

THE ERIE CANALWAY



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A SPECIAL RESOURCE STUDY OF THE NEW YORK STATE CANAL SYSTEM

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Cover art, above: George Harvey, Pittsford on the Erie Canal, ca. 1837, watercolor on paper, 8 1/4" x 13 3/4" — New York State Historical Association, Cooperstown, New York. (Photo, Richard Walker) Cover art, below: The locks at Lockport, New York, today. — Photo Larry Lowenthal. This page, and inside back cover: The aqueduct in Rochester carried the canal over the river. — Erie Canal Museum, Photograph Collection.

This report has been prepared to provide Congress and the public with information about the resources in the study area, and how they relate to criteria for parklands applied by the professional staff of the National Park Service. Publication and transmittal of this report, including any discussion of a preferred course of action, should not be considered an endorsement or commitment by the National Park Service to seek or support either specific legislative authorization for a project, or appropriations for its implementation. Authorization and funding for any new commitments by the National Park Service will have to be considered in light of competing priorities for existing units of the National Park Service and other programs.

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National Park Service • Northeast Region • Boston Support Office

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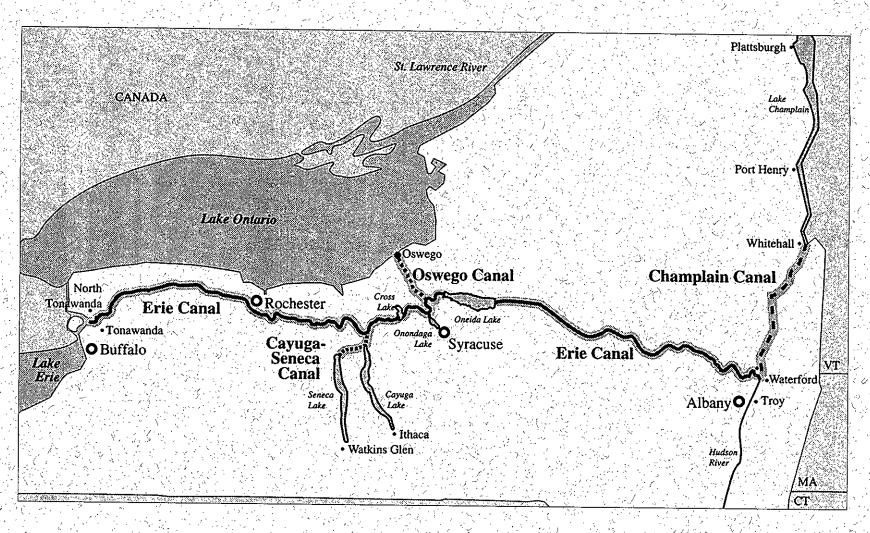
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In 1992, the New York State Legislature enacted Thruway 2000 legislation that transferred responsibility for the canals from the state's Department of Transportation to the New York State Thruway Authority, renamed the canals the New York State Canal System, and established a Canal Recreationway Commission, a twenty-four-member advisory council designed to work in partnership with the Authority to plan the canals' future. The legislation also established the New York State Canal Corporation as a wholly owned subsidiary of the Thruway Authority whose mandate is to operate, preserve, and renew the Canal System for recreation and economic development. The Thruway 2000 legislation also called for the development of a Canal Recreationway Plan. This statewide plan, completed by the New York State Canal Recreationway Commission in the fall of 1995, recommended exploring the possible federal designation of the system as a national heritage corridor or heritage area.

The Interior Appropriation Act for Fiscal Year 1995, Public Law 103-332, directed the Park Service to prepare a special resource study evaluating the New York State Canal System for possible designation as a national heritage corridor. Although the state's entire congressional delegation supported the study, Congressman James T. Walsh (R-Syracuse, NY) and Senator Daniel Patrick Moynihan (D-NY) were its primary advocates.

In addition to this study, several heritage initiatives are underway across Upstate New York involving areas that overlap the canal system. The most active of these are the recently established Hudson River Valley National Heritage Area, the Northern Frontier Initiative, the Mohawk Valley Heritage Corridor, and the Champlain Valley Heritage Corridor Project. Further, in December of 1996, the U.S. Department of Housing and Urban Development (HUD) announced a major upstate New York economic development program. Entitled the "Canal Corridor Initiative," the HUD program has made over \$130 million directly available to local communities for canal corridor projects through a combination of grants and guaranteed loans. Over 50 communities within the canal corridor have been awarded grants or loans through the HUD initiative.

Finally, four NPS units are near or immediately adjacent to the New York State Canal System. They include Saratoga National Historical Park (NHP) in Stillwater, Women's Rights NHP in Seneca Falls, Fort Stanwix National Monument (NM) in Rome, and Theodore Roosevelt Inaugural National Historic Site (NHS) in Buffalo. Because of their immediate proximity to canal resources, Saratoga NHP, Fort Stanwix NM, and Women's Rights NHP have been actively involved in local efforts related to the Canal Recreationway Plan.



NEW YORK STATE CANAL SYSTEM

Source: New York State Canal Recreationway Plan.
Prepared by Beyer Blinder Belle Consortium.



Champlain Canal

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STUDY PURPOSE AND PROCESS

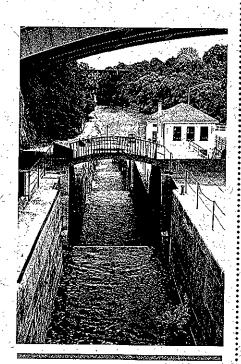
The purpose of the New York State Canals Special Resource Study is to evaluate the canal system for possible designation as a national heritage corridor. The study is a technical document prepared by NPS to provide information to Congress. In order to be considered eligible for inclusion, a proposed unit must be evaluated against federally established criteria for national significance, as well as the suitability and feasibility of including it in the park system. In addition, NPS has developed management alternatives that present a range of options for the protection and interpretation of the New York State Canal System. The Park Service chose to explore options beyond the designation of a national heritage corridor because of the apparent national significance of the canal system. The study does not offer a single recommendation on a particular course of action. An official NPS position is normally taken in response to a specific legislative proposal that may result from the study. This study follows NPS guidelines found in the "Criteria for Parklands" and "Guidelines for Special Resource Studies."

The NPS conducted the study in cooperation with the New York State Canal Corporation and the New York State Canal Recreationway Commission, a twenty-four-member advisory body including representatives of a number of state agencies, communities, and interest groups. A project manager from the Canal Corporation served as a consultant to the study team.

The study process involved historical research and review of existing studies of and plans for the New York State Canal System and its associated resources. The study team visited representative sites along the entire canal system in order to understand the scale and variety of the resources under study. An article introducing the study appeared in the New York State Canal Recreationway Commission's newsletter, The Canaler, and elicited numerous responses asking questions, offering opinions, and seeking additional information.

To provide the basis for a significance statement for the New York State Canal System, eleven historians, industrial archaeologists, and engineers known for their expertise on canals were invited to participate in a workshop on the subject. A list of the panelists and observers at the significance workshop is included in Appendix D. Workshop participants, and twenty observers from involved state agencies and the Park Service met in Syracuse, New York, in August of 1995 and, based on NPS criteria, offered their assessment of the system's national significance and identified the primary, nationally relevant themes it illustrates. In addition, the study team engaged a trails consultant to provide the New York

DESCRIPTION OF THE STUDY AREA



Lockport, New York.

Photo credit: Larry Lowenthal

State Canals study team with an assessment of trail development opportunities, including the identification of critical issues and recommendations for future actions both with and without NPS involvement. This report assisted in the team's assessment of feasibility, which also identified threats to the system's resources and determined whether they were of an appropriate size, configuration, accessibility, and ownership to be developed and administered by NPS.

The team evaluated suitability by comparing the themes and resources of the New York State Canal System to other themes and resources already represented by and interpreted in the national park system. Finally, based on its findings, the study team developed a range of management alternatives and assessed their potential cost to the federal government.

Three elements compose the study area. First is the 524 mile New York State Canal System consisting of the Erie Canal and three lateral canals with their locks, gates, dams, feeder canals, and reservoirs. Stretching 348 miles from Lake Erie (by way of the Niagara River at Tonawanda) to the Hudson River at Waterford, the Erie Canal forms the main trunk line of the system. The three lateral canals, Oswego (24 miles), Cayuga-Seneca (92 miles), and Champlain (60 miles), link the Erie Canal to Lake Ontario, the Finger Lakes, and Lake Champlain respectively. These resources embrace about 36,000 acres and are primarily owned and operated by the New York State Canal Corporation. Next are sections of the alignment of the first Erie Canal (referred to as the "old Erie") that have been restored or simply have survived the realignment and enlargement of the modern canal, the construction of roads and highways, and other public and private works. The New York State Canal Corporation owns some of the lands along the old alignment. Other lands along the old alignment are privately owned or are held by the state and other public agencies. Finally, 25 counties and more than 200 municipalities immediately surround the New York State Canal System and feature cultural resources and institutions that reflect the canals' influence.

The current canal system is the latest incarnation of an evolving water transportation network that was continually adapted to innovations in transportation technology and changes in the economy. Much evidence of the various stages of transportation history has been preserved within the system. While the existing barge canal seems to have superseded its predecessors completely in many areas of the canal system, many other areas harbor remnants of the earlier phases. A number of segments of the old Erie have been restored and rewatered and are

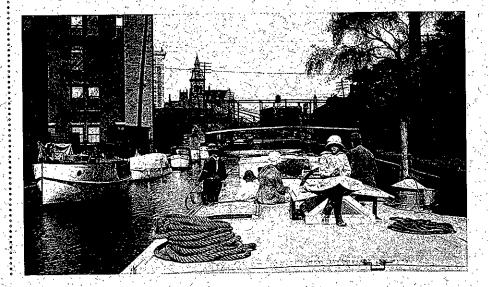
available for public use. At such places as Lockport and Schoharie Crossing, one may observe the remains of the old alongside the new. At a 3.5-mile segment of the canal in the village of Fort Hunter (now Erie Canal National Historic Landmark and Schoharie Crossing State Historic Site) "the three major phases of the Erie Canal's development are all clearly visible in the present day landscape," according to the site's National Register of Historic Places nomination. "The alignments of the original Clinton's Ditch (built here between 1817 and 1819 and opened in 1820), the mid-19th-century improved canal (in this vicinity dating from 1838-1841), and the early 20th-century New York State Barge Canal [constitute a] rare survival of features illustrating the entire span of the [Erie] canal's history." 4

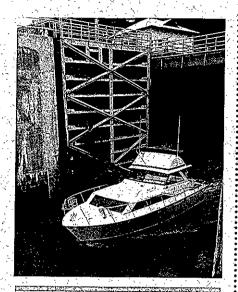
The canal system traverses a diverse landscape ranging from urban and industrial areas to canalside villages, farmland, and natural areas. The system penetrates 25 counties and more than 200 municipalities across the central and northern tiers of the state. More than 4 million people-nearly a quarter of New York State's population-live within these counties. Another 50 percent of the state's residents (9 million additional people) live along the Hudson River from the canal's terminus at Waterford to the Port of New York. Many of the communities along the canals grew and prospered as a direct result of their presence.

According to the New York State Canal Recreationway Plan, commercial traffic peaked on the canals in the 1880's, when 6.5 million tons of grain, oil, coal, and other commodities were shipped on them each year. Scholars generally believe that the railroad boom in the late 1800's, the opening of the St. Lawrence Seaway in the 1950's, the availability of truck transport on interstate highways after World War II, and the regular wintertime closure of the canals had a distinct impact on the



Photo credit: Erie Canal Museum, Photograph Collection.



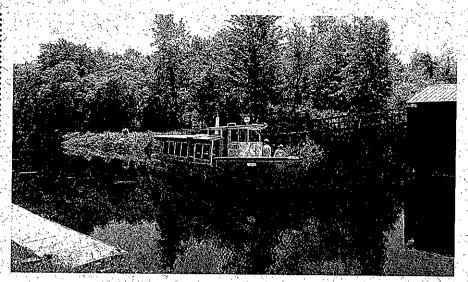


Above: A boat passes through the barge canallocks at Lockport.

Above right: A tour boat passes through Erie Canal Park in Camillus.

Right: Canoeing in the canal corridor near Pittsford.

Photo credit: Karl Beard





level and types of use. In 1993, only 154 thousand tons of freight were shipped on the canal system. Still, the state welcomes commercial traffic and expects it to continue, the recreationway plan calls for encouraging a modest level of freighting in order to retain a diversity of use on the canals.

By contrast, recreational boat traffic on the canals has been on the increase, though exact figures are difficult to find. The current method of determining recreational use is by counting the number of lockages, which may include more than one boat, and does not count the number of boaters using the areas between locks and lakes. Thus current figures of 126,051 pleasure craft lockages in 1995, and 115,297

lockages in 1996, almost certainly understate the number of recreational boaters on the canals. The number of lockages recorded annually can fluctuate based on weather and economic conditions. In addition, the reintroduction of tolls at the locks in 1994 may have had a negative effect on the total number of lockages for that and subsequent years.

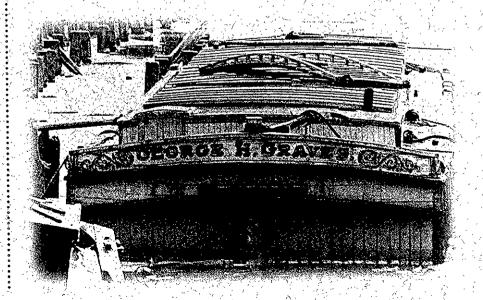
The present canal system offers expansive and diverse recreational opportunities, both on its own waterways and through its links to other bodies of water such as Lakes Erie, Ontario, and Champlain, the Finger Lakes, and the Hudson River. Activities range from passive endeavors such as watching locks operate, a popular pastime since the beginning of canal operation, to more active pursuits such as boating and

Plan, the New York State Canal Recreationway Commission is currently undertaking a five-year, \$32.3 million Canal Revitalization Program. The program focuses on four major elements of the NYS Canal Recreationway Plan — canal harbors; canal service port and lock projects; the canalway trail; and a canal system marketing plan. Using canalgenerated revenues and federal aid, the Canal Corporation expects to have initiated or to have made significant progress in the construction of all proposed harbor centers by 2001. In addition, over the next five years it expects to fund the development of seventy-three miles of the canalway trail. Under the program, the two major strategic marketing objectives are to enhance tourism and recreational use of the canal system and to foster private-sector investment in canal-related projects. From an operational standpoint, in 1994, the NYS Canal Corporation operated and maintained the canal system with a budget of \$ 20.7 million. Also that year, \$ 27.6 million were earmarked for capital improvements to the system, part of a five-year capital plan for maintenance and improvement of the canal infrastructure.

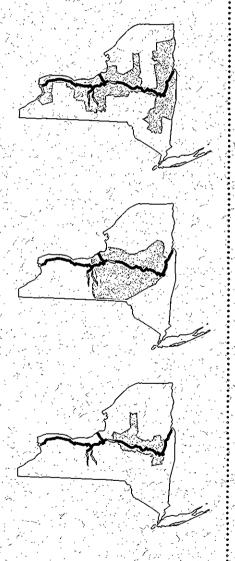
already underway. In 1995, the New York State Canal Corporation submitted a project proposal to the National Park Service's Rivers, Trails, and Conservation Assistance (RTCA) program. The proposal called for the creation of a statewide Friends of the Canalway Trail Society to foster greater public interest and support for the trail project. The proposal was accepted by the NPS Rivers and Trails program, and the Canal Corporation and NPS have since held a number of productive and successful workshops on the trail across the state. In addition, the New York State Canal Corporation and RTCA jointly sponsored a well-

Decorative name boards were common on 19th century canal boats.

Photo credit: Erie Canal Museum, Photograph Collection.



OTHER UPSTATE NEW YORK HERITAGE AND REVITALIZATION INITIATIVES



received end-to-end bicycle trek along the Erie segment of the canal system in September, 1997.

Across Upstate New York local, regional, and state organizations are taking stock of the region's historic, scenic, and recreational resources with an eye toward achieving their broad public recognition, long-term protection, and economic potential. Five major initiatives are either underway or proposed in areas that abut or overlap the NPS study area:

Canal Corridor Initiative: The U.S. Department of Housing and Urban Development (HUD) has made over \$130 million available to communities for canal corridor projects. This project assistance will take the form of grants and guaranteed loans. The Canal Corridor Initiative is a sustained commitment to Upstate New York that will enable communities along the canal to tap its potential as an engine of economic growth and community revitalization. Over fifty communities within the corridor have been awarded HUD grants (See HUD map page 21.)

Northern Frontier Project: a grass-roots initiative to identify the historic and cultural resources of historic Tryon County. The project aims to improve their promotion, protection, and interpretation in order to help make Central New York a better place to live and work and to promote economic development in the region by expanding and improving travel and tourism opportunities. Congress has directed NPS to begin preparing a special resource study for the area in 1998.

Mohawk Valley Heritage Corridor: established by the state legislation in 1994 to protect the region's natural, historic, and recreational resources and promote its economic revitalization. Albany, Saratoga, Schenectady, Schoharie, Montgomery, Fulton, Herkimer, and Oneida counties and the Oneida Indian Nation, are included within the corridor. The Mohawk Valley Heritage Corridor Commission is a public benefit corporation and is part of a state-wide network of heritage areas.

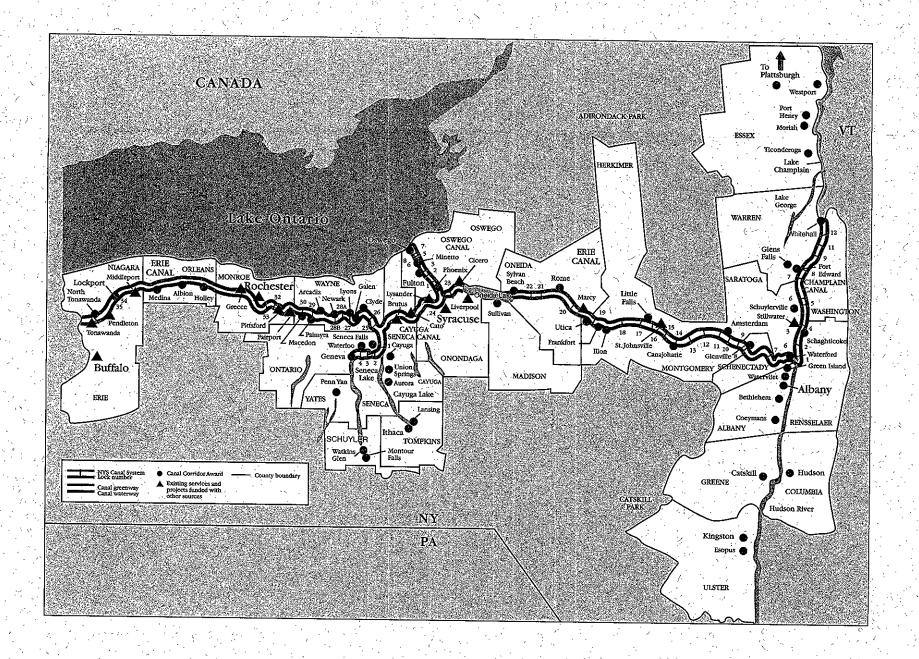




Hudson River Valley National Heritage Area: established by Congress in 1996 to recognize the national importance of the history and the resources of the Hudson River Valley. The legislation authorizes the provision of federal financial and technical assistance to the state of New York and Hudson River Valley communities in preserving, protecting, and interpreting these resources. Albany, Rensselaer, Greene, Columbia, Ulster, Dutchess, Orange, Putnam, Rockland, and Westchester counties and the village of Waterford in Saratoga County fall within the boundary of the heritage area.

Champlain Valley Heritage Corridor Project: In 1997, Congress directed the Park Service to undertake a study of the Champlain Valley which straddles the New York/Vermont border as well as parts of Canada. This bistate/national project includes counties located within the Champlain Valley including the following New York counties: Essex, Clinton, Saratoga, Warren, and Washington. The study is slated for completion in 1999.

