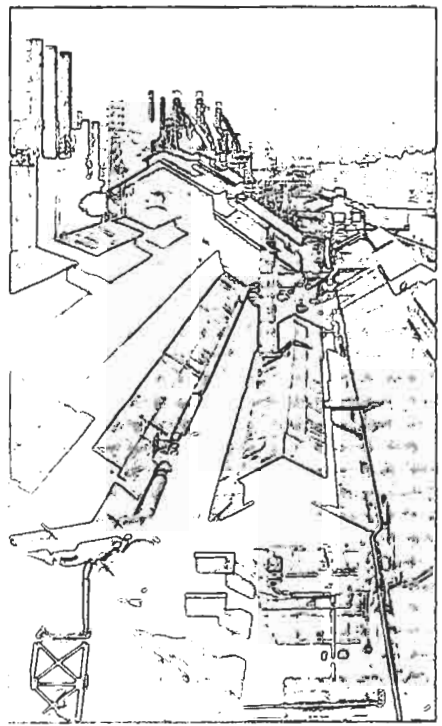


Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park



The Delaware & Lehigh Canal National Heritage Corridor Commission

The Commission was established by the United States Congress in 1988, and its members were appointed by Secretary of the Interior Manuel Lujan in 1990, on the recommendation of Governor Robert P. Casey.

Its purpose is to oversee a planning and implementation process that will result in the creation of active, successful partnerships among local governments, state agencies, the National Park Service and other federal agencies, business and civic sectors, and environmental organizations: each engaged in cooperative activities that collectively result in the implementation of the National Heritage Corridor plan in the years ahead.

Four representatives of local government from the Delaware Canal Region

William M. Pezza
Curriculum Coordinator,
Lower Moreland School District
Bristol Borough

J. Steven Humphrey
Executive Director,
Hugh Moore Historical Park and Museums
Commission Treasurer

Frank C. Boas
Solebury Township
Commission Secretary

Kirk Emerson
former Director of County-wide Planning, Bucks
County Planning Commission
representing Bucks County Commissioners

Theodore Schnelder
former Commissioner

Four representatives of local government from the Lehigh Canal Region

Donald M. Bernhard
Director of Community Development, City of
Allentown
Commission Chair

Annie Bohlin, representing Luzerne County
Commissioners

Isidore C. Mineo
Director, Chester County Parks & Recreation
representing Northampton County

Kenneth R. Smith
Mayor
City of Bethlehem

Clifford C. David, Jr.
Executive Director,
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Elizabeth K. Orlemann
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Deputy Secretary for Programs, Pennsylvania
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The Director of the National Park Service ex officio (or his delegate)

John Reynolds
Regional Director, Mid-Atlantic Region

This plan was prepared with technical assistance and funding from the following agencies:

The Pennsylvania State Heritage Parks Program

The Pennsylvania State Heritage Parks Program was proposed by Governor Robert P. Casey and adopted by the Pennsylvania Legislature in 1989. The program highlights and enhances regions of the Commonwealth whose cultural, natural and recreational resources exemplify the industrial heritage of Pennsylvania — the foundation of the nation's prosperity. The State Heritage Parks Program celebrates the stories, the landscapes, and the legacy of the iron and steel, coal, oil, machine and foundry, textile, transportation, lumber and agriculture industries.

The program, administered by the Department of Community Affairs, encourages planning for the future through historic preservation, natural and cultural conservation, education, recreation and economic development. Through intergovernmental cooperation and regional planning strategies, state heritage parks will enrich local economies through the development of cultural tourism, enhancement of local business, creation of new jobs and promotion of public/private partnership for new investment opportunities.

The United States Department of the Interior and the National Park Service

As the nation's principal conservation agency, the Department of the Interior has basic responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish and wildlife, preserving the environmental and cultural values of our national parks and historic places, and providing for the enjoyment of life through outdoor recreation.

In response to Public Law 100-692, which established the Corridor, the National Park Service has assisted the Commission in the development of this Management Action Plan.

**Delaware & Lehigh Canal
National Heritage Corridor Commission**
10 East Church Street
Bethlehem, PA 18018

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(Clockwise from top right): Joseph E.C. Elliott,
courtesy Hugh Moore Historical Park and Museums,
courtesy Hugh Moore Historical Park and Museums,
courtesy Hugh Moore Historical Park and Museums,
Annie Bohlin

The Commission

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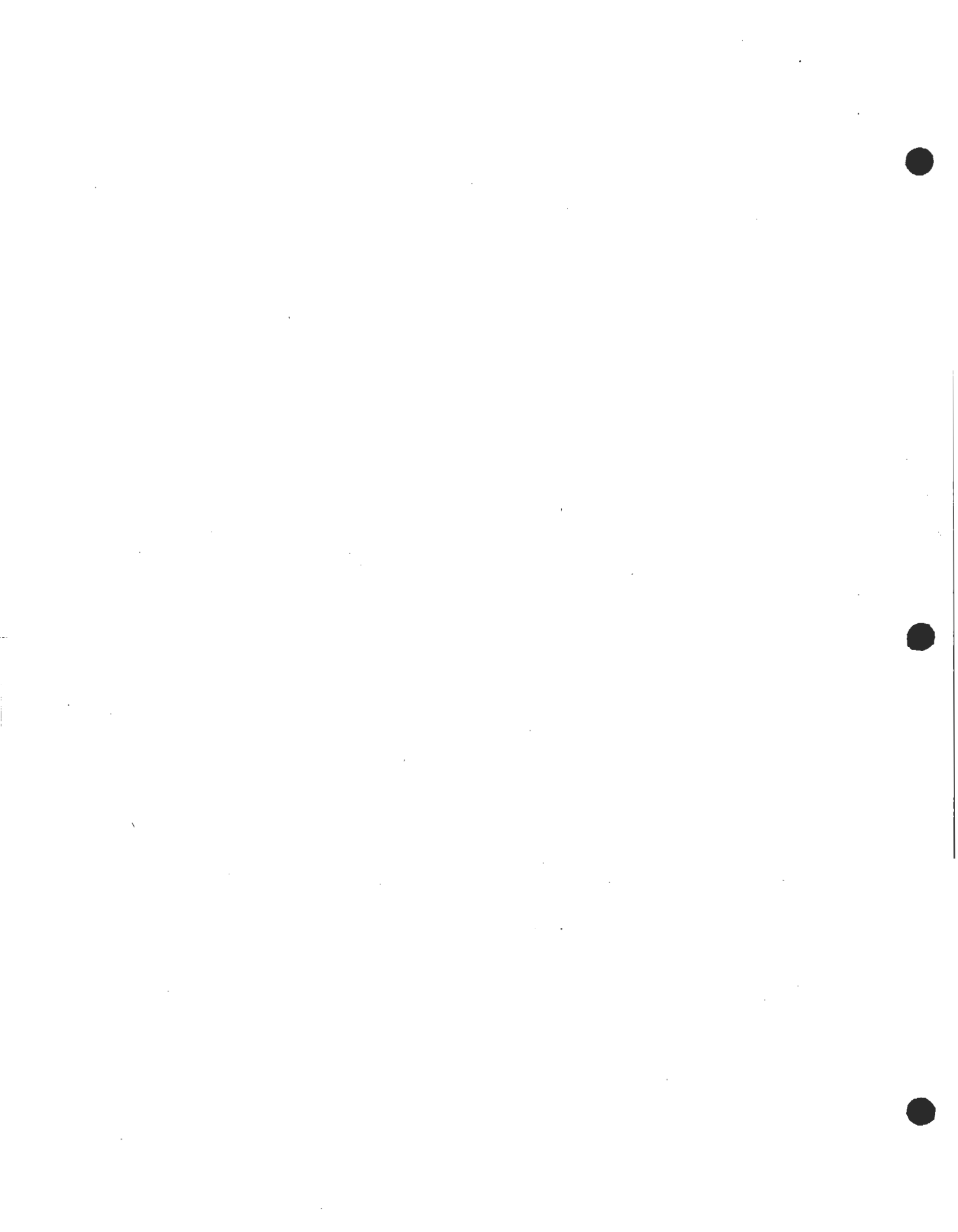
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Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park

Management Action Plan

**The Delaware & Lehigh Canal
National Heritage Corridor Commission,
U.S. Department of the Interior**

**The Pennsylvania State
Heritage Parks Program**

**The State Heritage Parks
Interagency Task Force**

The National Park Service

Mary Means & Associates, Inc.

in association with

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Carter Van Dyke Associates

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The Department of Landscape Architecture,

Pennsylvania State University

The Nature Conservancy

Urban Research and Development, Inc.

The Wildlands Conservancy

January, 1993

Delaware & Lehigh Canal National Heritage Corridor Commission

January, 1993



Michael Bruce

The Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park presents the most exciting opportunity for the people of the Delaware, Lehigh and Wyoming valleys since the discovery of anthracite coal, the building of the Canals, or the first pouring of iron more than 150 years ago. The Corridor showcases our extraordinary natural, cultural and recreational resources and gives us the opportunity to base growth and development on our heritage.

What is a National Heritage Corridor and a State Heritage Park? It is an area recognized for its important history and rich and distinctive cultural and natural resources. It is an area where many Partner organizations and agencies — at the local, state and federal level — act on a singular opportunity to collaborate for the Corridor's future that makes the most of each Partner's contribution. It is not a traditional park with fences and rules, but rather a special place — a living landscape in which people live and work and share the responsibility to keep it special.

Our Corridor is a nationally significant 150-mile long region in eastern Pennsylvania, within Luzerne, Carbon, Lehigh, Northampton and Bucks Counties. Our unique inheritance of settlement, industrial development and recreational opportunities has earned both recognition and support from the National Park Service and Pennsylvania's State Heritage Parks Interagency Task Force. Make no mistake, these federal and state agencies will not own or control the area. Instead, they are helping local residents and organizations in their own efforts to guide the Corridor's preservation and development, to build a future from our past.

This *Management Action Plan* is our call to action, our guide to creating the Corridor. It identifies the outstanding resources and attractions that have made the Valleys important for centuries. It explores precisely how residents, local governments and civic organizations, and the state and federal governments can act *in partnership* to conserve our heritage, to tell our part in the great American story, and develop our economic base for present and future generations — in short, how to continue enhancing the quality of life we enjoy here.

We all have a stake in this project and we all stand to benefit from the creation of this National Heritage Corridor and State Heritage Park. Exactly who benefits? And how? The Commission believes the answers to these questions start with the following list:

- Nearly two million residents, who see their way of life protected and who take renewed pride in their unique heritage as individuals and as communities — and now as a collective regional community.
- At least three million visitors per year, who come here to be refreshed by the beauty of our countryside and pleasant towns, to learn about our heritage, to recreate on our rivers and mountains, and to have fun.
- Students in schools and colleges, nearly 500,000 of them, who will learn in the living museum surrounding us — a museum of history, sociology, geography, economy, geology, wildlife, botany and a host of other fields.
- Business leaders, who can participate in the overall economic renewal proposed for this region, in the renewal of downtowns, and in the restoration and adaptive reuse of our historic buildings and facilities.
- Municipalities, counties and civic organizations, who can participate in this large, cross-boundary effort to use our heritage in improving quality of life and economic health of our communities.
- State authorities, who will see their efforts and funding multiplied through State Heritage Park partnerships that encourage civic and economic renewal in a region that has suffered the loss of major industrial employers.
- Federal authorities, who recognize the National Heritage Corridor as an innovative and effective way to conserve our nation's heritage and fulfill their mission of bringing the benefits of national parks close to the largest population concentration in America.
- Everyone benefits because the plan's framework for cooperative action allows each of us to build on the strengths of our Partners, achieving more together than any one of us is able to accomplish alone.

This Plan presents a Vision that will be fulfilled only if we all see it, believe it and work for it. It is a call to collective action for every citizen, municipality and government agency with a stake in the Corridor. Please explore the special resources and opportunities of the Corridor as we present them here. Then, we invite you to imagine how you can be a partner in creating this National Heritage Corridor.... Our National Heritage Corridor.

Donald M. Bernhard *Willis M. Rivinus*

Donald Miles Bernhard
Chair

Willis M. Rivinus
Past Chair

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Michael Bruce

Executive Summary

Introduction

This Plan covers a great deal of ground...literally and figuratively. The Delaware & Lehigh Canal National and State Heritage Corridor stretches more than 150 miles across five counties and some 100 municipalities. This Plan addresses resources, issues and actions for an equally wide range of subjects, from preservation of historic canals and structures, to historical interpretation, to conservation of ethnic and workplace cultures, to natural resource protection, to tourism and economic development. You will discover in the course of reading this Plan that these seemingly disparate places and issues share a common bond: the heritage of a nationally significant place and chapter in American history.

The Corridor is a living landscape of great historical significance. Early visionary leaders established a society that was unusually open and prosperous — a land of great opportunity. Beginning in the late 17th century, eastern Pennsylvania was the most desirable destination in North America, and the rapid peopling of the region, a high degree of entrepreneurial opportunity and capacity, and abundant natural resources led to innovations in transportation, industry, commerce and engineering that made Pennsylvania a leader in industry and profoundly influenced the development of the nation. The transportation and industrial system that was established here was both the first and the most lasting of its kind. Today, the remarkably intact remnants of the system are at the core of historic towns, ethnic neighborhoods and natural landscapes of great beauty and richness.

This Plan aims to weave together the assets of the Corridor and the opportunities they present and to establish the Heritage Corridor — a cooperative regional conservation and development initiative supported by partnerships among the private sector and governments at all levels.



Completion of the Corridor-long Delaware & Lehigh Trail is one of the most important early goals for the Corridor. The historic Ashley Planes will provide the dramatic northern terminus for this outstanding 150-mile long trail, which will include the two historic canal towpaths and the old right-of-way of the Lehigh & Susquehanna Railroad.

The Plan therefore is based on an unusually strong foundation of public dialogue: among individual citizens, community leaders, a wide variety of multi-interest cultural and environmental groups, and government officials representing residents throughout the Corridor.

Many goals and dreams have been articulated in interviews, meetings, workshops, surveys, studies and conversations. In the course of listening to many ideas over the past two years, the Delaware & Lehigh Canal National Heritage Corridor Commission heard some repeated again and again, in community after community, in group after group, from the heart of Luzerne County to the heart of Bucks County.

These ideas amount to a multi-faceted Vision of what residents and leaders want for the Corridor:

- *A region that becomes even more strongly defined by the remarkable remnants of our history, and that becomes even greener, with towns centered on clean rivers;*
- *The continuation of the innovative capacity that has always characterized the Corridor, a capacity that ensures a healthy environment and a visible heritage for us and our children;*
- *A robust economic future that is based on the desirability and rarity of our singular natural and cultural environment, a park-like setting; and*
- *Pride and an ethic of stewardship growing in the heart of every resident — we will understand the meaning of what we have, and act to uphold it.*

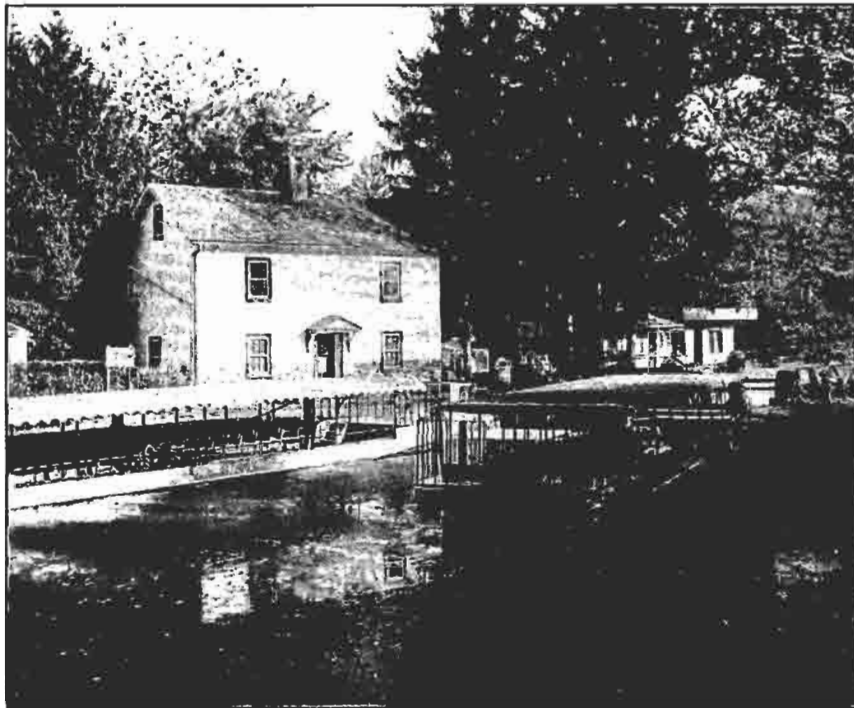
The means to achieve this Vision is through the Corridor initiative — a series of conservation and development partnerships among private entities and all levels of government. The four-fold mission of the Corridor is ambitious: to conserve the historic canals and amplify the recreational and educational opportunities based on them; to broadly tell the story of the region by strengthening the infrastructure for interpretation and education; to establish a framework for stewardship which will preserve significant historic sites, enhance recreation, and conserve the natural and cultural environments; and to provide opportunities for capitalizing on heritage development.

The Corridor's Importance

Scenic rivers, historic canals and towns, mountains, green valleys, natural areas, recreation, remnants of early industries, and a distinctive social and religious heritage are the essence of the Corridor. Stretching 150 miles, the Corridor follows the historic routes of the Lehigh & Susquehanna Railroad, the Lehigh Navigation, and the Delaware Canal, from Wilkes-Barre to Bristol, in eastern Pennsylvania.

This extraordinary early 19th century transportation system of mountain railroads, rivers, dams and canals, devised to move anthracite coal from mine to market, forms the visible heart of the Corridor. The system was remarkable in its time for its engineering, daring and vision. Today, it is equally remarkable for its endurance, its integrity and its role as the centerpiece of an extensive system of sites, facilities and tours that collectively will tell the Corridor's stories.

The Corridor dramatically illustrates both the first steps and the milestones in the social development of young America, the anthracite coal mining era, the Industrial Revolution, the development of systematic canal and rail transportation, and the evolution of natural conservation. The Corridor and its people made outstanding contributions to our nation's social and industrial growth from 1682 on, and particularly in the years from 1817 to 1930. The Corridor contains nationally significant and intact cultural, natural and recreational resources that tell these stories and their impact on this country.



Joseph E. B. Elliott

Establishment of an integrated, Corridor-wide interpretive system will build on the strengths of the numerous existing interpreting partners and sites, such as the Delaware Canal State Park's locktender house at New Hope—the location of a cooperative venture between the park and the Friends of the Delaware Canal.

The Corridor is nationally significant in these four ways:

- The Corridor contains sites that represent the earliest practices of the transforming principles that became the foundation of the American Constitution — religious freedom, the separation of church and state, mutual responsibility between government and the people, and equality. Freedom and economic opportunity made the area of the Corridor the destination of choice for immigrants from the 17th to the early 20th centuries, and more than 50 ethnic groups have made a place for themselves here. The landscapes, neighborhoods, town and traditions they created are still intact.

- The anthracite industry began and still continues here. Because of the industry's unprecedented scale, the Corridor became the scene of numerous technological and commercial innovations that transformed American business and industry. The Corridor contained the only historic system of the Industrial Revolution that integrated anthracite mining and resource extraction, canals and railroads, commerce and heavy industry. The system was so efficient that the Delaware and Lehigh Canals were the longest- and last-operated towpath canals in America — commercial navigation continued until 1942. A remarkable number of the historic elements of the system are intact, including the mines and the patchtowns, the canals and canal towns, the railroads, the historic industries that were nourished by the availability of fuel and transportation, and the towns and cities that grew around them.
- The Corridor not only illustrates the historic exploitation of natural resources that was the result of the burgeoning transportation and industrial system, but also the natural and cultural forces for regeneration that give the Corridor exceptional value as an outstanding recreational and scenic resource at the center of the most densely populated area of the United States. People can enjoy more than 100,000 acres of public lands for outdoor recreation, including numerous state, county and local parks. A trail system that includes the Appalachian Trail and five other National Recreation Trails will be greatly enhanced when the Delaware & Lehigh Trail is completed along the historic transportation route. The land itself is unusually beautiful, and the public's enjoyment of the Corridor is enhanced by the exceptionally scenic settings of the historic resources, along wide rivers, in gorges, in mountains, in agricultural valleys and in small towns.
- In recognition of these considerations, and of the nine National Historic Landmarks, six National Recreation Trails, two National Natural Landmarks and hundreds of sites listed in the National Register of Historic Places, in 1988 the United States Congress designated the Corridor as nationally significant. The Commonwealth included the Corridor as a study area of the Pennsylvania State Heritage Parks Program in recognition of its significance and of its seven state parks, three state historical sites, 14 state scenic rivers and 14 state game lands.

The Corridor's assets were inventoried in five detailed assessments of cultural, historic, natural and recreational, land and scenic, and cultural landscape resources in order to confirm their importance, to discover the connections among them and to pinpoint opportunities for preserving and interpreting them. These assessments — published separately from this Plan — have strongly guided the direction of the Plan.

Each of the Corridor's resources are significant in their own right and worthy of preservation. Together, they are the foundation of a heritage corridor that provides outstanding, integrated educational and recreational opportunities for its residents and for millions of visitors.

The Need for the Plan

The Corridor is richly endowed with resources of all types. The long-term stewardship of many individuals and agencies has helped to preserve much of the area's natural, cultural and historic diversity and to retain its quality of life in the face of extraordinary social and environmental change over the last century. But more and more, both the threats and opportunities here derive as much from shared regional trends as from local factors — rapid suburbanization, broad restructuring of economies, pressures on government budgets, the widening demand for recreation and a surge of interest in heritage tourism. The challenge is to preserve the most significant and meaningful elements and patterns of our cultural and natural heritage while providing opportunities for compatible growth and development.

The Corridor has long had in place a sophisticated and effective palette of civic and conservation partnerships. But the same leaders who were responsible for past successes have come to realize that the new challenges demand a broader range of partners and coordination. What was missing have been the links among the Corridor's many efforts, programs and resources that can give them added value.

The Plan now provides these links. Through it, a wide number of private, civic and government institutions have devised a shared regional vision, mutual guidance for their individual agendas and actions, and new means of collaboration to address the threats and opportunities that now face us all.



The City of Bethlehem, the Private Industry Council and the Commonwealth of Pennsylvania have been partners in the conservation of historic and recreational resources at Sand Island, and their cooperative work is a model for conservation action throughout the Corridor.

Joseph E. S. Elliot

The Plan: Organization of the Corridor

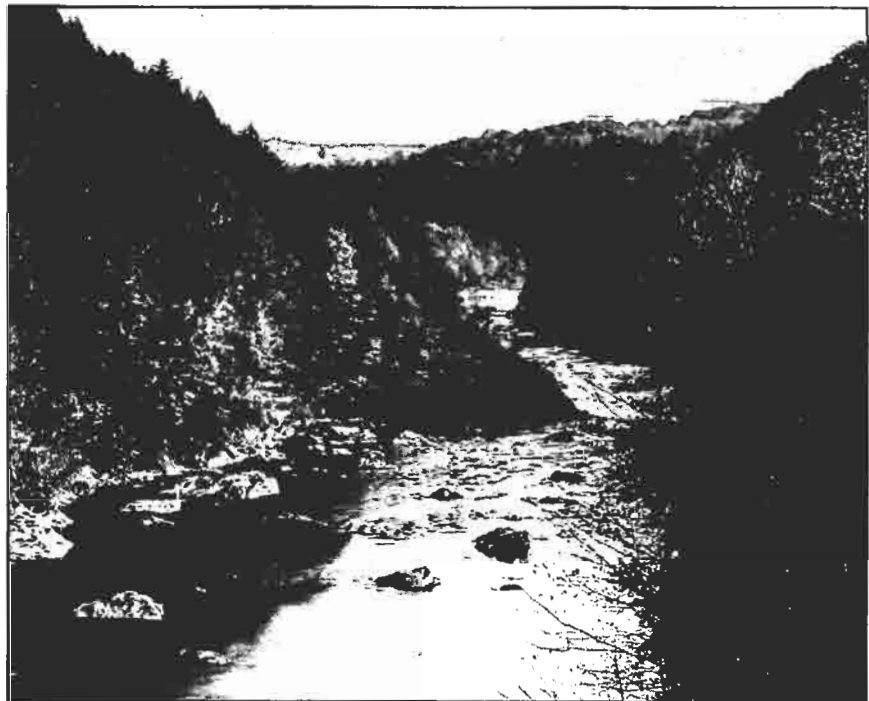
Participants in this planning process have recognized that the scope of effort needed to accomplish the goals requires cooperation among all levels of government and the private sector. At the core of the Plan are shared responsibility, the targeted utilization of existing programs and capabilities, the alliance of energy, talent and resources, and the encouragement of entrepreneurial activity for implementation.

Implementation will be sparked and guided by the National Heritage Corridor Commission, and undertaken by a wide circle of participating institutions — called Partners — to effect appropriate change and improve the quality of life for residents.

In order to meet the challenge of balancing conservation and development, the Plan is designed to forge a meaningful, practicable alliance between them. Although usually considered at odds, these two forces are harnessed by the Plan to be mutually reinforcing.

This Plan will serve as an action agenda for the first ten years of Corridor development.

Many of the Corridor's natural and scenic resources are protected through public ownership, as is the Lehigh River in the Lehigh Gorge State Park. The Corridor initiative will advocate and promote conservation of other key resources through planning and cooperative action.



Joseph E.B. Elliott

Boundaries and Phasing for the Corridor

A set of Corridor boundaries has been established to accommodate phasing and variations in actions and investment.

The proposed Corridor Boundary has four elements, as shown in Figure 3.3. Three nested areas define a hierarchy of phasing and priorities for the resources of the Commission and its Partners. The

fourth element concerns development of physical linkages both within and beyond the Corridor's outermost boundary.

The innermost area is the **Passage** — encompassing the two canals, the old Lehigh & Susquehanna Railroad route, historic industrial areas and adjacent communities and environments. The Passage will be the focus of initial Corridor programs, investment and development, and is the area where the Commission requests that a National Park Service interpretive presence be established.

Beyond the Passage are eight **Reaches**, landscapes with a critical mass of resources that contribute to the Corridor's significance. Each Reach's special attributes — natural areas, anthracite fields, historic industries or agricultural valleys — extend and support the Corridor's key themes. In the first five years of plan implementation, the Commission will limit investment to additional resource and thematic studies and other actions to support development of the interpretive system. In subsequent years, the Commission and Partners will work in the Reaches to maintain the integrity of the resources and to fully integrate these areas into the programs and activities of the Corridor. Full boundaries of the Reaches are shown in Figure 7.0.

