visits to St. Croix National Scenic Riverway grew from 413,305 in 1996 to 523,588 in 2007 (NPS 2008). The NPS data represent the number of visits to NPS landings and other facilities but do not consider riverway use originating from non-NPS facilities, such as state boat launches, state parks and forests, county forests, public marinas, private docks, and other facilities.

As part of a new Lower St. Croix management plan being implemented this summer, NPS has placed more restrictions on



Figure 3. Higgins' eye pearly mussel (*Lampsilis higginsii*), one of the riverway's two endangered mussel species. Research is underway by the U.S. Geological Survey to determine sediment impacts on mussels in a critical habitat area. Photo courtesy of NPS.



Figure 4. A number of businesses rent canoes throughout the riverway. Several years ago, NPS began requiring that outfitters obtain commercial use permits. Some businesses had operated for decades, since before the riverway was established, making it challenging to implement this requirement. This is a typical scene on the Lower St. Croix on a summer weekend. Photo courtesy of NPS.

where people can camp and the size of groups; this is in response to resource damage, use conflicts, and concern that without more active management, river users would no longer have the type of recreational experience intended for a wild and scenic river.

NPS interpreters are introducing programs that provide new ways to experience the Riverway—virtual geocaching, for example. We must continue to find ways to engage people with this resource in order to have public support for its continued protection.

At the St. Croix, there is a sense of urgency about stepping up river protection efforts. In early May 2008, former vice president Mondale convened 60 leaders of communities, nonprofit organizations, and agencies involved in management and protection of the St. Croix and Namekagon rivers. His invitation letter articulated the current concerns:

The assaults on the St. Croix watershed by development, run-off and loss of habitat put at risk the ribbon of Riverway we protected 40 years ago. Without a renewed commitment to protection of the river and its water-

shed, we could lose the most unique National Wild and Scenic River in the nation. While there is much excellent effort underway on the St. Croix, we need to do more—and we need to do it now (Mondale 2008).

For a day, meeting attendees, some of whom had been involved in securing the St. Croix's wild and scenic river designation, discussed strategies for addressing the issues of today. They are exploring formation of an organization to promote river and watershed stewardship. All recognize that the National Park Service and its various management partners are not, by themselves, able to adequately protect the St. Croix and Namekagon.

The threats to the St. Croix National Scenic Riverway are not unique. River managers throughout the country are dealing with development pressure, water quality protection, water rights, easement management, land protection, threatened and endangered species protection, the need to manage use more intensively, exotic species control, the uncertainties of climate change, and many other challenges.

There is a need to renew commitment to the St. Croix Riverway and other wild

and scenic rivers, whether managed by the National Park Service or another agency. A large part of today's public was not yet born when the Wild and Scenic Rivers Act and other environmental laws of the late 1960s and early 1970s were passed, and they have little knowledge of the conditions that led to efforts to protect some rivers in a free-flowing, unimpaired state. Others assume that once a river has been designated, it is protected and needs no additional support. As managers, we need to see that these special places have continued relevance in a changing world.

The National Park Service will benefit from a renewed commitment to the wild and scenic rivers it is charged to care for. An NPS task force was formed several years ago to assess the status of NPS wild and scenic river management and develop recommendations for the future. The task force has completed its report, which includes a rec-

ommendation to establish a wild and scenic rivers program to provide servicewide policy and management guidance.

The exodus of baby-boomer professionals from river management agencies is well underway. New and younger employees need opportunities to develop expertise, and we need to pass on institutional memory that can be a touchstone for future management. Partnerships with states and other entities need renewed attention to ensure that commitments to shared management survive over time.

Those who float, paddle, fish, or otherwise enjoy a wild and scenic river can be its best advocates, if managers can effectively communicate the significance of the river and the actions that are needed to protect its unique characteristics. I'd like every person who comes to the St. Croix and Namekagon to have an experience so special that they'll become a friend for life.

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