All of these programs and initiatives offer opportunities for sharing data, cooperating on joint marketing and programming, and collectively leveraging resources for planning, programming, preservation, and development. Future managers of this resource should recognize these projects as complementary undertakings and should collaborate with their proponents when geography, resources, goals, and themes intersect.



THE CANAL CORRIDOR INITIATIVE

Source: U. S. Department of Housing and Urban Development

P94/20007 1 OF 1 s an organ of communication between the Hudson, the Mississippi, the St. Lawrence, the Great Lakes of the north and west and their tributary rivers, it will create the greatest inland trade ever witnessed." — DeWitt Clinton, 1816







EVALUATION OF SPECIAL RESOURCE STUDY CRITERIA

ANALYSIS OF SIGNIFICANCE

This significance statement emerged from an August 1995 conference of recognized experts on canals. After intensive discussion, conference participants unanimously reached conclusions about how to define and articulate the significance of the cultural resources of the New York State Canal System. They concluded that, among other things, the existing system is the current manifestation of several systems of man-made waterways through specific corridors that have succeeded one another in time, possess historical and functional continuity, and cannot reasonably be distinguished or separated from previous versions in terms of their historical significance.

Panelists stressed the importance of taking a holistic, systemic approach to the resource. Just as the current canal system was developed and functions as a system, organic and systemic continuity in the planning and management of New York's canals extends back to the 1790's. Since that time, the continuous need for transportation along favorable routes has created an uninterrupted process of moving goods and people that regularly incorporated technological advances.

A resource may be considered nationally significant if it meets all four of the following criteria: 1) it is an outstanding example of a particular type of resource; 2) it possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of the nation's heritage; 3) it offers superlative opportunities for recreation, for public use and enjoyment, or for scientific study; 4) it retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource.

 An Outstanding Example of A Particular Type of Resource 1. It is an outstanding example of a particular type of resource.

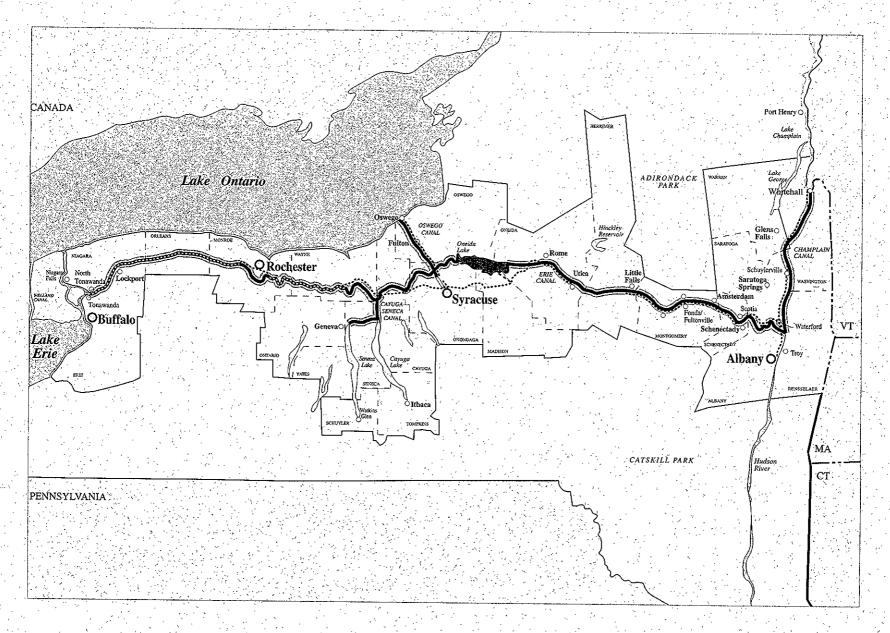
In many cases the arguments for the national significance of a particular canal have been made on the basis that its cumulative regional importance was, in effect, so great that it assumed national significance. The New York State Canal System, by contrast, includes probably the only canal whose influence was genuinely national in scope, and few transportation systems or facilities of any kind can legitimately claim to have had such widespread impact on the United States. Only such individual works as the first transcontinental railroad and such broad technological phenomena as the steam locomotive, the automobile, or the airplane have had a comparable effect.

The New York State Canal System, especially the 1825 "old Erie" and its laterals, is fundamentally and broadly significant in the formation of the American nation and national identity. Its significance in this respect is something of a paradox because the system was constructed by a state only after the federal government had declined to participate. Both the 19th- (original and enlarged Erie) and 20th-century (barge canal) forms of the canal system were in their times the largest public works projects ever undertaken by a state. Built to advance the interests of that state, the effects of New York's canals nonetheless transcended New York and its region.

The canal system created the first effective means of inland interstate commerce in the United States and realigned the relationship among regions. Before the New York canals were built, the great bulk of the exports of the American interior tended to flow either down the Mississippi River to New Orleans or through the Great Lakes and the St. Lawrence River to Montreal. By providing an outlet to the Atlantic for

At Lockport, the 19th century locks are preserved alongside their contemporary counterparts.

Photo credit: Larry Lowenthal



THE HISTORIC CANAL SYSTEM

Source: New York State Canal Recreationway Plan.
Prepared by Beyer Blinder Belle Consortium.

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■ The Modern Canalway

····· The Old Erie Canal

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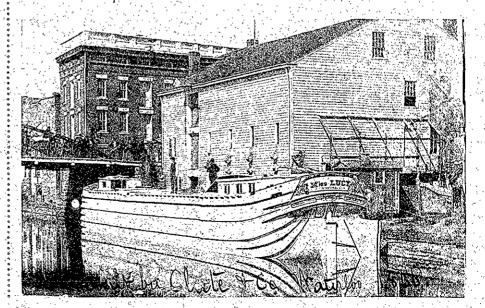
Mississippi basin goods, the canals helped to divide the nation into north/south rather than east/west sections and enabled New York City to eclipse New Orleans as the nation's leading port. In addition, because the humid climate of New Orleans made grain storage there almost impossible, the Great Lakes-Atlantic orientation the canals put in place allowed the Upper Midwest to develop into the nation's granary. By 1847 the traffic of the western states already exceeded that of New York itself on these canals, and by 1850 the old Eric carried a quarter of the grain grown in the United States. The New York State canals shaped the growth of the new regions, helping to create the conditions under which cities such as Chicago and Cleveland rose to prominence.

The canal system further ensured New York City's primacy as an Atlantic seaport and effectively nationalized commerce by siphoning the potash, lumber, grain, and other products of the northern sections of Vermont, New York, and the Old Northwest away from Montreal, an important aim of both the first canal system and the barge canal. As Judge William Cooper (father of the novelist) declared about 1806, "The trade of this vast country must be divided between Montreal and New York, and the half of it lost to the United States, unless an inland communication can be formed from Lake Erie to the Hudson." The Champlain Canal became, in effect, the canal of northern New York and western New England, especially Vermont. Traffic that otherwise might have found an outlet in Montreal was instead recaptured for New York City, and the overwhelming success of the canal system-Hudson River corridor may have discouraged efforts to improve navigation on the Connecticut River.

Completion of the first Erie Canal in 1825 accelerated and

By determining the location, orientation, and construction of many buildings, the canals had a direct impact on the built environment.

Photo credit: Chittenango Landing Canal Boat Museum



channeled not only the flow of goods but also the already substantial flow of people from New England into Upstate New York, and it helped ensure as well that much of the "Old Northwest" was settled by people of New England origins. The cultural and economic ties the canal created between the older and newer northern states may have created the conditions—and helped determine the outcome—of the sectional conflict that culminated in the Civil War. Thus the canal system had an enormous impact in shaping the cultural, political, and economic development of the nation as a whole.

In addition to shifting transportation patterns within the United States, the New York State canals exerted a significant impact on foreign affairs. As late as the War of 1812, the United States had found it difficult both to defend its northern frontier and to launch offensive operations in that theater. Once the original canal system was completed, the threat of English invasion from the north became unlikely due to the strategic advantage that it offered the United States. This strategic reality had enormous influence in shaping American relations with the United Kingdom, the foremost naval power of the 19th and much of the 20th centuries. Another military effect was the government's choice of Watervliet as the location for a federal large cannon factory in 1889, in part because of the excellent transportation afforded by the canals, independent of railroads.

The emergence of the Hudson-Canal corridor led to the rise of the "Empire State." New York became the national leader in population, industry, and economic strength, all of which translated into political power, and the state retained this disproportionate importance until the mid-20th century. New York City became preeminent in the nation's finance and commerce, and the canals became the "mother of cities" by contributing to the rise of other population centers directly along the canals. By determining the location, orientation, and construction of many buildings, the canals had a direct impact on the built environment. Some architectural historians have noted that canal stoneworkers transferred their techniques to other structures, contributing to a distinctive architectural style in the region.

New York's rapid and dramatic leap to dominance after completing the nation's first interregional water transportation link alarmed its rivals along the Atlantic seaboard and set off fierce and costly competition, including the so-called "canal mania." Seaports that hoped to remain in contention felt pressure to build their own transportation systems across the Appalachian Mountains even though they lacked New York's singular geographical advantage. Pennsylvania's canal system.

Illustrating Themes of National Heritage

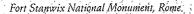
immigrant route to the west and thereby enlarged upon the ethnic diversity for which the construction of the canal itself was partly responsible.

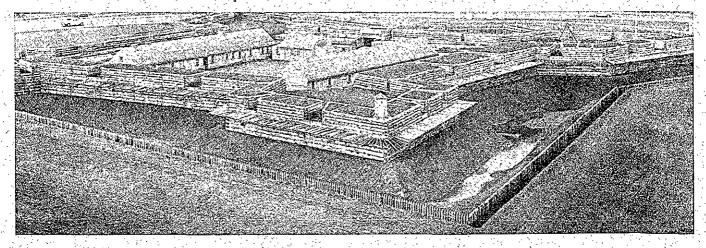
2. It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of the nation's heritage.

The exceptional interpretive potential of New York's canal system relates most directly and obviously to the theme of transportation, but the ramifications of the canals -and consequently their interpretive value -extend across a wide spectrum of American history. Interpretive possibilities begin with the immediately apparent engineering works and technical achievements, reaching from the hydraulic cement of the 1820's to the siphon locks of the 20th century. The system's influence extends into such diverse areas as literature, music, social reform, religious and political movements, and ethnic diversity, most conspicuously between 1825 and 1860.

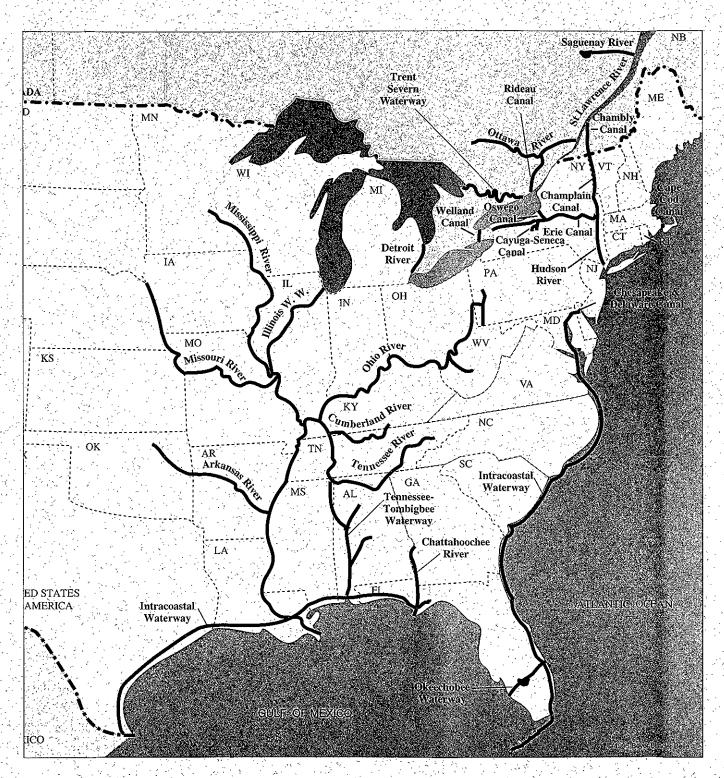
While the New York State canals were not solely responsible for the nation's inevitable westward expansion, they played a leading part in determining the nature and path of that expansion. They shaped the political and economic structure of the nation in its formative years with lasting consequences. Because they present such enormous thematic diversity, the canals can be treated as an interpretive window through which it is possible to view a cross-section of American life in the Northeast and upper Midwest, as well as the emergence of important sectional issues in the nation as a whole.

Probably the most obvious evidence of the interpretive value of the canal system is the number of sites and institutions that already interpret certain of its aspects. Several especially noteworthy sites present a vivid juxtaposition of different phases of canal construction, particularly Schoharie Crossing State Historic Site in Fort Hunter. As a result of conducting tours over a long period, the Canal Society of New





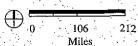




NETWORK OF CONNECTING WATERWAYS

Source: New York State Canal Recreationway Plan. Prepared by Beyer Blinder Belle Consortium.

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* Resource Integrity

4. It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource.

Historically, the most salient feature of the canal system is its long-standing and continued use as a transportation corridor; for at least two hundred years a steadily more complex array of man-made improvements expanded on the natural advantages of this corridor. In its current manifestation the New York State Canal System retains an extraordinary level of integrity. Since its completion in 1918 it has experienced numerous but largely superficial changes; the 1918 system survives intact to a remarkable extent. Moreover, it survives as a functioning system, including ancillary structures and water supply management facilities, notably reservoirs. Significant losses have occurred only to terminals. As participants in the significance workshop pointed out, the continuing operation of the entire system is the most impressive evidence of its integrity, and any discontinuance of operation would be the most severe threat to that integrity.

Fine examples of all previous episodes of canal building and use exist. Evidence of the 1790's canals is largely archeological, yet over the length of the system virtually every imaginable variation in preservation of later systems can be seen, from sections where the present canal has obliterated all previous stages to several outstanding points where the major evolutionary phases survive in proximity to each other. Because the systems, especially the 20th-century version, were highly standardized, examples of identical structures can almost always be found, even if a particular one has been lost. Some of the lateral canals abandoned at an early date provide some of the best remaining examples of previous stages of technology.

A comprehensive mile-by-mile inventory such as has been done on the Pennsylvania Main Line Canal has not yet been conducted on the New York State canals. At least two fairly thorough inventories have been performed, however, and have identified the most significant canal-related resources. In addition to structures that had a direct operational function in the system, a great many cultural resources owe their existence to the canal. Entire canal-dependent streets and villages, as well as individual buildings, testify to its impact on the built environment of upstate New York. These districts often possess exceptional architectural cohesion and are so pervasive throughout the region that it might be feasible and advantageous to consider much of the route, at least of the 19th-century system, as a continuous cultural landscape.

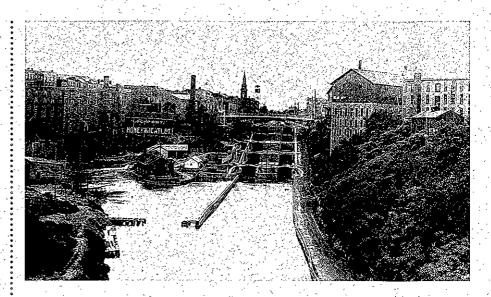
When assessing the national significance of historic resources,



Herkimer Home State Historic Site, Danube.
Photo credit: Larry Lowenthal

Historic photograph depicting the double locks at Lockport.

Photo credit: Erie Canal Museum, Photograph Collection.



it is desirable to do so within the context of a formal National Historic Landmark (NHL) nomination. In this study we have applied the criteria for national significance found in the "Criteria for Parklands," which closely parallels the criteria for National Historic Landmarks, to the New York State Canal System as a whole. Given the scale and complexity of the resource and the limited funds allocated for the study, it would have been impossible to assemble the extensive documentation required for an NHL nomination. However, such a system-wide inventory and documentation effort should be undertaken at a later date under the auspices of the Park Service's National Historic Landmarks Program.

In sum, the historical continuity represented by the modern New York State Canal System and the remnants and artifacts of its predecessors -the 1825 and 1862 versions of the Erie Canal- is the very foundation of this resource's historic integrity and interpretive value. The significance statement weighs the resource values of the New York State Canal System and its adjoining communities against the park service's criteria and firmly establishes its national significance. The New York State Canal System —including the archaeological remains of the 1790 Inland Waterway Navigation Canal, remnants of the 1825 Erie Canal alignment, remnants of the enlarged Erie Canal completed in 1862, and finally the modern barge canal—should be considered nationally significant.

INTERPRETIVE Themes

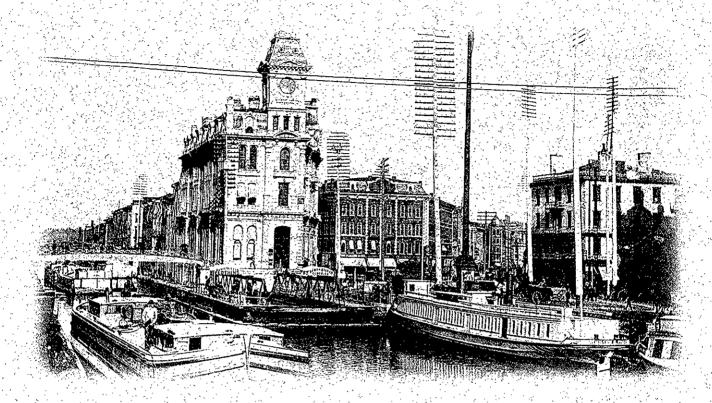
The following themes, derived from the significance statement, represent an interpretive framework for exploring the canal system's significance in American history. They are intended to complement the interpretive themes developed for the New York State Canal Recreationway Plan and should work with them to present the story of the canal on a number of levels: local, regional, state, and national. The history of the New York State Canal System embodies the overarching theme of national development. Interpretation would focus on seven important contributions the canal system has made to the emergence of the United States as a nation and its subsequent geopolitical, economic, and social development.

Developing the American Economy. The Erie Canal, both by itself and as part of the larger New York State Canal System, became a significant route altering the flow of capital and goods between the Atlantic coast and burgeoning settlements in the nation's interior. As the first effective means of inland interstate commerce, the canal contributed to the rapid economic growth that enabled the Old Northwest (embracing a significant portion of the modern day Midwest) to develop as an exporter of grain and natural resources, and facilitated the rise of Upstate New York urban centers such as Buffalo, Rochester, Oswego, Syracuse, and Albany. It was a central factor in making New York City the nation's leader in shipping and commerce, and helped shape the pattern of urban growth around the Great Lakes.

Peopling Places and Transforming the

Environment. In the development of the New York State Canal System, early engineers took advantage of Native American and colonial transportation routes and lines of communication along the Mohawk River. As the New York State Canal System developed, travel across New York to the Great Lakes region became faster, safer, and more reliable, and the population flow from New England to Upstate New York and on to the Midwest increased steadily. This cultural tie was important in binding the Old Northwest to the North and shaped the sectional divisions that culminated in the Civil War. In New York State, the canal became the "mother of cities" along the canal route. The Eric Canal was also a principal route to the West through the mid-19th century for an ethnically diverse immigrant population, the first of whom were drawn to the area to help build the canal.

Changing U.S. Role in the World Community.
As late as the War of 1812 poor transportation and communication



In New York State, the canal became the "mother of cities" along the canal route. Shown here is a street-level swing bridge open for busy canal traffic in Syracuse.

Photo credit: Erie Canal Museum, Photograph Collection

made it difficult for the U.S. to conduct military operations along the Canadian border. The thinly-populated region remained vulnerable to British invasion from Canada. Construction of the canals and the resulting surge of population into the region made the deployment of troops and equipment much more efficient and rendered British aggression far less feasible. This relationship had a profound effect on British-American relations in the remainder of the 19th century, and almost certainly contributed to British neutrality during the Civil War.

