

INTRODUCTION

French Creek: “An Ecological Treasure”

French Creek, in southwestern New York and northwestern Pennsylvania, is arguably the most ecologically significant waterway in Pennsylvania. It contains more species of fish and freshwater mussels than any other comparably sized stream in the Commonwealth and possibly the northeastern United States. Dr. Jay R. Stauffer, a respected fish biologist from the Pennsylvania State University (PSU), has summarized this watershed by writing that “French Creek is undeniably one of Pennsylvania’s foremost aquatic treasures.”

Over the past two decades, researchers from Western Pennsylvania Conservancy (WPC), PSU, Ohio State University, Cleveland Museum of Natural History and other organizations have studied the flora and fauna of the French Creek watershed. Comparisons with the early freshwater mussel inventories of Ortmann (1909) and fish inventories of Raney (1938) indicate that the watershed has retained nearly all species of these groups historically represented here. This can be attributed to French Creek’s relatively good water quality, abundance of wetlands and other critical habitats, and overall rural character. Researchers warn however, that threats to French Creek’s natural resources and healthy stream community do exist. Aquatic experts have voiced their concerns and suggest that it is prudent to propose measures today that will protect the future of this remarkable stream.

Historically, the Ohio River drainage was one of the most biologically diverse river systems in the nation with respect to aquatic species. Many watersheds within this basin supported levels of biodiversity equal to or greater than French Creek. In the last 100 years, human impacts to these watersheds have resulted in the loss of many species, leaving French Creek as the best representative of historical biodiversity in the Pennsylvania portion of the Ohio River basin.

Aquatic species, freshwater mussels, crayfish, and fish, are disappearing at a faster rate nationwide, and perhaps worldwide, than upland plants and animals. In 1998, The Nature Conservancy (TNC) in cooperation with Natural Heritage Programs and the Association for Biodiversity Information published *Rivers of Life – Critical Watersheds for Protecting Freshwater Biodiversity*, which describes the dire conditions facing our aquatic species. *Rivers of Life* reports that “two-thirds of the nation’s freshwater mussels are at risk of extinction, and almost 1 in 10 may already have vanished forever; half of all crayfish species are in jeopardy; and about 40 percent of freshwater fish and amphibian species are at risk.” The report also lists U. S. watershed “hot spots” with 10 or more at-risk freshwater fish and mussel species and critical watersheds to conserve these species. French Creek, in New York and Pennsylvania, has made both lists.

Western Pennsylvania Conservancy, as the western Pennsylvania partner in the state’s Natural Heritage Program, helped initiate the Pennsylvania Natural Diversity Inventory (PNDI) in 1980. With its partner, TNC, working in eastern Pennsylvania, WPC began

collecting biodiversity data in western Pennsylvania. Western Pennsylvania Conservancy and TNC participated in statewide scorecard meetings to identify biodiversity areas. This project helped identify French Creek as a biologically important watershed. Western Pennsylvania Conservancy's PNDI-west work also led to French Creek's inclusion in the *Rivers of Life*.