Because the Corridor initiative is expected to have an impact on all of the counties of the study area, the full extent of the five counties is included in the outermost area, the **Counties**. Because many state programs are funded on a county-wide basis, such as education and historic resource surveys, the counties are included within the boundary to take advantage of programs that require a county-wide approach.

The fourth and final element is **Linkages**. Linkages indicate places where the Commission sees opportunities to encourage mutually advantageous greenway and heritage development efforts in cooperation with future partners beyond the Corridor.

Investment in projects within the Counties and along the linkages will occur after substantial amounts of work and a visible Corridor presence have been achieved in the Passage and Reaches.

Management of the Corridor: Achieving Strong and Lasting Partnerships

The participation and support of a wide variety of private, civic and government entities as Partners are critical to the success of this Plan. Each has a role to play, and the Plan projects the basic elements for mutual cooperation based on the capacities and the needs of each future Partner in terms of Corridor implementation.

Private initiatives by businesses, community development agencies, foundations, conservancies, schools, museums and other non-profit organizations have already been highly effective in implementing the Corridor vision. The Commission will foster the continuation of these

preservation, interpretation, and tourism and economic development efforts through information sharing, technical assistance, matching grants and contracts for specific services. In turn, the organizations are asked to modify their missions and agendas to provide community leadership, volunteers and matching funds to support Corridor priorities.

Municipal governments manage parks, cultural and natural areas, and run planning, conservation and recreation programs that make significant contributions to key Corridor goals. The Commission will support local governments' planning, land managing and program activities through information sharing, technical assistance and matching grants. In turn, local governments are asked to accept the Plan and its concepts through resolution, to collaborate in regional actions and to amend planning documents to reflect Corridor goals.

County governments similarly manage lands and programs that are important building blocks in Corridor implementation. The Commission will support county governments' planning, land managing and program activities through information sharing, technical assistance, matching grants and contracts for specific services. In turn, the counties are asked to adopt the Plan and its concepts through resolution, to collaborate in regional actions, to amend planning documents to reflect Corridor goals, to complete their natural and historic resource assessments and to target county funds and staff to acquire and manage key lands and resources.

The Commonwealth's State Heritage Parks Program provides the framework for participation of state agencies in Corridor development. Coordinated through the State Heritage Parks Interagency Task Force, the agencies will shape funding, policy and resource management decisions in accordance with this Plan, and will provide financial and technical assistance to implement Corridor actions.

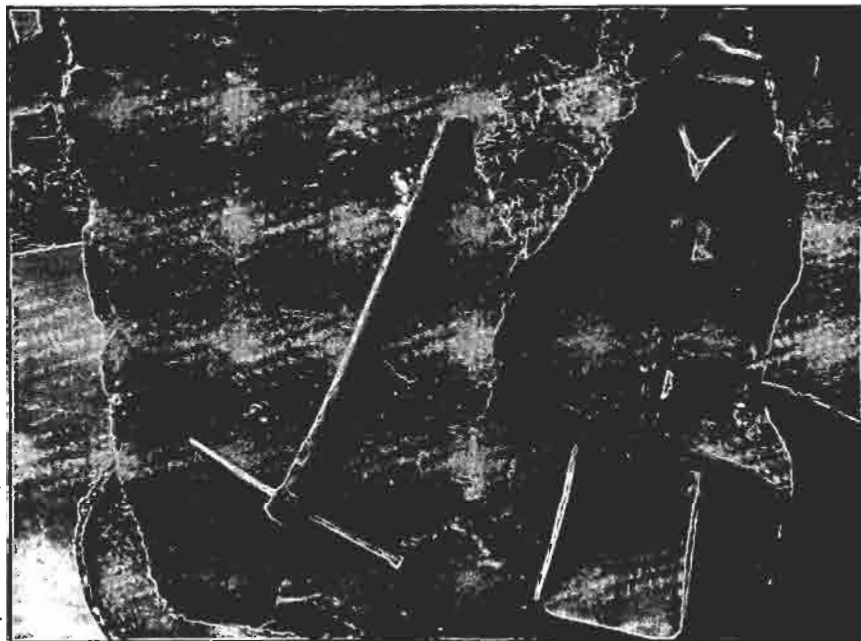
Federal agencies also can participate in implementation by targeting existing and new programs to specific Corridor actions. A number of agencies offer conservation, watershed protection, tourism and economic development and other programs and services that directly support Corridor goals. Primary among these agencies is the National Park Service. The Commission has requested that the NPS establish an interpretive presence at the core of the Corridor — the Passage — by providing leadership and coordination of the actions of many state and local Partners. The Secretary of the Interior and the U.S. Congress, in extending approval of this Plan, will enable the participation of the National Park Service in providing technical and interpretive assistance in achieving the Plan's interpretation initiatives. Through existing technical assistance programs, the NPS can also have a continuing role in recreation, conservation and historic preservation assistance in the Corridor.

In order to build on the enormous local capacity and achievements already at work in the Corridor, the Plan establishes two formal organi-

zations for the participation of private, local and state Partners: a **Stewardship Compact** and an **Interpretive Compact**. The Stewardship Compact incorporates the Partners' resource management capabilities to develop and protect key physical resources of the Corridor: the Delaware & Lehigh Trail, the Delaware and Lehigh canals, the Delaware and Lehigh rivers and other environmental, scenic, cultural, historic, interpretive and recreational resources that contribute to the Corridor.

The Interpretive Compact builds on and formalizes the Corridor's growing network of interpretive Partners in order to develop a widespread system of interpretive sites, facilities and tours. It is also the mechanism for a collaborative relationship with the National Park Service in developing and implementing the system.

This Plan establishes Commission committees on economic development and tourism and on cultural and historic resource preservation to continue to obtain the advice and participation of individuals and organizations with specialized knowledge in these key areas. (See Figure 8.3 for an illustration of the organizational structure of the Commission, the Compacts and Commission committees; Figure 8.1 for specific roles for all Partners; and Chapter 8 in general for discussion of Corridor management and implementation.)



Merry Meena & Associates, Inc.

The interpretation of labor history and the conservation of workplace traditions are important aspects of the Corridor effort, and support will be extended to local organizations practicing cultural conservation. The Lattimer Massacre, one of the bloodiest events in labor history, is commemorated by this locally erected and maintained monument.

Key Corridor Responsibilities and Actions

This Plan sets out to accomplish a wide variety of actions to preserve and interpret the full range of Corridor resources. It outlines an achievable agenda for the first ten years of Corridor development. It calls for all Partners — private, local, state and national — to work with the Commission and with each other on various responsibilities: to provide physical linkages (Chapter 4), create an interpretive system (Chapter

5), protect key Corridor resources (Chapter 6), capitalize on heritage development opportunities (Chapter 6) and achieve strong and lasting partnerships (Chapter 8). The following actions will develop the Corridor physically, intellectually and economically:

Providing Physical Linkages:

- Ensuring the physical integrity of the Delaware and Lehigh canals through rehabilitation, expanded public access and greater public awareness of their value as historic and recreational assets — a responsibility shared by public and private property owners, state agencies, municipalities, various conservation organizations and the Commission, all working through the Stewardship Compact (Chapter 4);
- Creating a long-distance, Corridor-wide physical link by completing the Delaware & Lehigh Trail, a continuous 150-mile trail along the historic anthracite transportation route — a responsibility shared by public and private property owners, state agencies, municipalities, various conservation organizations and the Commission, all working through the Stewardship Compact (Chapter 4); and
- Designating a second major physical link, the Delaware & Lehigh Drive, a driving route connecting visitor orientation facilities and many of the Corridor's significant heritage landscapes and places — a responsibility shared by state, county and municipal road-maintaining agencies, state and private organizations that provide maps and guides, and the Commission (Chapters 4 and 5).

Creating an Interpretive System:

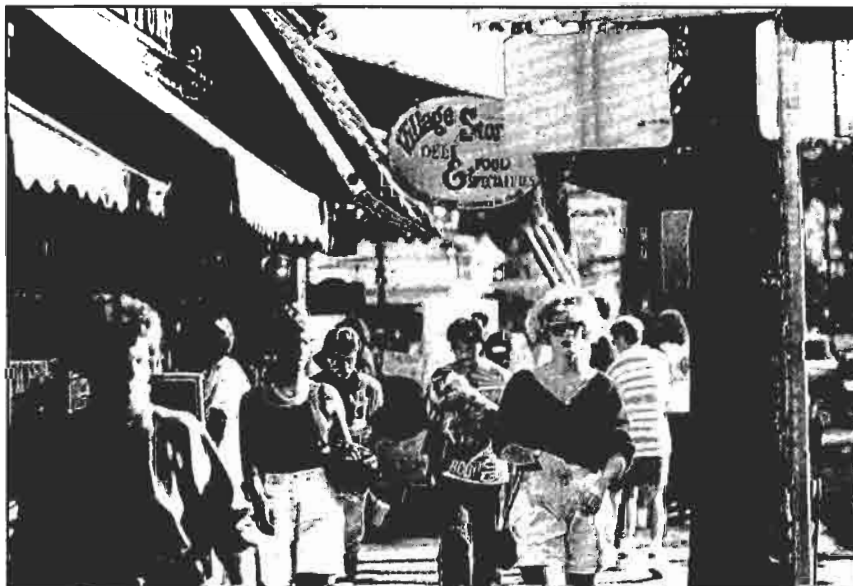
- Creating a system of interpretation that includes interpretive services, existing and new interpretive sites, exhibits, tours, signs and publications — a responsibility of local and state interpretive Partners and the Commission in collaboration with the Interpretive Compact and the National Park Service (Chapter 5);
- Designating and/or developing ten visitor orientation facilities at sites in the Passage, each tailored to the needs of both the Corridor-wide interpretive system and the facility's host community and Partners — a responsibility of local and state interpretive Partners, municipalities and the Commission through the Interpretive Compact (Chapter 5); and
- Developing a minimum of five major heritage attractions in White Haven (Main Street retail and a joint state park and Corridor visitor center), Eckley (a conference and training center along with a Corridor visitor center and the current museum), Allentown (a transportation museum at Lehigh Landing), Easton (the National Canal Museum) and the Bethlehem/Easton area (a Museum of the Industrial Revolution) — a responsibility of the respective municipalities and their various local Partners and private donors, other interpretive Partners working through the Interpretive Compact, state agencies and the Commission, in some cases working with the National Park Service (Chapter 5).

Protecting Key Resources:

- Advocating and assisting resource conservation efforts to preserve the environmental, scenic, cultural, historical and recreational heritage that is both a valued part of our past and present, and also the basis for our developing future — a responsibility of a wide variety of public and private property owners, state agencies, municipalities, various conservation organizations and the Commission, all working through the Stewardship Compact (Chapter 6); and
- Protecting the Delaware and Lehigh rivers and their tributaries and expanding water-based recreational opportunities of all kinds — a responsibility of a wide variety of public and private property owners, state agencies, municipalities, various conservation organizations and the Commission, all working through the Stewardship Compact (Chapters 4 and 6).

Capitalizing on Heritage Development Opportunities:

- Promoting and assisting development of the heritage tourism industry, through cooperative marketing efforts, technical assistance to communities and organizations, and establishing a Heritage Development Grant and Loan Fund — a responsibility variously of private businesses, operators of attractions, county tourism promotion agencies, state agencies, economic development corporations, interpretive Partners working through the Interpretive Compact and the Commission (Chapter 6); and
- Aiding economic development efforts that are consistent with Corridor goals, including Main Street programs, rehabilitation and re-use of historic buildings, housing programs and enterprise zones which are expected to be drawn to the Corridor as one result of successful tourism and resource-conservation initiatives — a responsibility of private businesses, state agencies, economic and community development corporations, federal and national programs, and the Commission (Chapter 6).



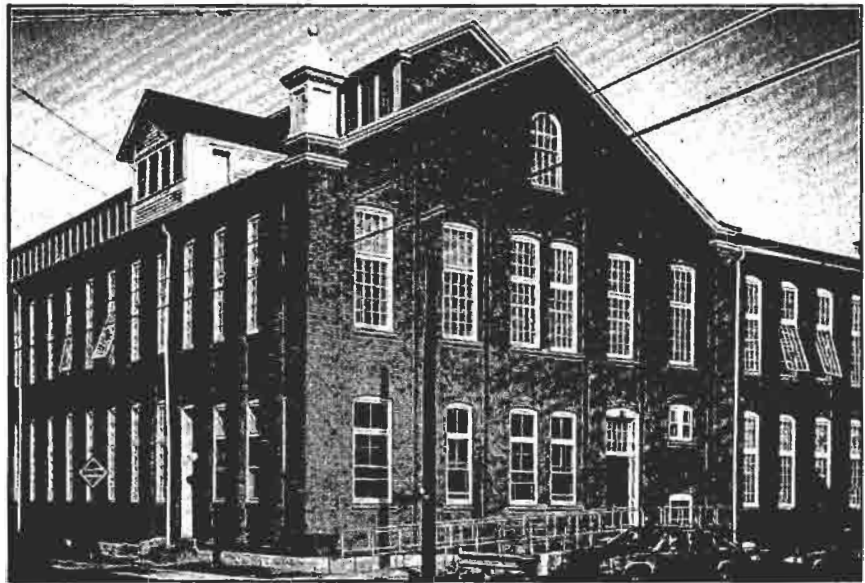
Michael Bruce

Heritage tourism depends on linking and promoting the tourist markets for history, culture, outdoor recreation, and amusement. New Hope is one of the places in the Corridor where this approach has already been successful. The Corridor initiative will work through existing Partners to widely extend the benefits of heritage tourism.

Costs and Benefits

This Plan contemplates the expenditure of an estimated \$157 million dollars over ten years: an estimated \$120 million by local and state Partners in both already-planned and new dollars in the form of both capital investment and such soft costs as staff time contributed by various local and state agencies; and an estimated \$37 million to be raised by the Commission from federal, Commonwealth and private sources. The Commission expects to leverage its share of the cost of developing the Corridor by a minimum ratio of 3:1 as demonstrated by these figures. In general, leverage will be accomplished in part by requiring matching dollars or in-kind contributions, or both, from Partners, projects and/or communities benefitting from Commission funding, and in part through additional, quantifiable benefits that are attributable to the Corridor initiative on a project-by-project basis. These latter benefits will be documented as a part of the Commission's grant-making and evaluation processes.

This historic Catasauqua silk mill was rehabilitated for housing—one of hundreds of historic buildings in the Corridor that could be rehabilitated for new uses that would contribute to the economic health and the heritage of their communities.



Joseph E.B. Elliott

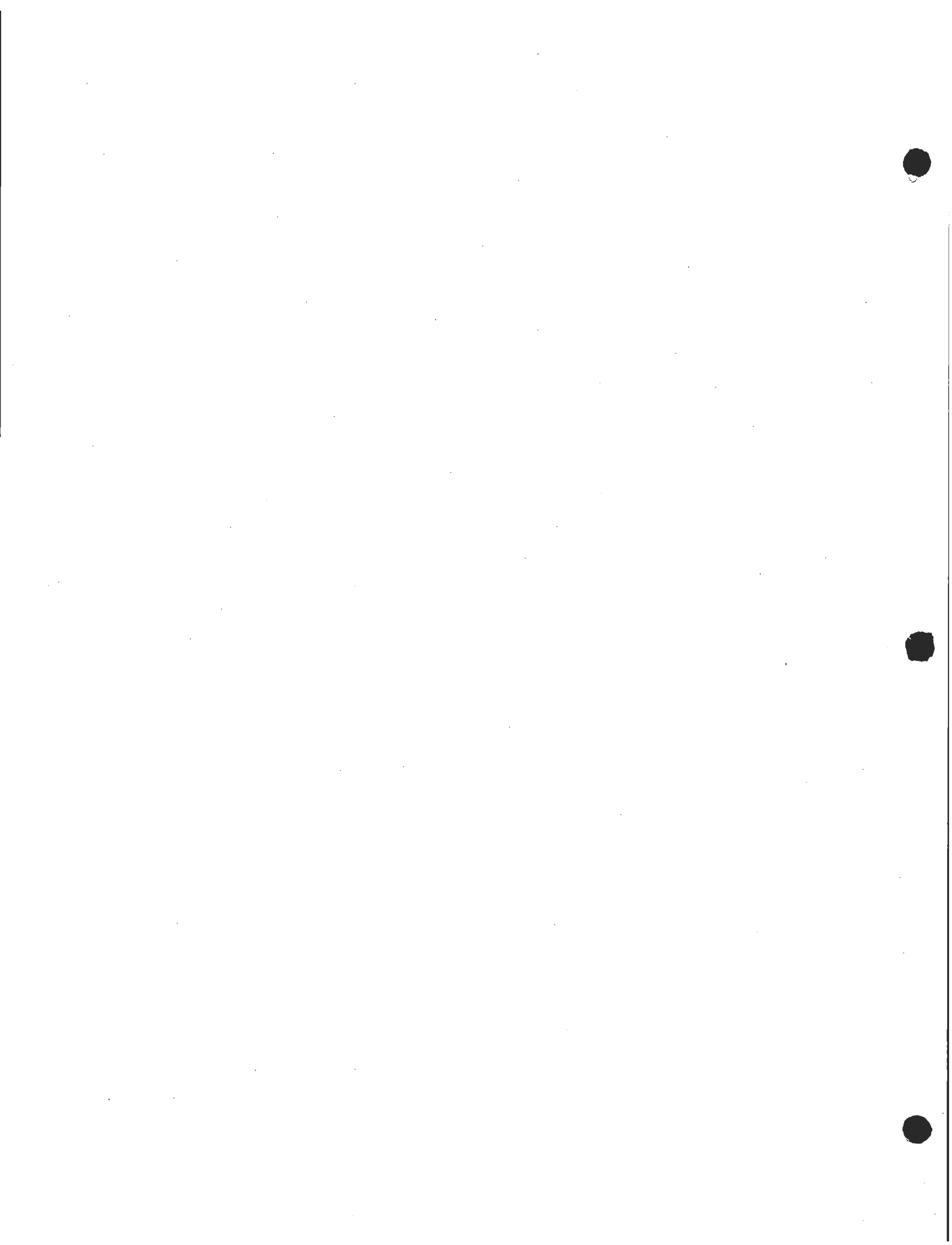
The most important physical benefits of the Corridor initiative are the preservation of key natural, recreational, historic and cultural resources. These will include stabilization and interpretation of the canals, the completion of the D&L Trail, added recreational access facilities along the rivers, trails and canals, conservation and greenway actions for natural lands and stream corridors, conservation of historic structures and conservation of scenic landscapes.

An interpretive system will be established, including the interpretation of many currently forgotten sites; improvements and expanded offerings at many currently interpreted sites; and the development or designation of ten visitor orientation centers. The benefits of these major improvements will be extended by expanded interpretive services and improved directional signage, and by the addition of driving tours and wayside exhibits. In addition, the development of major

heritage and recreation attractions, plus expanded marketing and promotion of heritage offerings throughout the Corridor and such associated economic activity as Main Street programs, will result in increased tourism, appreciation and compatible resource use in the Corridor.

The beneficial environmental, cultural and social impacts of these improvements will extend well beyond their direct dollar amounts and added numbers of visitors. In particular, the stronger definition and protection of the Corridor's cultural, historic and natural heritage resources will contribute to increased community pride and commitment to stewardship, the greater use of Corridor resources for hands-on education of Corridor residents and visitors of all ages, and redoubled environmental investment in both reclamation and habitat improvement. Broader awareness of the Corridor as a single region, plus the coordination and assistance offered through the Commission and the Plan, will help to promote greater collaboration among communities and organizations, who will pool their time, talent and resources to work toward a whole that is greater than the sum of its parts. Among the benefits of this collaboration and experience will be greater community capacity to realize economic revitalization and innovation. The protection of both the resources and their surroundings will result in improved development patterns and programs to avert the negative impacts of increased visitation. These patterns will reinforce the quality of life and attractiveness to compatible business and industry enjoyed in Corridor communities.

If it is true that once the many people and places of this region were linked by its historic transportation system, then it is also true that through the National and State Heritage Corridor designation they now share, these communities are linked by the challenge of recreating this region as a unified whole. By drawing upon the energy of many Partners, collective investment and communication, and a grand and abiding vision of its future, during these next ten years this Corridor will emerge as a distinctive and highly desirable place to live, work and visit.



Revealing Our Heritage: The Case for Heritage Development

Introduction

Heritage development is a means to harness change so that it works for the benefit of the entire Corridor. Heritage development balances the forces of conservation and change that exist in every community; it advocates conservation for the sake of protecting such valued resources as open spaces, beautiful views and historic places; and it advocates conservation in the interest of economic growth by way of heritage tourism. Blending conservation and development can achieve the goals of both sides of the equation: saving resources and stimulating investment and the economy.

Heritage development springs from recognizing that the heritage of a region leaves its mark on the built and the natural environment, and in the living traditions that continue to be manifested in the daily lives of residents and communities in the region. Expressions of a region's heritage can be found in historic architecture, in living folklife resources, in recreational pursuits, and in scenic and natural areas to be found there.

The Public Benefits

The benefit of consciously retaining and enhancing a wide variety of the Corridor's resources and interpreting them in light of their local, state or national significance is twofold:

The formal recognition and preservation of the history and heritage of a region strengthens the continuity of life and enhances community pride, reinvestment in the future and the overall quality of life of a place.



Michael Bruce

Investment in enhancing the Corridor's prime resources will increase opportunities for use and enjoyment for residents and visitors alike.

- When the cultural and natural history of a place is preserved and interpreted, history and a consciousness of heritage become a part of everyday life. It is this appreciation that forms the basis of a local stewardship ethic that guarantees a commitment and investment in the future.
- Recognition that comes with national and state designation signals that the region has significant stories to tell and significant experiences to offer visitors and new residents. Recognition will make the Corridor and its heritage more directly known to tourists as a destination. It will help to enhance the image of the Corridor region, an intangible aspect with the potential to affect everything from community pride to the climate for business investment.

The growing audience for heritage tourism, for people wanting to both learn and enjoy in their leisure time, becomes an important contributor to the economic vitality of the area.

- Heritage tourism is a growing segment in the economy. It taps into Americans' desire to see, hear, and touch history and experience firsthand the living traditions that make regions distinctive. Heritage tourism and economic development complement one other, to the benefit of the entire region. With heritage development follows the need for improved visitor amenities, such as restaurants, overnight accommodations and retail shopping — and with those new improvements come new jobs. Increased interest in a heritage region can also create new markets for capital investment, particularly in the rehabilitation of historic structures.

Because heritage development is a multi-faceted effort to improve the quality of life in communities and on the scale of the entire region, the Corridor effort will reinforce the missions of a variety of existing organizations and institutions, building a large circle of Partners to create the following direct and indirect benefits:

Educational activities focused on the Corridor's heritage offer particularly rich opportunities. The Penn's Woods Girl Scout Council offers scouts the chance to earn a Coal Legend Badge, and here they examine fossils at a mining site.



Courtesy Penn's Woods Girl Scout Council

- Direct economic benefits, particularly and most immediately in the heritage tourism sector, by bringing more visitors to the Corridor for longer stays and a wider array of attractions and activities.
- Interpretation of the region's singular heritage, to materially reinforce the quality of life by highlighting valued environmental, scenic, historic and recreational resources; and to intellectually reinforce it through presenting the proud history and the cultural values and skills that have long sustained this Corridor. This will help pass on our legacy to our children, to visitors and to the new residents who continually join us.
- Enhanced protection of key resources to preserve the natural, scenic and historic settings of our communities, and ensure a healthier environment for ourselves and future generations. The Corridor will cultivate an ethic of stewardship to ensure grassroots resource protection and help stimulate development that is compatible with present and ongoing ways of life. Corridor programs will provide direct assistance in protecting and developing key resources.
- Increased recreational opportunities and facilities, especially long-distance trails and water-based activities, to improve the quality of life in our communities and throughout our region. Providing access outlets for outdoor recreation will also draw more visitors.
- Corridor-sponsored educational opportunities and programs, focused close to home, to help younger generations forge closer ties to Corridor communities, preparing them for a future of carrying on the Corridor legacy.
- A regional forum in which issues commonly faced by many communities can be tackled with pooled resources and shared expertise, and which can form the basis for reinforcing existing organizations and efforts congruent with Corridor goals.

Preservation and presentation of heritage are regenerative. They assure that irreparable loss is not done in a community's quest for growth and opportunity, and that traditional strengths serve as the foundation for a future consciously and carefully built upon its past. Nowhere does a heritage approach seem more fitting than in the Delaware & Lehigh Canal National Heritage Corridor.

The State's Interest

Through Pennsylvania's State Heritage Parks Program, the state advocates a broad-based, regional approach to heritage development that addresses five goals: economic development, cultural conservation, recreation, education and regional cooperation. (See inside front cover



Mary Meuns & Associates, Inc.

Protection of important cultural and recreational resources and enhanced access means that a consciousness of heritage becomes a part of everyday life, and this is the basis of an ethic of stewardship. Here, children fish in the canal at the junction of Easton's Hugh Moore Park and the Delaware Canal State Park.

for a further description.) Meeting goals in these five broad areas not only confers on each heritage park the direct and indirect benefits of heritage development outlined above, it also reinforces a collaborative process for discussion and decision-making that is widely applicable to the many issues facing communities and regions across the state.

By joining a variety of Partners to develop the Corridor, the state is advancing its goals of assisting communities in being prosperous, productive, distinctive places in which to live and visit. The Commonwealth of Pennsylvania is hereby requested to designate the Delaware & Lehigh Canal National Heritage Corridor as a State Heritage Park. This designation and the state's role is discussed further in Chapter 8.

The National Interest

The national interest and responsibility in the Corridor, as defined in the National Park System Organic Act, the Historic Sites Act, the Land and Water Conservation Act, the National Trails System Act and Public Law 100-692, *Delaware and Lehigh Navigation Canal National Heritage Corridor Act of 1988*, which established this Corridor (see Appendix A), is to recognize and conserve resources of national significance and provide for public enjoyment of those resources.