Expanding Science and Technology.

The construction of the Eric Canal produced a cadre of engineers and technicians who directly transferred the lessons they learned on this project to canal and engineering projects throughout the United States. Canal building stimulated the first practical hydrological and geological studies in the United States. During the construction of the canal system a host of technical, physical, and organizational challenges inspired innovative solutions, including the use of new construction techniques and materials, the development of the highest set of lift locks in the world, and the creation of an unprecedented system of reservoirs and other water supply management techniques.

Creating Social Institutions and Movements.

The Eric Canal facilitated the movement of ideas as well as people, and helped transmit the prolific reforms and visionary and spiritual ideas born for the most part in New England. Among these movements were the creation of the Mormon Church, utopian communities (Oneida), abolitionism, prohibitionism, millennialism, and women's suffrage. Twentieth-century historians have called the area along the Eric Canal the "burned-over district" because it was "scorched by the flames" of social and religious reform.

Shaping the Political Landscape. Canal-related issues dominated New York state politics for much of the 19th century and remained contentious into this century. As New York's importance in national politics increased, these debates had a spillover effect on the national scene. More importantly, as the canals facilitated the movement of New England people and ideas to the Midwest, they exerted a powerful influence on the sectional controversies that preceded the breakup of the Union in 1860. Later the canals figured prominently in efforts to control the railroad corporations, one of the central reform issues of the time.

Establishing a National Identity. The creation of the New York State Canal System demonstrated that Americans

were financially and technically capable of completing a project of large magnitude. This

accomplishment in turn contributed to an emerging sense of national pride and consciousness. The canals' great success inspired local, state, and federal governments to a surge of canal-building and other public works. In paintings, prints, music, literature, film, and decorative arts, the Erie Canal came, in the popular imagination, to symbolize the manifest destiny of westward expansion. The canal system linked two of the nation's most compelling natural

attractions, the Hudson Valley and Niagara Falls, and served as a route for tourists as well as for immigrants. As part of the "Grand Tour," the canals became a popular attraction for for eign visitors and contributed significantly to the rise of domestic tourism.



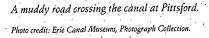
Photo credit: T.R.'s Eerie Canal Post Cards and Collectibles.

ward movement and created the first commercial artery between the East and the Old Northwest. The Erie Canal, with its extensive network of lateral canals, continued to be the primary corridor for travel and commerce until the emergence of the railroad.

The network of railroad lines developed in the 1840's and 1850's made the westward passage still easier. The completion of the first transcontinental railroad in 1869 is commemorated at Golden Spike National Historic Site in Utah. Like the Erie Canal, this transportation corridor signaled a new era in the nation's development; it had similar, though grander, implications for westward expansion, settlement patterns, industrial development, interstate commerce, international trade, and technological innovation.

Within the national park system, a number of sites also interpret the primary national themes represented by the New York State Canal System (see pages 18-20). Sites that represent the "Developing the American Economy" theme focus mainly, however, on coastal maritime activity and international trade, Salem Maritime NHP in Massachusetts, and San Francisco Maritime NHP in California are the primary examples of such sites. Other sites in the system—Chesapeake and Ohio NHP, Delaware and Lehigh NHC, Illinois and Michigan NHS, Allegheny Portage Railroad NHS, and Blackstone River Valley NHC— specifically address the development of a network of inland waterways and the emergence of an increasingly efficient system for interstate commerce across the nation. Yet all rose to prominence after the Erie Canal, and none specifically commemorate New York's canal system as the fountainhead of interstate commerce.

Many sites in the national park system represent the wide range of topics embraced by the themes of "Peopling Places" and "Transforming the Environment" during the 19th and 20th centuries;

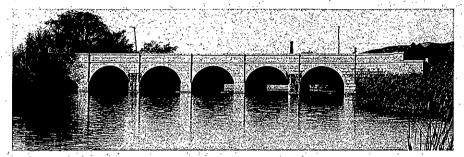




A 1909 aqueduct on the Erié Canal.

Photo credit: T.R.'s Erie Canal Post Cards and Collectibles.

however, none offer the opportunity to treat these subjects as comprehensively as does the New York State Canal System. The Jefferson National Expansion Memorial in St. Louis, Missouri commemorates the early exploration of the United States and marks the portal through which many immigrants found their way west during the latter half of the 19th century; the Erie Canal served as such a portal decades earlier. Resources throughout the study area illustrate the relationship between the construction, enlargement, and improvement of the New York State Canal System and adjacent patterns of settlement and community development. This relationship is evident in such places as Schoharie Crossing



State Historic Site (Erie Canal National Historic Landmark) and Lockport, where multiple generations of canal resources exist side-by-side, and in such places as Syracuse, where the Erie Canal is now Erie Boulevard and accommodates cars, not barges. There are currently no sites in the national park system that can interpret the relationship between the history and evolution of transportation and accompanying settlement patterns within as large and diverse a geographic or thematic scope.

The Erie Canal NHL at Schoharie Crossing State Historic Site is among the only formally federally recognized sites that interpret the technological innovations resulting from the development of transportation canals in this country. (Others include Delaware Aqueduct on the Upper Delaware Scenic and Recreational River; Potomac Canal Historic District; and Allegheny Portage.) The New York State Canal System, particularly the Erie Canal, was the proving ground for much of the technology that made other canals, as well as the railroads, possible. In addition to Schoharie Crossing, a number of other sites throughout the New York State Canal System could serve to illustrate this theme, including the double locks at Lockport and Seneca Falls, the group of five locks at Waterford (considered among the world's highest series of liftlocks), and the siphon lock in the city of Oswego, ¹² all located on the modern barge canal.

Numerous NPS sites as well as National Historic Landmarks illustrate the theme of Creating Social Institutions and Movements. In Upstate New York, several sites, particularly those associated with

district." Among these are Women's Rights NHP at Seneca Falls, which includes the home of Elizabeth Cady Stanton and the M'Clintock house, and the home of Susan B. Anthony, a privately owned National Historic Landmark in Rochester. In addition, the cities of Syracuse and Rochester were major centers of abolitionist and Underground Railroad activity.

Finally the NPS maintains a number of sites that address the

women's suffrage, are close to the canal within the so-called "burned-over

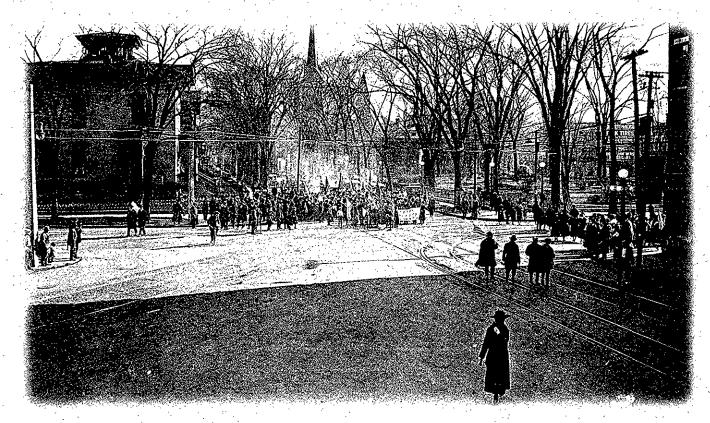
Finally, the NPS maintains a number of sites that address the theme, "Expressing Cultural Values." These sites may be considered cultural icons in the sense that they have come to symbolize a highly recognizable idea, ideal, or value in the American or the global community. The most notable of these is the Statue of Liberty in New York, representing the promise of freedom and economic opportunity in America to people around the world. The Erie Canal is symbolic of American ingenuity, growth, and progress. To many people here and abroad, the Erie Canal is the American canal.

No single unit in the national park system can offer as complete a portrait of the development of the United States from the last part of the 18th and the early 19th centuries through the early 20th century as can the New York State Canal System. The diversity of resources within and along its banks illustrates in many ways the emergence of an autonomous nation and of a distinctly American way of life.

Under NPS management guidelines, different criteria for feasibility may apply depending upon the type of federal designation being explored for an area. Because this study considers two possible federal designations

Feasibility

The Erie Canal captured the American imagination and was portrayed in folk art, decorative art, literature, and song,
Credit: Mary Keys, Lockport on the Eric Canal, 1832,
watercolor on paper, 15 1/4" x 20". Munson-Williams-Proctor
Institute Museum of Art, Utica, New York



The canal transported ideas as well as goods. Here a group of suffragettes demonstrates in Fayette Park, Syracuse.

Photo credit: Erie Canal Museum, Photograph Collection.

for the New York State Canal System, feasibility will be discussed with each proposed management alternative in the next section of this report.

To be feasible as a new unit of the national park system, an area's natural systems and/or historic settings must be of sufficient size and appropriate configuration to ensure long-term protection of the resources and to accommodate public use. A number of other factors are considered in assessing feasibility, including operating costs, administrative costs, landownership, access, threats to the resource, and staff and development requirements. Since August 18, 1970, a unit of the national park system has been defined in law as "any area of land and water now or hereafter administered by the Secretary of the Interior through the National Park Service for park, monument, historic, parkway, recreational or other purposes."

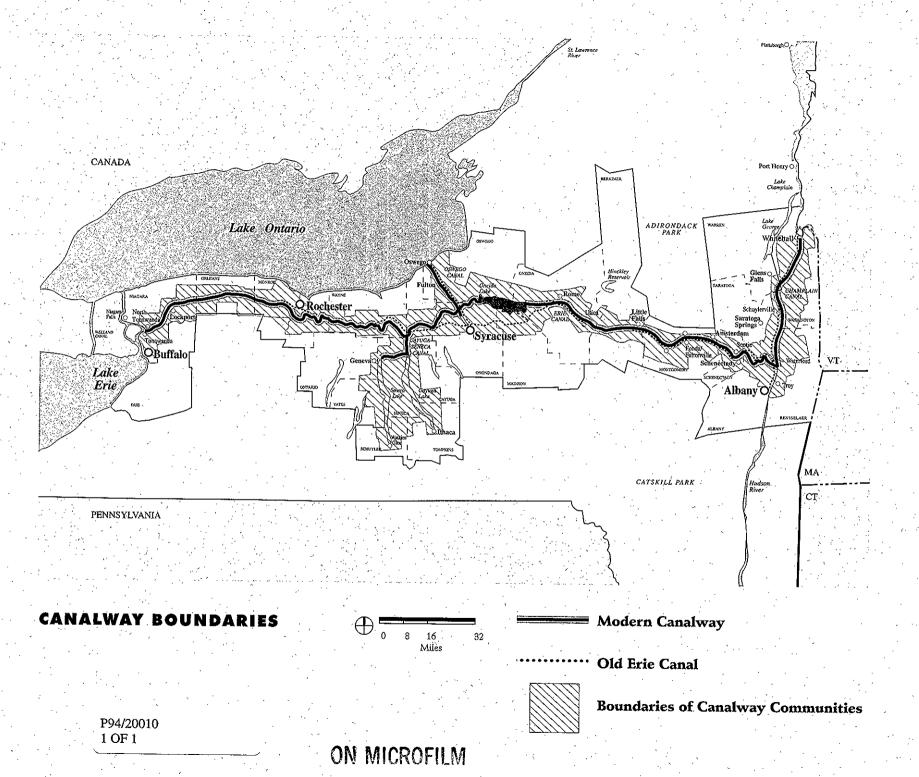
To be considered feasible as an affiliated area associated with the national park system, a site must demonstrate the need for recognition or technical assistance beyond what is available through existing NPS programs, must document that a cooperative arrangement with the Park Service and contributions from other sources will be adequate to assure long-term protection of the resource, and must be able to establish and continue a standard of maintenance, operations, public service, and financial accountability consistent with requirements applicable to national park system units.¹⁵

Under this alternative the primary roles of the Park Service would include providing technical assistance to canalway management and associated partners, providing support in the development of a corridor-wide interpretation and canalway identity program, and offering guidance and support for the creation of an Erie Canal Education Center. With further study, one or more sites could be identified that would merit direct NPS management, in order to further recognize the national significance of the Erie Canalway and its associated elements.

In addition, the Park Service would play a role in the coordination of programs and activities among the various owners and managers of canal-related resources throughout the proposed unit. The Park Service might also acquire and develop a limited amount of land that would not exceed 20 acres in size within the corridor for administrative and/or visitor services purposes. Although not identical in all respects, there are a number of similar models to consider that combine a center or a site within a larger designated area. Among them are the Essex National Heritage Area in Massachusetts which includes Salem Maritime National Historic Site and Saugus Ironworks National Historic Site within its boundaries. The Cane River Creole National Historical Park and National Heritage Area in Louisiana is another such example.

The New York State Canal Corporation is currently the principal owner and manager within the proposed affiliated area and, with its advisory body, the Canal Commission, would continue to operate the canal system. A management entity for the proposed Erie Canalway would be established based on criteria laid out in legislation and would include broad based representation drawn from the owners and managers of canal related resources, local communities, state and federal agencies, and other organizations having an interest in the canal corridor.

The Park Service would be a part of the management entity which would coordinate the development of a collaborative management strategy that would further the purposes of the Erie Canalway. In the event that a national historical site is also designated, NPS would administer the site in accordance with applicable laws and standards. As part of the management entity, NPS would focus on the development and delivery of educational programming in accordance with existing NPS standards and would assist in defining standards for resource protection and visitor services particular to the Erie Canalway. The responsibilities and authorities of a management entity for the affiliated area should include long-range, comprehensive planning, coordination of programs and activities, cooperative agreement and grant making, and disseminating standards for visitor services and resource protection. Other federal, state,



& Technical Assistance

Interpretation & Identity



An interpretive display in Greece, New York includes a model of a canal lock.

Photo credit: Karl Beard

local, and private historic sites and natural areas within the canalway would operate under their own authorities and, as appropriate, in partnership with the management entity.

The Park Service's programmatic assistance to the proposed affiliated area could take any or all of the following forms:

Through a permanent technical assistance program funded out of operating dollars for this affiliated area, NPS could provide to the owners and managers of canal-related resources, and canal corridor communities, organizations, and institutions, technical assistance and grants for education, interpretation, historic preservation, planning, recreational trail development, and open space conservation. This program would place particular emphasis on activities that would serve as model projects. NPS staff would be assigned to coordinate support to the Erie Canalway. All of the Park Service's programs (for example, Rivers, Trails and Conservation Assistance and the National Historic Landmarks Program) and professional offices (including the Boston Support Office, the Olmsted Center for Landscape Preservation, the Building Conservation Center, and the Northeast Museum Services Center) would be available for project work subject to appropriated funds.

The Park Service would provide support in developing a comprehensive interpretation and canalway identity program. The purpose of this initiative would be to ensure that visitors to the Erie Canalway are aware that they are traveling within the canalway, are able to easily navigate the canalway as pedestrians, boaters, or drivers, and have the opportunity to understand and appreciate the natural, cultural, scenic, and recreational sites and attractions within its bounds. Some aspects of the interpretation and identity effort are already underway and are noted below. Key facets of this program could include:

- A signage system including both directional and interpretive signage. Such a system is a goal of the Canal Corporation which has recently begun design of a preliminary program. A logo-based, directional signage system embracing highway, local routes, and individual destinations would be integrated with printed information. NPS involvement could build on this activity to establish a full interpretive program including waysides and other interpretive media.
- **Corridor-wide publications** like informational brochures with maps, and comprehensive guides similar to the Park Service's series of park guides.

- A series of "virtual visitor centers" at various visitor destinations along the Erie Canalway. The virtual visitor centers would consist of computer terminals programmed using interactive software that would enable visitors to obtain information about the whole canalway as well as the particular site that they are currently visiting. Information could be provided on a wide range of topics including interpretive programs, related attractions, maps and directions, food and lodging. The virtual visitor centers would be developed through a partnership with the management entity and the host institutions at each site. These programs could also be adapted for classroom use and made available to prospective visitors via the internet.
- * Interpretive training provided by NPS to ensure a consistent standard for interpretive programming throughout the Erie Canalway. Individual sites throughout the canalway would continue to be responsible for their own interpretation.

An "Erie Canal Education Center," modeled after the Tsongas Center for Industrial History at Lowell National Historical Park, could be developed with NPS support. The center could provide interactive, educational exhibits illustrating the operation of the contemporary canal system as well as the history of its development and its overall impacts on the social, geographic, and political history of the United States. The education center would also support a network of educational programs focusing on the local history of the canal throughout the Erie Canalway. Curriculum development and educational outreach to school systems across the state could be a major program emphasis. The proposed center should be established with an educational institution as a co-sponsor as the University of Massachusetts at Lowell (UMASS/Lowell) is to the Tsongas Center — as well as with commitments from the state and private industry. UMASS/Lowell established the Tsongas Center with the Park Service and continues to operate it in an NPS-owned historic mill building located within the park. The National Park Service could contribute to the planning and design of facilities for the center and provide funds for the adaptive re-use of a historic structure for this purpose.

The identification of an actual location for such an education center is beyond the scope of this study. As proposed, the education center would require a strong local partner, preferably an established institution, and would be located in an area considered a "destination" location within the Erie Canalway, and in proximity to significant canal-related resources. Co-sponsorship by a New York

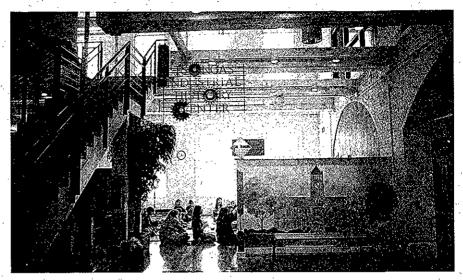
Erie CanalEducation Center



Above and Above right: School children participate in hands-on educational programs at the Tsongas Center for Industrial History. The proposed Erie Canal Education Center would offer similar programming.

Photo credit: Sarah Peskin

Demonstration Projects



college or university could further expand the range and depth of educational programming offered by the education center. A number of locations meet this criteria and include but are not limited to the following: Waterford, Schoharie Crossing, Rome, Syracuse, Rochester, and Lockport. The education center would be developed in consultation with other institutions and would not compete with existing institutions and programs but would complement them.

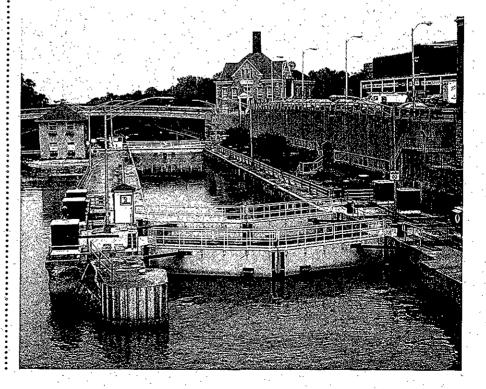
As part of the management entity, NPS would lend its support and guidance to a limited number of demonstration projects. These projects could range from historic preservation and adaptive reuse efforts for visitor services, to the development of travelling education kits and other educational outreach activities. These projects could serve as models illustrating the development standards and levels of visitor services achievable within the canalway.

To ensure that the activities of the New York State Canal Corporation are consistent with the purposes of the Erie Canalway, the New York State Canal Corporation and Canal Commission would be asked to evaluate the Canal Recreationway Plan in light of the legislation and purpose of the proposed Erie Canalway and, if necessary, to develop an addendum to the plan.