WPC's History of Conservation in French Creek

Scientific Activity

- **1969** – First natural area land protection effort in the watershed: Wattsburg Fen
- **1974** – Publication of the preliminary list of Natural Areas (Erdman and Wiegman), included several sites in the French Creek watershed.
- **1980** – PNDI began. Started collecting biodiversity data, with a focus on freshwater endangered species.
- **1980s** – WPC participated with TNC in statewide scorecard meetings. Purpose was to look at biodiversity data out of PNDI, to see what sites we were identifying. TNC did this for eastern PA, WPC for western. This project helped identify French Creek as a site to work on. Led to looking for hot spots, which led to map creation by McCardy, Ferringer, and Gray.
- **1983 - Present** – Independent fish and mussel inventories, done in concert with PNDI efforts.
- **1985** – French Creek was recognized and acknowledged as an important watershed. WPC started looking at protection options.
- **1985-6** – Glacial lakes inventory of endangered flora. This study led us to work in Lake Pleasant. Least impacted, highest number of endangered species, and best wetlands.
- **1985-94** – WPC funded some of botanist Jim Bissell's work and worked with him in the French Creek drainage with rare and endangered plants, especially wetlands and some of French Creek proper.
- **1989** – Partially supported George Reese's black tern research in the watershed (Endangered bird).
- **1980s-90s** – WPC acted as the science arm of the French Creek Project (FCP) (reviewed fact sheets, provided info in presentations and events, produced videos about French Creek and the FCP).
- **1990** – Preserve Design and Action Plan for French Creek endangered species submitted to U. S. Fish & Wildlife Service (USFWS).
- **1992** – WPC suggested to Pennsylvania Environmental Council (PEC) that they get involved at French Creek.
- **1992** – WPC identified five places to focus protection on streams (based on info provided by McCardy, Ferringer, and Gray): Utica, Venango, West Branch, Confluence of LeBoeuf/French Creek, and the mouth of Muddy Creek.
- **1992** – Meadville public meeting. Brian Hill facilitated. Lyle Sherwin (Loyalhanna Watershed Association), Jay Stauffer (PSU Fish Biologist), Charles Bier (WPC zoologist) present. Spoke to the public. John Oliver (formerly

WPC)/Brian Hill (PEC) put proposal to Heinz Endowments. Formed FCP partnership: PEC, WPC through Allegheny College. Funds were received by WPC and passed through to PEC.

- **1993** – WPC hosted meeting in Pittsburgh to discuss the development of a strategic plan for French Creek.
- **1993** – Mussel inventory. Project implemented with partial money from USFWS to fill in mussel data gaps.
- **1993** – Erie County Natural Heritage Inventory completed.
- **1994** – Initiative to develop and fund GIS data for French Creek. As part of the GIS project, WPC funded a half-time position at Allegheny College. Also developed an MoU with Allegheny College and FCP about the GIS project.
- **1994** – WPC, in conjunction with PEC, submitted proposal to Heinz. This proposal essentially formed the current FCP in 1995.
- **1994** – Cooperative agreement with USFWS to conduct science and outreach projects focused on French Creek (including signage).
- **1995** – Erie National Wildlife Refuge Natural Heritage Inventory completed.
- **1996** – WPC invited to USFWS meeting in Columbus, OH about biodiversity in the Ohio drainage.
- **1990s** – WPC educated PA Fish & Boat Commission (PFBC) staff about freshwater mussels. Took PA Department of Environmental Protection (DEP) staff on educational field trips. WPC speakers presented before Allegheny College classes.
- **1990s** – WPC acknowledged as experts on the French Creek watershed. Advised DEP as well as private and municipal entities on issues such as bank stabilization and impacts of pipeline projects, for example.
- **1990s - Present** – French Creek signage project. Ten permanent interpretive signs produced. Six erected in 2000, two erected in 2001, and two more to be erected early in 2002.
- **2000** – WPC assisted in producing a comprehensive bibliography that covered both French Creek specifically and riverine conservation issues in general. Including a summary of existing research.
- **2000** – Partnered with Edinboro University to sponsor a Glacial Lakes Symposium. Brought in experts on glacial geology and glacial lakes to begin to raise awareness of the uniqueness of these natural lakes and the need to protect them. Officially kicked off WPC's Glacial Lakes Initiative.
- **2000** – Muddy Creek community outreach project initiated with funding from National Wildlife Federation (NWF). "Friends of the Mussels" brochure developed and model streambank stabilization project initiated.
- **2000** – WPC's Northwest Field Station at Lake Pleasant opens.
- **2000** – Two-year study on the health of the Edinboro Lake ecosystem completed and report released.
- **2000-2** – French Creek Watershed Conservation Plan written in conjunction with FCP's outreach about the plan. Draft produced in 2001 for public review and comment. Final plan completed January 2002.