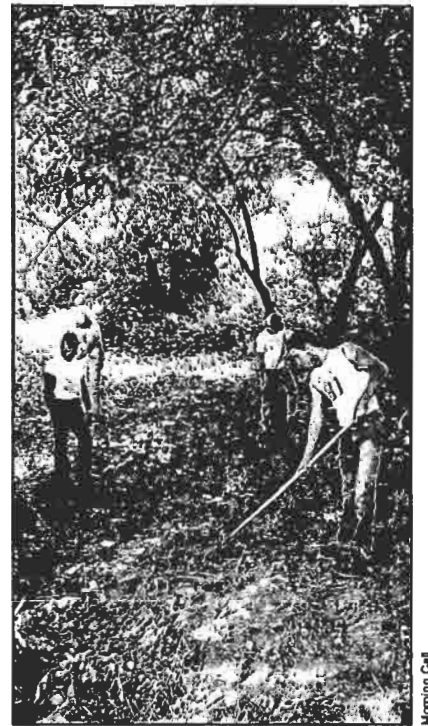
The historic, cultural, natural and recreational resources of the Corridor clearly meet tests established for determining national significance, which concern the uniqueness of the resources, their integrity, their ability to illustrate important themes in our nation's heritage, and their potential for providing public enjoyment (see sidebar, page 14). Corridor resources meet the highest of these standards in every regard. The national significance of the Corridor's themes and resources is described in Chapter 2.

The National Park Service has provided technical assistance and expertise for the development of this Plan through a new kind of designation — "National Heritage Corridor" — that promotes protection and interpretation of significant resources by working in concert with many others with a stake in the region. A National Heritage Corridor (NHC) differs from other units of the National Park System in that an NHC receives the benefits of national designation — national recognition, enhanced conservation and interpretation — but it is not put into public ownership. Additionally, in an NHC these responsibilities are not the National Park Service's alone; instead its hallmark is *cooperation* among federal and state agencies and local and regional groups to create a "national park" while maintaining and reinforcing the viability of the area as a living landscape.

The themes and the supporting environmental, scenic, cultural, historic and recreational resources of the Corridor are of proven national significance. They are not fully represented in existing units or affiliated units of the System, and are suitable for inclusion in the National

Park System. And it is the partnership aspects of this Plan that enable the Corridor to meet the test of feasibility, and that will allow the National Park Service to meet its long-term conservation and public enjoyment responsibilities effectively and efficiently:

- The Corridor's state, local and private partners have the capacity to steward the primary resources, and ownership, management, maintenance and the integrity of these resources will continue to be the responsibility of these capable partners, with strategic assistance from the Commission.
- There are at least 50 existing interpreting organizations in the Corridor that individually interpret a number of significant subthemes and resources. Despite the excellence of their work, they do not interpret the large connecting ideas which could link and give context to the many national significant resources and events, and they do not interact systematically to provide visitor services. Organization and leadership of an interpretive system is outside the missions and the capacities of these institutions. The National Park Service has been identified as the only interpreting organization with the capability, expertise and mission to present the overarching themes, coordinate the important contributions of the state, local and private partners, and provide training and technical assistance to enhance each partner's individual role. Permanent National Park Service coordination of an interlocking system of interpretive institutions would ensure long-term interpretation of the Corridor's nationally significant resources.



Morning Call

The Lower Division of the Lehigh Canal is primarily owned by the municipalities through which it runs. They cooperate through a variety of partnerships to preserve the canal as a historic and recreational resource. In Freemansburg, the members of the volunteer Old Freesmansburg Association clean brush from the towpath.

The History of the Corridor Initiative

The Grass Roots Here are Deep and Strong

The advantages of cooperative action are well understood here, and the Corridor effort is not completely new: it is a natural outgrowth of more than 50 years of citizen action in preserving and interpreting the cultural and natural resources of the region. Early partnerships provided the impetus for the Corridor initiative:

- The Delaware Canal, in the Delaware Canal State Park, is today the nation's most intact and fully watered towpath canal. But when commercial navigation on the Canal ceased in 1932, Depression-era economics led to its decline, even though the Commonwealth of Pennsylvania later acquired it for a linear state park. A citizens' group, now called the Friends of the Delaware Canal, formed in response to the need. Its 50-year partnership with Pennsylvania's Department of Environmental Resources has resulted in broad public and political support for the park. Tangible results have included improved maintenance, cleanups and celebratory events, development of a master plan for the canal's rehabilitation, increased awareness of the canal's needs on the part of many elected officials, brochures and newsletters, and a new interpretive center in New Hope.

- The Lehigh Canal was the nation's last and longest operating towpath canal, ceasing operations in 1942. Easton philanthropist Hugh Moore had a dream that the abandoned canal could become a greenway connecting the urbanized areas of the Lehigh Valley. When Allentown, Bethlehem, Freemansburg, Bethlehem Township and Easton jointly resolved to acquire the canal, Moore provided matching funds and endowed a citizens' group to develop a park and museum in Easton, at the confluence of the Delaware and the Lehigh rivers and canals. Hugh Moore Park's Canal Museum is now the most comprehensive canal museum in the country.
- The citizens and elected officials of six municipalities in Carbon County followed the example set by the cities and joined to purchase an eight-mile section of the Lehigh Canal. The towns, which range in population from 500 to 5,000, established the Lehigh Canal Recreation Commission, which coordinates each town's contributions, volunteer labor and municipal equipment to keep the canal watered and the towpath maintained as a walking and bicycling trail.

There is a remarkable legacy of accomplishment already visible in the Corridor. The rehabilitation of Bristol's Main Street was one of the early partnership projects that is a model for the kind of cooperative action that will be the basis for implementation of the Corridor.



Michael Bruce

- Bristol, the historic southern terminus of the Delaware Canal, was once an important river port and shipbuilding center. By 1985, its waterfront was derelict, but was adjacent to a viable downtown business district, a rich collection of architecture and varied neighborhoods. In partnership with the state and the National Park Service, the town undertook a physical and economic revitalization project. Local government and civic groups came together to provide funds and services to get waterfront and streetscape improvements underway. Their efforts attracted participation by the state and federal governments, two major foundations and an international chemical company. Through these partnerships, the waterfront and main shopping street have been rehabilitated; an important estuarine creek is conserved; a rails-to-trails project has been completed; the canal is being reclaimed; and renovation of historic buildings is proceeding throughout the town.

- The town of Jim Thorpe was the boom town of the canal era — the early headquarters of the powerful Lehigh Coal & Navigation Company and a transfer point between mountain railroads and the canal. Its magnificent historic architecture and its setting in the mountains make it distinctive, but by the late 1970s, it was looking and feeling tired. In 1979, this small town matched state money to fund, and then implemented on its own, a preservation plan and Main Street program that have resulted in renovation and a tourism boom. Restaurants, hotels and dozens of stores have opened, and others have seen their business multiply as visitors have poured in.
- The Seven Tubs Nature Area outside Wilkes-Barre is named for seven large pools that were scoured in the bedrock by meltwater from receding glaciers. A mountain stream cascades down this gorge, lined with mature hemlocks and rhododendron. In 1975, a citizens' group came together with two municipalities and Luzerne County to acquire this and surrounding lands for a mountain park. With donated services from attorneys and real estate experts, and with funds from local business, the chamber of commerce and the state, the Tubs Advisory Council has acquired 600 acres of land with the help of donations and bargain sales, and has begun implementation of a master plan for the park.
- Dozens of local historical societies, nature conservancies, sportsmen's organizations and economic development interests are responsible for such additional successes as regional trails, museums, local festivals, preserved buildings and protected habitats.

Together, the work of these many groups has led to a widely held grass-roots vision for the Delaware, Lehigh and Wyoming valleys. This vision embraces the conservation of not just the canals, but also their settings: the related pioneering industries, the historic towns, the larger natural and agricultural landscapes, and the stories of people and their heritage.

Government Responds to the Vision

Many local success stories in the Corridor have been recognized for years by the state and federal governments, which have often been partners in these successes, making strategic investments to enhance Corridor resources and leverage local action

The Pennsylvania Department of Community Affairs has funded and assisted numerous local parks on and around the spine of the Corridor. The DCA has also funded and is providing technical assistance for several Main Street programs and enterprise zones. The Department of Environmental Resources manages Lehigh Gorge and Delaware Canal state parks, which encompass more than half of the length of the two canals — as well as other parks that preserve valuable natural re-

New Partnerships

The Corridor concept is compelling. Since the Commission got underway only two years ago, a number of partnership initiatives have developed in response to and in support of the Corridor Vision (see page 31), well before this Plan was completed. A primary thrust of the Commission is to reinforce not only these partnerships, but the work of other potential Partners whose work has provided the solid foundation for the Corridor:

- The Lehigh River Foundation formed in 1991 to give private-sector support to the Commission's initiatives. The Foundation has raised more than \$150,000 from local businesses and individuals to create an educational film, sponsor heritage events and establish an information center in Bethlehem.
- With State Heritage Parks Program Early Implementation Grant funds, the TRAIL (towpath, recreation, access, interpretation, linkage) program established by the Commission provides matching grants to municipalities for work on the D&L Trail (see Chapter 4). Two projects are underway as of 1992:
 - The Lehigh Canal towpath is intact in the lower Lehigh Valley, but it has few directional or interpretive signs, and it has suffered from washouts and overgrowth. Lehigh and Northampton counties, with the cities of Allentown, Bethlehem and Easton, Bethlehem Township and Catasauqua Borough, have come together to cooperate on re-establishing and enhancing full public use on this 19-mile section. Matching funds have come from the municipalities and the Private Industry Council.
 - The long-standing Lehigh Canal Recreation Commission was joined for the first time this year by the Borough of Jim Thorpe to work together on canal-bed clearing and dredging and towpath restoration along seven miles of the Lehigh Canal. Matching funds have been provided by the Horsehead Foundation and the Pennsylvania Department of Labor and Industry.
- The Lehigh Anthracite Region Heritage Advocates have come together in Carbon and Luzerne counties. Supported by the Greater Hazleton Chamber of Commerce, the advocates include 29 organizations, and are dedicated to improving public awareness of the Corridor and its resources, particularly anthracite heritage.
- Even before the Commission began its work, the City of Easton set up the Forks of the Delaware Task Force to develop the City's vision and strategy for full community participation in the Corridor initiative. The Task Force embraced the goals of the Corridor and laid the groundwork for a detailed local management plan. The Task Force will also contribute to the recently formed Two Rivers Area Joint Municipal Planning Commission which so far comprises Easton, Palmer and Forks. Their work will support cooperative efforts to identify and conserve the area's cultural and natural resources.

sources and open spaces, and provide myriad recreational opportunities. These include Beltzville, Hickory Run, Ralph Stover and Nescopeck state parks.

DER is completing fish passageways on the Lehigh River that will allow the first shad run in 150 years in the spring of 1993. The Pennsylvania Game Commission and Pennsylvania Fish and Boat Commission provide important recreational access to streams and public game lands, and help maintain the excellent quality of hunting, fishing and boating in the region. The Pennsylvania Historical and Museum Commission maintains interpretive sites in the region — Eckley Miners' Village, Pennsbury Manor and Washington's Crossing — and is a source of funding and assistance to many local interpreting and preservation organizations.

The federal government, through the National Park Service, funded the *National Urban Recreation Study*, which recognized the Delaware Canal region for its nationally significant cultural resources; its important open space amenities and recreation opportunities; and its accessibility to large populations. The National Park Service's *Lehigh Canal Study* made recommendations for the rehabilitation and reuse of the canal and its surroundings. Both studies called for intergovernmental approaches for preserving resources and implementing coherent strategies for joint management.

Judicious and far-sighted citizen and government activities have meant that a great number of nationally significant resources remain, and that they have remarkable integrity. The resources and local initiative, capability and commitment were recognized by the United States Congress in its 1988 designation of the Delaware & Lehigh Canal National Heritage Corridor; and by the Commonwealth of Pennsylvania in 1989, which has provided funding for this Plan and several early implementation projects through its new State Heritage Parks Program.

The Need for the Plan

Clearly, the Corridor has long had in place a sophisticated and effective palette of civic and conservation partnerships. But the same leaders who were responsible for these successes have come to realize that the next level of success demands a broader range of Partners and coordination at a higher level. What was missing has been the coordinated planning that can link the Corridor's many efforts, programs and resources so that they become greater than the sum of their parts.

Completion of the interstate highway system, and the region's location between New York and Washington, are leading to more rapid urbanization, and pressure on the area's resources is growing. Greater investment in the canals, beyond current levels that have not kept pace with inflation, is an increasing concern — along with a widening de-

mand for recreation along the towpath and rail rights-of-way and opportunities to learn of the canal and industrial eras the region so definitely represents. By the time this Corridor was designated in 1988, it was clear that a forum was needed through which all concerned could work together to conserve our heritage and make decisions about the future of the region. The Corridor Plan has provided this forum.

Thus, the plan stems from two needs. First, threats and opportunities for the Corridor's key environmental, scenic, cultural, historic and recreational resources stem as much from shared regional trends as from local factors. Second, the clearest means of shaping a regional approach to these threats and opportunities is through a plan that enable institutions to act in concert. Each of these needs is discussed in the two sections that follow.

Threats to Corridor Resources

The Corridor is richly endowed with resources of all types. Stewardship has helped preserve much of the area's natural, cultural and historic diversity in the face of extraordinary social and environmental change over the last century. Due to the present climate of stretched budgets, pressure for economic growth at whatever cost, and resurgence of the call for private property rights to take precedence over public expenditures to encourage greater stewardship, nearly all Corridor resources face some sort of threat.

These pressures both conflict with and contribute to two other broad trends: the widening demand for recreation along the rivers, towpaths and rail-trails, and the widening demand for opportunities to learn of the canal and industrial eras the region so completely represents. Happily, all resources present an opportunity to meet these demands, so long as resource stewardship, appropriate economic development and recreational development are coordinated. Specific threats to the Corridor's key resources are explained in the following paragraphs.

Historic Resources

Historic resources in the Corridor are continually threatened by development and neglect, and by lack of funds to preserve and protect them. Threats to the Corridor's many nationally significant resources are of great concern. While many have been or are in the process of being protected, many more are in great need of attention. In the context of this Plan, those resources related to the region's industrial history need particular attention. This is not only because of their place as the defining resources of the Corridor, but because these resources have only lately been recognized as critical to preserve. As the heyday of the industrial era has receded from living memory, recent generations have discovered their significance to the Corridor's heritage. Not only have they only just begun addressing their preservation, but they also face unique problems of scale, scope, identification and even contamination associated with many of the Corridor's historic industrial sites.

Cultural Resources

The Corridor's many and varied cultural groups — formed by bonds of community, ethnicity, labor and religion — are threatened by the economic transformations that have all but eliminated the hard industrial or stable agricultural context in which they were forged: anthracite patch town neighborhoods dominated by individual ethnic groups; neighborhoods once dependent on employment in large manufactories, such as South Bethlehem; or Pennsylvania German farming areas throughout the region. While the pace of economic, social and cultural change will not soon be slowed in this nation, the Corridor initiative must enable the process of passing-on integral to maintaining cultural diversity, awareness and celebration.

Interpretive Resources

Great opportunity lies in integrating the many Corridor stories into an exciting, accessible and educational interpretation of the Corridor's heritage. Presently, obstacles to achieving this include a shortage of financial and staff resources among interpreting institutions to undertake more intensive interpretation and interpretation of more sites, as well as the absence of a single capable organization or Partner to coordinate and manage the overall integrated Corridor story and visitor services.

Natural and Scenic Resources

Industrial and modern development have harmed some of the Corridor's splendid natural resources and scenic qualities. While some natural resources have regenerated or been restored (the rivers, for instance), others remain threatened and are already rare. These endangered resources must be protected, lest the natural beauty, diversity and richness of the Corridor be diluted. Human imprints on the land have created other treasured scenic resources: beautiful farmlands, small historic towns and distinguished urban architecture. Late 20th-century highway and suburban development threaten or have already in some places created scenes that are indistinguishable from any other urban fringes across the nation. Moreover, a general lack of awareness of the importance of visual quality and ways to address it pose threats everywhere.

Recreational Resources

The Corridor is richly endowed with many significant federal, state, county and local recreational resources — at the center of the ever-expanding Boston-to-Washington metropolitan corridor. Many public lands and recreational resources are heavily used, including the Lehigh River for whitewater boating and the Delaware River for canoeing and floating. Demand on recreational resources continues to increase, and due to growing numbers of users and waning budgets, many resources are suffering from maintenance backlogs, staff shortages and deferred capital investments.

Economic and Tourism Resources

Recent economic trends in the Corridor have been mixed, reflecting broad restructuring of national, regional and local economies. While

regional population generally holds steady, traditional industries continue to decline, eroding the historic economic base. A countervailing trend is growth in innovative industrial companies, residential and commercial development precipitated by highway construction, and service-sector businesses. The strength and mix of the economy require active involvement and continuing effort from a wide variety of actors. Tourism is an important and growing sector that now requires a coordinated strategy of promotion and targeted development to achieve its greatest impact and widest benefit.

Regional Collaboration

It is in the public interest to conserve the limited resources of the Corridor, and the threats are larger than any local government can respond to on its own. Moreover, there is public concern about maintaining and enlivening the economic and material basis for the health and prosperity of the region. Leaders and citizens here have recognized that conservation is the foundation of sustainable development in the Corridor. Actions to initiate compatible development and resource protection that enhance economic opportunities will be more successful if they reflect the broader, regional economy, rather than taking place in a few communities only.

The clearest means of shaping a regional perspective in the Corridor is through a well-developed mechanism to encourage the direct collaboration of a wide number of civic, private and government institutions. These institutions need the guidance of this plan in both shaping their individual actions and linking them collectively.

The scope of our resources is enormous; the stories they tell are legion; and many resources lie across local boundaries. This Plan gives us the means to harness our individual efforts to carry out the necessary multi-jurisdictional actions so that our nationally significant resources can be:

- protected through collaborations that allow each Partner to contribute its particular strength;
- the visible basis for interpretation of the stories that are Corridor-wide;
- used and enjoyed by the public without harming them; and
- the foundation for a level of heritage development that is only possible through cooperative action.

Moving now into the second 50 years of achievement, the Corridor's activists understand that the scale and importance of the resources here require coordination and participation at both a broader scale and higher levels, or our last opportunities for conservation and targeted growth will be lost. This Plan allows us to take the next step.



Discovering Our Heritage: The Story of the Corridor

Our Enduring Heritage

With the *heritage* of the Corridor playing the central part in this initiative, it is important to articulate exactly what this means. The most straightforward way is to recount the Corridor's history. This has been done in considerable detail in the Technical Appendix, *Historic Resources Report*, and it is synopsized below in "The Significance of the Corridor."

"Heritage," though, is a more complex idea than the writing or retelling of history. It also refers to something passed on from our predecessors, and so touches on some of the intangible qualities of life in the Corridor. History describes the events that define and shape heritage, but it is in the passing on, the retelling, the reshaping of people and places over time, that "heritage" takes on the more important cultural meaning that this Plan conveys. Moreover, "heritage" also implies a set of physical resources, both human and natural, that contribute to the current qualities of life in the Corridor.

As an aggregate of countless individual and community experiences taking place over time and through space, the Corridor's is both a story of truly national significance — such as canal building, steel-making, anthracite mining, labor struggles, early settlement — and an illustration of larger, recurrent themes that transcend the details of time, place and person and characterize the spirit of the Corridor:

- The energy of *innovation*: there are stories here of invention — of developing new means of carrying out the tasks of industry, whether a type of barn, a railway to overcome mountain obstacles, the smelting of iron using new fuels, or a way to organize a corporation; and of forging new cultural institutions, whether a way to build a town, or practice a religion of tolerance; and

- The spirit of *renewal and regeneration*: there is a legacy of resilience here, marking the landscape and the people. Abundant Corridor resources have been used, transformed and replenished, as we continue to respond to the changing needs of society. Whether it is fuel for the Industrial Revolution, for heating homes of a growing nation, or carefully renewing the natural environment from the degradations of the past, individuals, communities and institutions have always responded to the intersection of changing societal needs and changing conditions of the natural environment with solutions to recycle our resources and our history as inhabitants of the land.

The Significance of the Corridor

The Delaware & Lehigh Canal National Heritage Corridor uniquely represents the social development of young America, the anthracite coal mining era, the Industrial Revolution, the development of systematic canal and rail transportation, and the evolution of natural conservation. These developments are nationally important, and the Corridor and its people made outstanding contributions to our nation's social and industrial growth from 1682 on, and particularly in the years from 1817 to 1930. The Corridor contains significant and intact cultural, natural and recreational resources that tell these stories and their impact on this country. The Corridor is nationally significant in these four ways:

Criteria for National Significance

The National Park Service has established four criteria for evaluation of national significance for natural, cultural or recreational resources. The Delaware & Lehigh Canal National Heritage Corridor meets and exceeds these criteria:

- (1) A site must be an outstanding example of a particular type of resource.
- (2) A site must possess exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.
- (3) A site must offer superlative opportunities for recreation, public use and enjoyment or for scientific study.
- (4) A site must retain a high degree of integrity as a true, accurate and relatively unspoiled example of a resource.

- The Corridor contains sites that represent the earliest practices of the transforming principles that became the foundation of the American Constitution — religious freedom, the separation of church and state, mutual responsibility between government and the people, and equality. Freedom and economic opportunity made the area of the Corridor the destination of choice for immigrants from the 17th century to the early 20th, and more than 50 ethnic groups have made a place for themselves here, establishing distinctive towns and neighborhoods that represent significant events and themes of immigration, work and the labor movement.
- The Corridor represents and exhibits the only intact historic system of the Industrial Revolution that integrated resource extraction, anthracite canals and railroads, commerce and heavy industry. The Corridor was the scene of numerous technological innovations that transformed American business and industry. The system retains all of its component aspects, and clearly demonstrates their interrelationship.
- The Corridor demonstrates the historic exploitation of natural resources that was the result of the burgeoning transportation and industrial system; as well as the natural and cultural forces for regeneration that give the Corridor exceptional value as an outstanding recreational and scenic resource at the center of the most densely populated area of the United States.

- In 1988, the United States Congress designated the Corridor as nationally significant in recognition of these considerations and of the nine National Historic Landmarks, six National Recreation Trails, two National Natural Landmarks and hundreds of National Register sites. The Commonwealth included the Corridor as a study area of the Pennsylvania State Heritage Parks Program in recognition of its significance and of its seven state parks, three state historical parks, 14 state scenic rivers and 14 state game lands.

People and Principles

The province of Pennsylvania was founded and settled according to different principles than any other European colony in the new world. These differences set the stage for enormous diversity and prosperity, and enabled the province, and the area of the Corridor in particular, to become a region of wealth and influence in America.

The success and the distinctive social development of the colony was due to the visionary leadership of its Proprietor, William Penn. Penn's interest in establishing a utopian society where tolerance and freedom of conscience would reign was a result of the years of religious and economic persecution suffered by him and fellow Quakers in England. He also wished to secure prosperity, believing a well-settled society to be the most fertile ground for establishing "an example to the nations."

Pietist religious groups such as the Quakers and Moravians strongly influenced the settlement and the early society of the Corridor region, and practiced unprecedented ideals of equality and freedom. In this 1751 image, Moravian missionaries baptize Native Americans.



Courtesy Ralph Grayson Schwarz

Penn actively recruited not only English, Welsh and Irish Quakers, but members of Pietist sects in western Europe, who suffered from severe persecution and the effects of the Thirty Years War, which had destroyed the social and economic structure of Europe. He sought to establish a land of small, independent farmers, and promoted the opportunity for both a peaceable life and economic advancement. Pennsylvania quickly became the haven for Europe's oppressed — within a single year of Penn's arrival in America in 1682, 60 ships filled with settlers docked in the infant city of Philadelphia. The certainty of tolerance and of economic opportunities attracted ambitious people, and led to the most heterogeneous population in America throughout the colonial era and beyond.

Penn instituted unprecedented reforms in law and social structure. He was concerned by the failure of rulers to bring benefits to their people, and established a covenant of mutual responsibilities between the government and the governed. His social reforms were the basis of the notions of liberty and equality that now define the nation.

Although he believed that government "is a venerable ordinance of God," he opposed the establishment of a state religion, and thus laid the foundation for the concept of the separation of church and state. His guidelines for the courts of law granted unheard-of procedural protections to defendants. He forbid slavery. He directed that schooling be provided not only for the wealthy, but for "all children within the province."

He may be best remembered for his standards for relations with Native Americans, which were based on respect, if not equality. He required that "Indians shall have liberty to do all things...that any of the planters shall enjoy." They were to be treated as equals in land and commercial dealings and in the courts, "so that we may live friendly together as much as in us lieth." Penn's policy of negotiation and purchase of Indian lands led to many years of peaceful settlement in the region that is now Bucks County.

From its beginning, Pennsylvania was characterized by tolerance, a respect for individualism, unusual heterogeneity, widespread economic opportunity and a lack of Indian clashes. Although other colonies shared one or more of these traits, only Pennsylvania had them all, and it offered an unprecedented opportunity for individuals to achieve social and economic status in a tranquil colony's thriving and productive market economy.

As the lands immediately surrounding Philadelphia filled up, the Corridor-area frontier moved north. In the Lehigh Valley, the Scotch-Irish were the first permanent settlers. Their mass migration began after 1718, due to severe economic hardships in Britain, and they were welcomed only in Pennsylvania, of all the colonies.

The largest ethnic group to settle in the Corridor region was German-speaking peoples from many European countries. Migration began in

Courtesy Hugh Moore Historical Park and Museums



Because of the region's early religious freedom and economic opportunity, the Corridor was the most ethnically diverse region of America in the 18th and early 19th centuries. In the northern part of the Corridor, thousands of Eastern and Southern European immigrants went to work in the mines, and work and ethnic traditions are still strong here.

the 1720s and continued into the 19th century. So many came to eastern Pennsylvania that in business dealings, German was used as often as English. And the earliest instances of prejudice and nativism were directed against them, as English-speaking leaders began to fear loss of political and economic control.

Among these settlers were the Moravians, who travelled to the Lehigh Valley in 1739 in order to spread the Gospel. Unlike other German-speaking immigrants, they developed urban centers, based on a communal economy and way of life. Work was a form of worship, and the products of agriculture and craft-level industry supported extensive missionary activities to the Native Americans. Bethlehem became the center of Moravian activity in North America, and mission villages for Native Americans were established beyond the frontier.

The Moravians shared William Penn's ideal and practice of respect. However, the Lenni Lenape and other Native Americans with whom they dealt were weakened politically and culturally by many years of contact with Europeans. Trade led to a debilitating dependence on Europeans and their goods; the demand for furs and skins led to a depletion of forest resources; and foreign diseases decimated the native people. Cultural erosion and physical displacement led to the disappearance of the tribe by the late 18th century.