Subject to the availability of appropriated funds for the affiliated area, the Park Service would provide technical assistance through the canalway's management entity to its associated partners. NPS funds would be used primarily to support agency staff involvement and the development of programs, planning, design, and other forms of technical assistance. Should a national historic site be identified within the affiliat-

ed area, operational funds from NPS would be needed for its administration. NPS funds for capital development would be limited to providing a share of the cost of development for the Erie Canal Education Center, and to the acquisition and redevelopment of an existing structure for NPS administrative and/or visitor services purposes. If proposed, a national historic site would ideally be located on the main stem of the canal (the Erie) and would include resources that are representative of the multiple periods of the canalway's history. Waterford, Schoharie Crossing, Rome, Syracuse, Rochester, and Lockport are among the viable locations for a possible historic site:

Other sources of funds for the proposed canalway include other federal agencies and programs, including the Intermodal Surface Transportation Enhancement Act (ISTEA), U.S. Department of Housing and Urban Development (HUD) and its Canal Corridor Initiative, the New York State Canal Corporation, New York State agencies and programs, and private nonprofit and for profit organizations. Federal acquisition of canal-related lands within the Erie Canalway would be limited to those associated with the development of the education center and/or national historic site. Any federal land acquisition within the Erie Canalway would have to be legislatively authorized and could be achieved by adding land to one of the existing four NPS units named in this study. This alternative does not propose any changes in local land use authorities. No federally imposed land use controls would result



View of the double locks at Lockport.

Photo credit: Larry Lowenthal

& Cost Estimate

from designation as an affiliated area. Existing New York State Canal Corporation land management policies would continue to apply relative to land acquisition and use for lands that they currently own or lease.

As part of this study, very preliminary cost estimates were developed for NPS responsibilities for the affiliated area. These estimates are defined as Class C estimates which means the most general, and thus subject to considerable refinement and modification as the planning process progresses.

Annual Operations:

Personnel/Equipment/Publications/Travel	زار	\$	377,300
Cooperative Agreements/Grants			250,000
Demonstration Programs		,	250,000
Total Operations:	• •	\$	877,300

Planning & Development:*

General Management Plan	\$ 650,000
Signage Program (Design/Specifications	500,000
Virtual Visitor Centers (Planning/Design)	500,000
Administrative/Visitor Center	2,000,000
Erie Canal Education Center (Bldg. rehab/exhibit dev.)	
Demonstration Projects	10,000,000
Total Planning & Development:	\$ 20,650,000

^{*} Note: These funds will be used to leverage additional public and private dollars.

If designated, the Erie Canalway would be an affiliated area of the National park system and would receive annual funds through the federal budget to support programming and other activities. Over the course of a 10 to 15 year period, planning and development costs would be one-time expenditures, while operational costs would occur annually. Boats await passage through Champlain Canal Lock #1.

Photo credit: Midlakes Navigation Company, Ltd.



* Feasibility

The current status of the canal system and the scale of both its resources and its operation make NPS ownership and management of it unnecessary and infeasible. A significant proportion of canal resources are currently owned and managed, and therefore protected, by the New York State Canal Corporation, the state Office of Parks, Recreation and Historic Preservation, local and county park departments, and various private museums and historic sites.

A statewide initiative calling for the revitalization and recreational use of the canal system has resulted in the development of the comprehensive New York State Canal Recreationway Plan by the New York State Canal Recreationway Commission and Canal Corporation. The Canal Corporation has the ability to collect fees generated through canal permits, leases and tolls. In addition, the U.S. Department of Housing and Urban Development has recently committed over \$ 130 million in grants and guaranteed loans to the revitalization of canalside communities lending further capital support to the canal revitalization effort:

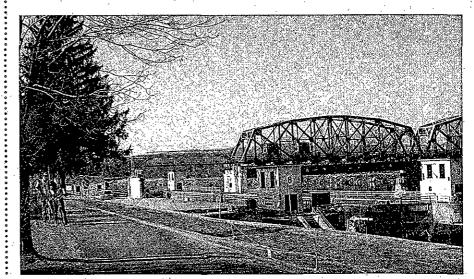
Despite the state's commitment to revitalizing this resource, significant challenges must yet be overcome to secure its long-term protection, principal among them the limited public recognition and appreciation of the canalway as an historic and recreational resource. Encouraging public recognition and use of the canal system will be critical to the success of the Canal Recreationway Commission's long-term revitalization effort and ultimately to the success of the Eric Canalway. Additionally, although the New York State Canal Corporation is intimately familiar with the operation and management of the waterway, other facets of resource management such as historic preservation, trail development, open space protection, interpretation, education, and visi-

tor services are only emerging areas of expertise.

Alternative 1 calls for the designation of the New York State Canal System as an affiliated area of the national park system. Due to its national significance and suitability and to the nature and spirit of the revitalization effort, the canal system merits special recognition and protection through the long-term involvement of the Park Service. Modeled somewhat after the recently designated Essex National Heritage Area and the Cane River Creole National Historical Park and Heritage Area, NPS ownership and hands-on management of the entire resource is not required nor does it make sense. Rather the Park Service plays a "big picture" coordination and technical assistance role working closely with the owners and managers of the key canal-related resources within the canalway.

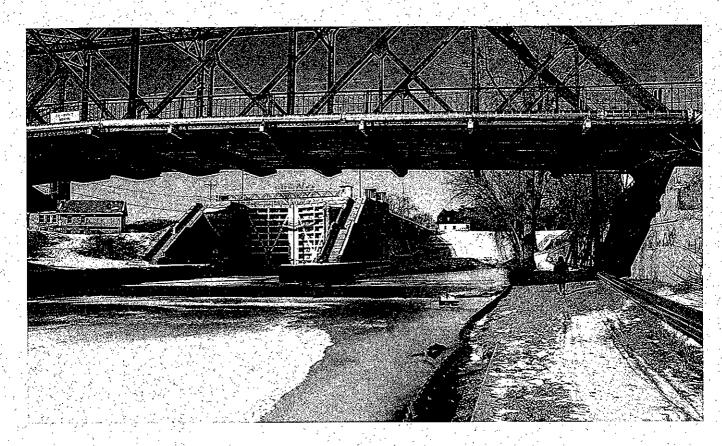
This alternative addresses the most challenging long-term protection issues — limited public recognition and appreciation of the canalway, and the need for technical assistance in a number of park management and operational areas. As an affiliated area of the national park system, the resource will be nationally recognized for its historic, scenic, and recreational values. The Erie Canalway would appear on NPS maps and in publications distributed nationally. In addition, national designation would elevate the canal system's profile locally, making local people more aware of the canalway's historic values and the potential for public use and enjoyment of this easily accessible resource.

Under this alternative, long-term cooperative arrangements with the Park Service would focus on technical and programmatic assistance in areas such as planning, historic preservation, interpretation, education, visitor services, trail development and open space protection. NPS assistance would be geared toward advancing the purposes of the



A view of Lock #8 on the Erie Canal from the Mohawk-Hudson Bikeway in Schenectady. Photo credit: Karl Beard affiliated area in cooperation with the management entity and associated owners and managers. The permanent programs identified above, including technical assistance, interpretive programming, establishing a canalway-wide identity, and NPS involvement in the development of an education center, would all advance and/or support the purposes of the Erie Canalway. These long-term cooperative arrangements would enhance the long-term protection of the resources of the Erie Canalway.

The New York State Canal Corporation has established and continues to maintain a standard of maintenance, operations, public service, and financial accountability very similar to requirements applicable to units of the national park system. State agencies and authorities have operated, managed, and improved the canal system since 1825, and it continues to be a viable, navigable, public waterway. The New York State Canal Recreationway Commission's Canal Recreationway Planalready calls for significant capital improvements and the development of programs that will expand opportunities for public use and enjoyment of the resource. Other entities such as the New York Office of Parks, Recreation, and Historic Preservation, county and local park departments and private museums also protect and interpret canal-related resources to a high standard and make these resources available to the public. The addition of a permanent NPS involvement could better enable the Canal Corporation and the owners and managers of other related sites and attractions to provide for public use while ensuring the long-term protection and viability of the Erie Canalway. The estimated \$ 20 million for planning and development under this alternative would have to be considered in light of competing priorities for existing units of the national park system. Matching funds and other leveraged monies committed by local partners would be an important factor in successfully competing for federal funds.



ALTERNATIVE 2.
ERIE CANALWAY:
NATIONAL
HERITAGE
CORRIDOR

This alternative proposes the Congressional designation of the New York State Canal System as a national heritage corridor. As in alternative 1, the corridor would contain within its boundaries the navigable canal system, extant segments of the "old Erie," and the municipalities immediately adjacent to navigable waterways system-wide and to the "old Erie." Under this alternative the primary roles of the National Park Service would include providing technical assistance to corridor management and associated partners, and providing support in the development of a corridor-wide interpretation and identity program. The relationship between the National Park Service and the corridor would be temporary, lasting for no more than ten years, and would be modeled on the most recently designated heritage areas like the Quinebaug and Shetucket Rivers Valley National Heritage Corridor.

The New York State Canal Corporation is currently the principal owner and manager of the canal system. As in alternative 1, they would continue to operate the canal system. The management of the proposed heritage corridor would need to evolve but would include representation from local communities; state agencies, and other organizations having an interest in the canal corridor. The management entity designated for the national heritage corridor must be capable of receiving

and disbursing federal funds, be accountable for federal funds accepted or disbursed, and have the authority to enter into agreements with the federal government. The management entity could be a federal, state, county, or municipal agency, or a non-profit organization. Other federal, state, local, and private historic sites and natural areas within the corridor would operate under their own authorities and, as appropriate, in partnership with the management entity.

The Park Service (NPS) would enter into a formal partnership with the management entity to support the purposes of the national heritage corridor. If the Canal Corporation were to be designated as the management entity for the national heritage corridor, state legislative action would be required to expand the Canal Corporation's authority to expend funds to support planning, historic preservation, visitor programming, and other cooperative efforts on canal-related lands that the state does not own.

Programmatic assistance to the proposed national heritage corridor would be similar to the technical assistance, and interpretation and identity proposals and demonstration projects described in alternative 1.

NPS could provide the owners and managers of canal-related resources and canal corridor communities, organizations, and institutions with technical assistance and grants for education, interpretation, historic preservation, planning, recreational trail development, and open space conservation. This program would place particular emphasis on activities that would serve as model projects. NPS staff would be assigned to coordinate support to the heritage corridor. As in the first alternative, all of the park service's programs and professional offices would be available for project work subject to appropriated funds.

The Park Service would provide support in developing a corridor-wide interpretation and identity program. Key facets of this program could include:

A signage system including both directional and interpretive signage. Such a system is a goal of the Canal Corporation which has recently begun design of a preliminary program. A logobased, directional signage system embracing highway, local routes, and individual destinations would be integrated with printed information. NPS involvement could build on this activity to establish a full interpretive program including waysides and other interpretive media.

Technical Assistance

Interpretation and Identity

Bicyclists take a break during the Canalway Trail Trek.

Photo credit: Karl Beard



- Corridor-wide publications like informational brochures with maps, and comprehensive guides similar to the Park Service's series of park guides.
- A series of "virtual visitor centers" at various visitor destinations throughout the national heritage corridor. The virtual visitor centers would consist of computer terminals programmed using interactive software that would enable visitors to obtain information about the whole canalway as well as the particular site that they are currently visiting. Information could be provided on a wide range of topics including interpretive programs, related attractions, maps and directions, food and lodging. The virtual visitor centers would be developed thorough a partnership with the management entity and the host institutions at each site. These programs could also be adapted for classroom use and made available to prospective visitors via the Internet.
- ♦ Interpretive training provided by NPS to ensure a consistent standard for interpretive programming throughout the national heritage corridor. Individual sites throughout the heritage corridor would continue to be responsible for their own interpretation.

As part of the management entity, NPS would lend its support and guidance to a limited number of demonstration projects. These projects could range from historic preservation and adaptive reuse efforts for visitor services, to the development of travelling education kits and other educational outreach activities. These projects could serve as models illustrating the development standards and levels of visitor services achievable within the national heritage corridor.

To ensure that the activities of the New York State Canal Corporation are consistent with the purposes of the national heritage

Demonstration Projects

corridor, the New York State Canal Corporation and Canal Commission would be asked to evaluate the Canal Recreationway Plan in light of the corridor's legislation and purpose and, if necessary, to develop an addendum to the plan.

Subject to availability of annual appropriations, NPS would provide technical assistance to the corridor's management entity and its associated partners. NPS funds would be used primarily to support the development of programs, planning, design, and other forms of technical assistance. Other sources of funds for the proposed corridor include other federal agencies and programs, including the Intermodal Surface Transportation Enhancement Act (ISTEA), U.S. Department of Housing and Urban Development (HUD) Canal Corridor Initiative, the New York State Canal Corporation, New York State agencies and programs, and private nonprofit and for-profit organizations. There would be no federal acquisition of canal-related lands within the heritage corridor, and no federal dollars would be made available for land acquisition. The designation of a national heritage corridor is unlikely to affect the continuation of private property ownership or local decision-making about land use. Existing New York State Canal Corporation land management policies would continue to apply.

As part of this study, very preliminary cost estimates were developed for NPS contribution to the proposed national heritage corridor. These estimates are defined as Class C estimates which means the most general, and thus subject to considerable refinement and modification as the planning process progresses.

Annual Operations:

Total Planning & Development:

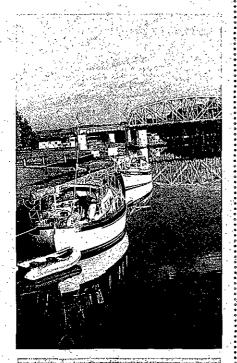
Personnel/Equipment/Publications/Travel	⇒	186,000
Cooperative Agreements/ Grants		250,000
Office Space (leased)		22,500
Demonstration Programs		100,000
Total Operations	\$	558,500
Planning & Development:*		
General Management Plan	\$	400,000
Signage Program (Design/Specifications)		500,000
Virtual Visitor Centers (Planning/Design)		500,000
Demonstration Projects		5,000,000

^{*} Note: These funds will be used to leverage additional public and private dollars.

\$ 6,400,000

Cost Estimate

* Feasibility



Pleasure boats moored near Erie Canal Lock #11 in Amsterdam.

Photo credit: Mid-Lakes Navigation Company, Ltd.

If designated, the Erie Canalway National Heritage Corridor would seek annual federal funding for 10 years. Over the course of 10 years of federal involvement, the planning and development costs would be one-time expenditures, while operational costs would occur annually.

Alternative 2 calls for the designation of the New York State Canal System as a national heritage corridor. Due to its national significance and suitability, and to the nature and spirit of the revitalization effort, the canal system does merit special recognition and technical assistance beyond what is available through existing NPS programs.

As in Alternative 1, this alternative also addresses the most challenging long-term protection issues- limited public recognition and appreciation of the New York State Canal System and the need for technical assistance in a number of park management and operational areas. As a federally designated national heritage corridor, the resource will be nationally recognized for its historic significance as well as for its natural, scenic, and recreational values. The New York State Canal System would appear on NPS maps and in publications distributed nationally. In addition, national designation would elevate the canal system's profile locally, making local populations more aware of the potential for public use and enjoyment of this easily accessible resource.

Under this alternative, cooperative arrangements with the Park Service would focus on technical and programmatic assistance in areas such as planning, historic preservation, interpretation, education, visitor services, trail development and open space protection. NPS assistance would be geared toward advancing the purposes of the heritage corridor in response to requests from the management entity. The programs identified above including technical assistance, interpretive programming, and establishing a corridor-wide identity, would all advance and/or support the purposes of the proposed heritage corridor. These short term cooperative arrangements could enhance the management entity's ability to ensure the long-term protection of the New York State Canal System and associated resources throughout the corridor.

The New York State Canal Corporation has established and continues to maintain a standard of maintenance, operations, public service, and financial accountability that may be considered consistent with requirements applicable to units of the National park system. State agencies and authorities have operated, managed, and improved the canal system since 1825, and it continues to be a viable, navigable, public waterway. The New York State Canal Recreationway Commission's

Canal Recreationway Plan already calls for significant capital improvements and the development of programs that will expand opportunities for public use and enjoyment of the resource. In fact, considerable work involving many local communities has already been undertaken in the development of a canal system-wide trail. This project has been advanced in cooperation with the Park Service's Rivers, Trails, and Conservation Assistance Program. The addition of NPS technical assistance over a 10-year period could enhance the ability of the Canal Corporation and other related sites and attractions to provide for public use while ensuring the long-term protection and viability of the canal system. The estimated \$7 million for planning and development proposed under this alternative would have to be considered in light of competing priorities for the existing heritage corridors. As with most heritage corridors, matching funds and other leveraged monies committed by local partners are important considerations.

ALTERNATIVE 3. NEW YORK STATE CANAL RECREATIONWAY



Above: The bronze Mule and Hoggee sculpture by Tom Tischler in front of the Erie Canal Museum, Syracuse.

Photo credit: Larry Lowenthal

Right: The Emita II cruises by Trinity Church at Seneca Falls on the Cayuga-Seneca Canal.

Photo credit: Mid-Lakes Navigation Company, Ltd.

Under this alternative no federal designation or additional authority for federal involvement is recommended. The New York State Canal Corporation and Canal Recreationway Commission would continue to own and operate the water way on their own as they do now. There would be no NPS program dedicated exclusively to providing technical assistance to the New York State Canal System or other canal-related sites associated with it.

The resources currently owned and managed by the New York State Canal Corporation will continue to be maintained and made available for public use in accordance with state law. Also, as required under their state enabling legislation, the Canal Corporation and the commission would implement and periodically update the New York State Canal Recreationway Plan. The Canal Recreationway Plan calls for the redevelopment of canalside sites at a number of locations and at varying scales to encourage and support recreational use of the canal system. The plan recommends a multimodal approach and includes provisions for the development of a system-wide canalside trail and the designation of a scenic byway route for automobiles. The Canal Recreationway Commission is currently moving forward with the implementation of this plan.

The New York State Canal Corporation and Canal Recreationway Commission would continue to rely on other state agencies and private consultants for technical support in the areas of education, interpretation, historic preservation, planning, visitor service, and open space conservation.

No regular source of federal funds would be identified. However, the Canal Corporation could receive technical assistance and grants through a number of federal programs (including the Park

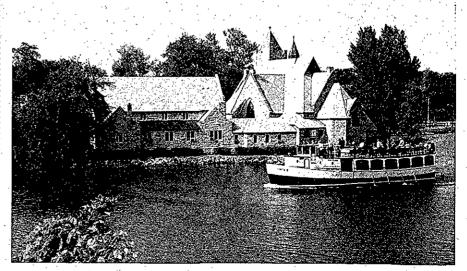




Photo credit: Larry Lowenthal

Service's Rivers, Trails and Conservation Assistance Program, and ISTEA) on a competitive basis. In addition, communities located within the canal corridor are eligible to compete for revitalization loans and grants offered under the U.S. Department of Housing and Urban Development's Canal Corridor Initiative but these funds cannot be used for operations or programming. The New York State Canal Corporation and the New York State Canal Recreationway Commission would be the primary source of funds for the protection of resources and the development of visitor amenities associated with the revitalization of the canal recreationway. Additional sources of funds may include other New York State agencies and programs and private nonprofit and for-profit organizations.

A number of federal assistance initiatives are currently underway. The Park Service's Rivers, Trails and Conservation Assistance program has been working with the Canal Corporation and local communities to create the canalway trail along the entire length of the NYS Canal Recreationway. Key components of the RTCA program include community workshops on the economic benefits of preserving community character, a canalway trail accommodations study, and the development of a canalway trail database. This project has resulted in increased public support and momentum behind the project. RTCA assistance is short term and their work with the Canal Corporation will be completed in 1998.

Also through a competitive process, over 50 communities were awarded HUD grants through the Canal Corridor Initiative. The Park Service is also involved and provides technical assistance to recipient communities within the corridor NPS offers assistance to recipient communities in the following ways: planning, economic development,

Feasibility

interpretation/education, tourism, historic preservation, outdoor recreation, natural and cultural resources management, and graphics.

The canal corridor initiative is meant to serve as a catalyst for the overall revitalization of the area.