- **2001** – Mercer County Natural Heritage Inventory initiated.
- **2001** – Lake Pleasant Watershed Assessment initiated through a DEP Growing Greener grant.
- **2001** – Mussel surveys completed at various points on Muddy Creek and French Creek proper for permit applications.
- **2001** – Five-year glacial lakes floral inventory initiated on Lake Pleasant, Edinboro Lake, and Sandy Lake (not in French Creek watershed). Other glacial lakes to be inventoried over five years.
- **2001** – Master site plan for Lake Pleasant Conservation Area initiated.
- **2001** – Received DEP Growing Greener grant to perform a French Creek Watershed Assessment. To be completed by 2003.

Land Protection

Wattsburg Fen: 3 tracts, 374 acres

- **1969** Acquired Weber tract (32 acres) in Amity Twp.
- **1990** Acquired Weber/Leslie tract (251 acres) in Amity Twp.
- **1992** Acquired Belding tract (91 acres) in Amity Twp.

Lake Pleasant: 10 tracts, 349 acres

- **1990** Acquired Brumagin tract (35 acres) in Waterford Twp.
- **1994** Acquired Kinsinger tract (1 acre) and Myers tract (193 acres) in Venango Twp.
- **1995** Acquired Johnson tract (2 acres) in Venango Twp.
- **1995** Acquired Myers tract (5 acres) in Venango Twp.
- **1999** Acquired Wurst tract (13 acres) in Green/Venango Twp.
- **1999** Acquired Lyons tract (14 acres) in Venango Twp.
- **2000** Acquired Sutto tract (2 acres) in Venango Twp.
- **2000** Acquired Gorniak tract (31 acres) in Venango/Greene Twp.
- **2000** Acquired Afton tract (53 acres) in Waterford Twp.

French Creek: 12 tracts, 1053.5 acres

- **1990** Acquired Kratochvil tract (1 acre) in Canal Twp.
- **1994** Acquired Shifflet tract (2 acres) in Venango Borough
- **1994** Acquired Dye tract (103.5 acres) in French Creek Twp.
- **1994** Acquired Hanks tract (1 acre) in Venango Borough
- **1994** Acquired and conveyed Keyser tract (27 acres) in Richmond Twp. to USFWS Erie National Wildlife Refuge
- **1995** Acquired Mountain tract (259 acres) in Venango Twp.
- **1998** Acquired Kuhns tract (53 acres) in Waterford Twp.
- **2000** Acquired and conveyed Swenson tract (100 acres) in Waterford Twp. to PA Game Commission (PGC)
- **2000** Acquired and conveyed Rawa/Bacon tract (170 acres) in Amity Twp. to PGC
- **2000-01** Acquired and conveyed Swenson tract (23 acres) in Waterford Twp. to PGC
- **2001** Acquired Shaw's Landing tract (7 acres) in East Fairfield Twp.

- **2001** Acquired and conveyed Rawa/Bacon tract (307 acres) in Amity Twp. to PGC
- Conneaut Marsh: 4 tracts, 842 acres (State Game Lands #213)**
- **1972** Acquired Raydure tract (684 acres) in Sadsbury Twp.
 - **1980** Acquired Shafer tract (50 acres) in Union Twp.
 - **1980** Acquired Griffith tract (84 acres) in Union Twp.
 - **1980** Acquired Abbott tract (24 acres) in Fairfield Twp.

About the French Creek Project

In early May of 1995, Allegheny College joined with PEC and WPC in initiating a cooperative project in northwest Pennsylvania that brings together conservationists, sportsmen, landowners, farmers, the business community, industry, local government officials, and academic institutions in a collaborative effort to protect one French Creek. This partnership was recently expanded to include TNC, which had a similar initiative on the headwaters of French Creek in New York State. The Project has three primary goals:

- To raise public awareness about the value of the stream through a public education and outreach effort that reaches the general public, riparian property owners, school teachers and students, and local government officials;
- To engage local people who are committed to protecting and enhancing water quality for years to come; and
- To pursue the overriding goal of the Project, which is to preserve habitat, maintain biological diversity, and protect French Creek’s endangered species.

As the Project began work, it prepared a “vision plan.” The plan was developed with the aid of 70 key person interviews, 6 focus groups, and the input of our diverse 30 member advisory committee. The plan laid out steps for future actions, including an aggressive public education effort to help address non-point water pollution and the development of a conservation plan.