During Penn's lifetime, his agents conscientiously negotiated purchases of Indian land, but after his death in 1718, his less idealistic sons saw relations with the Indians only in terms of business and politics. Under Penn's successors, settlement quickly proceeded as far north as the Blue Mountain, the result of cynical alliances with enemies of the

Ethnic and cultural tradition are rooted in history, but remain strong and visible, as demonstrated by the bread-baking group at St. Michael's Slovak Catholic Church, in Lansford.



ETHNOLOGICA/Rita Moonammy

Lenape, illegal settlements and fraudulent treaties. The 1737 "Walking Purchase" is the best known of these deceptions. A treaty was produced purporting a grant of land by the Indians which would extend from the Wrightstown Meeting House in central Bucks County north "as far as a man can walk in a day and a half and thence eastward to the Delaware River." A team of English runners managed to cover a remarkable distance of 100 miles; and the Proprietors further enraged the Indians by insisting that the new northern boundary be drawn at a right angle to the line of the run, rather than due east, gaining hundreds of square miles of important Lenape hunting areas.

Tensions from the flood of settlement and the refugee status of the Lenape left the Blue Mountain frontier ripe for trouble, and the early defeats of the English in the French and Indian Wars after 1754 led to a decade of violent raids in the northern counties.

Such conflict with Native Americans inhibited settlement of the mountains for many years, as well as the Wyoming Valley at the northern end of the Corridor. Pennsylvania and Connecticut held conflicting claims to this land, and in the 1750s, poor economic conditions in New England led to attempts to found towns here. But the valley found itself to be a center of hostilities in both the French and Indian War and the American Revolution, and it was not until the conclusion of the Revolution, and the end of the Native Americans' political power and habitation in the region, that permanent settlements were made there, modeled after New England towns.

The Revolution also affected the southern part of the Corridor, although not through violence. The Corridor's abundant agricultural production and well-developed iron industry supplied American forces. And on Christmas Eve, 1776, George Washington and 2400 troops crossed the ice-choked Delaware River to make a successful raid on the Hessians at Trenton, considered to be a turning point in the war. Although the Corridor area experienced some 20 years of war, there were few depredations of lives, resources, property or capital in settled areas, and it was primed for the next chapter in its social history.

By the 1830s, the Corridor was well-settled, populated by descendants of the original immigrants. Although there were thriving towns such as Wilkes-Barre, Easton and Bristol, the landscape was primarily agricultural, punctuated with remote rural industrial settlements. But the discovery of the utility of anthracite, and the completion of the Delaware Canal and Lehigh Navigation System between 1829 and 1845, brought about rapid urbanization and industrialization, particularly in the Wyoming and Lehigh Valleys, and the growth of industry led to a demand for labor that could not be met by the existing populace.

The first use of immigrant labor was for construction of the canals — Irish laborers dug them by hand. Completion of the transportation system allowed massive expansion of anthracite mining and iron- and steel-making, manufacturing, quarrying, textile and railroading industries. Entrepreneurs recruited thousands of experienced miners and

technicians from England, Scotland, Wales and Germany in the 1820s to adapt European technology to the particular conditions of American resources. As markets continued to expand throughout the century, the Irish were also recruited, and subsequently eastern Europeans, Baltic peoples and Italians.

In contrast to the immigration experience in the Corridor's first century, these immigrants found extreme religious, ethnic and work discrimination. Opportunities for entrepreneurship, economic self-reliance and mobility were much more limited. In response, immigrants developed strong ethnic and religious communities, centered around ethnic parishes and fraternal organizations. Beneficial societies and the continuation of European traditions contributed to maintaining national identities.

Until the Civil War, jobs were plentiful, and major employers provided housing and services for workers at such places as Glendon, Hockendauqua and Alburty. After the Civil War, working conditions worsened in all the industries, and particularly in the anthracite industry, as wages were cut severely and work became more dangerous. Unionizing efforts sometimes led to gains, but organization was fragmented and ineffective, and the workers always lost ground in the end.

To dilute the influence of the early unions, operators actively fostered animosities among the various ethnic groups. The large corporations, particularly the coal and transportation companies, cooperated to break the unions through economic pressure, dislocation, harassment and sometimes violence.

Corporations personified the Irish as troublemakers, and pinned a number of violent incidents on a loosely organized group called the "Molly Maguires," ending with the hangings of the leaders at Mauch Chunk in 1877.

As the Eastern Europeans and Italians joined the Irish as some of the most exploited workers in the country, however, they also joined in attempts at unionization. In the Eastern Middle Anthracite Field in 1897, following a long series of provocations, a line of Eastern European and Italian strikers marched from Hazleton to a company patch town called Lattimer, seeking to shut down a non-striking mine. As the unarmed marchers reached the outskirts of town, a line of panicked sheriff's deputies opened fire and killed 19 marchers and wounded 32. The Lattimer Massacre brought the various immigrant communities together in resistance against the worst depredations of the mine operators, and led to the strengthening of the nascent United Mine Workers Union.

Continuing labor disputes and job actions throughout the first half of the 20th century led to great gains for workers, but the Corridor's major industries declined due to changes in the world economy, changes in technology and disinvestment.

People and Principles:

Significant Events and Sites

- site of the home of William Penn: Pennsbury Manor, a National Historic Landmark and State Historic Park
- the route of the Walking Purchase, 1737
- the Gemeinhaus, 1733, Moravian church building and communal residence, a National Historic Landmark, Bethlehem
- the Old Water Works, the first American pumping station to provide drinking water, a National Historic Landmark: 1762, the 18th-Century Industrial Area, Bethlehem
- first public reading of the Declaration of Independence — on the steps of the Northampton County Courthouse in Easton's Centre Square, July 8, 1776
- Washington's Crossing, site of the 1776 Revolutionary War river crossing by American forces prior to a successful attack: a National Historic Landmark and a State Historic Park
- the John Chapman House: occupied by General Knox during the encampment prior to Washington's crossing of the Delaware: a National Historic Landmark
- Wyoming Valley and Carbon County sites of raids and battles of the French and Indian Wars and the American Revolution
- Eckley Miners' Village and Pennsylvania Anthracite Museum, Eckley
- site of the "Molly Maguire" hangings: 1877, the Carbon County Courthouse, Mauch Chunk
- site of the Lattimer Massacre: 1897, Lattimer
- the Corridor has 49 local historic districts listed in the National Register of Historic Places

New technologies have continued to be developed here, however. The transistor was invented in the Corridor, and the adaptation of oxygen reduction technology developed for World War II has led to the growth of an air products industry here that is a world leader. The direct economic relationship and pattern of proximity between the workplace and housing has not been necessary, however, and in some places, suburbanization has become the new pattern. Levittown, in lower Bucks County, is a significant example. It was privately built in the early 1950s to serve workers at the Fairless Steel Works and to catch the first wave of families leaving cities. Many of its residents migrated here from the northern end of the Corridor when anthracite jobs died out.

The Integrity of the Resources

Physical and institutional resources remain in the Corridor to represent all periods and events in its social history.

Sites that represent Native Americans are primarily archaeological, and dozens of village and hunting camp sites are known. Major Corridor roads follow the routes of Native American trails, and innumerable place names were taken from the language of the original inhabitants. The trail once used for the infamous Walking Purchase is now a series of roadways, and in Bucks County, it forms part of the boundary of the Corridor.

The Quaker influence and way of life is strongly represented in Bucks County. Pennsbury Manor, a National Historic Landmark, is a state historical park commemorating the life of William Penn. Historic Fallsington, in a Quaker market town of the same name, interprets Quaker life in the 18th and early 19th centuries. Many additional towns are centered on Quaker meeting houses, and the agricultural landscape contains elements from the 18th, 19th and 20th centuries.

The agricultural landscape of the Lehigh Valley also continues to strongly represent its German and Scotch-Irish heritage. In Bethlehem, the historic Moravian religious structures and communal and individual homes are fully restored, including the Gemeinhaus and the Old Water Works, both National Historic Landmarks that are part of the 18th century industrial area.

There are numerous sites in the Wyoming Valley and Carbon County that were the scenes of raids and battles in the French and Indian Wars and the American Revolution, although they are much changed.

There are dozens of large and small towns throughout the middle and upper regions of the Corridor that were built around industry, and relationships are still visible among the workplace, the workers' housing and the housing of managers and of owners. In patch towns in the anthracite fields, housing, schools, stores and all other facilities built and owned by the mine operators remain. Eckley Miners' Village and the Pennsylvania Anthracite Museum illustrate the lives of people in the anthracite fields.

Neighborhoods that were strongly populated by ethnic groups have changed little, and ethnicity is still demonstrated by churches and fraternal halls, as well as by local newspapers, festivals and traditional cultural organizations.

The Carbon County Jail, scene of the hangings of the Molly Maguires, still stands. The Lattimer Massacre Monument commemorates the Corridor's most significant event in the labor movement.

And although heavy industry — the traditional source of employment — has declined, the tradition of immigration continues here, with most recent arrivals coming from the Middle East, the Caribbean and Asia.

The Transportation and Industrial System

During the 18th century and into the 19th, routes from the Atlantic cities to the interior promised opportunity, but bad roads limited development. In the Corridor, areas easily accessible by water routes, such as lower Bucks County, had been settled as early as 1670, and developed a strong economic relationship to the increasingly powerful city of Philadelphia — until 1825, the largest European city in the New World. Transport of goods to markets there was critical to the development of the region's economy. But in the Delaware and Lehigh rivers, rocks and rapids formed barriers to ships, forestalling expansion upriver.

Farming settlements located far from navigable waters in upper Bucks County and the Lehigh Valley remained isolated. Settlers struggled to take advantage of such plentiful resources as timber, iron, lime for fertilizer and cement, and slate and building stone, but the lack of reliable and affordable transportation restricted their utilization.

The 1754 discovery of anthracite coal deposits by Carbon County settlers at first stirred little excitement — few uses for it were known and it was arduous to transport out of the mountains. But demonstration of its efficiency as a domestic fuel in 1808 and as an industrial fuel in 1817 by entrepreneurs Josiah White and Erskine Hazard finally provided the economic impetus for development of reliable transportation, and on a grand scale.

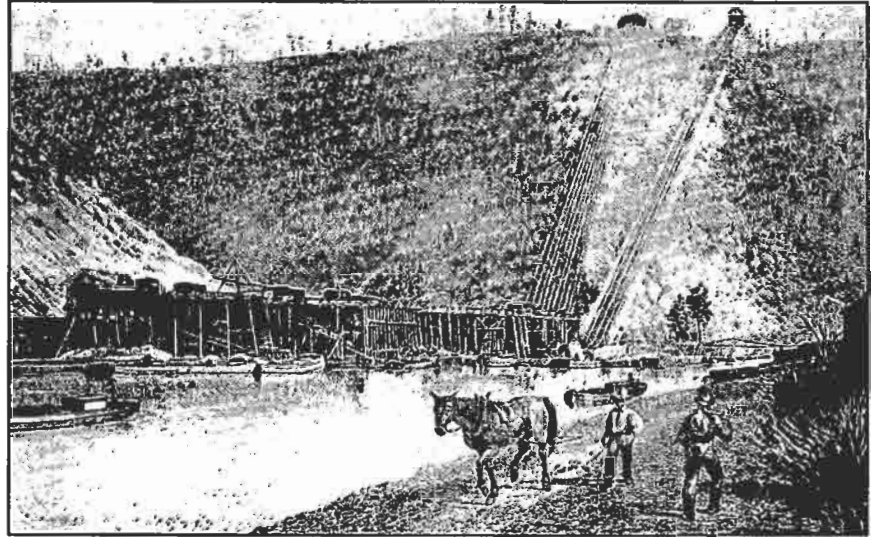
White and Hazard rapidly bought up coal lands and mastered the Lehigh River through the development and construction of hydrostatic, or "bear trap" locks, which allowed a sequential series of artificial floods to float arks loaded with anthracite down the river. This system, stretching from Mauch Chunk south to Easton, was the first commercially successful means of transportation between the anthracite fields and the urban markets, and the sudden availability of inexpensive coal caused the market to explode. Anthracite broke the dependence on wood and water as energy sources for manufacturing — no other fuel could compete in price or quality.

The Transportation and Industrial System: *Significant Events and Sites*

- the discovery of American anthracite: 1754, Carbon County
- the first use of anthracite in America: probably in the 1750s in the Lehigh Valley; certainly in the 1770s in the Wyoming Valley
- the first use of hydrostatic "bear trap" locks in the world: 1817, the Lehigh Navigation
- the largest lift locks constructed during the American canal era: 1827, the Upper Grand section of the Lehigh Navigation
- the first vertically organized American corporation: 1821, the Lehigh Coal & Navigation Company
- the first commercially successful and permanent American railroad: 1827, Summit Hill to Mauch Chunk (later called the Switchback Gravity Railroad)
- the first successful anthracite-fueled blast furnace: 1840, the Lehigh Crane Iron Company at Catasauqua
- the leading iron-producing region in America: 1850-1885, the Lehigh Valley
- the first American machine-made iron wire rope factory: 1848, the Lehigh Coal & Navigation Company at Jim Thorpe
- the oldest extant iron wire cables: 1857, the Change Bridge on the Lehigh Navigation at Easton, manufactured by the Lehigh Coal & Navigation Company
- the first super heavy forging plant: Bethlehem Steel, Bethlehem
- the invention of Portland cement in the 1870s, and the leading Portland cement producer worldwide: 1900-1920, the Lehigh Valley
- the leading American slate producing region: 1880-1930, the Lehigh Valley
- the largest zinc producing plant in America: 1897, Palmerton
- the longest operated and last operated towpath canal in America: 1819 to 1942, the Lehigh Navigation
- the most intact and fully watered towpath canal in America: 1827 to 1932, the Delaware Canal, a National Historic Landmark
- the development of the "grey beam," the first continuously-rolled wide-flange structural steel beam: 1908, Bethlehem Steel
- Industrialist Asa Packer's home, a National Historic Landmark, Jim Thorpe
- the home of ironmaster George Taylor, a National Historic Landmark, Catasauqua
- Colonial era industrialist and financier Robert Morris' home Summerseat, a National Historic Landmark, Morrisville

Between 1827 and 1829, White and Hazard and their Lehigh Coal & Navigation Company transformed the Lehigh Navigation into a conventional ascending and descending canal and slackwater system of unprecedented size and technology. In order to bring the anthracite from their mines beyond the ridges, the LC&N built the first permanent and commercially successful railroad in the nation — now called the Switchback Gravity Railroad — from the Summit Hill mine to the loading docks on the canal at Mauch Chunk.

Anthracite was the impetus for the development of the historic transportation system, and it spurred numerous technological adaptations and innovations. The Penn Haven Planes were built in 1855 to carry coal down the side of the Lehigh Gorge to the canal, and later the railroad. The loading docks and tracks are gone, but the planes and the ruins of a number of the buildings remain and are accessible to hikers.



Courtesy Hugh Moore Historical Park and Museums

Four years later, a 60-mile link was added when the Commonwealth completed the Delaware Division of the Pennsylvania Canal, connecting with the Lehigh Canal at Easton and running south to Bristol, near the head of navigation on the Delaware River.

In order to reach the developing anthracite fields of the Wyoming Valley to the north, the LC&N then extended the Lehigh Canal from Mauch Chunk north 26 miles through the Lehigh Gorge to White Haven, building locks and dams of unprecedented size. To cross the final 2,000-foot Penobscot Mountain, an inclined plane and gravity railroad — the Lehigh & Susquehanna — was built between White Haven and Wilkes-Barre. By 1838, the 150-mile long transportation system was in place between the almost limitless supplies of anthracite and the burgeoning industrial centers of Philadelphia, Trenton and Camden.

To reach even more anthracite fields, feeder lines — the Room Run, the Beaver Meadow and the Buck Mountain — were built from the mines to the canal, each ending dramatically in an inclined plane to canal level. And in New Jersey, the Morris Canal enlarged the market for anthracite by providing a connection from Easton to the New York Harbor.

The system provided the first reliable and cost-effective means of transportation to and from the region, but the LC&N provided even more. To promote the use of its anthracite and its transportation

services, the company began to lease water power and factory sites, and to provide loans to capitalize new industrial enterprises. By 1840, twelve major industries had been established on Easton's canal-side, and other towns in the Lehigh Valley experienced similar industrial growth. The canals opened the region and its resources to development, brought great wealth, spurred industrial innovations and led to the growth of dozens of towns along their route. The LC&N became the first major vertically integrated company, incorporating resource ownership and extraction, land development, transportation, manufacturing and marketing.

The availability and power of anthracite and transportation in the 1830s and beyond profoundly affected the location, output, technology and organization of American industries. Small rural industry relocated to growing urban centers; and power enabled factories to be operated at an enormous scale. The modern American iron industry started at Catasauqua, when the Lehigh Crane Iron Company became the first successful anthracite-fueled blast furnace in the nation. The region's abundant supplies of iron, lime for flux, coal for fuel, and transportation led to the establishment of other blast furnaces, and between 1850 and 1880, the Lehigh Valley was the leading iron-producing region in the country, with as many as 47 anthracite-iron furnaces. The LC&N established the first machine-made iron wire rope factory at Mauch Chunk, in 1848.

The Bethlehem Iron Company — later Bethlehem Steel — made the transition from iron to steel in 1873, and established the first super heavy forging plant in the country — the origin of the modern defense industry, and now the sole remaining plant. It was the first American firm to produce guns, forgings, armor plate and propulsion machinery parts for the United States Navy's earliest steam-powered steel warships. The company was the most important single source of war material for the Allies in both World Wars.

The Lehigh Navigation and the Delaware Canal were the spine of the historic transportation and industrial system, and are now the spine of the Corridor. At Weissport, Lehigh Coal & Navigation boats fill one of the company's boatyards.



Courtesy: Hugh Moore Historical Park and Museum

In 1908, BethSteel developed “the grey beam,” a continuously-rolled wide-flange structural beam that was stronger and lighter than any earlier structural component. This innovation allowed the construction of skyscrapers and long-span bridges throughout the world, including the Golden Gate and Verrazano Narrows bridges, and the Gateway Arch in St. Louis.

Ironmaking was dominant, but other industries arose to take advantage of natural resources and transportation. Portland cement was developed here, and the Lehigh Valley was the leading worldwide producer from 1900 to 1920. The valley also led in quarrying and processing slate from 1880 to 1930. Industrialists recruited immigrant families, and the wives and daughters of the industrial workers constituted a large available labor force which led to the establishment of silk, cotton and woolen textile mills. The Lehigh Valley was second only to Paterson, New Jersey, in silk production. The Saucon Creek valley, near Bethlehem, became a center of the American zinc industry, and in 1897, the New Jersey Zinc Company opened the largest zinc processing plant in the country, and built the planned industrial community of Palmerton.

By the second half of the 20th century, each of the three primary elements of the historic system — anthracite, transportation and industry — had begun to collapse. The Great Depression, labor disputes and the development of competitive fuels combined to end the dominance of anthracite. After the second World War, the heavy industries of the Corridor also declined in importance.

The third element — the Delaware and Lehigh canals — lasted long after all other American towpath canals had faded away. Unlike the others, they had been able to withstand competition from railroads and highways because their primary cargo was anthracite, and they had provided the most cost-effective way to carry the enormous weight and bulk of coal. As the market for anthracite slowed, however, so did traffic on the canals. Navigation on the Delaware Canal continued until 1932; and on the Lehigh until 1942. The Lehigh was thus the last-operated and longest-operated towpath canal in the United States.

The Integrity of the Resources

The physical resources of the historic transportation and industrial system possess remarkable integrity. The primary resources of the system are the historic physical transportation system itself; the natural resources that were its impetus as well as places and ways in which they were processed; and the historic industries that developed to utilize the raw materials and take advantage of the markets made possible by the Canals.

The Delaware Canal, a National Historic Landmark, is the most intact and fully watered towpath canal in the nation, and is protected as the Delaware Canal State Park. Ninety percent of the Lower Section of the Lehigh Navigation is in local public ownership,

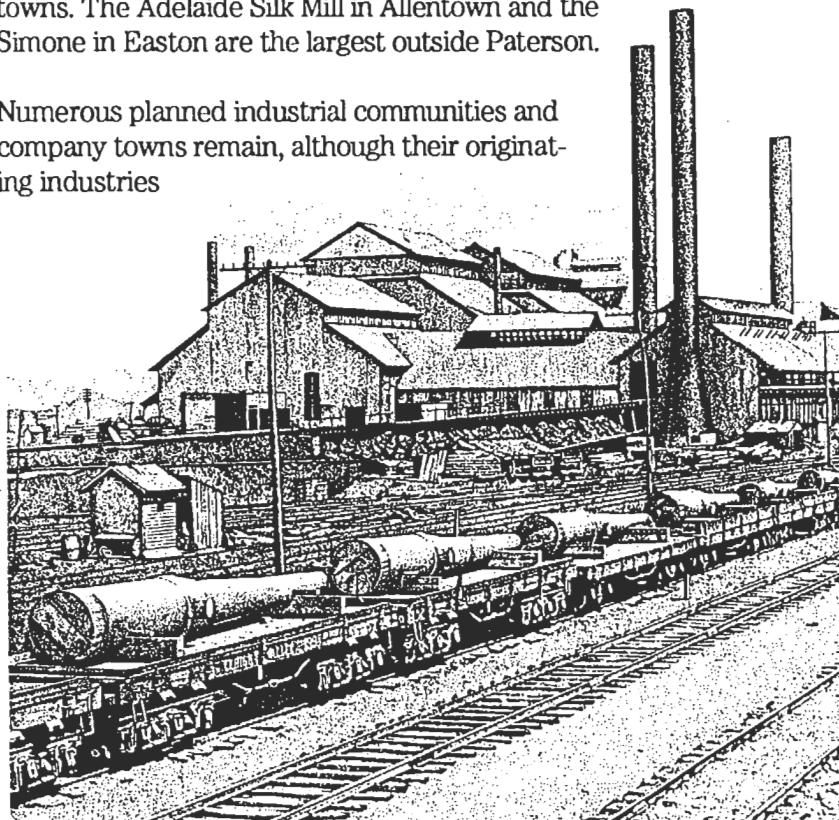
and a six-mile section has been fully restored with operating locks by the Hugh Moore Canal Park. The 30-mile Upper Grand section is protected as the Lehigh Gorge State Park. The Commission will seek National Historic Landmark status for the entire Lehigh Navigation. The old route of the Lehigh & Susquehanna Railroad is now the subject of a multi-jurisdictional planning and development process that will place it in public ownership. Together, the two canals and the L&S will comprise the route for the 150-mile Delaware & Lehigh Trail (see Chapter 4).

Anthracite — the literal and figurative power behind the industrial development of the region — continues to be mined. The Wyoming Valley and Eastern Middle Anthracite fields are among the strongest cultural landscapes of the Corridor, and retain numerous intact patch towns, collieries and strippings. Breakers remain at Jeddo and Ashley.

The canals are still lined with historic industries, some continuing to function after more than a century. The Lock Ridge Iron Museum at Alburty conserves anthracite furnace stacks from the 1860s. The ruins of the Thomas Iron Works stand next to the canal at Hokendauqua. The massive Bethlehem Steel plant, which occupies several miles of the Lehigh River's south bank, is the only one among America's 19th century steel plants to retain all of its historic elements.

Both historic and modern cement kilns and plants stand within view of the Lehigh Navigation, and the Saylor Cement Museum conserves a 19th-century cement kiln. Few slate mines are left, but canal towns wear cut slate on sidewalks and rooftops. Textile mills remain in many towns. The Adelaide Silk Mill in Allentown and the Simone in Easton are the largest outside Paterson.

Numerous planned industrial communities and company towns remain, although their originating industries



Bethlehem Steel established the first American super heavy forging plant and was the first to produce guns, forgings, armor plate and propulsion machinery for the country's earliest steam-powered steel warships. Today, it is the only one of America's 19th century steel plants to retain all of its historic elements, and the plant strongly contributes to the physical integrity of the historic system.

Based on photograph from American Machinist, May 5, 1930/Historic American Engineering Record 1990

Degradation and Regeneration:

Significant Sites

Honey Hollow Watershed National Historic Landmark:

The first upland watershed to be brought under water, soil and wildlife conservation practices in America.

National Natural Landmarks:

- Boulder Field, Hickory Run State Park
- Monroe Border Fault, Bucks County

Potential National Natural Landmarks:

- Seven Tubs Natural Area, Luzerne County
- Lehigh Gorge, Carbon County
- Bake Oven Knob, Lehigh County
- Ringing Rocks, Bucks County
- Tohickon Creek Triassic Formation, Bucks County
- Nockamixon Cliffs, Bucks County
- Delaware River section of the Stockton Formation, Bucks County
- Bowman's Hill, Bucks County

National Trails:

- Appalachian Trail, a National Scenic Trail
- Delaware Canal National Heritage Trail
- Lehigh Canal National Heritage Trail
- Lehigh Parkway National Heritage Trail
- Towpath Bike Trail National Recreation Trail
- Switchback Railroad National Heritage Trail

State Parks:

- Nescopeck
- Hickory Run
- Lehigh Gorge
- Beltzville
- Jacobsburg State Environmental Education Center
- Delaware Canal
- Ralph Stover

State Scenic Rivers:

- The Delaware River (proposed)
- The Lehigh River and thirteen of its tributaries

Fourteen State Game Lands protect a total of 75,000 acres.

have gone. These places are little changed, and factories, workers' housing, textile mills, warehouses and breweries remain to tell their stories.

The landscape context of the system is also intact, and gives the system meaning and interpretability. The canals are still lined with the same forested or farmed lands; with the historic industries; and with more than a dozen small canal towns with great integrity, many retaining mule barns, boatmen's inns and lockhouses essentially unchanged since the end of navigation on the canals.

Degradation and Regeneration: Natural and Recreational Resources

The modern Corridor is a living laboratory for observing the extraordinary regenerative powers of nature and the potency of the conservation movement. The historic industrialization that made the Corridor powerful, and which brought the immigrants who made the Corridor culturally vibrant, had a price: it defiled the land and waters of the area.

The Corridor can be understood as a 150-mile transect through five physiographic provinces — more land forms in such a short distance than anywhere else on the East Coast. The Pocono Plateau, Appalachian Ridge and Valley, Reading Prong, Piedmont and Coastal Plain provinces are each characterized by distinct plant and animal habitat, and each possessed distinctive exploitable raw materials.