Alternative 3 does not call for the formal federal designation of the NYS Canal System as an area specifically eligible for National Park Service funds or assistance. Under this alternative, the New York State Canal Corporation and Canal Recreationway Commission would independently advance the proposals in the New York State Canal Recreationway Plan. However, the New York State Canal System could pursue federal designation as a national historic landmark that may make it eligible for further federal assistance. Further, the Canal Corporation could receive technical assistance and grants through a number of federal programs (including the Park Service's Rivers, Trails, and Conservation Assistance Program, and ISTEA) on a competitive basis.

The New York State Canal Corporation has established and continues to maintain a high standard of maintenance, operations, public service, and financial accountability. State agencies and authorities have operated, managed, and improved the canal system since 1825, and it continues to be a viable, navigable, public waterway. The New York State Canal Recreationway Commission's Canal Recreationway Plan already calls for significant capital improvements and the development of programs that will expand opportunities for public use and enjoyment of the resource.

The New York State Canal Corporation's authorities are somewhat limited relative to where they can invest money in programming and capital improvements. The Canal Corporation is currently unable to expend funds on projects that take place on lands that they do not own. This would make it very difficult, if not impossible, for the Canal Corporation to support the preservation and interpretation of the many canal-related resources that are not located on Canal Corporation properties. However, this challenge has been somewhat mitigated through the efforts of HUD and their Canal Corridor Initiative and the activities of the National Park Service's Rivers, Trails, and Conservation Assistance Program.



CONCLUSION

Based on the application of NPS criteria, this report of the special resource study concludes that the New York State Canal System contains resources and represents themes that are of national significance. It would be a suitable addition to the national park system because no single unit now exists that can offer as complete a portrait of the development of the United States from the last part of the 18th through the early 20th centuries. A significant proportion of canal resources are currently owned and managed, and therefore protected, by the New York State Canal Corporation, the state Office of Parks, Recreation and Historic Preservation, local and county park departments, and various private museums and historic sites. Therefore, the current status of the canal system and the scale of the resource and its operation make NPS ownership and management of the canal system and other canal-related sites unnecessary. However, National Park Service management of a small, representative site within the canalway may be feasible but would require further study.

Although the New York State Canal Corporation is intimately familiar with the operation and management of the waterway, other facets of resource management — historic preservation, trail development, open space protection, interpretation, education, and visitor services — are emerging areas of expertise. Moreover, the public's recognition and appreciation of the recreational and historic resources and value of the canal system are limited. Based on the findings of this study, the New York State Canal System merits national recognition through some form of federal designation. NPS technical and programmatic assistance should be made available to the New York State Canal System and other canal-related sites to support the long term protection and interpretation of this significant national resource.

NOTES

- 1. Canal Recreationway Commission members include ten individuals (appointed by the governor upon recommendation of the state legislature) involved in canal use, development, preservation, or enhancement or in local governments from counties adjacent to or intersected by the canal system. Commission members also included representatives of the New York State Thruway Authority, Department of Environmental Conservation (DEC), State Office of Parks, Recreation, and Historic Preservation, New York State Department of Transportation, New York State Department of Economic Development (nonvoting), and each of the eight regional planning boards whose regions are intersected by the canal (nonvoting).
- 2. "New York State Canals Special Resource Study: Significance Workshop" (U.S. Department of the Interior, National Park Service, New England Support Office, Boston, MA, August 1995, photocopy.
- 3. These sites are the Old Eric Canal State Park (Rome), Old Lock 62 Canal Park (Pittsford), Palmyra/Macedon Aqueduct County Park, Lock Berlin County Park (Lyons), Eric Canal 7 Mile Park (Camillus), and Glen Falls Feeder (Glen Falls). See "New York State Canal Recreationway Plan" (New York State Canal Recreationway Committee, Albany NY, 1995), 4-12.
- 4. "Erie Canal National Historic Landmark, National Register of Historic Places Inventory Nomination Form" (Heritage Studies, Inc., Princeton, N.J., Nov. 1, 1983, photocopy). This canal segment, located in the towns of Glen and Florida, was designated a National Historic Landmark in 1960; the landmark designation, however, excludes the New York State Barge Canal, which the nomination had proposed including. The New York State Office of Parks, Recreation and Historic Preservation operates most of the NHL as Schoharie Crossing State Historic Site.
- 5. These counties are Albany, Cayuga, Clinton, Erie, Essex, Herkimer, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orleans, Oswego, Rensselaer, Saratoga, Schenectady, Schuyler, Seneca, Tompkins, Warren, Washington, Wayne, and Yates.
- 6. Harbor centers are proposed for the "gateway" locations of Tonawanda, Rochester, Seneca Falls, Oswego, Little Falls, Waterford, and Whitehall.

- 7. The participants were selected not only for their knowledge of the New York State canals but also for their ability to evaluate them within a broader national and technological context. Several participants have had experience with National Register or National Historic Landmark nominations. A list of workshop participants appears in Appendix D.
- 8. Cooper quoted in D.W. Meinig, "Geography of Expansion, 1785-1855," in John W. Thompson, ed., Geography of New York State (Syracuse, NY: Syracuse University Press, 1966), 159.
- 9. D.W. Meinig, Continental America, 1800-1867, vol. 2 of The Shaping of America: A Geographical Perspective on 500 Years of History (New Haven, Conn. and London: Yale University Press, 1993), 318.

 10. Page Smith, The Shaping of America (NY: McGraw-Hill, 1980), 773.
- 11. Whitney R. Cross, The Burned-over District: The Social and Intellectual History of Enthusiastic Religion in Western New York, 1800-1850 (Ithaca, NY: Cornell University Press, 1950).
- 12. Raber Associates, "Final Report: Preliminary Cultural Resources Assessment. New York State Barge Canal" (U.S. Department of the Army, Corps of Engineers, 1983).
- 13. "Report on the Criteria for Affiliated Areas."
- 14. Noble E. Whitford, History of the Barge Canal of NYS, 1922

APPENDIXES



APPENDIX A: HISTORICAL SUMMARY

have lately made a tour ... through the Lakes George and Champlain as far as Crown Point; then returning to Schenectady, I proceeded up the Mohawk river to Fort Schuyler, crossed over to Wood creek which empties into the Oneida lake, and affords the water communication with Ontario. I then traversed the country to the. head of the eastern branch of the Susquehanna, and viewed the lake Otsego, and the portage between that lake and the Mohawk river at Conajoharie. Prompted by these actual observations, I could not help taking a contemplative and extensive view of the vast inland navigation of these United States, and could not but be struck with the immense diffusion and importance of it; and with the goodness of that Providence which has dealt his favours to us with so profuse a hand. Would to God we may have wisdom enough to improve them. I shall not rest contented until I have explored the western country, and traversed those lines (or great part of them) which have given bounds to a new empire.

George Washington, 1783*

Washington was hardly the first to notice the potential of the Champlain and Mohawk routes, the only practical passages through the mountain barrier that separated the eastern seaboard from the rich interior of the continent. Many European travelers before 1783 had commented on the desirability of improving these routes, both important Indian trails; historians generally agree that a major factor in the success of the Iroquois Confederacy was its strategic position astride lines of travel and communication.

The Mohawk River provided the easiest breach of the Appalachian Mountain chain, but, while this natural route was superior to all others, it was by no means problem-free. The Mohawk River poured into the Hudson by means of a falls at Cohoes so mighty that it became a tourist attraction. Several rapids on the Mohawk itself, notably at Little Falls, made navigation hazardous. At Fort Schuyler (now Fort Stanwix in Rome) the continental divide, though barely perceptible, required a portage of one to several miles, depending on water levels. West of this portage, Wood Creek was an exceptionally tortuous, shallow stream on which boats could not pass easily.

Washington speculated about the continent's "vast inland navigation" only about a decade before it became feasible to consider improving natural waterways. Some tentative, small-scale improvements had been made during colonial times: an oxbow on the Mohawk in the present town of Marcy was cut through in 1730, and other obstructions were removed. But it was only in the 1790's that New York State became marginally capable, both financially and technically, of constructing systemic improvements. In 1792 the state chartered the Western and Northern Inland Lock Navigation companies for this purpose. General Philip Schuyler, the

^{*} Washington quoted in John Marshall, The Life of George Washington (New York, 1882) 2:65

illustrious Revolutionary War officer, was the leader in this enterprise.

At that time no long, man-made canals existed in the United States. The efforts of the New York navigation companies and others like them were directed to improving river travel by building short bypass canals around the most serious obstructions. Schuyler, who shared Washington's vision of inland transportation, began to realize it systematically and persistently. He supervised the actual construction and was working on canal locks in wintry weather into the last days of his life.

Despite Schuyler's lack of formal engineering training, the western company was able, on the route between the Hudson and Lake Ontario, to complete a number of improvements that represent the true beginning of New York's canal era. Several individuals working in the 1790's, notably Benjamin Wright, also worked on the Erie and later canals. Because resources were devoted almost entirely to the western company, virtually nothing was accomplished on the northern route to Lake Champlain. Other small private companies, especially the Seneca Lock Navigation Company, made improvements in this early period as well.

In 1808 Treasury Secretary Albert Gallatin conceived a broad plan of internal improvements that included the two main water routes in New York. However, the weight of sectional and constitutional concerns forestalled any federal action on Gallatin's proposal. New York took initial steps toward a program of its own after the War of 1812 exposed anew the dangers of a northern frontier inadequately linked to the more populous parts of the country and thus poorly defended. Meanwhile, the Middlesex Canal in Massachusetts demonstrated that an entirely man-made channel of considerable length was feasible, and that Americans possessed the skills necessary to construct such canals. In addition, influential Americans were becoming more aware of successful

canals in France and England.

After efforts to win federal support for a "Great Western" canal failed, New York went ahead on its own. Once convinced of the canal's political and economic potential, Governor DeWitt Clinton emerged as its indefatigable supporter and has since become indelibly associated with it. Ground was broken for the great project on July 4, 1817. The Erie Canal was divided into three sections so that large portions could begin to operate and produce revenue before the entire work was completed.

Despite its willingness to take on a huge burden of debt, great skepticism remained about the state's ability to complete the project. The Erie portion alone was 348 miles long and had to overcome a variety of technical, physical, and organizational challenges, many unanticipated, while passing through country that was only thinly inhabited. Nothing remotely approaching the financial or physical magnitude of the canal project had ever been attempted in the United States, and knowledgeable critics began to refer to the project derisively as "Clinton's folly." Designers and builders developed innovative and sometimes heroic measures to build the canals; the perfection of hydraulic cement, the invention of a mechanical stump puller, and workers' struggles against disease, insects, and swamps earned the canal a place in national folklore. Nevertheless, the entire Erie portion was completed on schedule in 1825, while the Champlain Canal had actually been finished nearly two years earlier.

The largest state undertaking of the 19th century in dollar value, the New York State Canal System was by far the most successful. Tolls paid off its construction cost within twenty years and thereafter generated an enormous surplus. However, the direct financial return was by no means the most important or enduring consequence of the system. Before the canals, the cost of transporting bulk freight over land exceeded the worth of all but the most valuable cargo. The Erie system reduced the

cost of moving freight to a tenth of what it had been on land. Commerce between the Atlantic and the Midwest (the "Old Northwest") became practical, with immense economic, social, and political consequences. The Erie Canal in particular, became the "Mother of Cities" along its own route, and also created the conditions that allowed cities such as Chicago and Cleveland to rise to prominence:

This extraordinary success led to a nationwide outburst of canal building, sometimes termed canal mania. New York itself continued to build canals in response to constituents in those parts of the state that the Erie and Champlain canals did not directly serve. Confronted with abundant canal-generated revenue and citizens' complaints about paying for a system they could not use, the state built compensatory "lateral canals," some of which supplied and regulated the flow of water to earlier canals. By 1877 New York's canal system (including feeders) featured 565 locks and covered 907 miles, about a fifth of the total mileage of all canals ever built in the United States. The Erie Canal alone spanned 348 miles and had seventy-two locks. The laterals, though sometimes individually impractical, formed a comprehensive system reaching virtually every population center in the state. Two, the Oswego and the Cayuga-Seneca, are part of the current system. There was also a prolonged and briefly successful push to connect with the Pennsylvania state canal system so that anthracite coal could be brought readily into central New York.

The success of the Erie was so rapid and overwhelming that within ten years its capacity needed to be increased. A comprehensive program of enlargement, which widened the canal and deepened it from four to seven feet to accommodate larger boats with deeper drafts, began in 1835 and continued until 1862, often delayed by political disputes over the canal debt and by national economic downturns. When completed, this substantially rebuilt canal was known as the new Erie, while the

previous version was called "Clinton's Ditch," a once derogatory term now meant affectionately. Though enlarged and improved, the rebuilt canal was still a towpath canal, relying on animal power to pull the boats. Freight moved at two or three miles an hour, and even passenger vessels were restricted to four miles an hour because of the danger of washing away the banks.

The New York canals probably had their greatest national social and economic impact between 1825 and 1855. Ultimately, the expansion they had fostered impelled a decline in New York's relative importance. Canals could not continually open vast stretches of virgin territory or plant new cities in the wilderness. In addition, canals began to experience competition from railroads. The formation of the New York Central Railroad from a number of smaller companies in 1853 was an important milestone. Railroads were much faster and could operate at all times of the year; thus they quickly seized passenger business and then began to capture high-value merchandise. Railroad companies, which tended to be better organized, often used sharp competitive practices to overcome the natural advantages of canals.

A prolonged trend emerged in which the New York State canals and other waterways shipped only bulk freight that was not time-sensitive. The combined tonnage of the New York Central and Erie Railroads first exceeded that carried on New York canals in 1868, and New York Central freight alone exceeded canal tonnage in 1874. Nevertheless, while the relative importance of the canals decreased, their traffic showed an irregular gain until the peak year of 1872. Thereafter, absolute tonnage declined erratically. Several of the less successful lateral canals were abandoned because the existing and projected traffic on them did not justify the expense involved in enlarging them.

While the New York state canals transported a variety of bulk cargoes during this

period, the commodities of greatest consequence were grain and lumber. Both perpetuated interregional relationships that had arisen in the early years of the canal era and maintained the importance of the canals even into a time when their relative volume was decreasing. As late as 1884 the Erie Canal took half as much grain to New York City as all the trunk railroad lines combined. This grain trade was a vital economic interest of New York City and stimulated powerful political support for improving the canal system.

With the canals having penetrated previously inaccessible sections of the state, New York emerged as the nation's leading lumber producer in 1850. Albany, near the junction of the canals and the Hudson River, developed rapidly to become one of the country's two major lumber centers. Thereafter, as New York forests were cut over, production shifted to the upper Midwest. The canals, linking the producers with the main consumers in the eastern urban centers, remained vitally important. Buffalo, and then Tonawanda, became processing centers for this traffic.

In political and economic terms, the canals were seen as having an importance that extended well beyond the type and volume of traffic they carried in a given year. By the last decades of the 19th century the great power railroad corporations had amassed was causing widespread concern. Most people felt that railroad rates were excessive, and critics believed that railroad competition inevitably ended in combination or consolidation, to the detriment of the public interest. Various approaches were tried to curb the power of the railroads: some turned to organized movements such as the Grangers, while others sought relief through regulation, leading to the formation of the Interstate Commerce Commission in 1889.

Because water transport remained inherently cheaper than rail, waterways were seen as a means of regulating railroad rates. It was noticeable that railroads reduced their rates on commodities

such as grain each year when the canals reopened. This was especially true of the Eric Canal, with its connections to the Great Lakes and other waterways. The influence of this canal reached far beyond its own route, to encompass a region extending; according to some definitions, to the interior of the Gulf States and the Great Plains.

This argument was brought out in numerous studies and congressional hearings. William Windom, a former U.S. Senator and later Secretary of the Treasury, wrote in 1878 that "the 'little ditch' which runs through [New York] holds in check and regulates nearly every leading railroad east of the Mississippi River." Canal advocates tried to balance their argument by asserting that railroads would actually benefit from concentrating on what they did best-moving passengers and perishable commodities-while leaving bulk cargo to waterways.

Thus, New York considered its canals vital and responded in traditional ways to maintain their usefulness. Tolls were abolished in 1882, which served the dual purpose of increasing canal traffic and regulating railroad rates. In 1884 a major program of lock lengthening was authorized, though it was only partially completed.

By the 1890's the state and commercial interests could no longer ignore the decay of the canal system, although even at this low ebb it retained its leading position among American canals. The system was still carrying more than three million tons a year, but this freight traffic was small compared to what railroads shipped. Thus canal officials feared that it was no longer able to regulate railroad rates. In addition, influential portions of the New York City commercial community grew concerned that the city's share of foreign trade was shrinking, even though more than half of the nation's foreign commerce still passed through the port. In 1895 the state legislature appropriated nine million dollars to deepen the canal to nine feet, but the project was both unsuccessful and scandal-ridden.

After the politically damaging failure of the "\$9 million plan;" a series of commissions studied the situation while various interest groups organized to influence public opinion about the canal system's future. The New York State Commerce Commission reported in 1898 that the state was at the mercy of railroad combinations (a reference to the Trunk Line association organized by J. P. Morgan) and confirmed the suspicion that the canal was "incapable of fulfilling its former vocation of a regulator of transportation rates." Drawing on these findings, a convention of the Board of Managers of the New York Produce Exchange in 1899 advocated deepening the canal to fourteen feet.

Intensely interested in the canal situation, Theodore Roosevelt appointed a special Committee on Canals in 1899, the year he became governor of New York State. In a report presented early in 1900 the committee concluded that water transport was still inherently cheaper than rail and advocated creating a canal suitable for thousand-ton vessels. In declaring that "New York has certain topographical advantages which it would be folly not to utilize" and that competition from Montreal was a real threat, the committee renewed arguments that had changed little over the past century. Those who investigated the subject were also highly impressed by the example of major European powers which had modernized their internal waterways. Some industrialists, notably Andrew Carnegie, endorsed the proposal with great enthusiasm.

Concurrently, renewed interest had arisen in building a ship canal to carry ocean-going vessels inland either through New York State or the St. Lawrence River. Based on a study of ship canals in the 1890's, the International Deep Waterways Commission submitted a report comparing canals twenty-one and thirty feet deep in June 1900. Eventually the idea of a ship canal was rejected, largely because designers and engineers considered it impractical to build a vessel that could operate eco-

nomically on ocean, canal, and lake.

With the ship canal eliminated as a possibility and the old towpath canal becoming obsolete, the question of constructing a canal across New York state for barges (usually towed vessels that operated only on inland waterways) was put to the state's voters in a 1903 referendum. New York City and Buffalo voters supported the proposal so strongly that their views prevailed over resistance elsewhere. New York, which at that time produced 20 percent of the nation's manufacturing output, still took pride in its "Empire State" reputation. With this confident attitude, it began the largest construction project and the largest bond issuance ever undertaken by a state. Including several changes made to the original plan, the barge canal ultimately cost about \$155 million.

The system completed in 1918 is essentially the 524-mile New York State Canal System that remains in use today. To a large extent its designers returned to the ideas of the 18th-century visionaries who attempted to improve and control natural waterways. Another change from the 19th century is that the current canal relies on motorized boats, rather than animal power. Of today's system 371 miles (70.8 percent) are canalized rivers and lakes, while 150 miles are landcuts. Advanced technology, such as concrete construction, electric operation, and movable dams, made it possible to abandon the long "land lines" of the 19th-century canals. although in most cases the route of the barge canal follows them closely. Even more than with the earlier canals, the Barge Canal was conceived as a complete, standardized system. It included a network of docks and terminals at several points in New York City and at more than forty other locations.

With the partial exception of the Oswego Canal, the existing canals were kept open during construction, but the work probably disrupted traffic, By the time the Barge Canal was completed in 1918 traffic on the existing canals had fallen to

about a million tons, a third of what it was in the 1890's. The state claimed that the Barge Canal was capable of handling twenty million tons of freight a year, but it never approached this capacity; in fact, subject to opposition and criticism from ship-canal advocates from the start, the barge canal never carried even the peak traffic of the old system.