For the last six years, the Project has worked to protect the Creek. Some examples of its work to date include:

- in conjunction with three local school districts, an economic development agency and local college, creating the French Creek Outdoor Learning Center which serves 3000 students each year;
- making presentations on the history and ecology of French Creek in every elementary school in the watershed;
- sponsoring annual workshops for local government officials on a host of land use and other issues;
- establishing a volunteer network that includes nearly 500 people;
- working with Crawford County Commissioners to establish the region’s first native species research nursery;
- cooperating with farmers in implementing best management practices;
- recreating George Washington’s 1753 winter canoe trip on the Creek;

- providing presentations to civic groups, so that over 12,000 people have learned about the Creek;
- printing a quarterly news letter and over a dozen factsheets that are mailed to over 3000 people;
- circulating a 30 minute video program on the Creek that has played on local PBS and cable stations; and
- establishing a new ecotour program for people to learn about the Creek via canoes and kayaks.

Because of its cooperative approach and successes, the Project has won local, regional, state, and national awards. In 2001, it received the inaugural Governor's Award for Watershed Stewardship.

The Nature Conservancy has been active in the conservation of the New York headwaters of the French Creek watershed in a similar community-based project. The Central and Western New York Chapter of TNC has produced a Site Conservation Plan for the New York portion of the watershed and, in 1993, named French Creek one of the "Last Great Places". The Site Conservation Plan describes the New York portions of the French Creek watershed. It identifies important natural systems, stresses to those systems, and sources of those stresses. The Site Conservation Plan ultimately suggests conservation strategies for watershed management and protection.

French Creek Watershed Conservation Plan

In 1999, WPC received a grant from the Pennsylvania Department of Conservation and Natural Resources (DCNR) Keystone Rivers Program to develop a science-based watershed conservation plan. A portion of this grant was used to fund outreach about the Plan through the FCP's efforts. Additionally, the grant was matched by WPC and FCP with private funds. The conservation planning process was initiated in the fall of 1999. The culmination of this two-year process is the production of this final French Creek Watershed Conservation Plan.

In order to better engage the local community in the French Creek planning process, WPC established a new office in Erie County early in 2000. Located on Lake Pleasant, WPC's Northwest Field Station serves as a base for French Creek conservation planning and scientific research, as well as other conservation projects throughout northwest Pennsylvania.

The French Creek Watershed Conservation Plan is intended to compile and present information on watershed resources and potential or known threats to those resources. The Plan provides a fairly comprehensive watershed description with information from the public and other sources on watershed resources and potential threats to those resources. From that information, the Plan's technical steering committee made recommendations on ways to identify and address potential threats to the watershed's resources. These potential threats and recommendations can be viewed in the appropriate section of this document. The "Action Plans" section describes work to be initiated over

the next three years to encourage the recommendations and other projects to be implemented. Appendices that provide specific information about French Creek and the Conservation Planning process are contained at the end of the document. The French Creek Watershed Conservation Plan is intended as a tool for various groups including federal, state, and local agencies, municipalities, academics, and conservation organizations to guide research, planning, and conservation projects. The goal of the Plan is to supply the information and framework needed to help people and organizations coordinate restoration, maintenance, and enhancement of the French Creek watershed.

Western Pennsylvania Conservancy and the Plan's technical steering committee suggest watershed conditions will need reevaluated and this document will need revised after a period of three years. The FCP's advisory committee will provide guidance on the implementation of recommendations from the Plan. The partners of the FCP will work with all interested watershed groups to implement recommendations from the Plan. The steering committee members that guided the development of this plan are listed in Appendix A, as well as the advisory council members who assisted the FCP in outreach about the Plan.

Western Pennsylvania Conservancy will convene a science committee of watershed scientists from conservation organizations, academia, industry, agencies, and private consultants. This task was outlined in the FCP's Vision Plan and will be important as recommendations from the Plan are implemented. This committee will be available to provide guidance to the FCP advisory committee and other groups working in the French Creek watershed. It is also intended to improve communications and cooperative projects to ensure that groups are not duplicating research efforts and wasting valuable funding resources.