Environmental impacts were felt as early as the end of the 17th century, as forests were cut for farmland, for fuel, for construction and for boatbuilding. Settlers were not unknowing — even William Penn, having seen the results of deforestation in Britain, called for an acre of forest to be left for each five cut — but the extremely rapid pace of development during the Corridor's first two centuries was inexorable. Thousands of acres were cut to meet the need for charcoal for early iron furnaces. Clearcutting destroyed habitat, and the abundant wildlife that had amazed early settlers — including elk, otter, beaver, bear and turkeys — disappeared.

Dams on the Lehigh, built first to control logs and later and more extensively for the Lehigh Navigation, created enormous slackwater ponds that severely altered the hydrologic characteristics and habitat values of the river. The dams also ended the migrations of anadromous fish such as shad, which disappeared from the Lehigh.

Silt from mining and agriculture ran into the streams and rivers and smothered aquatic life. The rivers also were harmed by several hundred years of direct dumping of sewage and industrial effluent into them. Such historic industries as early tanning operations, cement plants, iron and later steel mills, and other manufactories released pollutants into the water and the air. The zinc smelter at Palmerton, established in 1896, released airborne toxins that eventually killed all the vegetation on the surrounding mountains, and enough zinc oxide — a sterilizing agent —

that the soil could no longer support the essential bacteria that are necessary for regrowth.

Anthracite ended the need to cut wood for fuel, but coal mining has had an extensive impact on the land. The tailings from deep mines still form massive culm piles near abandoned mine heads, and there are thousands of acres of strip mined lands. Acid mine drainage seeps into streams that feed the Lehigh River.

The Integrity of the Resources

As consumptive utilization of natural resources has subsided, remarkable natural regeneration and active conservation have taken place, and the Corridor presents an outstanding opportunity to interpret the theme of historic exploitation, progressions in values and the conservation movement.



Courtesy Whitewater Outfitters

Located at the center of the most densely populated region of the United States, the Corridor provides outstanding recreational opportunities. Hundreds of thousands of visitors raft the Lehigh River through the Lehigh Gorge State Park each year.

On public and private lands in the Corridor's Appalachian and Pocono Mountains, more than a century of regrowth of forests has taken place. The Lehigh Gorge, for example, which was completely devoid of trees at the time of the great flood of 1862, is now lined with stands of hemlocks and white pines, with an understory of rhododendron and wild azalea.

Public demand that environmental protection laws be enacted and enforced, and the decline of heavy industry, have ended air and water pollution. Freed of their burdens of wastes, the rivers are healing themselves once more. Communities which had turned their backs on once-polluted waters have turned around to make sparkling waterways their centerpieces.

Experimental measures to restore the landscape are underway at Palmerton, and the Commonwealth has established laws and programs for the restoration of the thousands of acres of mined lands.

As the Corridor grows greener, some animal species not seen here for more than a century are returning, such as bear, beaver and mountain lions. Organized efforts are underway to reintroduce species such as osprey and peregrine falcons. The Blue Mountain Ridge is a primary flyway for raptors during their migrations, and most of it is protected as state game lands.

The Commonwealth has a long history of conservation. At the end of the 19th century, it bought thousands of acres of cut-over timber lands at a dollar an acre, and this was the basis for today's system of state forests, state game lands and state parks. It established one of the earliest systems of state parks — now the third largest in the nation, after California and Alaska. The Commonwealth protects more than 100,000 acres of land within the Corridor, including many of the key historic, natural and recreational resources.

The Commonwealth recognized a major opportunity to conserve the Delaware Canal's historic and recreational values and acquired it as a 60-mile linear park shortly after navigation ceased in 1932.

In addition to the value of the natural resources and open lands of the Corridor for environmental health and habitat for plant and animal species, these resources have superlative recreational value. Natural and recreational resources cover large areas of the Corridor, and accommodate high user demand. At the center of the most densely populated area of the United States, the Corridor provides expansive open spaces and unique recreational to millions of people — opportunities that are nationally significant.

The Corridor will help to protect and to make accessible two outstanding recreational rivers, the Delaware and the Lehigh, which provide a variety of recreational activities. Primary among them are rare, high-quality water-based recreation, including canoeing and whitewater boating, as well as sport fishing on the rivers and many of their tributary streams.

The Commonwealth is completing fish passageways around remaining dams on the Lehigh in order to restore the shad run, which has been estimated to have a sport fishing value of \$3.2 million on the Delaware River alone. The Little Lehigh Creek in Allentown, the Monocacy Creek in Bethlehem and the Bushkill Creek in Easton support populations of wild trout in the middle of urbanized areas.

There are seven state parks within the Corridor. One of the most recent is the Lehigh Gorge State Park, which protects the 30-mile gorge and the remnants of the historic Upper Grand section of the Lehigh Navigation. The Commonwealth also conserves 75,000 acres of state game lands within the five Corridor counties.

Along the canal towpaths and route of the Lehigh & Susquehanna Railroad, the Corridor will soon complete the D&L Trail, a 150-mile hiking/biking trail through urban, village, rural and mountain settings.

Most of the trail is already complete, and connects to the Appalachian Trail and five designated National Recreation Trails, as well as to the Francis E. Walter Reservoir, six state parks, the state game lands and many county and local parks.

Public use and enjoyment of the Corridor are enhanced by the exceptionally scenic settings of the recreational and historic resources, which are found along rivers, in mountainous terrain, in agricultural valleys and in historic towns. The Corridor's outstanding scenic qualities include long views of wide rivers, gorges and mountains, as well as increasingly rare rural scenery with such traditional elements as farmsteads, covered bridges and small towns.

The Corridor clearly offers a unique combination of historic, cultural, natural, recreational and scenic resources that are significant in their own right and which together constitute a heritage area that provides remarkable, integrated educational and recreational opportunities.



Joseph E. B. Elliott

The Delaware Canal parallels the Delaware River at the Palisades. The Corridor's cultural and recreational resources are given unusual value by the exceptional scenery and high quality of the natural environment.



Planning the Corridor: Capturing and Shaping New Ideas

The Vision for the Corridor

The Corridor planning process has been built on an unusually strong foundation of public dialogue: among individual citizens; community leaders; a wide variety of multi-interest cultural and environmental groups; and local governments in the scores of municipalities that comprise the Corridor.

Many goals and dreams have been articulated in interviews, meetings, workshops, surveys, studies, and conversations. In the course of listening to many ideas over the past two years, some were repeated again and again, in community after community, in group after group, from the heart of Luzerne County to the heart of Bucks County.

These ideas amount to a multi-faceted *Vision* of what residents and leaders want the Corridor to be:

- *A region that becomes even more strongly defined by the remarkable remnants of our history, and that becomes even greener, with towns centered on clean rivers;*
- *The continuation of the innovative capacity that has always characterized the Corridor, a capacity that ensures a healthy environment, and a visible heritage for us and our children;*
- *A robust economic future that is based on the desirability and rarity of our singular natural and cultural environment, a park-like setting; and*
- *Pride and an ethic of stewardship growing in the heart of every resident — we will understand the meaning of what we have, and act to uphold it.*

Goals and Strategies

The vision was the basis for the following goals and strategies that have shaped this Plan, and will continue to shape the creation of the Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park:

The Corridor will promote a dynamic balance between conservation of key resources and revitalization of the regional economy, by:

- **Promoting Conservation:** Key Corridor resources are at risk, and a variety of mechanisms will be adopted by communities to preserve their environmental, scenic, cultural, historic and recreational assets. Careful land-use management will encourage well-designed development in appropriate places, lessening the homogenization caused by sprawl. With coordination of private, local, state and federal conservation and preservation measures, many of the Corridor's distinctive historic structures, natural landscapes and other assets will be assured a safe future.
- **Encouraging Heritage Development:** Economic revitalization will be a recurring theme in the creation of the Corridor. Efforts will center on encouraging development of new heritage attractions; strengthening heritage resources through increased tourism revenue; and stimulating appropriate private investment in re-using key historic buildings and revitalizing older districts. Investment from entrepreneurs and developers, coupled with backing from foundations and local, state and federal governments, will bring new vigor to the region's economy and enhance the amenities available to resident and visitor alike. Preservation goals will be achieved in concert with the goals of enterprise zones.

The Corridor will recognize and encourage the diversity found in its towns and landscapes and will strengthen pride of place, by:

- **Celebrating Diversity:** Corridor communities will have varying needs and are at different starting places when it comes to their participation in the Corridor initiative. All communities will be enabled to participate fully in Corridor programs and initiatives, and their cultural and physical differences will be celebrated as the key to maintaining the Corridor's diverse sense of place.
- **Strengthening Pride of Place:** In the course of this Plan, the many efforts to make the Corridor more accessible and meaningful — both physically and intellectually, through education and interpretation — will demonstrably strengthen "pride of place" in residents. By fostering greater knowledge and appreciation of the region's history and its remarkable cultural and physical diversity, the Corridor will become integrated into the lives of all residents. Every schoolchild will understand the role which his or her community and forebears played in the development of a great nation. In the long run, a

heightened awareness of the Corridor's identity and value will foster a sense of stewardship for resources, a deeper connection to communities and the land and neighbors, and a commitment to sustaining and improving the region's quality of life, making the Corridor a better place in which to live and work.

Corridor implementation will begin with a focus on the historic transportation system; go on to interpret, protect and develop the landscape and communities beyond; and create a system of linkages among them throughout the region, by:

- *Focusing on the Corridor:* The historic transportation system of the region — the routes of the Delaware Canal and Lehigh Navigation and the mountain railways that reached into the anthracite valleys — will be the focus of the National Heritage Corridor, and will be the organizing feature of Corridor interpretation programs. The canals will be preserved and rehabilitated where appropriate, and enhanced by the creation of a Corridor-long "D&L Trail" and a natural greenway, as well as a Corridor-long "D&L Drive." The focus on the historic transportation system will be further reinforced through coordinated tourism, recreation and resource conservation programs.
- *Establishing an Interpretive and Educational Framework:* Individual communities and institutions will become Partners with the Commonwealth and the National Park Service in presenting the many stories of human achievement and technological triumph that make up the Corridor's history. Working from a common interpretive framework that presents the Corridor's historic, cultural and natural themes, the Corridor will be made to come alive for students, visitors and residents of all ages. The framework will consist of a system of interpretive facilities and programs — including visitor centers, interpretive sites, exhibits, tours, signage, publications and school curricula — designed around a set of eight interpretable places termed "Reaches."
- *Strengthening Regional Linkages:* Reaching out from the Corridor's focus on the historic transportation system, outstanding historic and scenic resources will be strongly linked, both physically and interpretively, to form a truly regional framework. Using cooperative strategies, a consistent system of environmental and cultural interpretation will be established to reinforce the areas beyond the historic transportation routes. Specifically, tour routes, scenic roadways, bicycle routes, hiking trails, greenways, stream corridors and other linkages will be used to connect coal regions, canal pathways, natural areas, communities small and large, and other important places.

The Commission will carry out the Vision by acting as a facilitator; by developing cooperative partnerships; and by working with organizations to build capacity. Each of these key activities will be accompanied by:

- ***The Role of the Commission:*** The Commission will be the keeper of the flame of the Corridor Plan and will set the pace for its accomplishment. The Commission's roles will be that of convener, advocate, facilitator, provider of assistance and sometimes provider of funds — always with leveraging and partnerships in mind. The Commission will aggressively seek funding to advance the plan. It will undertake appropriate activities to meet Corridor-wide needs and invest in outreach and technical assistance to Partners. The Commission's financial, institutional and staff resources will be devoted to those activities, partnerships or initiatives that stand the greatest chance of creating tangible, catalytic results.
- ***Working Through Cooperative Efforts:*** The key to the Corridor Plan will be joint actions on the part of many Partners. The Commission will undertake few activities solely on its own. Within the first ten years, all agencies and organizations in the Corridor will play a more effective role in advancing Corridor goals, having enhanced their staff capabilities and received needed support. As the result of the cooperative climate and partnerships continually being fostered by the Corridor effort, communities, governments, agencies and nonprofit organizations will enhance the Corridor by pooling resources, information and expertise. The Corridor will be characterized by cooperative efforts in such areas as environmental education, recreational development, natural resource conservation, tourism marketing, economic development, cultural conservation and historic preservation.
- ***Building Capacity:*** A partnership is only as strong as its Partners. There are many agencies and organizations in the Corridor that, with increased technical assistance or enhanced staff capabilities, can play a more effective role in advancing interpretive, developmental or stewardship goals. The Commission will provide a variety of assistance to enable these entities to contribute strongly to implementation of the Corridor Plan. An underlying goal is to assist them in becoming self-sustaining.

In working with its Partners' efforts, the Commission will seek always to create the collective energy needed to implement the Corridor Plan, by:

- ***Building Momentum:*** Momentum will be critical to creating the excitement that will spark further commitment and investment. The Commission's limited financial, institutional and staff resources will be devoted to those activities, partnerships or initiatives that stand the greatest chance of creating visible, tangible results. The intent is to create a critical mass of demonstrable achievements in the short term to set the pace and prompt the investment and commitments needed to achieve the vision of the Corridor within ten to fifteen years.

- *Taking Advantage of Leverage:* Over time, the growing success of the Corridor initiative will attract financial support from many sources, private and public. Investment from entrepreneurs and developers, coupled with backing from foundations and local, state and federal governments, will bring new vigor to the region's economy and enhance the amenities available to resident and visitor alike.
- *Achieving Sustainability:* Corridor history is characterized by a legacy of resilience, regeneration, and innovation that refers not simply to economic revitalization, but also to the Corridor's culture, society and spirit. A key overall concept behind all points of this Vision is sustainability. The Corridor's partnership approach will build constituencies and accomplish projects that generate interest, investment and momentum — in effect sustaining the Corridor effort and its projects over time. From the outset, the Corridor effort will cultivate an ethic of stewardship. It will strengthen the existing institutions that care for and interpret the Corridor's legacy of historic, cultural and natural resources, thereby sustaining the heritage of the region and its communities. Financially, the Corridor initiative will focus on creating a base of investment and leveraged funding from many sources, private and public.

Public Participation

This Plan reflects a strong regional consensus achieved through an unusually intensive public involvement process. As a result, it resonates with the ideas of thousands who have participated in crafting it during the last two years.

The Commission determined that, challenging though it might be for a region of this size, strong commitment to public outreach and collaboration would be vital, and began its development of this Plan with interviews of a cross-section of key leaders up and down the Corridor — representatives of the wide variety of perspectives needed for guidance and balance.

A first challenge was to explain what being in a National Heritage Corridor and State Heritage Park might mean, since the concept is a new one. The Commission produced a video and materials explaining the Corridor concept and inviting active participation in developing this Plan. To reach the broadest possible audience, the Commission also produced a special newspaper supplement about the opportunity of the Corridor that was inserted into six Sunday papers, reaching more than 360,000 homes. Many people wrote and asked for more information or how to become more involved.

Operating from a carefully designed participation strategy, the Commission conducted countless meetings, interviews, and workshops in the course of conducting field work. A series of more than 100 inter-

views helped to assess the potential of the Corridor, interest in the Corridor effort, existing success stories and possible pitfalls, and the depth and range of Corridor resources. Interpreting organizations, recreation and tourism interests, preservationists, conservationists, environmentalists, sporting enthusiasts, chambers of commerce and business and industry groups were asked about their plans, how they saw themselves as part of the Corridor initiative, what help they might need in bringing the Corridor's stories to life, how they might become strong Partners with the Commission.

As the patterns emerged and ideas flowed, the Commission invited many leaders in the Corridor to serve on three important advisory committees, to act as sounding boards and to help shape this Plan. These committees addressed land use and planning; interpretation and historic and cultural resources; and economic development and tourism. Periodically, the Commission has conducted participatory workshops with these committees, sharing and fine-tuning emerging elements of this Plan.

During the preparation of the draft Plan, the Commission conducted three rounds of interactive public workshops, always in multiple locations for maximum accessibility. All were well attended and covered in local press. In the third round, in May of 1992, the Commission held workshops in White Haven, Easton and Morrisville to discuss the Alternatives (see Appendix B). A special issue of the Commission's newsletter presenting the Alternatives was sent to more than 3,000 people. About 225 people actively participated in the workshops, working in small groups to digest the materials, indicate preferences and help set priorities. Feedback from these public workshops played a vital role in setting the Corridor boundaries and other core policies.

Following the preparation of the draft Plan, the Commission conducted a fourth and final round of public workshops to review the Plan's main recommendations and urge detailed comment on summary and complete drafts. About 150 people participated in these workshops, which again included small-group discussion, this time centered on issues affecting communities represented in the audience. The Commission received extensive and beneficial comments from these workshops and later, written suggestions that were stimulated by the workshops and their accompanying publicity.

Stages in the Planning Process

Goals

The information gathered on public priorities and perceptions in the early stages of the public's participation was crucial to the Commission in setting the direction for the project, and the key ingredient in agreeing on the Corridor Vision. The benchmark for the Corridor initiative, the Vision is a broadly stated set of goals that reflects the input of a very large cross-section of Corridor groups and residents and defines what the Corridor is to become.

Inventories

Eight inventories established the groundwork for all of the analysis and decision-making this Plan has involved. Beginning well before the Management Action Plan process commenced and continuing through the goal-setting stage, the Commission surveyed natural and recreational resources, historic resources, cultural landscapes, cultural and folklife resources, interpretive organizations and resources, historic preservation resources, land use, and economic development and tourism in the Corridor Study Area (Figure 3.1). These reports are listed in Appendix D of this Plan, and are referred to throughout this Plan as "Technical Appendices."

Alternative Futures

With the results from the inventories in hand, the Commission began a stage of analysis and synthesis, identifying the important issues and ways to address key resources that would form the heart of this Plan. These were organized into a set of alternatives that represented different ways to go about developing the Corridor. The Alternatives embodied differing priorities for various types of projects, although each responded to Corridor goals as represented by the Vision. (The three alternatives are described in Appendix B.)

Preferred Alternative

Following public workshops on the Alternatives, the Commission synthesized the public comments with the accumulated knowledge about the Corridor and its resources and formulated a hybrid preferred alternative that incorporated the best of each alternative development scenario. This Preferred Alternative became the basis for a draft Management Action Plan issued in September 1992 which contains the specific recommendations for actions and programs necessary to implement the Corridor Vision.

Throughout the planning process, the Commission met periodically with the Pennsylvania State Heritage Parks Interagency Task Force, and regularly tested ideas and concepts in dialogues with representatives of those state agencies having large land holdings or programmatic responsibilities in the Corridor, including the Bureau of State Parks, the Pennsylvania Game Commission, the Pennsylvania Fish and Boat Commission, and the Pennsylvania Historical and Museum Commission. These agencies made extensive comments on both a preliminary version of the draft Plan prepared following the selection of the preferred alternative and the draft Plan issued in September 1992.

Final Management Action Plan

This document is the final Management Action Plan incorporating public, agency and Commission comments on the draft Plan issued in September 1992.

The Corridor Boundaries

One of the Commission's responsibilities in the planning process leading to this Plan was to define Corridor boundaries, within which Commission programs and spending can take place. This was no simple task, owing to the geographic scope of the study area (Figure 3.1), the length and complexity of the historic transportation system (Figure 4.1), and the extraordinary number of resources within the study area, mapped during the eight inventories listed in Appendix D. Using the information and analysis gained during the inventories, the Commission developed three alternative boundaries for consideration with the Alternatives developed for this Plan, as described above, and sought public input.

The proposed Corridor Boundary has four elements, as shown in Figure 3.3. Three nested areas define a hierarchy of phasing and priorities to which the Commission and its Partners will devote the resources allocated for Corridor development. The fourth element indicates the Commission's intention to encourage development of physical linkages both within and beyond the Corridor's outermost boundary.

The innermost area is the Passage — encompassing the two canals, the Lehigh & Susquehanna railroad route, historic industrial areas and adjacent canal towns, communities and environments — where the core events of Corridor heritage took place. The Passage will be the focus of initial Corridor capital and programmatic investment and development, and is the area where a permanent National Park Service interpretive presence will be established.

Beyond the Passage are eight Reaches, landscapes with a critical mass of resources that contribute to the Corridor's national significance. Each Reach's special attributes — natural areas, anthracite fields, historic industries or agricultural valleys — extend and support the Corridor's key themes. In the early stages of plan implementation (the first five years), the Commission will direct programmatic investment to additional resource and thematic studies and other actions to support development of the interpretive system. In subsequent years, the Commission will work with Partners in the Reaches in order to maintain the integrity of the resources. The outer boundaries of the Reaches are shown on Figure 3.3; full boundaries of the Reaches are shown on Figure 7.0, with each Reach mapped in Chapter 7 as shown at the beginning of the section of text describing each Reach.

Because the Corridor project is expected to have an impact on all of the counties of the study area, the full extent of the five counties is included in the outermost area, the Counties. The study area did not originally encompass the entirety of all counties, but because many state programs are funded on a county-wide basis, such as education and historic resource surveys, the counties are included within the boundary to take advantage of programs that require a county-wide approach.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN

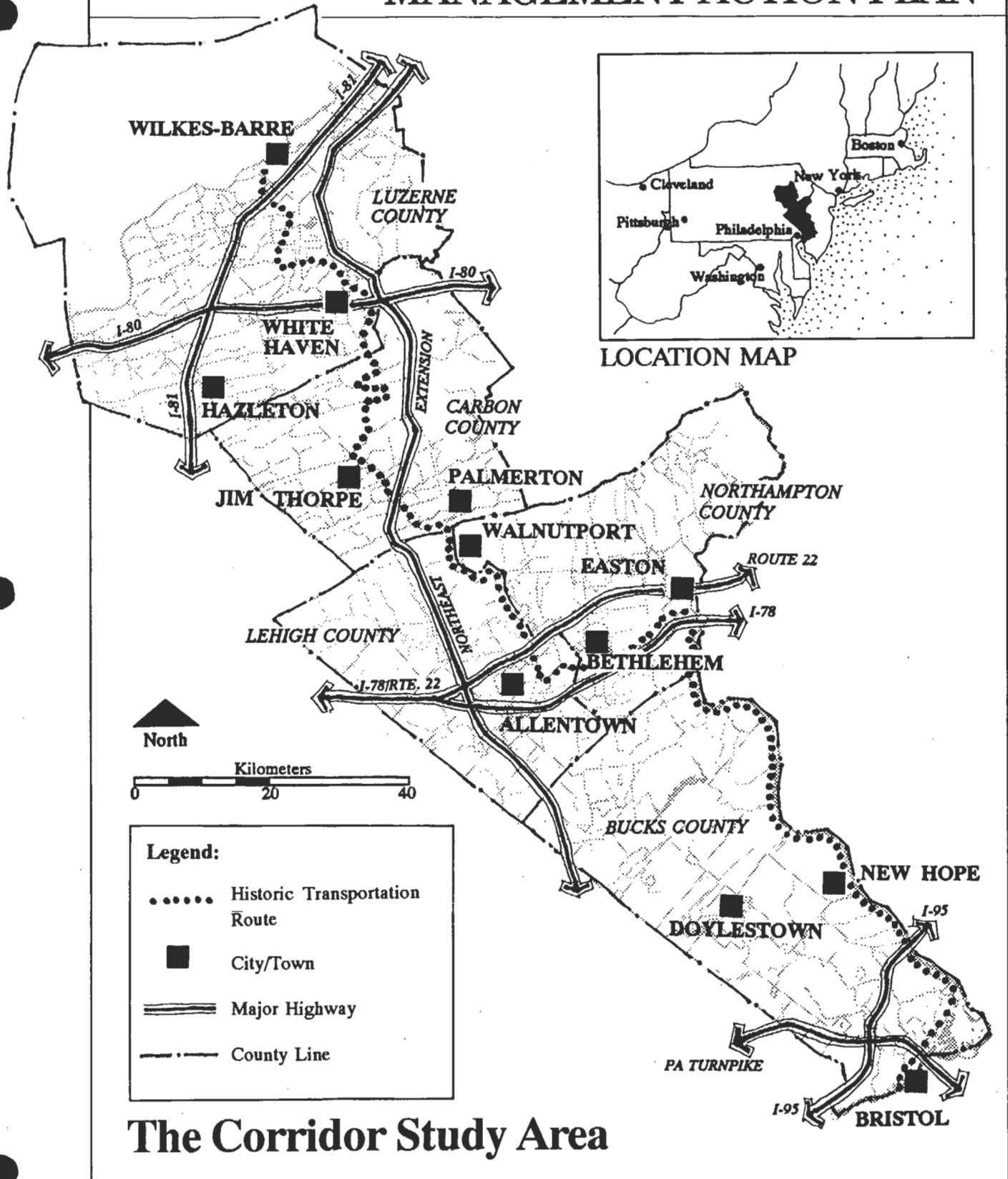


Figure 3.1

The fourth and final element of the Corridor boundary structure is **Linkages**. Linkages indicate places where the Commission sees opportunities to encourage major greenway and heritage development efforts beyond the Reaches, both inside and outside the Counties boundary, with Partners at the other end.

Overall, this four-part structure reflects both the geographic expressions of the key Corridor historic themes and the policies necessary for administering and investing in the Corridor and its programs. Passage and Reaches, Counties and Linkages each have specific functions in supporting Corridor programs. Using this boundary structure, the Commission will reinforce and enhance current patterns in the Corridor. Figure 3.2 provides a schematic illustration of the Commission's expected phasing of investment and programming within the Passage, Reaches and counties over time. The Passage will provide a strong physical, interpretive and visual center to the Corridor, supported and protected by Partner and Commission actions within the Reaches and Counties, and linked to regions beyond the Corridor Boundary by initiatives that reflect Corridor values.