Barge Canal traffic was also immediately disrupted by the federal government's seizure of both the canal and the railroads as an emergency measure during World War I. The action demonstrated that, although the New York canals were state-owned and-operated, they were effectively a part of the national waterways system. This federal involvement was amplified in subsequent years. In 1929 the U.S. Army Corps of Engineers recommended that the entire system be transferred to the federal government, but the state constitution forbade such a move. However, an agreement in 1935 authorized federal aid for improvements to what was then called the "Hudson to Great Lakes Waterway," but the assistance was directed solely to the Hudson-Oswego section and to a drive to deepen the Hudson River. The canal system remains under state control, although the federal government operates the entry lock at Troy.

At the time of its completion the Barge Canal was probably the most advanced system of inland waterways in the world. As such it served as a model for the Corps of Engineers and others. Yet by the late 1930's it was no longer on the technological forefront, and its relative importance among American waterways was steadily slipping.

Traffic on the canal system fluctuated widely, slumping during World War II but recovering to a 20th century high in 1951, slightly above the level of 1936-37. The canal never regained the business that had been lost as a result of the transportation disruption of World War II, and in an expanding economy its relative position declined toward insignificance. Barge Canal supporters had argued

that it would recapture grain haulage from railroads and make inroads into the iron traffic. These hopes did not materialize, and after World War II petroleum shipments to a few customers constituted the bulk of canal business.

As massive federal appropriations continued to enlarge such navigation systems as the Ohio and Mississippi, the relative importance of the New York system plummeted. By 1962 New York's share of gross tonnage on inland waterways was only 0.8 percent. In 1962 traffic on the Barge Canal had returned essentially to its 1946 level, while tonnage on the Mississippi almost tripled and that on the Ohio more than doubled.

Although many in New York continued to press for modernization of the Barge Canal, the federal decision in 1954 to share in constructing the St. Lawrence Seaway in effect signaled the dismissal of New York's canals. Completion of the seaway in 1959 did not immediately reduce Barge Canal traffic, but it contributed to the ongoing decline. The last year barge canal traffic exceeded one million tons was 1980; due to petroleum deliveries to a few key consumers, tonnage on the Champlain portion was well above that on the Erie.

The St. Lawrence Seaway, which cost more than one billion dollars to build, is itself now obsolete. It handled its peak freight volume in 1977, but its decline since has not led to the recovery of freight volume on the New York canal system. Instead, the canals have taken a new direction—toward a market of recreational users. As freight traffic plunged toward oblivion, the lockage of pleasure craft has increased almost uninterruptedly. Much of this growth is undoubtedly due to the appeal of travel on a waterway through which the currents of American history and folklore run so deeply.

APPENDIX B:

COMPARISON OF MANAGEMENT ALTERNATIVES

	Alternative 1	Alternative 2	Alternative 3
Designation	Erie Canalway: An Affiliated Area	Erie Canalway: A National Heritage Corridor	New York State Canal Recreationway
Intensity of Federal Involvement	Moderate/High	Moderate	Low
Timespan for NPS Involvement	Permanent	10 Year (Sunset Clause)	Not Applicable
Management & Oversight	A management entity would be established based on provisions in legislation and would include representation drawn from NPS, owners & managers of canal resources, local communities, state & other federal agencies, and organizations having an interest in the canal corridor. The NYS Canal Corp. would continue to own and operate the canal system. The management entity would focus on education, interpretation, planning and program coordination. If an NHS is established NPS would administer.	A management entity would be designated based on criteria set out in establishing legislation and would include broad, community based representation. NPS role would be limited to programmatic and technical assistance as requested by the management entity. The NYS Canal Corp. would continue to own and operate the canal system.	NYS Canal Corp. and Recreationway Commission own and operate the NYS Canal System. They are respon- sible for implementing the NYS Canal Recreationway Plan.
Land Ownership	Federal acquisition within the canal corridor would be limited to land necessary to develop a possible national historic site and support the development of the Erie Ganal Education Center. Current NYS Canal Corpland acquisition policies would continue to apply.	No federal acquisition of canal-related lands within the corridor. Current NYS Canal Corp. land acquisition policies would continue to apply.	No federal acquisition of canal-related lands within the corridor. Current NYS Canal Corp. land acquisition policies would continue to apply.

	Alternative 1	Alternative 2	Alternative 3
Planning	A permanent program of NPS technical assistance would include planning and design support to communities and canalrelated institutions within the canalway.	NPS technical assistance to NHC including planning and design support available upon request over a period of 10 years.	Federal planning assistance available through established programs (e.g. HUD)
Historic Preservation	A permanent program of technical assistance and would include historic preservation assistance to communities and canalrelated institutions within the canalway.	NPS technical assistance to NHC over a period of 10 years.	Historic preservation assistance and funds available through existing programs (e.g. National Historic Landmark program) on a competitive basis.
Interpretation & Education	NPS technical assistance available on a permanent basis. NPS would cospon- sor education center.	Technical and program- matic assistance would be made available to NHC over a period of 10 years.	NPS would have limited authority to provide technical assistance
Open Space Protection	NPS technical assistance available on a permanent basis	NPS technical assistance available to NHC over a period of 10 years.	Open space protection assistance and funds available through existing programs (e.g. RTCA, L&WCF) on a competi- tive basis.
Visitor Services	NPS technical assistance available on a permanent basis.	NPS technical assistance available to NHC over a period of 10 years.	NPS would have limited authority to provide tech- nical assistance.
Operating Costs (Annual)	\$ 877,300	\$ 558,500	No regular source of federal funds
Development Costs	\$ 20,650,000	\$ 6,400,000	No regular source of federal funds

APPENDIX C:

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National Park Service Project Team

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APPENDIX D:

LIST OF PARTICIPANTS AND OBSERVERS

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APPENDIX E:

SITES LISTED ON THE NATIONAL REGISTER OF HISTORIC PLACES (NRHP)

The following are places located within the communities immediately surrounding the New York
State Canal System and abandoned segments of the Old Erie that are listed in the National Register of Historic Places as of January 1998.
They are listed on a county by county basis.
Places that have also been designated national historic landmarks appear in **bold** type. Canal resources such as bridges, locks, and gates that are listed on the NRHP appear in *italics*.

Archeological sites are denoted using an asterisk (*).

Albany County

Abrams Building, Albany
Albany Academy, Albany
Albany City Hall, Albany
Albany Institute of History and Art, Albany
Albany Union Station, Albany
Arbor Hill Historic District, Albany
Benjamin Walworth Arnold House, Albany
Broadway—Livingston Ave. Historic District,
Albany

Buildings at 744, 746, 748, 750 Broadway, Albany
Cathedral of All Saints, Albany
Cathedral of Immaculate Conception, Albany
Center Sq./ Hudson Park Historic District, Albany
Cherry Hill, Albany
Church of the Holy Innocents, Albany
Clinton Avenue Historic District, Albany
Coeymans School, Coeymans
Ariaanje Coeymans House, Coeymans
Delaware & Hudson Railroad Co. Bldg, Albany
Downtown Albany Historic District, Albany
Downtown Cohoes Historic District, Cohoes
First Reformed Church, Albany

First Trust Company Bldg., Albany

Fort Orange Archeological Site, Albany

Godfrey Farmhouse, Cohoes

James Hall Office, Albany

Harmanus Bleecker Library, Albany
Harmony Mill Historic District, Cohoes
Harmony Mill No. 3, Cohoes
Lafayette Park Historic District, Albany
Lock 18 of Enlarged Erie Canal, Cohoes
Mansion Historic District, Albany
Music Hall. Cohoes

New Scotland Avenue (Troop B) Armory, Albany New York Executive Mansion, Albany

New York State Capitol, Albany

New York State Court of Appeals Building, Albany
New York State Dept. of Education Building, Albany
Nut Grove, Albany
Old Post Office, Albany
Olmstead Street Historic District, Cohoes
Palace Theatre, Albany
Pastures Historic District, Albany
Quackenbush House, Albany
Quackenbush Pumping Station, Albany
Rensselaer and Saratoga Railroad: Green Island
Shops, Green Island

Philip Schuyler Mansion, Albany

Silliman Memorial Presbyterian Church, Cohoes South End — Groesbeckville Historic District, Albany

St. Mark's Episcopal Church, Green Island

St. Mary's Church, Albany

St. Peter's Church, Albany

Ten Broeck Mansion, Albany Tobias Ten Eyck House and Cemeteries, Coeymans United Traction Company Bldg., Albany Van Schaick House, Cohoes Washington Avenue (Tenth Battalion) Armory,
Albany

Washington Park Historic District, Albany

Watervliet Arsenal, Watervliet

Watervliet Side Cut Locks, Watervliet

Whipple Cast and Wrought Iron Bowstring Truss Bldg., Albany

Young Men's Christian Assoc. Bldg., Albany

Cayuga County

Aurora Steam Grist Mill, Aurora

Aurora Village — Wells College Historic District,
Aurora

Case Memorial—Seymour Library, Auburn
Cayuga County Courthouse and Clerk's Office,
Auburn

Harriet Tubman Home for the Aged, Auburn

Sand Beach Church, Auburn

William H. Seward House, Auburn

South Street Area Historic District,, Auburn
U.S. Post Office, Former, and Federal Courthouse,
Auburn

Willard Memorial Chapel — Welch Memorial Building, Auburn

Dr. Sylvester Willard Mansion, Auburn

Erie County

Albright-Knox Art Gallery, Buffalo

Allentown Historic District, Buffalo

Berkeley Apartments, Buffalo

Blessed Trinity Roman Catholic Church, Buffalo

Buffalo & Erie County Historical Society, Buffalo

Buffalo Gas Light Co. Works, Buffalo

Buffalo North Breakwater South End Light, Buffalo

Buffalo State Asylum for the Insane, Buffalo

Buffalo State Hospital, Buffalo

Cazenovia Park-South Park System, Buffalo

Connecticut Street Armory, Buffalo

County and City Hall, Buffalo

Delaware Avenue Historic District, Buffalo

Delaware Park-Front Park System, Buffalo

William Dorsheimer House, Buffalo

Durham Memorial AME Zion Church, Buffalo

EDWARD M. COTTER (fireboat), Buffalo

Forest Lawn Cemetery, Buffalo

Fosdick-Masten Park High School, Buffalo

James & Fanny How House, Buffalo

Edwin M. & Emily S. Johnston House, Buffalo

Col. William Kelly House, Buffalo

Martin Luther King Jr. Park, Buffalo

Kleinhans Music Hall, Buffalo

Lafayette High School, Buffalo

Macedonia Baptist Church, Buffalo

D.D. Martin House, Buffalo

Darwin D. Martin House, Buffalo

Masten Neighborhood Rows TR, Buffalo

New York Central Terminal, Buffalo

Parkside East Historic District, Buffalo

Parkside West Historic District, Buffalo

Pierce Arrow Factory Complex, Buffalo

Prudential Building, Buffalo

Riverside Park, Buffalo

Theodore Roosevelt Inaugural National Historic Site: Buffalo

Shea's Buffalo Theater, Buffalo.

South Buffalo North Side Light, Buffalo

St. Andrew's Evangelical Lutheran Church, Buffalo

St. Paul's Cathedral, Buffalo

St. Paul's Episcopal Cathedral, Buffalo

Tonawanda Armory, Tonawanda

U.S. Post Office, Buffalo

U.S. Post Office, Tonawanda

USS THE SULLIVANS (destroyer), Buffalo

West Village Historic District, Buffalo

Young Men's Christian Association, Buffalo

Herkimer

Fort Herkimer Church, East Herkimer

Herkimer County Courthouse, Herkimer

Herkimer County Historical Society, Herkimer

Herkimer County Jail, Herkimer

Herkimer County Trust Company Bldg., Little Falls Herkimer House, Danube Indian Castle Church, Indian Castle

Mohawk Upper Castle Historic District, Danube*

The Reformed Church, Herkimer Remington Stables, Ilion Thomas Richardson House, Ilion

U.S. Post Office, Frankfort

U.S. Post Office, Herkimer

U.S. Post Office, Ilion

U.S. Post Office, Little Falls

Madison County

Canal Town Museum, Canastota Canastota Methodist Church, Canastota Canastota Public Library, Canastota Chittenango Landing Dry Dock Complex, Sullivan House at 107 Stroud Street, Canastota House at 115 South Main Street, Canastota House at 205 North Main Street, Canastota House at 233 James Street, Canastota House at 313 North Main Street, Canastota House at 326 North Peterboro Street, Canastota House at 328 North Peterboro Street, Canastota Peterboro Street Elementary School, Canastota Judge Nathan S. Roberts House, Canastota South Peterboro Street Commercial Historic District, Canastota South Peterboro Street Residential Historic District,

St. Paul's Church, Chittenango United Church of Canastota, Canastota U.S. Post Office, Canastota

Monroe County

Canastota

Adams-Ryan House, Adams Basin Andrews Street Bridge, Rochester Susan B. Anthony House, Rochester Aquinas Institute, Rochester Bevier Memorial Building, Rochester

Antoinette Louisa Brown Blackwell, Childhood Home, Henrietta Brown's Race Historic District, Rochester*

Bldg. at 551-555 No. Goodman St., Rochester Campbell-Whittlesey House, Rochester Ionathan Child House & Brewster-Burke House Historic District, Rochester

City Hall Historic District, Rochester

Court Exchange Bldg. — National Casket Co., Rochester

William Covert Cobblestone Farmhouse, Greece

Daisy Flour Mill, Inc., Rochester

Henry DeLand House, Fairport

East Avenue Historic District, Rochester

East High School, Rochester

Eastman Dental Dispensary, Rochester

George Eastman House, Rochester

Hervey Ely House, Rochester

Erie Canal: Second Genesee Aqueduct, Rochester

Federal Building, Rochester

First Presbyterian Church, Rochester

First Universalist Church, Rochester

Genesee Lighthouse, Rochester

German United Evangelical Church Complex,

Rochester

David Hagaman House, Rochester

Hildreth—Lord—Hawley Farm, Pittsford

Franklin Hinchey House, Gates

House at 235—237 Reynolds St., Rochester

Immaculate Conception Roman Catholic Church

Complex, Rochester

Inner Loop MRA, Rochester

Leopold Street Shule, Rochester

Adolph Lomb House, Pittsford

Madison Sq.—West Main Street Historic District,

Rochester

Morgan — Manning House, Brockport

Mt. Hope — Highland Historic District, Rochester

Nazareth House, Rochester

O'Kane Market and O'Kane Bldg., Rochester

Old Stone Warehouse, Rochester

Our Mother of Sorrows Roman Catholic Church Complex, Greece

Phoenix Building, Pittsford

Pittsford Village Historic District, Pittsford

Powers Building, Rochester

Richardson's Tavern, Perinton

Rochester City School #24, Rochester

Rochester Fire Dept. Headquarters, Rochester

Rochester Savings Bank, Rochester

Saint Bernard's Seminary, Rochester

Shingleside, Rochester

Soldier's Memorial Tower, Brockport

Spring House, Pittsford

St. Joseph Roman Catholic Church & Rectory, Rochester

St. Luke's Episcopal Church, Brockport

Stone—Tolan House, Brighton

Third Ward Historic District, Rochester

Tinker Cobblestone Farmstead, Henrietta

U.S. Post Office, East Rochester

Vanderbeck House, Rochester

Timothy Wallace House, Rochester

Wilbur House, Fairport

Thomas Youngs House, Pittsford

Montgomery

Amsterdam (46th Separate Company) Armory,

Bates/Englehardt Mansion, St. Johnsville

Walter Butler Homestead, Fonda

Caughnawaga Indian Village Site, Fonda *

Ehle House Site, Nelliston

Erie Canal, Fort Hunter*

Fort Johnson, Fort Johnson

Fort Klock, St. Johnsville

Fort Plain Conservation Area, Fort Plain *

Greene Mansion, Amsterdam

Guy Park, Amsterdam

Guy Park Avenue School, Amsterdam

Samuel and Johanna Jones Farm, Amsterdam

Nellis Tavern, St. Johnsville

Nelliston MRA, Nelliston

Palatine Bridge Freight House, Palatine Bridge

Palatine Church, Palatine

Reformed Dutch Church of Stone Arabia, Nelliston

Rice's Woods, Canajoharie *

Stone Grist Mill Complex, St. Johnsville

Samuel Sweet Canal Store, Amsterdam

Temple of Israel, Amsterdam

U.S. Post Office, Amsterdam

U.S. Post Office, Canajoharie

U.S. Post Office, Fort Plain

U.S. Post Office, St. Johnsville,

Van Alstyne House, Canajoharie

Vrooman Avenue School, Amsterdam

Webster Wagner House, Palatine Bridge

Niagara County

Col. William M. Bond and Nancy Ralston House,
Lockport

Carnegie Library, North Tonawanda

Allan Herschell Carousel Factory, North Tonawanda

Lockport Industrial District, Lockport

Lowerton Historic District, Lockport

Benjamin C. Moore Mill, Lockport

Niagara County Courthouse and County Clerk's

Office, Lockport

Riviera Theatre, North Tonawanda

Union Station, Lockport

U.S. Post Office, Lockport

U.S. Post Office, Middleport

U.S. Post Office, North Tonawanda

Oneida County

Arsenal House, Rome

Byington Mill, Utica

Roscoe Conkling House, Utica

Doyle Hardware Building, Utica

First Baptist Church of Deerfield, Utica

First Congregational Free Church, Oriskany Falls

First Presbyterian Church, Utica

Fort Stanwix National Monument, Rome

Fountain Elms, Utica

Gansevoort—Bellamy Historic District, Rome

Grace Church, Utica

Hurd & Fitzgerald Building, Utica

Jervis Public Library, Rome

Lower Genesee Street Historic District, Utica

Middle Mill Historic District, New York Mills

Mills House, Rome

Neck Canal of 1730, Marcy

New Century Club, Utica

Oriskany Battlefield, Rome

Rutger-Steuben Park Historic District, Utica

St. Joseph's Church, Utica

Stanley Theater, Utica

Union Station, Utica

Utica Armory, East Utica

Utica Daily Press Building, Utica

Utica Public Library, Utica

Utica State Hospital, Utica

Gen. John G. Weaver House, Utica

Whitestown Town Hall, Whitesboro

Zion Church, Rome

Onondaga County

Alvord House, Syracuse

Amos Block, Syracuse

Architecture of Ward Wellington Ward in Syracuse

MPS, Syracuse

Armory Square Historic District, Syracuse

Baldwinsville Village Hall, Baldwinsville

Alexander Brown House, Syracuse

Central NY Telephone & Telegraph Bldg., Syracuse

Central Technical High School, Syracuse

Church of the Good Shepherd, Onondaga

Reservation

Crouse College, Syracuse Univ., Syracuse

Elbridge Hydraulic Industry Archeological District,

Elbridge *

Gere Bank Bldg., Syracuse

William J. Gillett House, Syracuse

Grace Episcopal Church, Syracuse

John Gridley House, Syracuse

Hall of Languages, Syracuse Univ., Syracuse

Hanover Square Historic District, Syracuse

Hawley-Green Street Historic District, Syracuse

Jordan Village Historic District, Jordan

Polaski King House, Syracuse.

Loew's State Theater, Syracuse

Manlius Village Historic District, Manlius

Montgomery Street/Columbus Circle Historic

District, Syracuse

Mycenae Schoolhouse, Manlius

North Salina Street Historic District, Syracuse

Onondaga County Savings Bank Bldg., Syracusé

Onondaga County War Memorial, Syracuse

Oswego-Oneida Streets Historic District,

Baldwinsville

Pi Chapter House of Psi Upsilon Fraternity, Syracuse

Plymouth Congregational Church, Syracuse

Robinson Site, Cicero/Brewerton

South Salina Street Historic District, Syracuse

St. Paul's Cathedral, Syracuse

Gustav Stickley House, Syracusé

Syracuse City Hall, Syracuse

Syracuse Savings Bank, Syracuse

Syracuse University - Comstock Tract Bldgs.,

Syracuse

Third National Bank, Syracuse

Thornden Park, Syracuse

Walnut Park Historic District, Syracuse

Weighlock Building, Syracuse

Whig Hill and Dependencies, Plainville

White Memorial Building, Syracuse

Hamilton White House, Syracuse

Ontario County

Ashcroft, Geneva

Belhurst Castle, Geneva

Geneva Armory, Geneva

Geneva Hall and Trinity Hall, Hobart & William

Smith College, Geneva

Nester House, Geneva

Parrott Hall. Geneva South Main Street Historic District, Geneva U.S. Post Office, Geneva

William V. N. Barlow House, Albion

Orleans County

Main Street Historic District, Medina Main Street Historic District — Boundary Increase, Medina Medina Armory, Medina Mt. Albion Cemetery, Albion North Main — Bank Streets Historic District, - Albion

Orleans County Courthouse Historic District, Albion

U.S. Post Office, Albion U.S. Post Office, Medina

Oswego County

Fort Brewerton, Brewerton* Fort Ontario, Oswego Franklin Square Historic District, Oswego Hunter-Oliphant Block, Oswego Kingford House, Oswego Market House, Oswego

NASH (Harbor Tug), Oswego

Oswego Armory, Oswego Oswego City Hall, Oswego Oswego City Library, Oswego Oswégo Theater, Oswego Pontiac Hotel, Oswego Richardson—Bates House, Oswego Riverside Cemetery, Oswego Sheldon Hall, Oswego George B. Sloan Estate, Oswego St. James' Church, Oswego St. John's Episcopal Church, Phoenix Sweet Memorial Building, Phoenix

U.S. Custom House, Oswego

David Van Buren House, Fulton

U.S. Post Office, Fulton

John Van Buren Tavern, Fulton Volkert Van Buren House, Fulton Walton and Willett Stone Store, Oswego Woodruff Block, Oswego

Rensselaer County

Aiken House, Rensselaer Beverwyck Manor, Rensselaer Burden Iron Works Site, Troy * Burden Iron Works Office Bldg., Troy Esek Bussey Firehouse, Troy Cannon Building, Troy Central Troy Historic District, Troy Church of the Holy Cross, Troy Defreest Homestead, Troy*

Fifth Avenue — Fulton St. Historic District, Troy

Fort Crailo, Rensselaer

Glenwood, Troy Grand Street Historic District, Troy

Hart-Cluett Mansion, Troy Ilium Building, Troy Henry Koon House, Troy Lansingburgh Academy, Troy McCarthy Building, Troy Herman Melville House, Troy National State Bank Bldg., Troy

Northern River Street Historic District, Troy

Oakwood Cemetery, Troy Old Troy Hospital, Troy

Patroon Agent's House and Office, Rensselaer Poesten Kill Gorge Historic District, Troy

Powers Home, Troy Proctor's Theater, Troy Public School No. 10, Troy River Street Historic District, Troy

Second Street Historic District, Troy St. Paul's Episcopal Church, Troy Trinity Church Lansingburgh, Troy Troy Gas Light Company, Troy Troy Public Library, Troy

Troy Savings Bank and Music Hall, Troy

U.S. Post Office, Troy

W. & L.E. Gurley Bldg., Troy

Washington Park Historic District, Troy Emma Willard School, Troy

Winslow Chemical Laboratory, Troy

Saratoga County

CATAWISSA (tugboat), Waterford

Champlain Canal

Col. Elmer E. Ellsworth Monument & Grave,

Mechanicville

Northside Historic District, Waterford

Ormsby—Laughlin Textile Companies Mill,

Waterford

Parks—Bentley House, Glens Falls

Peebles Island, Waterford *

Saratoga National Historical Park

Old Saratoga Reformed Church, Schuylerville

Vischer Ferry Historic District, Clifton Park

Waterford Village Historic District, Waterford

Schenectady County

H.S. Barney Bldg., Schenectady

Central Fire Station, Schenectady

Dellemont-Wemple Farm, Schenectady

Foster Bldg., Schenectady

Franklin School, Schenectady

General Electric Realty Plot, Schenectady

General Electric Research Laboratory, Schenectady

Hotel Van Curler, Schenectady

Irving Langmuir House, Schenectady

Mabee House, Rotterdam Junction

Niskayuna Reformed Church, Niskayuna

Nott Memorial Hall, Union College, Schenectady

F.F. Proctor Theater and Arcade, Schenectady

Schenectady Armory, Schenectady

Schenectady City Hall and Post Office, Schenectady

Seeley Farmhouse, Schenectady

Stockade Historic District, Schenectady*

Union Street Historic District, Schenectady

U.S. Post Office, Schenectady

U.S. Post Office, Scotia Station

Schuyler County

Brick Tavern Stand, Montour Falls

Montour Falls Historic District, Montour Falls*

Schuyler County Courthouse Complex, Watkins

Glen

U.S. Post Office, Watkins Glen

Seneca County

William H. Burton House, Waterloo

Christ Evangelical and Reformed Church, Fayette

Covert Historic District, Covert

Fall Street—Trinity Lane Historic District, Seneca

Falls*

First Presbyterian Church, Waterloo

Fourth Ward School, Seneca Falls

Hunt House, Waterloo

Lodi Methodist Church, Lodi

M'Clintock House, Waterloo

Rose Hill, Fayette

St. Paul's Church, Waterloo

Seneca County Courthouse Complex, Ovid

Seneca Falls Village Historic District, Seneca Falls

Elizabeth Cady Stanton House, Seneca Falls

U.S. Post Office, Seneca Falls

U.S. Post Office, Waterloo

Waterloo Library, Waterloo

Weslayan Methodist Church, Seneca Falls

Willard Asylum for the Chronic Insane, Willard

Women's Rights NHP, Seneca Falls

Tompkins County

Boardman House, Ithaca

Hermon Camp House, Trumansburg

Cascadilla School Boathouse, Ithaca

Clinton Hall, Ithaca

Clinton House, Ithaca

Cornell Heights Historic District, Ithaca

DeWitt Park Historic District, Ithaca
Deke House, Ithaca
East Hill Historic District, Ithaca
Enfield Falls Mill and Miller's House, Ithaca
Halsey, Nicoll House and Halseyville Archeol.* Site,
Halseyville

Indian Fort Road Site, Trumansburg *
Ithaca Pottery Site, Ithaca *
Lehigh Valley Railroad Station, Ithaca
Llenroc, Ithaca

Morrill Hall, Cornell Univ., Ithaca

New York State College of Agriculture TR, Ithaca Second Tompkins Co. Courthouse, Ithaca St. James AME Zion Church, Ithaca State Theater, Ithaca Strand Theater, Ithaca U.S. Post Office, Ithaca Andrew Dickson White House, Ithaca

Warren County

Thomas Burnham House, Glens Falls
W.T. Cowles House, Glens Falls
Cunningham House, Glens Falls
Glens Falls Feeder Canal
Glens Falls High School, Glens Falls
Glens Falls MRA, Glens Falls
Hoopes House, Glens Falls
House, Glens Falls
Hyde House, Glens Falls
Peyser and Morrison Shirt Co. Bldg., Glens Falls
Ephraim B. Potter House, Glens Falls
Sherman House, Glens Falls
Three Squares Historic District, Glens Falls
Martin L.C. Wilmarth House, Glens Falls
Helen Wing House, Glens Falls

Washington County

DeRidder Homestead, Schuylerville Fort Miller Reformed Church, Fort Edward Hudson Falls Historic District, Hudson Falls Main Street Historic District, Whitehall Old Fort House, Fort Edward
Judge Joseph Potter House, Whitehall
Rogers Island, Fort Edward*
U.S. Post Office, Hudson Falls
U.S. Post Office, Whitehall
Whitehall Armory, Whitehall

Wayne County -

J.& E. Baker Cobblestone Farmstead, Macedon
Broad St/Water St. Historic District, Lyons
Charlès Bullis House, Macedon
East Main St. Commercial Historic District, Palmyra
Grace Episcopal Church Complex, Lyons
H.G. Hotchkiss Essential Oil Co. Plant, Lyons
Market Street Historic District, Palmyra
Ezra T. Phelps Farm Complex, Marion
Smith—Ely Mansion, Clyde
U.S. Post Office, Clyde
U.S. Post Office, Lyons
U.S. Post Office, Newark
Zion Episcopal Church, Palmyra

Yates County

Thomas Bennett Curtis House, Starkey
Uriah Hair House, Dundee
Robert Ingersoll Birthplace, Dresden
John Noyes House, Starkey
Dr. Henry Spence Cobblestone Farmhouse and Barn
Complex, Starkey
Starkey United Methodist Church, Starkey
Daniel Supplee Cobblestone Farmhouse, Starkey
William Swortz House, Starkey
Christopher Willis House, Dresden
Young—Leach Cobblestone Farmhouse and Barn
Complex, Torrey

APPENDIX F:

PARKS, HISTORIC SITES, AND CULTURAL ATTRACTIONS LOCATED WITHIN THE CANALWAY

This list provides a sampling of recreational, historic, and cultural resources within the canalway. It does not provide a comprehensive inventory of all resources.

National Park Units

Saratoga National Historical Park
Fort Stanwix National Monument
Women's Rights National Historical Park
Theodore Roosevelt Inaugural National Historic Site
Hudson River Valley National Heritage Corridor

National Forests & Wildlife Refuges

Finger Lakes National Forest Montezuma National Wildlife Refuge

NYS Historic Sites and Heritage Areas

Henry Hudson Planetarium at Albany State
Heritage Area
Buffalo State Heritage Area
Skenesborough Museum at Whitehall State Heritage

Hudson-Mohawk RiverSpark State Heritage Area,

Troy/Cohoes
Schoharie Crossing State Historic Site
Herkimer Home State Historic Site
Fort Ontario State Historic Site
Erie Canal Museum at Syracuse State Heritage Area
Oriskany Battlefield State Historic Site
Seneca Falls State Heritage Area
Center at High Falls at Rochester State Heritage
Area

Schnectady State Heritage Area

Mohawk Valley Heritage Corridor, Canajoharie (headquarters)

New York State Parks

Old Erie Canal Hamlin Beach Irondequoit Bay Marine Evangola Cayuga Lake

Dean's Cove Boat Launch

Lodi Point Sampson

Seneca Lake Buttermilk Falls

Taughannock Falls

Allan H. Treman Marine

Robert H. Treman

Watkins Glen

Battle Island

Selkirk Shores

Clark Reservation

Green Lakes

Verona Beach

Grafton Lakes

Moréau Lake

Peebles Island

John Boyd Thacher

Thompson's Lake

New York State Wildlife Management Areas (WMA's)

Galen

Cayuga Lake

Clay Marsh

Howland Island
Three Rivers
Three Mile Bay
Cicero
Rome
Oriskany Flats
Catherine Creek Marsh
Tillman Road

Canal-Related Attractions

Erie Canal Village, Rome
Chittenango Landing Canal Boat Museum,
Chittenango
Canal Town Museum, Canastota
Vischer Ferry Nature and Historic Preserve, Clifton
Park
Sim's Store Museum, Camillus
Canal Center at Old Erie Canal State Park, Syracuse
Erie Canal Seven Mile Park, Camillus
Erie Canal Museum, Syracuse

Other Cultural Attractions

Fort Crailo, Rensselaer First Church in Albany, Albany New York State Capitol, Albany Schnectady Stockade, Schnectady Schuyler Mansion, Albany Albany Institute of History & Art, Albany New York State Museum, Albany Watervliet Arsenal Museum, Watervliet Fort Ontario, Oswego John Pratt Wells House, Fulton Richardson-Bates House Museum, Oswego H. Lee White Marine Museum, Oswego Energy Center, Oswego Fonda National Kateri Tekakwitha Shrine, Fonda Fort Klock, St. Johnsville Fort Plain Museum, Fort Plain Palatine Bridge/Stone Arabia, Palatine Bridge Canajoharie Library and Art Gallery, Canajoharie Children's Museum, Utica

Cottage Lawn Museum, Oneida Walter Elwood Museum, Amsterdam International Boxing Hall of Fame, Canastota Kopernik Memorial Polish Cultural Center & Museum, Utica Little Falls Historical Society Museum, Little Falls Munson-Williams-Proctor Institute, Utica Remington Firearms Museum, Ilion Rome Historical Society Museum, Rome Upstate New York Italian Cultural Center & Museum, Utica Canajoharie Gorge in Wintergreen Park, Canajoharie Utica Zoo, Utica Susan B. Anthony House, Rochester Hill Cumorah Visitor Center, Palmyra Historic City Hall, Rochester Mount Hope Cemetery, Rochester Rose Hill Mansion, Geneva Sainte Marie Among the Iroquois, Syracuse Seward House, Auburn Joseph Smith Home & Sacred Grove, Palmyra Stone-Tolan House, Rochester Harriet Tubman Home, Auburn Wilcox Octagon House, Camillus Woodside Mansion, Rochester Agricultural Museum Emerson Park, Auburn Alling Coverlet Museum, Palmyra Charlotte-Genesee Lighthouse, Rochester George Eastman House, International Museum of Photography, Rochester Everson Museum of Art, Syracuse Herbert F. Johnson Museum of Art, Ithaca Hinckley Museum, Ithaca, Robert Ingersoll Museum, Dresden Manlius Historical Museum, Scoville Memorial Art Gallery, Rochester Memorial Day Museum, Waterloo New York Museum of Transportation, Rochester Onondaga Historical Association Museum, Syracuse Owasco Teyetasta (Iroquois Museum), Auburn Prouty-Chew Museum, Geneva

Rochester Museum and Science Center, Rochester

Milton J. Rubinstein Museum of Science &

- Technology, Syracuse

Salt Museum, Syracuse

Scythe Tree, Waterloo

State of the Art Gallery, Ithaca

Strong Museum, Rochester

Wayne County Historical Museum, Lyons

Willard Memorial Chapel, Auburn

Women's Hall of Fame, Seneca Falls

Cornell University Plantations, Ithaca

Seneca Park Zoo, Rochester

Beaver Lake Nature Center, Baldwinsville

Burnet Park Zoo, Syracuse

Dire Wolf Natural History Tours, Ithaca

Ellwanger Garden, Rochester

Sciencenter, Ithaca

Springdale Farm, Spencerport

Strasenburgh Planetarium, Rochester

Allentown Association, Buffalo

Buffalo & Erie County Historical Society, Buffalo

Forest Lawn Cemetery, Buffalo

Historical Society of the Tonowandas, Tonowanda

Kenan Center, Lockport

Niagara County Historical Society, Lockport

Carnegie Art Center, Tonowanda

Buffalo Museum of Science, Buffalo

Burchfield Art Center, Buffalo

Herschell Carousel Factory Museum, North

Tonowanda

Buffalo Zoological Garden, Buffalo

Buffalo and Erie County Botanical Garden, Buffalo

Tifft Nature Preserve, Buffalo

APPENDIX G:

ENVIRONMENTAL ASSESSMENT

New York State Canals Special Resource Study Environmental Assessment

1.0 INTRODUCTION

In 1995 the New York State Canal Corporation and Canal Recreationway Commission released a major revitalization plan for the NYS Canal System. The plan outlined a program for making the transition from a commercial to a recreational and scenic waterway and called for the development of several harbor centers accessible by both land and water, a canalside trail along the entire length of the canal, smaller marine related service centers and other visitor oriented amenities. As part of that effort and in compliance with New York State Environmental Quality Review Act (SEQR), the NYS Canal Corporation and Canal Recreationway Commission had a Generic Environmental Impact Statement prepared by the consulting firm of Clough, Harbor Associates.

The GEIS identifies a number of environmental impacts associated with the implementation of the plan as well as a number of mitigation measures. Because the Recreationway Plan is strategic in nature and focuses on the macro scale, the drafters of the GEIS note that future site specific actions undertaken as part of the plan will require further environmental review under SEOR.

According to the GEIS prepared for the NYS Canal Corporation and Recreationway Commission, the plan implementation will result in certain environmental impacts that cannot be avoided. For example, vacant land will be developed to provide enhanced recreational opportunities for the public. Greater public use of Canal resources may lead to related impacts such as littering, noise, increased vehicular traffic on roads and increased boating traffic on Canal waterways. Expanded public use of the Canal System may also impact fish and wildlife

resources. In conclusion the GEIS notes that such impacts are not considered significant and the Canal Recreationway Plan has been carefully designed to minimize these impacts through sensitive use of natural resources and implementation of other mitigation measures.

Other impacts identified in the GEIS include:

- ❖ an increase in the commercial and residential development in designated areas adjacent to the canal;
- an impact on solid waste production;
- An impact on the use of energy and other natural resources consistent with the development and increased recreational usage of the Canal; and
- ❖ an increase in the expenditure of financial, human, energy and infrastructure resources consistent with the development of residential and commercial projects.

The GEIS identifies the following mitigation measures considered by the plan:

- conservation of open space, historic resources and agricultural lands, cluster development, erosion and sediment control;
- reservation and enhancement of wetlands and aquatic fish and wildlife habitats, where consistent with canal navigation and operations;
- water quality protection measures:
- * recommended criteria for policy considerations concerning use of canal owned lands; and
- * adherence to existing solid waste management laws and conformance with local solid waste management plans.

The final generic environmental impact statement for the New York State Canal Recreationway Master Plan was accepted on August 28, 1995. A special resource study is used by the NPS to evaluate a resource for national significance and to assess its suitability and feasibility for inclusion into the National park system. As part of this special resource study, the study team developed and is now presenting a range of possible management alternatives, but has not identified a preferred alternative. The management alternatives represent possible options for varying levels of federal designation and involvement.

Upon completion of the New York State
Canals Special Resource Study and final NPS
approval of its form and content, this study will be
transmitted to Congress. Ultimately, Congress will
decide on the appropriate course of action. At that
time, legislation may be introduced by Congress to
authorize a new unit of the national park system.

The National Park Service (NPS) has prepared this Environmental Assessment (EA) for the purpose of presenting a range of management alternatives to Congress and describing the respective environmental consequences of the federal actions undertaken by the National Park Service presented in this study. These management alternatives have been developed by the NPS pursuant to the New York State Canals Special Resource Study. The role for the federal government outlined in each alternative is primarily programmatic and is unlikely to call for significant development. The scope of this environmental assessment will be limited to the potential environmental impacts resulting from specific proposals for NPS activity that are above and beyond any activity proposed in the NYS Canal Recreationway Plan.

Purpose and Need for the Study:

The Interior Appropriation Act for Fiscal Year 1995, Public Law 103-332, directed the National Park Service (NPS) to prepare a special resource study evaluating the New York State Canal System for designation as a national heritage area. Although

the state's entire congressional delegation supported the study, Congressman James T. Walsh (R-Syracuse, NY) and Senator Daniel Patrick Moynihan (D-NY) were its primary advocates.

The purpose of the New York State Canal System Special Resource Study is to evaluate the system for designation as a national heritage area. In order to be considered eligible for inclusion, a proposed unit must be evaluated against federally established criteria for national significance as well as the suitability and feasibility of including it in the park system. In addition, the Park Service has developed and evaluated management alternatives that present a range of options for the protection and interpretation of the New York State Canal System. The management alternatives includes such options as the designation of Eric Canalway, an affiliated area or a National Heritage Corridor.

Three components compose the study area. First is the New York State Canal System, consisting of the Erie Canal, three lateral canals (Champlain, Oswego, and Cayuga-Seneca), locks, gates, dams, feeder canals, and reservoirs. These resources embrace about 36,000 acres and are primarily owned and operated by the New York State Canal Corporation. Next are sections of the alignment of the first Erie Canal (referred to as the "old Erie") that have been restored or simply have survived the realignment and enlargement of the modern canal, the construction of roads and highways, and other public and private works. Although the New York State Canal Corporation owns some of the lands along the old alignment, it leases much of that land to private entities. Other lands along the old alignment are privately owned or are held by the state and other public agencies. Finally, more than 200 municipalities are adjacent to the New York State Canal System and feature cultural resources and institutions that reflect the canals' influence.