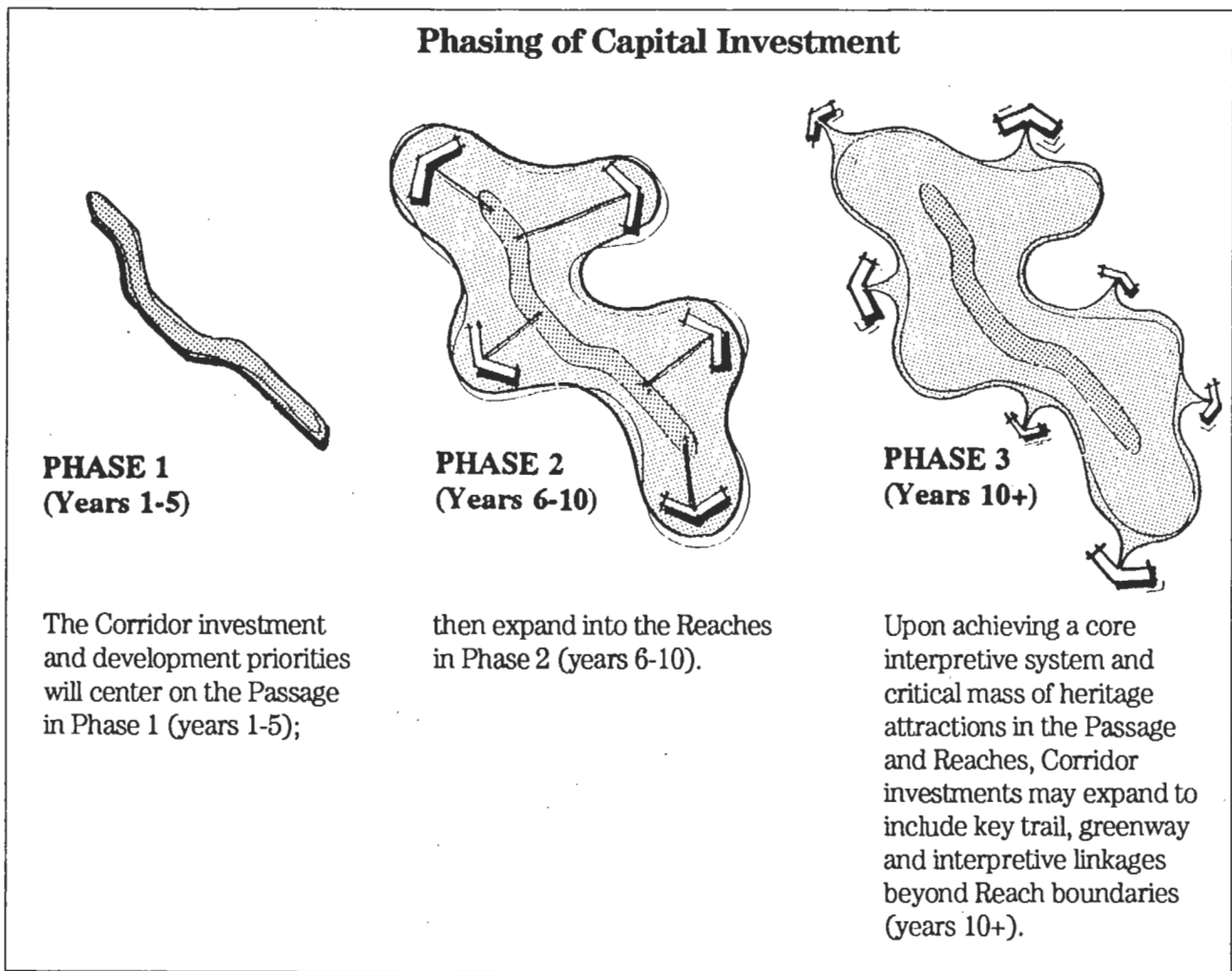


Figure 3.2

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN

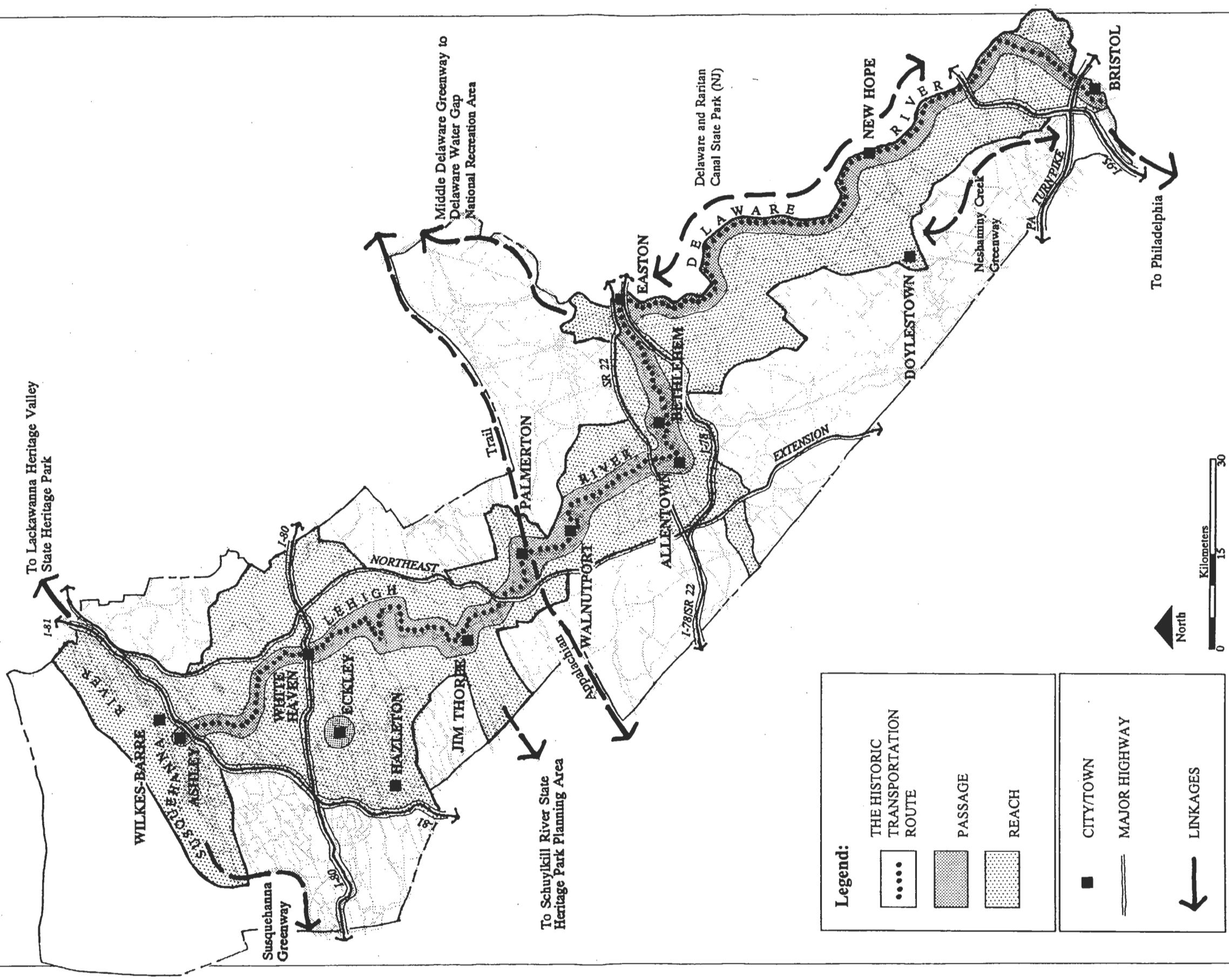
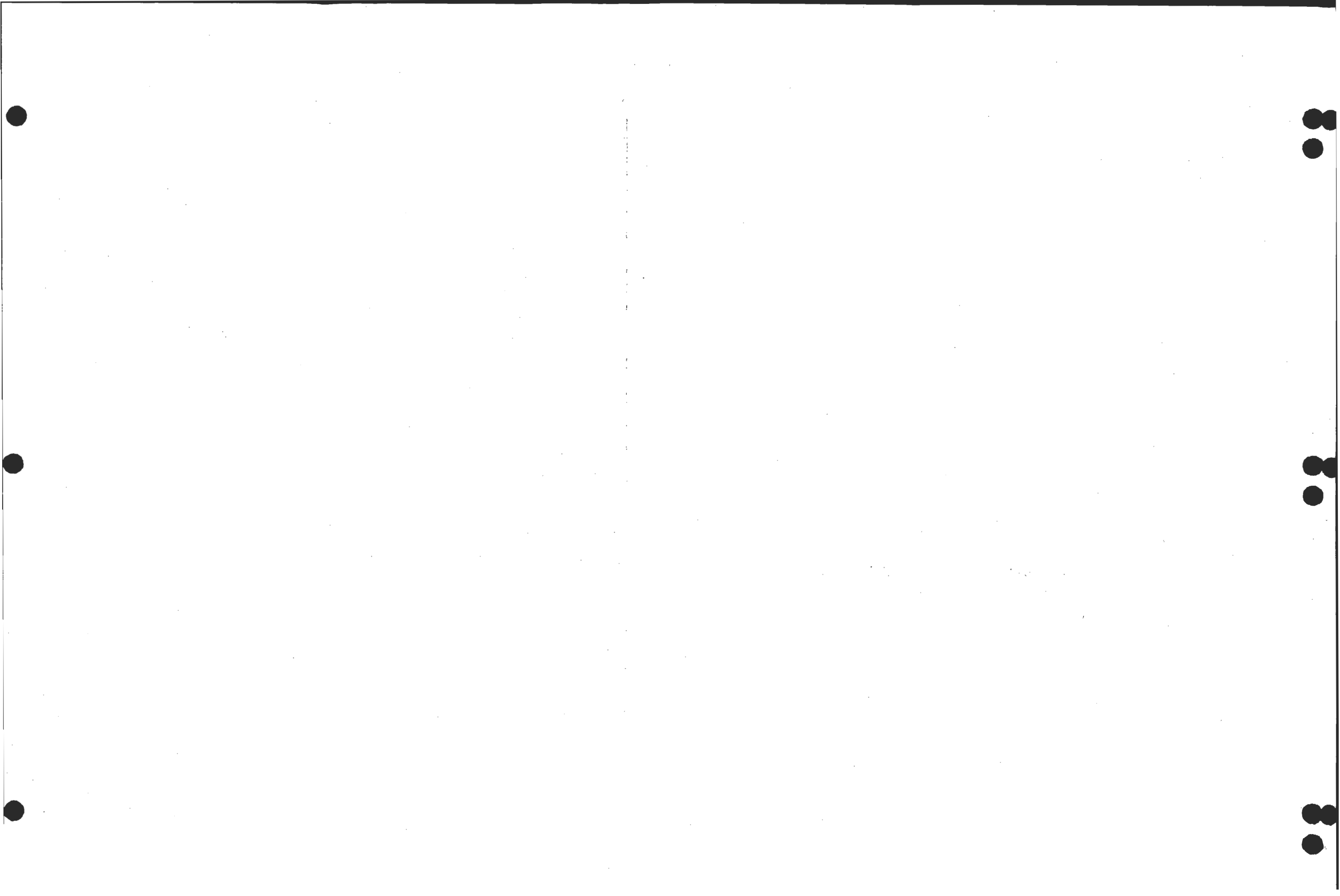


Figure 8.8



● Navigating the Corridor: ● Providing Physical ● Connections

Introduction

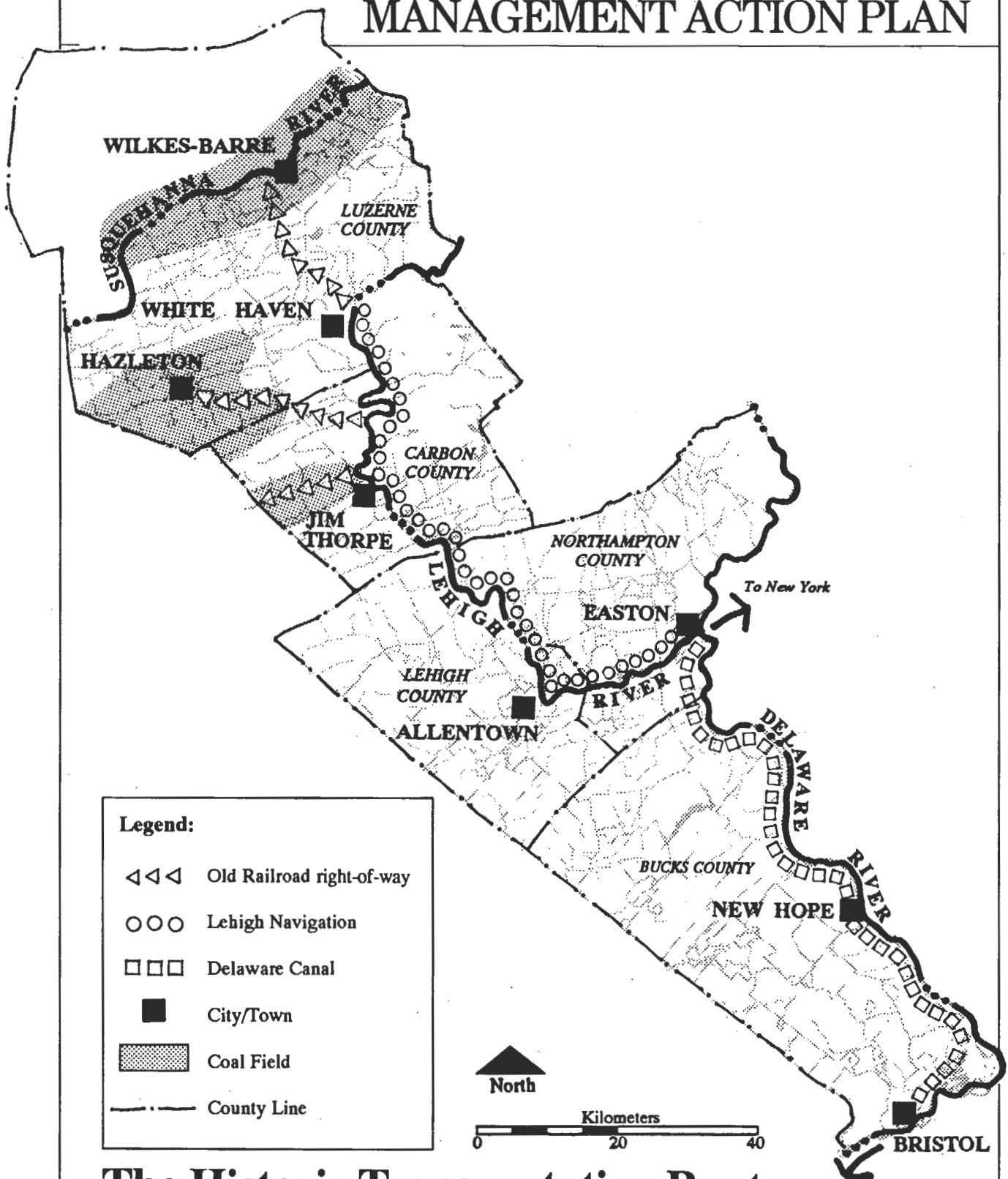
The outstanding meaning and integrity of the historic transportation route of rivers, canals and railroads is the Corridor's *raison d'être*. Moreover, this route provides the primary visual and physical linkage among the diverse landscapes and communities of the Corridor. Historically, this route was the economic lifeline of the region: the rivers first enabled settlement and trade, and the canals and railroads that followed the rivers spurred industrial innovation, resource use and urban development throughout the Corridor.

● Today, this route is to be the spine of the Corridor, primarily through enhancement of the natural and recreational qualities of the rivers, stabilization or rehabilitation of the historic canals, and creation of a continuous, 150-mile trail to be known as the Delaware & Lehigh Trail (D&L Trail). This trail, much of which already exists, will follow the towpaths of the Delaware and Lehigh canals, and the right-of-way of the Lehigh & Susquehanna Railroad. In addition to providing the physical spine and linkage for the Corridor, the rivers, canals and trail will provide both a strong public image and the vital intellectual linkage for the interpretive system described in Chapter 5.

This chapter summarizes the overall policies that will guide the Commission's role in establishing linkages along the Lehigh Navigation, the Delaware Canal, the rivers, and the trails, railways and roads. Discussion covers conditions and opportunities for actions that will enhance the rivers and canals; establish the D&L Trail as a premier recreational and interpretive asset; improve recreational and interpretive access; and highlight road circulation for visitors through definition of a Delaware & Lehigh Drive (D&L Drive).

● A voluntarily-joined Stewardship Compact is a key element for implementing many of the actions set forth here. In many cases, municipalities, counties or other local organizations are actively pursuing these

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN



The Historic Transportation Route

Figure 4.1

same goals. The Commission will cooperate with and support these groups in their continued management of key resources by helping to uphold priorities and build broad support, facilitating coordination and collaboration, and assisting and funding key portions of necessary projects that provide continuity and access. The Stewardship Compact and its responsibilities for the physical links described in this chapter are discussed in Chapter 8.

Protecting the scenic, natural and historic context of these physical links is addressed in depth in Chapter 6, "Conserving and Enriching the Corridor." The history of the historic transportation system is set forth in Chapter 2, "Discovering Our Heritage."

Policy on the Canals

The intent of Commission policy on the Delaware and Lehigh canals is improved public enjoyment, which by definition includes public access. The Commission will support stabilization, physical improvement and rehabilitation as needed to enhance their recreational and interpretive value and their status as attractions and public amenities. Major threats to their integrity will be addressed. Full rehabilitation as a working, functioning waterway is not envisioned.

However, some visions go beyond this ten-year Plan, and the Commission will support and promote a policy of "do no harm" so that options are kept open for eventual recreational navigation on the canals between Allentown and New Hope. Navigation is a long-term, opportunistic goal that can be supported by ensuring that bridge clearances, culverts, lock stabilization and other structural work necessary in the shorter term allows for this ultimate, exciting use of the historic waterway.

The current intent is to undertake strategic Commission initiatives to enhance visibility for the canal system, leverage a greater level of public interest and support, and therefore build a strong, supportive constituency for continued improvement.

Though complete public ownership of the canals is desirable in the long term, it is not a priority in the ten-year timeframe of this Plan and not necessary for the completion of the continuous trail. The long-term priority is interpretation and public use along the entire length, via public ownership or easements permitting public access.

The Delaware Canal is already under public ownership and stewardship as the Delaware Canal State Park, managed by the Bureau of State Parks within the Department of Environmental Resources (DER/BSP). The Commission's goal there is not to take on the Commonwealth's responsibility, but to provide incentives and enhancements to facilitate state investment and action for the enhancement of the park. The backdrop of this policy is the recently completed *State Parks 2000*

Enlisting PennDOT's Help

Under the 1991 federal highway act known as ISTEA (Intermodal Surface Transportation Efficiency Act), state highway departments have considerable leeway in spending and granting funds for "enhancement" projects, which can include activities as diverse as restoring old railroad stations and building trails through greenways. Pennsylvania is projected to have \$51 million available for enhancements over the next six years (see also the sidebar on page 133). Another important aspect of ISTEA is the state's ability to designate and fund improvements along scenic byways. Recognizing the Pennsylvania Department of Transportation's importance as both Partner — in working directly on road improvements and signage in the Corridor — and funding enhancements under ISTEA, the Commission has asked PennDOT to consider the following steps:

- Designate and plan improvements for routes for cars and buses to traverse the Corridor from Wilkes-Barre to Bristol (including implementing the D&L Drive), including erecting both directional and interpretive signs and protecting the viewsheds of designated scenic byways from adverse impacts of outdoor advertising;
- Develop a system of standards and operating procedures that will protect and preserve the attractive character of the natural and historic features of this Corridor;
- Improve pull-off areas at sites and interpretive signs to allow visitors to read or to enjoy scenic views;
- Improve road conditions, storm water management, right-of-way maintenance, road/crossing encroachments and signs along the Delaware River and Canal and the Lehigh River and Canal;
- Assist the Delaware Canal State Park with the maintenance of approximately 80 bridges that cross the canal from state roads; and
- Help acquire and convert abandoned railroad rights-of-way.

The Delaware Canal, in Bridgeton Township. For the Delaware and Lehigh canals, the Plan advocates support for stabilization, rehabilitation and enhancements that maintain the canals' integrity and promote their recreational and interpretive use. Due to the stewardship of the Delaware Canal State Park, numerous municipal owners, and private owners, the Delaware and Lehigh are the most fully intact and watered historic towpath canals in the nation.



Thomas Yehner

plan, which identified the need for \$30 million toward maintaining the basic integrity of the Delaware Canal.

For the Lower Division of the Lehigh Canal, the Commission's basic goal is rehabilitation at key interpretive and/or recreational spots, stabilization to maintain the basic integrity of the canal, and completion of the D&L Trail along its towpath. Unmet needs for both canals are extensive, but begin at a more basic level in many places along the Lehigh. For this reason, the Commission's approach to sections of each canal can be expected to vary widely at times. Ultimately, however, the goals for each are the same: extensive public access and enjoyment, stabilized and enhanced physical structures, and excellent interpretation and signage.

IDEAS FROM THE CORRIDOR:

Reopen the Change Bridge

The 1857 Change Bridge, a National Register property, is the world's oldest machine-made wire rope suspension bridge, and is an important symbol of the engineering innovations that characterized the Lehigh Navigation System. The bridge, which carried the towpath from the north to the south side of the Lehigh River ("changing" sides), was deactivated in 1960 by removing the decking, but the piling and the main support cables still remain. The bridge and surrounding lands are within the Hugh Moore Park.

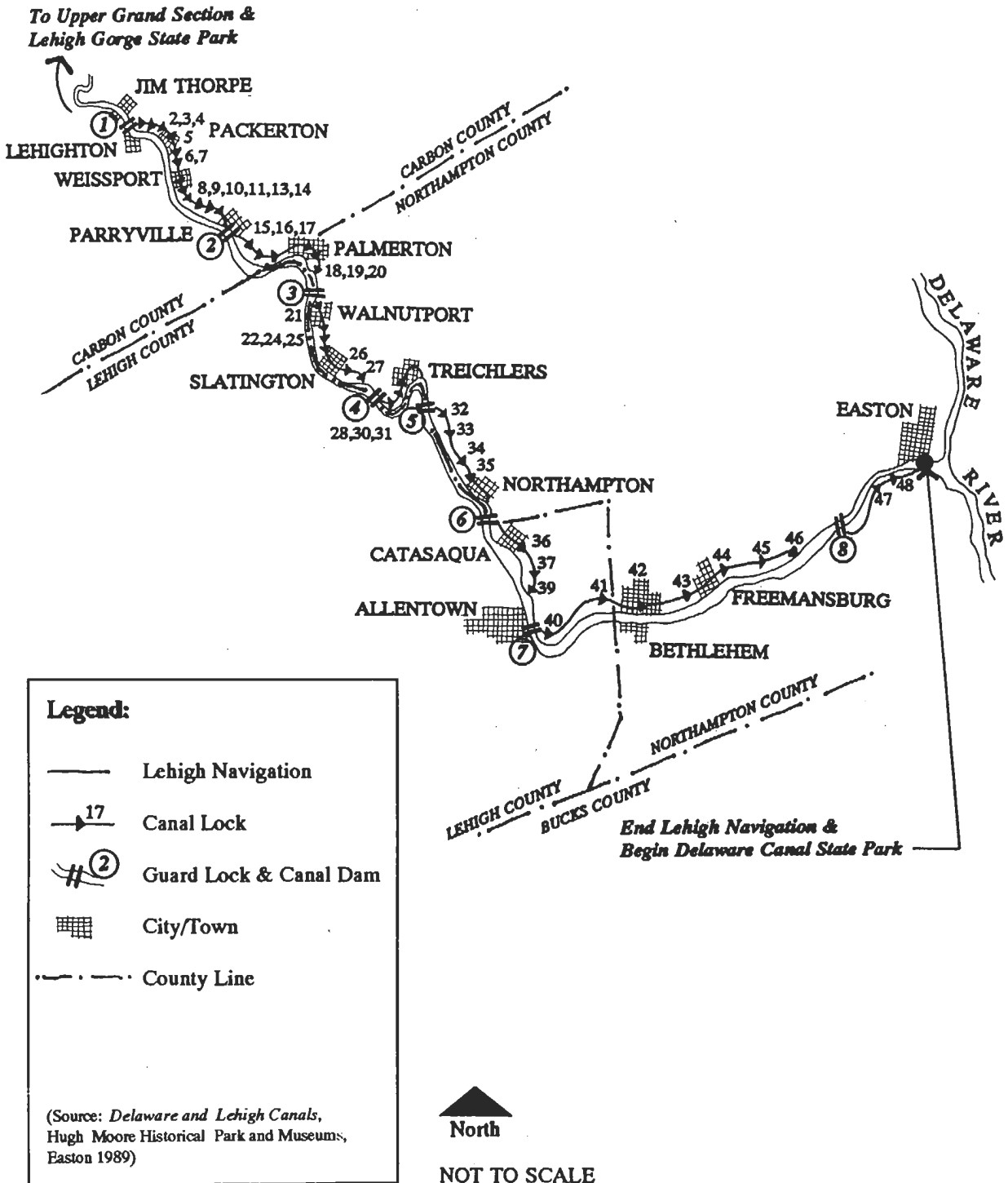
A first step in a proposed restoration of the bridge is to study the bridge's structural integrity and to identify costs and methods for restoration of one of the Corridor's most significant canal structures. Restoration will preserve a unique bridge and provide pedestrian access to Island Park, an important nature sanctuary. The bridge will be an important part of the interpretation of the early engineering that characterized the canals and which made subsequent industrial expansion possible.

In general, owners of the various canal segments will continue to maintain their segments, though the Commission will endeavor to help owners address the most urgent needs — those tasks that, if left undone, would undermine the integrity of the canals. Physical improvement projects might include stabilizing lock and dam structures, replacing culverts with bridges and creating added parking and access. Funding will be a combination of federal, state, local and private monies.

The Lehigh Canal

The scenery and surroundings of the Lehigh Navigation change dramatically along its course. The Upper Grand section — within the Lehigh Gorge State Park — follows the spectacular Lehigh Gorge south from White Haven, and the route contains impressive lock and dam ruins constructed of mortarless masonry. The outstanding scenery and river recreation draw thousands to the gorge, which is a state park. The segment of the Lehigh River from F.E. Walter Dam to Jim Thorpe is a Pennsylvania Scenic River, along with 13 of its tributaries.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN



The Lehigh Navigation (Lower Division)

Figure 4.2

Inventory of Upper Grand Ruins

The flood of 1862 destroyed most of the locks and dams on the Upper Grand section of the Lehigh Navigation System, and subsequent railroad construction obscured some of the ruins. A surprising number of ruins have integrity, however.

Following is an inventory of the lock ruins:

- 1 — stabilization possible (Coalport Lock)
- 2 — stabilization possible
- 3 — destroyed by floods
- 4 — partially eroded; stabilization possible
- 5 — partial remains
- 6 — land side wall intact, river wall partial, stabilization possible
- 7 — land wall is retaining wall for CRR of New Jersey
- 8 — partial remains
- 9 — destroyed by floods
- 10 — land wall is retaining wall for CRR of New Jersey
- 11 — under railroad embankment (Penn Haven)
- 12 — destroyed by floods
- 13 — destroyed by floods
- 14 — destroyed by floods
- 15 — destroyed by floods
- 16 — destroyed by floods
- 17 — destroyed by floods
- 18 — partial remains
- 19 — destroyed by floods (Rockport)
- 20 — destroyed by floods
- 21 — stabilization of remains possible
- 22 — stabilization possible
- 23 — stabilization of remaining land wall possible
- 24 — in good condition, stabilization possible
- 25 — in good condition, stabilization possible
- 26 — destroyed by floods (Lehigh Tannery)
- 27 — partial remains
- 28 — restore in conjunction with visitor center
- 29 — stabilization possible

(Sources: Hugh Moore Historical Park and Museums and the Commission)

The condition of the Lehigh Canal varies greatly along its length, but it acts as a recreation resource linking the communities of the Lehigh Valley.

The canal reaches its first urban center at Jim Thorpe, where the Lower Division begins on the eastern bank of the Lehigh. The route of the canal meanders with the river through Appalachian ridges and past historic canal and industrial towns and rolling agricultural lands. Only as it nears its distinctive eastward bend does it finally enter an urban setting: the lower Lehigh Valley. Through Allentown, Bethlehem and Easton, the canal is often difficult to locate visually, although canal and towpath trail are intact through the entire urban axis. The canal provides a surprisingly natural thread tying together the three cities and intervening areas — such as the small canal town of Freemansburg. The canal boat ride in Hugh Moore Park from Glendon to Easton takes place on the final, restored stretch of the Lehigh Coal & Navigation company route, as it nears the crossroads of Easton, where Native American trails, canals, rivers, railroads and highways have long converged.

Portions of the Lehigh Navigation are listed on the National Register of Historic Places and four segments of its towpath trail are designated as the Lehigh Canal Heritage National Recreation Trail.

The Lehigh Canal Today

The Lehigh Navigation was built to carry anthracite, and as the demand for coal lessened, so did use of the canal. Navigation ceased in 1942, but the canal was not sold off by the LC&N until the 1960s, which is a key reason for its remarkably intact condition today. The canal, towpath and right-of-way were sold off in sections between each dam, explaining today's pattern of multiple ownership. In some places, the canal was purchased by municipalities, in others by sportsmen's clubs or other private organizations. Many of the municipalities that purchased the canal and towpath have maintained the towpath as public trail.



Courtesy the Commission's collection

Though intact and in continuous public ownership for 90 percent of its length, several segments of the canal are inaccessible, overbuilt and interrupted by subsequent development, such as road-building at Palmerton and Bowmanstown and the wastewater treatment plant south of Jim Thorpe. Other segments are in private ownership. The pattern of maintenance is likewise inconsistent. In some places the canal is watered, well-tended and used for recreation; at other stretches it is not maintained, or is used as a dump.

Due to the stewardship of its many owners, however, the Lehigh Canal is in remarkably good shape; and it is an outstanding recreational and historic resource linking a score of communities.

Opportunities for the Lehigh Navigation

This section describes the current condition of the Lehigh Navigation and sets forth the steps needed to carry out the Commission's policy on stabilization, rehabilitation and enhancement for the canals. A reference map for the Lower Division of the Lehigh Navigation is provided in Figure 4.2.

1. The Lower Division of the Lehigh Navigation is owned and maintained by a number of different entities, and the Commission will take the lead in bringing the various Partners together to agree on a strategy and priorities for improvements to the canal both within the ten-year timeframe of this Plan and beyond.

For the next ten years, the Commission's goals for the Lower Division are (1) maintaining the basic integrity of the canal (including stabilizing historic canal structures such as locks and walls, and the canal prism itself) to prevent further deterioration; (2) retaining water in those sections of the canal that are currently watered or capable of being watered (including dredging and removing debris and obstacles); and (3) improving the canal and towpath as a recreational amenity and interpretive resource, including providing access to both the canal and the river. (See the section on the Delaware & Lehigh Trail, below, for more detail on towpath improvements.) The Commission's role in funding will include providing seed money for basic work and making investments that improve the quality and recreational and interpretive values of particular projects.

A longer-term vision that goes beyond the timeframe of this Plan is to make possible navigation of the canal between Allentown and Easton (and on the Delaware Canal to New Hope) by motorized "narrow-boats" similar to those used recreationally on Canadian and European canals. While it is likely that limited progress may be made on this longer-term vision within the next decade, the Commission will work with Partners to ensure that no structural changes are made to the canal or to modern infrastructure such as roads or pipelines that would preclude realizing this goal.

Action Working through the Stewardship Compact, collaborate with municipalities and other Partners to finalize the ten-year stabilization, rehabilitation and enhancement strategy for the Lower Division of the Lehigh Canal.

Inventory of Repairs for the Lower Division of the Lehigh Navigation

The following tasks were identified by the Historic American Buildings Survey/Historic American Engineering Record's *Lehigh Canal Study* (1979) and by an update conducted in 1992 for this Plan. The list covers all the work projects that would be needed simply to stabilize historic canal structures and prevent further deterioration; to keep water in those sections of the canal that are currently watered; and, as part of a vision that is beyond the ten-year timeframe of this Plan, to enable navigation of Section 7, from Allentown to Hopeville, and on to the currently navigable Section 8, within Hugh Moore Park.

Section 1

Canal prism and overflow restoration
Guard Lock 1 (Jim Thorpe)
Lock 2 & weigh lock—stabilization
Lock 3 stabilization
Lock 4 stabilization
Lock 5 stabilization
Lock 6 stabilization
Lock 7 stabilization
Lock 8 stabilization
Lock 9 (Weissport) stabilization
Lock 10 stabilization
Lock 11 stabilization
Lock 12 stabilization
Lock 13 (Parryville) stabilization

Section 2

Guard Lock 2 filled in (Bowmanstown)
Lock 15 partially filled in by Rt. 248 embankment
Lock 16 under highway
Lock 17 destroyed by floods
Lock 18 (Palmerton)
Aquashicola Aqueduct pier stabilization and possible footbridge
Lock 19
Lock 20

Sidebar continued at top of next page

Section 3

Canal prism restoration
Guard Lock 3 & intake (Lehigh Gap)
Lock 22 stabilization
Lock 23 restoration (Walnutport)
Lock 24 stabilization
Lock 25 stabilization
Bertsch Creek Aqueduct partial restoration
Lock 26 stabilization
Lock 27 stabilization (Lockport)

Section 4

Canal prism stabilization
Guard Lock 4 stabilization
Lock 28 stabilization (Treichlers)
Lock 30 stabilization

Section 5

Canal prism stabilization
Guard Lock 5 stabilization
Lock 32 stabilization
Lock 33 stabilization (Tri-Boro)
Lock 34 lock filled in, partially destroyed (Northampton)
Lock 35 stabilization

Section 6

Canal prism stabilization
Guard Lock 6 stabilization (North Catasauqua)
Lock 36 stabilization (Catasauqua)
Lock 37 stabilization
Lock 39 stabilization, only side wall remaining

Section 7

Dredging
Repairs of overflows and canal banks
Guard Lock 7 & feeder restoration (Allentown)
Lock 40 restoration
Lock 41 restoration
Monocacy Creek aqueduct restoration
Lock 42 restoration (Bethlehem)
Lock 43 restoration
Lock 44 restoration (Freemansburg)
Stop gate construction
Lock 45 reconstruction
Lock 46 reconstruction (Hopeville)

Section 8

Repairs to canal prism, feeders and waste gates

(Sources: Hugh Moore Historical Park and Museums and the Commission)

Action Implement the ten-year stabilization, rehabilitation and enhancement strategy for the Lower Division of the Lehigh Canal.

Action Work with PennDOT on a bridge replacement and road improvement strategy to protect and improve the Lehigh Canal.

2. Storm water drainage problems and uncontrolled runoff are a threat to the integrity of the Lower Division's canal segments. Preventing washouts and siltation problems falls under the Commission's legislative mission to protect the canals. While currently known problems can be addressed through the investment/spending strategy described above, separate county-led strategies under Pennsylvania's Storm Water Management Act (commonly called Act 167) and other authorities must also address continuing development and other land-use changes that affect storm water runoff.

Action Urge counties and municipalities to specifically address drainage and washout concerns affecting the Lehigh Canal in their storm water management planning, road construction or other county and municipal activities that might be brought to bear on concerns as identified by the Commission or municipalities.

3. The Upper Grand section of the Lehigh Navigation was an outstanding engineering achievement in its day. The dramatic drop in elevation between White Haven and Jim Thorpe, and the steepness of the walls of the gorge meant that enormous dams, as well as lift locks higher than ever before attempted, had to be constructed to make navigation possible. The dams and many of the locks were destroyed in a severe flood in 1862, and navigation was abandoned.

Now, more than a century later, the Upper Grand is part of the Lehigh Gorge State Park, and the ruins of the massive stone structures bemuse the hundreds of thousands of whitewater boaters, hikers and bicyclists who enjoy this popular park. The master plan for the state park is not yet completed, but unofficial state policy for the ruins is future documentation, stabilization, strategic maintenance and enhancement. The Commission's intent for the Upper Grand is to assist the Bureau of State Parks to stabilize, conserve and interpret the ruins, and to assist in the restoration of Lock 28 at White Haven, in conjunction with the establishment of the state park visitor center/Corridor landing. (See Chapter 5 for a discussion of the visitor center and lock.)

Action Work with the Bureau of State Parks and the Historic American Engineering Record to document the ruins and identify what stabilization measures would best protect them.

Action Implement needed stabilization measures based on Lehigh Gorge State Park goals and policies for public access to the ruins, including issues of public safety, interpretation and the best interests of the historic resources themselves.

The Delaware Canal

In its industrial towns and cities, the setting of the Lehigh Navigation makes clear the canal's role as a lifeline of industry and commerce. Along much of the Delaware Canal, however, the interplay between the canal and its physical setting is far more subtle. Instead of spawning industries along its route, the Delaware Canal acted as a pipeline, bringing through cargo and facilitating trade, but largely leaving intact its milieu of agricultural fields, natural landscape and small towns. One very noticeable effect the canal had on the surrounding landscape was the string of towns that served the trade along the canal; warehouses, inns, stores, mule barns and other remnants are still in place. Today, the canal continues to trace the line between the wide Delaware River on its east and a narrow band of agricultural fields, backed by cliffs in many places on the west. Where the setting has been reshaped along some stretches of the Delaware Canal, changes have been caused generally by tourism or late 20th-century residential development.

This scene changes quickly at Morrisville, where the canal crosses the Fall Line, leaves the river and heads on a straight line toward Bristol and its outlet at the tidal Delaware River. Here the canal fostered urban development, especially in Bristol. In places, the canal has been obscured by highway strip development (as near Levittown) and is bordered by suburban development. Despite this, the canal remains a remarkable green thread over much of its 60 miles. Throughout its length, the Delaware Canal passes numerous historical and natural landmarks and resources, many of which are well cared for, forming the basis for strong local interest and for Bucks County's healthy tourism industry.

The Delaware Canal Today

The Delaware Canal is designated as both a National Historic Landmark and a National Recreation Trail for its full length. The canal has been maintained as a state park for more than 50 years, and features an intact towpath trail from Easton to Morrisville. In the stretch from Morrisville to Bristol, the canal has been filled or destroyed in some places, and numerous bridges have been replaced by culverts, but the route is still clear and possible to trace on foot.

In places the canal has deteriorated physically. A number of basic structures are in need of repair, including aqueducts, bridges, locks and, in some places, the canal walls themselves. Debris and invasive vegetation threaten the canal in places. Due to the vigilance of the Bureau of State Parks and local volunteers, however, the Delaware Canal is the most fully intact towpath canal in the nation — an outstanding historic and recreational resource. The canal is capable of being watered in 59 of its 60 miles.

Opportunities for the Delaware Canal

This section describes the current condition of the Delaware Canal and sets forth the steps needed to carry out the Commission's policy on canals, access, physical stabilization and, in the southernmost section



This Plan calls for an expanded number of access points for the Delaware Canal State Park.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN

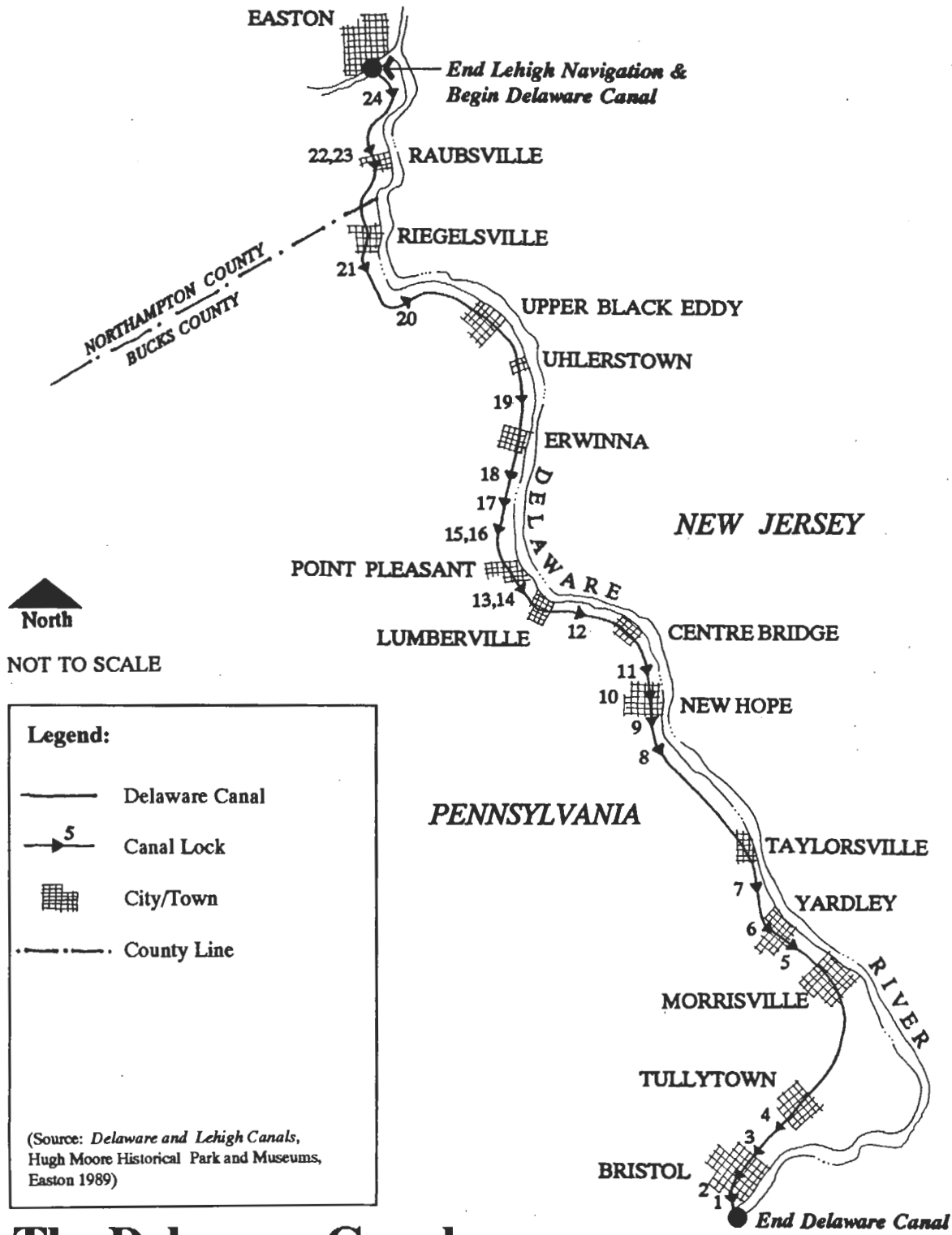


Figure 4.3

from Morrisville to Bristol, enhancing the right-of-way. A reference map for the Delaware Canal is provided in Figure 4.3.

1. Because the Delaware Canal is already under public ownership, the primary Corridor challenges for the Canal are to encourage rehabilitation and to improve access and public enjoyment. Funding to stabilize and maintain the canal is a continuing issue. The state has identified the need for \$30 million for the Delaware Canal in the *State Parks 2000* plan, and the Commission can play a role in advocating the actual investment of that money sooner rather than later, through seeding and leveraging state investments. The \$30 million figure is based on 1987 estimates for the costs of specific physical improvements or repairs to canal structures and does not include, for example, additional public access. Needed basic physical improvements are detailed in the *Delaware Canal Master Plan*, produced for the DER/BSP and the Friends of the Delaware Canal, and include the following types of projects: lock repairs (16), aqueduct repairs (repair three, replace two), stop gate and waste gate repairs (repair, replace or reconstruct ten), overflow improvements (repairs at three locations), replacing culverts with bridges (replace four culverts, repair or replace three bridges), canal dredging (about 50 miles), and wall re-lining (in at least ten places).

While DER/BSP will bear primary responsibility for physical improvements and maintenance, the Commission will provide seed money for repairs that maintain the basic integrity of the canal and keep it watered. The Commission also will augment existing repair plans by funding interpretive and public access amenities (including access to the river as well as the canal) and making strategic investments that improve the quality of particular projects or enhance interpretive value. In particular, access will be improved by establishing better directional signage (coordinated with the Corridor-wide signage system) and establishing more parking and roadside pull-offs. Access at specific sites will be coordinated with DER/BSP and PennDOT, along with local municipalities.

Action Convene and collaborate with DER/BSP, municipalities and other Partners to finalize a ten-year public investment strategy for the Delaware Canal.

Action Implement the ten-year public investment strategy for the Delaware Canal, seeking various alternative and supplemental sources of funding.

Action Work with PennDOT on a bridge replacement and road improvement policy to protect and improve the Delaware Canal.

2. River Road (Routes 32 and 611) is an important and heavily travelled linkage along the canal, and one of only three designated scenic roads in Pennsylvania. This designation, however, has not served to reduce the volume and types of commercial traffic it experiences, and this traffic poses a significant danger to tourists, sightseers and hikers along the canal.

Urgent Repairs Needed for the Delaware Canal

The following physical improvements have been identified by the Delaware Canal State Park as most urgent to stabilize the canal itself — which is a National Historic Landmark. These repairs address recurrent problems and/or avoid even greater problems that might occur over time:

- Replace Tohickon Creek Aqueduct
- Repair Yardley (Brock Creek) Aqueduct
- Repair lock and walls at Lock 22-23 near Raubsville
- Restore Lock 6, north of Yardley
- Rebuild Lock 17, near Treasure Island
- Repair Riegelsville Overflow
- Remove/replace U.S. 1 culvert at Morrisville
- Rebuild Odette's Bridge, Kleinhaus Aqueduct Bridge and Cake and Beer House Bridge to carry heavy equipment needed for maintenance
- Dredge New Hope inlet from Bowman's Hill south to Canal's End
- Remove invasive vegetation from berm along Route 32
- Replace pit latrines at Lock 22-23 and Cake and Beer House Bridge with flush or composting toilets
- Replace seven culverts between Morrisville and Bristol with larger culverts or camel back bridges
- Rehabilitate the New Hope wing dam to ensure regular flow of water in southern half of the canal
- Reline 2.5 miles of canal with clay at Lumberville

ACCOMPLISHMENTS

The U.S. Forest Service has granted \$10,000 for the design of an all-wood replacement for the Delaware Canal's failing concrete aqueduct over the Tohickon Creek. This may be America's first timber frame aqueduct in a century. In addition, Plumstead and Solebury townships have joined with the Point Pleasant Community Association to request assistance from the USFS in a model study of native timber use in local canal and river recreation reconstruction projects.

ACCOMPLISHMENTS

For their many efforts in helping to preserve, maintain and interpret the canal, the Friends of the Delaware Canal have won the "Take Pride in Pennsylvania" award for three years running, and took the national "Take Pride in America" first place award in 1989-90.

The Friends of the Delaware Canal have raised more than \$100,000 toward the purchase of a dredge to operate throughout the state park. The canal has not been dredged since the late 1920s, and control of siltation will eliminate many related problems.

Action Work with PennDOT and the state's designated common carrier regulator to limit or eliminate truck traffic on Route 32.

3. Although Delaware Canal State Park officially covers the entire canal from Easton to Bristol, numerous disruptions in the canal's path in the stretch from Morrisville to Bristol create a challenge to physically link and interpret this area. The southern portion of the canal has been leased to the Borough of Bristol since the 1950s. Before this lease expires in 1994, there is a need for joint planning among Partners to ensure protection, maintenance, security and interpretation of this area, as well as an opportunity to integrate it with surrounding natural, historic and cultural resources.

Action Initiate a multi-Partner study of the Passage from Morrisville to Bristol, to determine costs and specifics for reviving this canal segment and integrating it with other resources.

4. Storm water drainage problems and uncontrolled runoff are a threat to the integrity of the canal. Preventing these washouts and siltation problems falls under the Commission's legislative mission to protect the canals. While currently known problems can be addressed through the investment/spending strategy described above, they should also be addressed in separate county-led strategies under Pennsylvania's Storm Water Management Act (commonly called Act 167) and other local laws that address continuing development and other land-use changes that affect storm water runoff.

Action Urge counties and municipalities to specifically address drainage and washout concerns affecting the Delaware Canal in their stormwater management planning, road construction or other county and municipal activities that might be brought to bear on concerns as identified by the Commission or municipalities.

Policy on Rivers

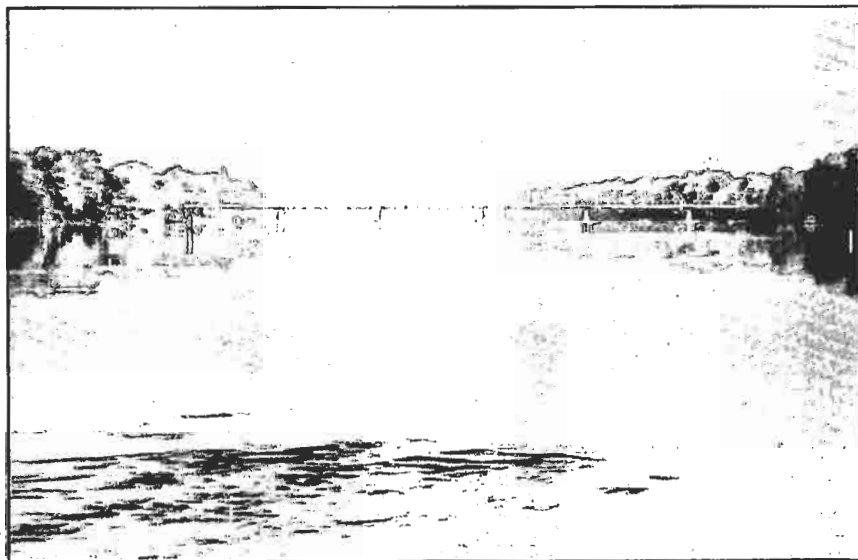
The Commission's interest in the Delaware and Lehigh rivers is to enhance their use as a recreational resource, through improved public access, and to support improvement of water quality of the rivers and their tributaries. Greater public access to the water will help meet some of the increasing demand on rivers and streams for recreational boating and fishing, as will the continuing efforts of the Fish and Boat Commission to increase the quality of fisheries and river access. The Commission will support existing and proposed state scenic and recreational river designations, and will advocate the Corridor's interest in water quality in such issues as acid mine drainage and storm water management planning.

The Rivers Today

The Delaware and Lehigh rivers are magnificent and well-loved features of the Corridor. Draining the leading edge of the Appalachian plateau, the Lehigh has cut a remarkable pattern across the ridges of the northern region of the Corridor. It was this pattern that made the Lehigh so strategic a route for transportation in the Corridor's early history. Today, its dramatic passage through the Lehigh Gorge is visible to pedestrians and bicyclists following the trail beside the river, along with the thousands of canoeists, fishermen and whitewater enthusiasts enjoying its waters. Along with 13 of its tributaries, the Lehigh is a designated State Scenic River from F.E. Walter Dam to Jim Thorpe. South of Jim Thorpe, roads allow the automobile traveller an opportunity to view the river as it runs through increasingly pastoral lands, until it reaches Allentown and makes a sharp easterly turn at South Mountain.

With the development of the anthracite transportation system in the early 19th century, the riverside in the lower Lehigh Valley became heavily industrialized. Today, the decline of industry, improved water quality through better sewage treatment and other public investments, and the renewal of interest in the recreational, scenic and natural values of rivers have led the cities and towns here to undertake civic riverside projects that feature parks and water access.

The Lehigh's water quality is degraded by acid mine drainage from a number of its tributaries. These tributaries are virtually lifeless, and fishing on the main stem is affected substantially. Other Lehigh tributaries, however, offer some of the finest fishing in the state — and one, Stony Creek, is designated as "exceptional value" by the Department of Environmental Resources. The hope is that with fish passageways installed at Allentown and Easton, and additional work to address the worst of the acid mine drainage, the Lehigh will again offer viable shad and other fishing. In addition, several tributaries are part of or are being evaluated as greenways.



Joseph E. B. Elliott

ACCOMPLISHMENTS

The Army Corps of Engineers has begun a study of natural features of the Lehigh River and methods to conserve it.

The Delaware River, now under consideration as a National Wild and Scenic River, flows past New Hope. For the Corridor's two outstanding rivers and their tributaries, the Plan advocates improvement of water quality, protection of natural and habitat values, and better public access.

The Delaware is equally favored with a mixed picture of spectacular scenery, numerous significant sites, popular use, clean tributaries and pollution, although its pollution comes in the form of agricultural runoff and wastewater treatment. Individual treatment plants generally meet their required discharge limits, but their cumulative impact is considerable. Despite this, shad fishing on the Delaware has made a strong comeback in recent years, since the “oxygen sag” at Philadelphia, below the Corridor, has been reduced to the point that migratory fish can pass by. The tidal aspects of the Delaware make it an unusually important habitat for a wider variety of species. Many tributaries to the Delaware offer good fishing — one, the Tohickon, is also a popular whitewater boating stream — and several are coming under study for greater access and protection through greenways.

Although canals and trails will necessarily receive greater attention from the Commission in an effort to increase the physical linkages in the Corridor, the rivers offer a vital and attractive asset at its very heart. They are primary elements in the image of the Corridor, they contribute to the flow of the canals, they provide habitat for wildlife, they offer a wide variety of recreation, and by virtue of their scenic value, they offer economic opportunities for compatible development. The Commission’s actions will support enhancement of the rivers as outstanding recreational assets and a continuation of the record of improvement in water quality.