The NPS conducted the study in close cooperation with the New York State Canal Corporation

and the New York State Canal Recreationway Commission, a 24-member advisory body including representatives of a number of state agencies, communities, and interest groups. A project manager from the Canal Corporation served as a consultant to the study team.

2.0 DESCRIPTION OF STUDY AREA

Physical Description:

The study area focuses on the four navigable units of the New York State Canal System, the alignment of the 1825 Erie Canal, and the communities immediately contiguous to these canal resources. Stretching 348 miles from Lake Erie (by way of the Niagara River at Tonawanda) to the Hudson River at Waterford, the Erie Canal forms the main trunk line of the system. Three lateral canals Oswego (24 miles), Cayuga-Séneca (92 miles), and Champlain (60 miles) link the Erie Canal to Lake Ontario, the Finger Lakes, and Lake Champlain respectively. The New York State Canal Corporation, a wholly owned subsidiary of the New York State Thruway Authority, owns and operates all 524 miles of this system, as well as an extensive system of waterways and reservoirs that support its operation. The New York State Canal Recreationway Commission serves the Canal Corporation in an advisory capacity.

The current canal system is the latest incarnation of an evolving water transportation network that was continually adapted to innovations in transportation technology and changes in the economy. Much evidence of the various stages of transportation history has been preserved within the system. While the existing barge canal seems to have superseded its predecessors completely in many areas of the canal system, many other areas harbor remnants of the older systems. A number of segments of the old Erie have been restored and rewatered and are available for public use. At such places

as Lockport and Schoharie Crossing, one may observe the remains of the old alongside the new: at a 3.5-mile segment of the canal in the village of Fort Hunter, now Erie Canal National Historic Landmark and Schoharie Crossing State Historic Site, the three major phases of the Erie Canal's development are all clearly visible in the present-day landscape," according to the site's National Register of Historic Places nomination.

According to the New York State Canal Recreationway Plan, commercial traffic peaked on the canals in the 1880s, when 6.5 million tons of grain, oil, coal, and other commodities were shipped on them each year. Scholars generally believe that the railroad boom in the late 1800s, the opening of the St. Lawrence Seaway in the 1950s, the availability of truck transport on interstate highways after the Second World War, and the regular wintertime closure of the canals brought about the system's decline; in 1993, only 154 thousand tons of freight were shipped on it. Still, the state welcomes commercial traffic and expects it to continue; the recreationway plan calls for encouraging a modest level of freighting in order to retain a diversity of use on the canals.

By contrast, recreational boat traffic on the canals has been on the increase, though exact figures are difficult to find. The current method of determining recreational use is by counting the number of lockages, which may include more than one boat, and does not count the number of boaters using the areas between locks and lakes. Thus current figures 126,051 pleasure craft lockages in 1995 and 115,297 lockages in 1996 almost certainly understate the number of recreational boaters on the canals. The number of lockages recorded annually can fluctuate based on weather and economic conditions. In addition, the reintroduction of tolls at the locks in 1994 may have had a negative effect on the total number of lockages for that and subsequent years.

The present canal system offers expansive

and diverse recreational opportunities, both on its own waterways and through its links to other bodies of water such as Lakes Erie, Ontario, and Champlain, the Finger Lakes, and the Hudson River. Activities range from passive endeavors such as watching locks operate, a popular pastime since the beginning of canal operation, to more active pursuits such as boating and fishing. Trails parallel much of the system, and plans call for creating a complete trail system following both the present-day canals and long segments of former routes not now part of the system.

In addition to the recreational opportunities they offer, the canals open access to expansive scenic vistas, important natural resources (including at least one National Wildlife Reserve), and innumerable cultural resources. The canal system directly links four units of the national park system as well as nine New York State Heritage Areas and several state parks. The New York State Canal System also provides access for through passage to other U.S. and Canadian waterways in the Great Lakes, St. Lawrence, and Mississippi systems.

With its existing and planned hiking and biking trails, marked auto routes, and the water-ways themselves, the canal system is a well-defined recreational corridor extending the length of the state. Two state-designated bicycle routes traverse New York Bike Route 5, running east-west parallel to the main stem of the canal system, and Bike Route 9, which runs north-south throughout the Hudson River Valley. These bike routes also offer access to the canal system.

Socioeconomic Environment:

The canal system traverses a diverse landscape ranging from the urban and industrial areas to canalside villages, rural farmland, and natural areas. The system penetrates 25 counties and more than 200 municipalities across the central and northern tiers of the state. More than 4 million people nearly a quarter of New York State's population live within these adjacent counties. Another 50 percent of the state's residents (9 million additional people) live along the Hudson River from the canal's terminus at Waterford to the Port of New York. Many of the communities along the canals grew and prospered as a direct result of their presence.

According to statistics assembled by Arthur Anderson & Co. for the draft GEIS, the 1993 median household income for New York State was \$38,125. Excluding Capital District Region (Greater Albany), all of the regions surveyed for the GEIS had median household incomes significantly below the state-wide average. The estimated state-wide per capita income for 1993 was \$19,931. The estimated per capita income for that year fell below the state-wide figure in all the regions surveyed. However, with the exception of the Lake George/Lake Champlain Region, all of the regions surveyed demonstrated lower 1997 (May) unemployment rates than the statewide average.

3.0 SUMMARY OF ALTERNATIVES

As recommended under NPS guidelines for the completion of Suitability/Feasibility Studies, a study team typically proposes two or more management alternatives for the study area. These alternatives offer options to ensure that any significant resources are protected, preserved, and interpreted to the most appropriate degree. This section describes the proposed alternatives and summarizes their potential environmental consequences. Because these alternatives make few site specific recommendations for development or other intensive activity, the discussion of environmental consequences is fairly broad. The proposed alternatives and their potential environmental consequences are summarized below.

Alternative 1: Erie Canalway: An Affiliated Area of the National Park System

This alternative recognizes the national significance of the New York State Canal System by seeking Congressional designation of an affiliated area of the national park system that would include within its boundaries the navigable waterway, extant segments of the "Old Erie," and those municipalities that lie immediately adjacent to the waterway and the "Old Erie." Under this alternative the primary roles of the National Park Service would include providing technical assistance to canalway management and associated partners, providing support in the development of a corridor-wide interpretation and canalway identity program, and offering guidance and support for the creation of an Erie Canal Education Center. If an appropriate site is identified, the designation might also include a national historic site that would be administered by NPS and would further commemorate the national significance of the Erie Canalway.

In addition, the National Park Service would play a role in the coordination of programs and activities among the various owners and managers of canal related resources throughout the proposed unit. The National Park Service might also acquire. and develop a limited amount of land that would not exceed 20 acres in size within the canalway for administrative and/or visitor services purposes. Although not identical in all respects, there are a number of similar models to consider that combine a center or a sité within a larger designated area. Among them are the Essex National Heritage Area in Massachusetts which includes Salem Maritime National Historic Site and Saugus Ironworks National Historic Site within its boundaries. The Cane River Creole National Historical Park and National Heritage Area in Louisiana is another such example.

The National Park Service's programmatic assistance to the proposed affiliated area could take any or all of the following forms:

Technical Assistance.

Through a permanent technical assistance program funded out of operating dollars for this affiliated: area, the National Park Service could provide to the owners and managers of canal-related resources, and canal corridor communities, organizations, and institutions, technical assistance and grants for education, interpretation, historic preservation, planning, recreational trail development, and open space conservation. This program would place particular emphasis on activities that would serve as model projects. NPS staff would be assigned to coordinate support to the historic canalway. All of the park service's programs (for example, Rivers, Trails and Conservation Assistance and the National Historic Landmarks Program) and professional offices (including the Boston Support Office, the Olmsted Center for Landscape Preservation, the Building Conservation Center, and the Northeast Museum Services Center) would be available for project work subject to appropriated funds.

Interpretation & Identity.

The National Park Service would provide support in developing a comprehensive interpretation and canalway identity program. The purpose of this initiative would be to ensure that visitors to the Erie Canalway are aware that they are traveling within the canalway, are able to easily navigate the canalway as pedestrians, boaters, or drivers, and have the opportunity to understand and appreciate the natural, cultural, scenic, and recreational sites and attractions within its bounds. Some aspects of the interpretation and identity effort are already underway and are noted below. Key facets of this program could include:

A signage system including both directional and interpretive signage. Such a system is a goal of the Canal Corporation which has recently begun design of a preliminary program. A logo-based,

directional signage system embracing highway, local routes, and individual destinations would be integrated with printed information. NPS involvement could build on this activity to establish a full interpretive program including waysides and other interpretive media.

- Canalway-wide publications like informational brochures with maps, and comprehensive guides similar to the National Park Service's series of park guides.
- A series of "virtual visitor centers" could be created at various visitor destinations along the Erie Canalway. The virtual visitor centers would consist of computer terminals programmed using interactive software that would enable visitors to obtain information about the whole canalway as well as the particular site that they are currently visiting. Information could be provided on a wide range of topics including interpretive programs, related attractions, maps and directions, and food and lodging. The virtual visitor centers would be developed through a partnership with the management entity and the host institutions at each site. These programs could also be adapted for classroom use and made available to prospective visitors via the internet.
- * Interpretive training could be provided by NPS to ensure a consistent standard for interpretive programming throughout the Erie Canalway. Individual sites throughout the historic canalway would continue to be responsible for their own interpretation.

Erie Canal Education Center

An "Erie Canal Education Center," modeled after the Tsongas Center for Industrial History at Lowell National Historical Park, could be developed with NPS support. The center could provide interactive, educational exhibits illustrating the operation of the contemporary canal system as well as the history of

its development and its overall impacts on the social, geographic, and political history of the United States. The education center would also support a network of educational programs focusing on the local history of the canal throughout the Erie Canalway. Curriculum development and educational outreach to school systems across the state could be a major program emphasis. Like the Tsongas Center, the proposed center should be established. with an educational institution as a co-sponsor such as the University of Massachusetts at Lowell (UMASS/Lowell) as well as with commitments from the state and private industry. UMASS/Lowell established the Tsongas Center with the National Park Service and continues to operate it in an NPSowned historic mill building located within the park. The National Park-Service could contribute to the planning and design of facilities for the center and provide funds for the adaptive re-use of a historic structure for this purpose.

The identification of an actual location for such an education center is beyond the scope of this study. As proposed, the education center would require a strong local partner, preferably an established institution, and would be located in an area considered a "destination" location within the Eric Canalway in proximity to significant canal-related resources. Cosponsorship by a New York college or university could further expand the range and depth of educational programming offered by the education center. A number of locations meet this criteria and include but are not limited to the following: Waterford, Schoharie Crossing, Rome, Syracuse, Rochester, and Lockport. The education center would be developed in consultation with other institutions and would not compete with existing institutions and programs but would complement them.

Demonstration Projects

As part of the management entity, NPS would lend

its support and guidance to a limited number of demonstration projects. These projects could range from historic preservation and adaptive reuse efforts for visitor services to the development of travelling education kits and other educational outreach activities. These projects could serve as models illustrating the development standards and levels of visitor services achievable within the canalway.

Federal acquisition of canal-related lands within the Erie Canalway would be limited to those associated with the development of the education center and/or national historic site. This alternative does not propose any changes in local land use authorities. No federally imposed land use controls would result from designation as an affiliated area. Existing New York State Canal Corporation land management policies would continue to apply relative to land acquisition and use.

Impacts to Natural Resources:

The Park Service would support the New York State Canal Recreationway Commission's efforts to protect wetlands and open space and in the development of a state-wide greenway. In addition to proposing the development of the Eric Canal Education Center, the National Park Service may also play a role in the development and administration of a series of small demonstration projects. Further compliance work relative to these projects would have to be undertaken upon the completion of actual site plans. Proposed interpretive and educational programming and signage developed by the management entity with NPS support could encourage and enhance stewardship of natural resources among local residents and visitors.

Impacts to Cultural Resources:

The Park Service would support the New York State Canal Recreationway Commission's commitment to historic preservation within the Erie

Ganalway. In addition to proposing the development of an education center, the Park Service may also play a role in the development of a series of small demonstration projects. Further compliance work on these projects will have to be undertaken as more in-depth planning and design is completed. Through the provision of technical assistance for planning and historic preservation, the National Park Service could contribute to the long term preservation of local vernacular architecture, cultural landscape, and other cultural resources associated with the park. Further, proposed interpretive and educational programming and signage developed by the management entity with NPS support could encourage and enhance stewardship of cultural resources among local residents and visitors

Impacts to Socioeconomic Environment:

According to the Draft CEIS prepared for the New York State Canal Recreationway Commission, one of the goals of the Plan is to encourage appropriate and sustainable development as a catalyst for economic growth. Upon implementation of the plan they anticipate additional economic activity principally in the form of increased tourism. This should result in the creation of new jobs and related indirect benefits. As a revitalized recreational and cultural amenity, the Canal Recreationway within the Erie Canalway could enhance the livability of canal corridor communities making them more attractive to prospective residents and relocating businesses. Over the long term this could result in growth in local populations and economic opportunity.

Alternative 2: Erie Canalway National Heritage Corridor

This alternative proposes the Congressional designation of the New York State Canal System as a national heritage corridor. As in alternative 1, the corridor would contain within its boundaries the

navigable canal system, extant segments of the "old Erie," and the municipalities immediately adjacent to navigable waterways system-wide and to the "old Erie." Under this alternative the primary roles of the National Park Service would include providing technical assistance to corridor management and associated partners, and providing support in the development of a corridor-wide interpretation and identity program. A limited number of demonstration projects would also be undertaken. The relationship between the National Park Service and the corridor would be temporary, lasting for no more than ten years, and would be modeled on the most recently designated heritage areas like the Quinebaug and Shetucket Rivers Valley National Heritage Corridor. Programmatic assistance to the proposed national heritage corridor would be similar to the technical assistance, and interpretation and identity proposals described under alternative 1.

There would be no federal acquisition of canal-related lands within the heritage corridor, and no federal dollars would be made available for land acquisition. The designation of a national heritage corridor would not in any way affect on the continuation of private property ownership or local decision-making about land use. Existing New York State Canal Corporation land management policies would continue to apply.

Impacts to Natural Resources:

The Park Service would support the New York State Canal Recreationway Commission's efforts to protect wetlands and open space and in the development of a state-wide greenway. With the exception of demonstration projects, none of the proposals described in the study would involve additional development that may have a negative impact on natural resource protection. If a demonstration project involves any development, appropriate compliance will be undertaken during the design phase of the project. However, proposed interpretive and

educational programming and signage developed by the management entity with NPS support could encourage and enhance stewardship of natural resources among local residents and visitors.

Impacts to Cultural Resources:

The Park Service would support the New York State Canal Recreationway Commission's commitment to historic preservation along the New York State Canal Corridor. Through the provision of technical assistance for planning and historic preservation, the National Park Service could contribute to the long term preservation of local vernacular architecture, cultural landscape, and other cultural resources associated with the corridor. Further, through proposed interpretive and educational programming and signage developed by the management entity with NPS support could encourage and enhance stewardship of cultural resources among local residents and visitors.

Impacts to Socioeconomic Environment:

According to the Draft GEIS prepared for the New York State Canal Recreationway
Commission, one of the goals of the Plan is to encourage appropriate and sustainable development as a catalyst for economic growth. Upon implementation of the plan they anticipate additional economic activity principally in the form of increased tourism. This should result in the creation of new jobs and related indirect benefits. As a revitalized recreational and cultural amenity, the Canal Recreationway could enhance the livability of canal corridor communities making them more attractive to prospective residents and relocating businesses. Over the long term this could result in growth in local populations and economic opportunity.

Alternative 3: New York State Canal Recreationway No Federal Action

Under this alternative no federal designation

or additional authority for federal involvement is recommended. The New York State Canal Corporation and Canal Recreationway Commission would own and operate the waterway on their own as they do now.

The resources currently owned and managed by the New York State Canal Corporation will continue to be maintained and made available for public use in accordance with state law. Also, as required under their state enabling legislation, the Canal Corporation and the commission would implement and periodically update the New York State Canal Recreationway Plan. The Canal Recreationway Plan calls for the redevelopment of canalside sites at a number of locations and at varying scales to encourage and support recreational use of the canal system. The plan recommends a multimodal approach and includes provisions for the development of a system-wide canalside trail and the designation of a scenic byway route for automobiles.

The New York State Canal Corporation and Canal Recreationway Commission would continue to rely on other state agencies and private consultants for technical assistance in the areas of education, interpretation, historic preservation, planning, visitor service, and open space conservation. Under current fiscal conditions, many New York State agencies are currently challenged by the demands of their own capital and programmatic needs. Therefore, it is likely that any technical assistance required for the canal recreationway and its partners would have to be funded from sources available to municipalities.

No regular source of federal funds would be identified. However, the Canal Corporation could receive technical assistance and grants through a number of federal programs (including the Park Service's Rivers, Trails and Conservation Assistance Program, and ISTEA) on a competitive basis. In addition, communities located within the canal corridor are eligible to compete for revitalization loans and grants offered under the U.S. Department of Housing and Urban Development's Canal Corridor

Initiative. However, the New York State Canal Corporation and the New York State Canal Recreationway Commission would be the primary source of funds. Additional sources of funds may include other New York State agencies and programs and private nonprofit and for-profit organizations.

Impacts to Natural Resources:

Under this alternative, there would be no formal federal designation of a site or a corridor. Federal involvement in the region would be limited to existing competitive grant and technical assistance programs. There would be no additional impacts to natural resources beyond those already presented by the implementation of the New York State Canal Recreationway Master Plan.

Impacts to Cultural Resources:

Under this alternative, there would be no formal federal designation of a site or a corridor. Federal involvement in the region would be limited to existing competitive grant and technical assistance programs. There would be no additional impacts to cultural resources beyond those already presented by the implementation of the New York State Canal Recreationway Master Plan:

Impacts to Socioeconomic Environment:

Under this alternative, there would be no formal federal designation of a site or a corridor. Federal involvement in the region would be limited to existing competitive grant and technical assistance programs. There would be no additional impacts to the socioeconomic environment beyond those already presented by the implementation of the New York State Canal Recreationway Master Plan.

4.0 CONSULTATION AND COORDINATION

New York State Canal Recreationway Commission including representatives of the following organizations:

NYS Thruway Authority,

NYS Department of Environmental Conservation (DEC),

NYS Office of Parks, Recreation and Historic Preservation,

NYS Department of Transportation, NYS Department of State (nonvoting),

NYS Department of Economic Development (nonvoting)

Erie-Niagara Regional Planning Board

Genesee — Finger Lakes Regional Planning Board

Eastern and Central Southern Tier Regional
Planning Board

Central New York Regional Planning Board

Herkimer—Oneida—Montgomery Regional
Planning Board

Capital District Regional Planning Board

Lake Champlain — Lake George Regional Planning Board

Other Organizations consulted:

Mohawk Valley State Heritage Area

Schoharie Crossing State Historic Site

Canal Society of New York

Institute for the History of Technology & Industrial

Archeology, University of WV

New York State Museum

Hugh Moore Canal Historical Park & Museum,

Easton, PA

US Army Corps of Engineers

Seneca Falls State Heritage Area

Syracuse State Heritage Area

RiverSpark

Rochester State Heritage Area

Women's Rights National Historical Park

Fort Stanwix National Monument

Saratoga National Historical Park

Theodore Roosevelt Inaugural National Historic Site
Upper Delaware Scenic and Recreational River
Cuyahoga Valley National Recreation Area
Blackstone River Valley National Heritage Corridor
Delaware & Lehigh Valley National Heritage
Corridor

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> Back cover art, above: Mule drivers walked with the mules that pulled the early canal boats. Photo credit: Erie Canal Museum, Photograph Collection: Below: View of the double locks at Lockport. Photo credit: Larry Lowenthal