Opportunities for the Delaware and Lehigh Rivers

The Delaware and Lehigh rivers have a role in enhancing the linkages and recreational and economic opportunities offered by the canals and the D&L Trail. Following are the steps needed to carry out the Commission’s policy on rivers, concerning access, scenic river designation and water quality.

- 1.** Just as the Commission plans to increase access to the trails and canals, it also plans to enhance public access to streams and rivers in the Corridor. Improvements to river edges in urban areas, including access for both passive and boating recreation, will be encouraged through urban conservation plans and support for waterside economic development projects (see Chapter 6).

Action Support access improvement projects in cooperation with the Fish and Boat Commission and municipalities.

- 2.** The state’s Scenic Rivers Program is highly successful, and its expansion highly desirable. Much of the Lehigh River and 13 of its tributaries are already designated, and the Corridor holds potentially many more eligible streams. In addition, federal legislation has been signed by President Bush calling for the study of 55 miles of the Delaware River (from Belvidere to Washington’s Crossing) as a potential Wild and Scenic River.

Action Work with the Department of Environmental Resources and the state scenic rivers task force to urge early action on studies for additional designations in the Corridor.

Action Coordinate with National Park Service in its Wild and Scenic River Study of the Delaware River.

3. Water quality has a great impact on the recreational and economic value of rivers. Healthy rivers offer greater opportunities for fishing, boating, swimming and other water-contact sports that are both recreationally and economically important to the Corridor. Moreover, clean rivers are more attractive for waterside development, whether such development capitalizes on water use or simply enjoys a river view. Because the rivers feed the canals, water quality is doubly important to the Commission. While the Commission possesses a legislative mandate to monitor water quality as it affects the canals, the Department of Environmental Resources is responsible for enforcing standards for water quality under state and federal law. In addition, DER is responsible for the state's storm water program, as noted in both canal discussions above. The Commission will therefore work with the DER in accomplishing its mandate.

Action Request the help of DER and the Pennsylvania Fish and Boat Commission in assessing the status of water quality in the Delaware and Lehigh watersheds, including status of acid mine drainage, storm water drainage and water quality investments as these issues affect the canals, sedimentation behind river dams and the rivers in general.

Action Urge DER to assign high priority to allocating the state share of storm water funding for basin planning within the Corridor.

Policy on the Delaware & Lehigh Trail

Building on the accomplishments of many local jurisdictions, advocacy groups and state agencies that have already established and protected parts of a continuous trail through the Corridor, the intent of this Plan is to complete a Corridor-long Delaware & Lehigh Trail ("D&L Trail") and other linkages following the historic transportation system. To help visitors and residents understand the idea of the transportation system as the economic force that shaped and connected this region, the continuous trail and the canals will be presented and interpreted as an imageable spine. The trail will be a feature in the landscape that attracts residents and visitors for recreation and enjoyment and helps reattach the meaning of the transportation system to the ongoing life of communities on the canalside and throughout the Corridor.

This will be carried out along the canal towpaths and on the abandoned right-of-way of the Lehigh & Susquehanna Railroad (Figure 4.4). In those places where use of the towpaths is not immediately feasible, the use of railroad rights-of-way will be pursued. The second priority is to

ACCOMPLISHMENTS

State Scenic River designations in the Corridor consist of the Lehigh River (32 miles from F.E. Walter Dam to Jim Thorpe) and 13 of its tributaries: Hays Creek, Sandy Run, Hickory Run, Leslie Run, Drakes Creek, Stony Creek, Black Creek, Near Creek, Little Bear Creek, Glen Onoko, Jeans Run and Nesquehoning Creek. Cooks Creek and Tincum Creek (both tributaries of the Delaware) are under study.



Joseph E. Elliott

Establishing access points and facilities on the canals, the Delaware & Lehigh Trail, and the rivers, such as here at Bethlehem's Sand Island, are Corridor priorities.



Completion of the Delaware & Lehigh Trail is a key Plan action. Lehigh Gorge State Park's popular riverside trail will be an important part of the 150-mile D&L Trail.

☛ Ideas From the Corridor:

Big Wheels

The Lehigh Gorge is inaccessible to people who cannot hike, boat or bike through it. Several times a year a special guided tour bus could take visitors on a scenic and interpretive tour through the Gorge from Jim Thorpe, Rockport or White Haven.

provide physical, public access points along the trail. A third priority is establishing wayfinding signage and wayside exhibits.

Though complete public ownership of the towpaths is desirable in the long term, it is not a priority in the ten-year timeframe of this Plan and not necessary for the completion of the continuous trail. The long-term priority is interpretation and public use along the entire length, via public ownership or easements permitting public access.

The D&L Trail is one of the most important early goals of the Corridor Plan. It will provide an outstanding long-distance hiking and biking resource. The landscape through which it passes offers one of the most varied geological cross-sections and human and physical geographical experiences in the United States. Its significance is even greater than this, however. It will serve as a unifying factor, help solidify local support and local visibility for the Corridor effort, and serve as a landmark and "image" for the entire Corridor.

Existing Conditions

As planned, the D&L Trail will use a combination of canal towpath, rail-to-trail conversions and urban and municipal parks to span its entire 150 miles. Approximately 80 percent of these segments are already in place, having been developed by communities, counties or the state. Uncompleted segments of the trail, while a small percentage of the total length, in some cases present large challenges, where the trail is absent or there is no clear connection between segments. In other cases, problems may be resolved relatively easily, having simply lacked a champion until now.

The following segments — listed north to south — variously require acquisition, access, restoration, clearing, development and interpretation.

- Downtown Wilkes-Barre and the Susquehanna River to Ashley: Trail following existing streets will be specified as part of Lehigh to Susquehanna Trail project.
- Ashley to White Haven (to the proposed DER/BSP visitor center): Trail will use the abandoned Lehigh & Susquehanna Railroad right-of-way from Ashley and Wilkes-Barre to White Haven, also part of the Lehigh to Susquehanna Trail project.
- White Haven (from the proposed DER/BSP visitor center) to Penn Haven: Trail exists and is in good shape, owned and maintained by Lehigh Gorge State Park.
- Penn Haven to Glen Onoko (Lehigh Gorge State Park river access area): Trail exists, but will only be opened when the issue of access across the active Conrail line south of Penn Haven is resolved. The trail is open from Glen Onoko to the crossing.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN

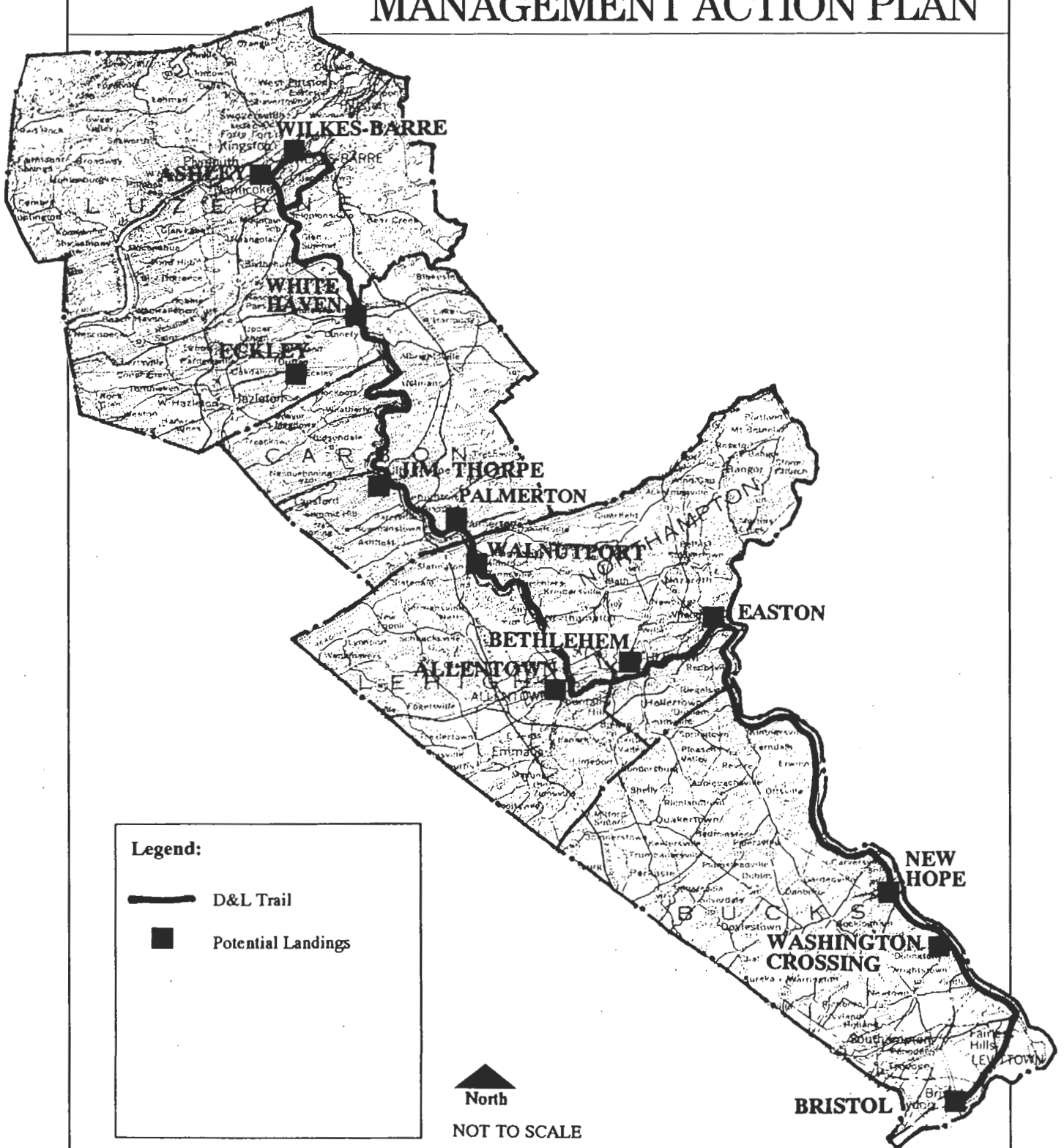


Figure 4.4

- Glen Onoko (Lehigh Gorge State Park river access area) to Jim Thorpe (downtown): These DER-owned bridges exist below Glen Onoko; one has been stabilized and work remains on two more. The remainder of the rail line below Glen Onoko and the bridges is owned by Carbon County, but has yet to be developed as a trail. An informal connection exists along the access road to Glen Onoko and Route 903 into Jim Thorpe.
- Jim Thorpe (downtown) to Franklin Township line: The existing connection is informal and involves using an access road around the wastewater treatment plant south of Jim Thorpe. The Commission has funded a TRAIL project to enable the Lehigh Canal Recreation Commission and its newest member, the Borough of Jim Thorpe, to dredge and clear the canal bed and restore the towpath along seven miles in this segment. There is also a proposal to recreate a pedestrian bridge crossing to the east side of the river south of Jim Thorpe and joining with the towpath trail of Lehigh Canal Park, which begins in Franklin Township (see sidebar on page 191).
- Franklin Township line through Parryville: The trail is in place as part of Lehigh Canal Park.
- Alternative/interim trail connection: Carbon and Lehigh counties are finalizing plans to acquire from Conrail the abandoned railroad right-of-way on the west bank of the Lehigh River for development as a trail; together, these acquisitions would create a continuous link from Packerton and Lehighton to Whitehall Township, Lehigh County (opposite Catasauqua at the Race Street Bridge), though it is on the opposite side of the river from the towpath trail and largely bypasses Lehigh Canal Park. The west side trail will offer the option of a loop on each side of the river once a trail is established from Parryville to the county line as discussed in the next item.
- Parryville through Palmerton to the Northampton-Carbon county line: The towpath trail is absent in Palmerton and Bowmanstown, having been overbuilt by roads. There are trail possibilities (utilizing rail beds and existing roads) and a willing seller for the land, but negotiations have been stalled because of concerns about hazardous waste cleanup around Palmerton. An alternative is to cross to the west side of the river at Palmerton and back to the east side at Bowmanstown, using the west side trail described above.
- Northampton-Carbon county line to Dam #3: The trail exists, but passage is difficult.
- Dam #3 through Walnutport to Lockport: The trail is largely intact and owned and maintained partly by the Borough of Walnutport and partly by the Three Mile Boating Association.

- Lockport past Dam #5 through Allen Township: The trail is intermittent and overgrown. Several parcels are privately owned, including a segment near Treichlers where barrels with undetermined contents have been buried on canal lands.
- Allen Township through Northampton: The trail is intact and in public ownership except for a 1.2-mile segment owned by Tri-Borough Sportsmen's Club, where passage is permitted.
- North Catasauqua: The trail exists, but it is overgrown and access is poor.
- Catasauqua: The trail exists and is accessible; towpath improvements are currently underway, funded by the Commission's TRAIL program.
- Catasauqua Lake to Allentown: The trail exists, although it is not passable in places.
- Allentown: The trail is in excellent shape south to Adams Island; a new pathway is currently being installed between Adams Island and Hamilton Street Bridge; a new nature trail beginning at Allentown Canal Park extends to meet with the Bethlehem segment of the trail.
- Bethlehem through Freemansburg to Bethlehem Township: The trail is intact and accessible through Freemansburg, maintained by the Old Freemansburg Association. The trail exists and is currently being improved in Bethlehem Township through a Commission TRAIL grant.
- Bethlehem Township to Hugh Moore Park at the Easton confluence: The trail is in good condition on the north bank of the river and across a modern bridge into Hugh Moore Park. (The Change Bridge, part of a later route, is not intact, precluding use of the post-1857 route into the park.)
- Easton to Bristol: The Delaware Canal towpath, part of Delaware Canal State Park, is intact from Easton to Morrisville, and intermittent to Bristol, due to encroachments from commercial, highway and railroad development (see sidebar, page 228).
- Bristol: Segments of the towpath and canal are obscured through the Borough of Bristol. The end of the towpath is adjacent to Bristol Marsh and a city parking lot is located where the turning basin once existed.

Opportunities for the Delaware & Lehigh Trail

Following are the actions required to complete the D&L Trail over ten to fifteen years, manage visitation and provide additional access.

ACCOMPLISHMENTS

The Friends of the Delaware Canal sponsors an annual summer series of five canal walks on the 60-mile towpath. Led by former Commission Chair Will Rivinus, the walks have attracted as many as 75 hikers at a time.

1. Establishing the continuity of the D&L Trail is the clear priority. In several places, there are gaps between trail segments or pieces of the existing trail that need physical improvement, such as brush clearance, grading and surfacing, or stabilization of bridges. In the case of acquisition or improvement projects, the Commission will work in concert with local, state and federal Partners. In some cases, the Commission expects to make considerable financial contributions; in other cases it will convene other groups and simply facilitate the process of trail development.

Placing the entire Corridor right-of-way in public ownership is not an immediate goal of the Commission. Ensuring free passage by securing easements is preferred. As the opportunity arises, however, the Commission will, in concert with other Partners, negotiate to purchase segments to be placed in the ownership and management of willing state and local partners. In the interim, development of the continuous trail will not be impeded, as alternate routes can be identified that bypass these interruptions.

Action Secure public access to the privately owned segments of canal and towpath trail right-of-way by easement or other agreement or, if necessary, by acquisition:

- Tri-Borough Sportsmen's Club segment in Northampton Township (1.2 miles of mostly watered canal, including a flooded slate quarry that is a canalboat "graveyard");
- The stretch of canal owned by Horsehead Development in Palmerton (pending resolution of hazardous waste concerns);
- Three Mile Boating Association segment, near Walnutport and Dam #14 (1+ miles of watered canal adjacent to the three miles owned and restored by the Borough of Walnutport); and
- Private land near Dam #5 (near Treichlers; pending resolution of possible problems with barrels with unknown contents buried in or near the canal).

Action Because the Commission is prohibited by law from owning land, determine ultimate public owner of any resources which are acquired (see sidebar, page 108).

Action At the following areas, determine the feasibility of completing physical trail linkages and/or resolve any outstanding physical obstacles (note that other such actions are included in the section below on railways):

- In the Borough of Jim Thorpe: over the long term, route the trail through Jim Thorpe on the west side (to bypass the sewage treatment plant on the east side); provide a crossing back to the east side using either an existing bridge abutment or utility crossing;

- Palmerton and Bowmanstown: The towpath and canal have been destroyed by highway construction; explore possibilities for re-establishing the towpath here, and for utilizing the west side railroad right-of-way as an alternative/loop;
- Morrisville: Resolve fencing across the route of the towpath at Bridge Street.
- South of Morrisville: Resolve the towpath trail interruption at Tyburn Road and at Conrail Railroad spurs (as indicated in the *Delaware Canal Master Plan*); and
- Tullytown: Install a pedestrian-controlled highway crossing signal or build a pedestrian overpass at Route 13's dangerous crossing of the Delaware Canal.
- Bristol Township: Install a pedestrian-controlled highway crossing signal or build a pedestrian-overpass at the four-lane Route 13 canal crossing near the turnpike bridge.
- Bristol Borough: The towpath trail is interrupted at two places (as indicated in the *Delaware Canal Master Plan*); re-establish the right-of-way as a trail and interpretive resource in Bristol (see page 234).

2. The 60-mile Delaware Canal towpath has been designated as the Delaware Canal National Recreation Trail, and four segments of the Lehigh Canal towpath are also nationally designated. Upon completion of the D&L Trail, the Commission will seek designation for the entire trail as a National Historic Trail. Designation will lend visibility to the trail as well as recognize its significance as a historic route.

Action Obtain National Historic Trail status for the entire D&L Trail when completed.

Action Work with PennDOT, the Bureau of State Parks, the Pennsylvania Department of Commerce/Economic Development Partnership, the National Park Service and others who produce maps and guides to include the D&L Trail.

3. Visitor management, routine trail maintenance and safety problems already exist along trail routes. The state is handling these problems well in its sections given its relatively limited budget; serving the same functions in the mosaic of other publicly and privately owned sections will require a coordinated effort. It is possible that greater use of trails (envisioned as the Corridor initiative progresses) will intensify some of these problems. Conversely, greater use could also promote greater public awareness, volunteer support and activism, and a political constituency on behalf of the trails.

Through the leadership of the Stewardship Compact (see Chapter 6), a volunteer network will be organized — perhaps called the “D&L Trail

Walkers," modelled on such organizations as the Appalachian Trail Club, the C&O Canal Trailwalkers and the C&O Canal Association. Functions and tasks of this group might include organizing cleanup events, citizen watches, interpretive and nature walks, volunteer maintenance projects and directing a maintenance corps taking advantage of community service offenders, or unemployed or retired workers. This group could also serve as a liaison with adjoining property owners by including them or establishing regular communication.

Action Assist in the organization of a Corridor-wide trail volunteer network and advocacy group as a project of the Stewardship Compact.

Action Work with DCA/Bureau of Recreation and Conservation and DER/Bureau of State Parks to coordinate technical outreach in support of the Stewardship Compact and other efforts of individuals, groups and municipalities to foster increased recreation along the D&L Trail.

4. Security has been identified by the public as an important issue on public trails. Incompatible uses and abuses, such as unauthorized all-terrain vehicles, littering and dumping, and other illegal activities are relatively common problems. There never are enough personnel resources to completely police publicly owned trails.

Action Work with the Stewardship Compact to promote better security through citizen awareness, encouraging an increased level of local police patrolling, greater levels of DER/BSP patrolling in state parks and cooperative agreements between state park law enforcement rangers and local police jurisdictions.

5. Providing adequate public access, parking facilities and directional signage is critical to facilitating use of the D&L Trail. (Signage is addressed in Chapter 5, "Understanding the Corridor.") It will become even more important once continuous passage along the 150 miles is established. Currently, "access" is identified as an issue along many segments, though few solid plans are established (exceptions include Lehigh Gorge State Park, which is actively establishing and planning more access areas).

Action In cooperation with DCA/BRC and DER/BSP, counties, municipalities and other Partners, plan for and place trail access points at an approximate frequency of ten-mile intervals from Bristol to Jim Thorpe and approximately every ten to fifteen miles in Lehigh Gorge and along the Lehigh to Susquehanna Trail.

6. Numerous other opportunities exist around the Corridor to create loop and spur trails that tie into the D&L Trail. An example of an existing tie-in is the Appalachian Trail, which crosses the Lehigh Navigation near Palmerton. These trails may or may not be a part of larger efforts to protect natural corridors along streams or other ecological units — called greenways. Rail-to-trail possibilities are discussed below; greenways are discussed in Chapter 6. Overall, all trail options should be identified and assessed, toward supporting an expanded trail network in later years of the Corridor effort.

Just What Is Public Access?

The issue of access to the canals, D&L Trail and rivers is two-fold: first, a *public right-of-way along the length* of the canals and trail is needed to complete the continuous trail and allow access to canal segments for interpretive purposes. And second, "*access facilities*" are needed to funnel visitors onto and off the trail and canals and provide for river recreation. A general target for the D&L Trail is an access facility every five to ten miles from Jim Thorpe to Bristol wherever feasible, with dual access to the rivers generally desirable where possible. Access facilities should include parking areas, picnic areas and comfort facilities, as well as directional and interpretive signage. River access areas should include boat ramps and fishing platforms accessible to the handicapped.

Action Evaluate, with NPS, DCA and DER, the potential for secondary trails and establish regional plans or a Corridor-wide plan as appropriate.

Action Implement regional trail development plans or a Corridor-wide trail plan as appropriate.

Rail-to-Trail Links for the Corridor

Abandoned railroad rights-of-way present a great opportunity for recreation and linkage. The primary focus is on employing disused railroad rights-of-way to aid in creating the D&L Trail along the length of the historic transportation spine. This encompasses the Lehigh to Susquehanna Trail project from White Haven to Ashley, and the right-of-way route on the west side of the Lehigh River in Carbon and Lehigh Counties — currently under navigation. In addition, all disused rights-of-way will be protected where the opportunity occurs, to preserve the option later of creating loop trails and spur trails off the spine.

History and Existing Conditions

Railroads have played two important roles in relation to the Corridor's canal transportation system, both of which contributed strongly to shaping the industrial development of the Corridor and its national importance: initially as feeder lines delivering coal from mine to canal; and later as competitors, running parallel to the canals and extending to create a far wider transportation system. In the wake of the railroads' long, wrenching decline in this century, the Corridor is left with many opportunities to celebrate the heritage of transportation by reusing these routes.

From the earliest days of anthracite mining and the development of a Corridor transportation system by White and Hazard, railroads played an important part. The Beaver Meadow, the Switchback and other early mountain railroads succeeded in bringing the coal from the mines over often difficult terrain to the canal ports, at White Haven, Mauch Chunk, Rockport and elsewhere. The rights-of-way of many of these feeder lines and spurs remain intact today.

Beginning in the 1850s, railroads began competing directly with the canals as carriers of anthracite, lumber and other bulk goods. The Lehigh Valley Railroad (LVR) was the first competitor for the Lehigh Coal and Navigation Company (LC&N). Later the LC&N developed its own railroad, the Lehigh & Susquehanna. Both of these lines followed the Lehigh River along the canal between Jim Thorpe and Easton, and went beyond the canals to connect both with the coal fields and cities of the Wyoming Valley and with New York City. The competition continued into this century, superseded today by the competition between the railroads and trucking.



Joseph E. B. Elliot

Clear and inviting linkages to nearby resources and attractions help to illuminate the Corridor story and enlarge recreational opportunities. The historic bridge crossings across the Delaware are popular with bicyclists and strollers.

IDEAS FROM THE CORRIDOR:

Train Service

The East Coast once benefited from excellent passenger train service, but lines diminished as cars and highways became more common. The Lehigh Valley is more and more a popular residence for people who commute to New York and northern New Jersey, and the highways are becoming choked. We may have come full circle: commuter rail service could be re-established here.

Although not in service, hundreds of miles of trackage remain in the Lehigh Valley. In addition to commuter service, an excursion train could connect Allentown, Easton and Bethlehem with Jim Thorpe, the Delaware Water Gap and the Poconos.

The legacy of this extensive railroad network is a series of abandoned and disused rights-of-way, often connecting key places and providing excellent opportunities for conversion into long-distance, non-vehicular trails. Such trails can be especially popular with bicyclists, families with small children and others who are not inclined or able to tackle steep or narrow footpaths.

Context and Priorities for Rails-to-Trails

The Corridor's extensive web of rail rights-of-way is the subject of a separate state-wide project currently being conducted by the Pennsylvania Departments of Transportation and Environmental Resources to inventory these lines and evaluate their potential for conversion to trails. This Plan centers on large, priority rail-trail linkages.

The Lehigh to Susquehanna Trail

When the proposed Lehigh to Susquehanna Trail is acquired and developed, it will complete the last major link in the 150-mile D&L Trail. The 30-mile rail-trail will run from Wilkes-Barre to White Haven, over the abandoned historic overland railroad route built by the Lehigh Coal & Navigation Company to transport anthracite from the Wyoming Valley over the mountains to the Lehigh Navigation. The trail traverses some of the most beautiful areas of the Corridor, including Lehigh Gorge and Nescopeck state parks, spectacular views, the Seven Tubs Natural Area and the Ashley Planes.

The Commission has been working with the Luzerne County Parks Department and the National Park Service to study the feasibility of converting the right-of-way into a multi-use recreational and interpretive trail. Local residents and municipalities assisted the planning process by serving on a task force. The feasibility study, completed in October, 1992, surveys the natural, historical and recreational resources along the proposed trail as well as its present condition, accessibility and ownership. The Partners are now turning toward acquisition, and beginning design and development that will bring hikers and cyclists to the trail within the next few years.

First Priority: Lehigh to Susquehanna Trail from Ashley and Wilkes-Barre to White Haven

This is the third major component of the D&L Trail (the others are the Delaware Canal and Lehigh Navigation), and is a high overall priority of the Commission. The Lehigh to Susquehanna Trail is currently in the planning stages as a cooperative project of the National Park Service, Luzerne County Parks Department and the Commission. The trail follows the abandoned Lehigh & Susquehanna (L&S) railroad, which generally parallels another line still in active use by Conrail. At its southern end, the trail will connect with the proposed Bureau of State Parks/Commission joint visitor facility, to be located just south of White Haven and Interstate 80. Rising from White Haven, the continuous grade peaks at Glen Summit (an old railway resort development). At Solomon's Gap, the trail splits into two routes: the historic Ashley Planes took the rails directly into Ashley and the Huber Breaker site in a series of steep inclined planes; and the "backtrack" route (used to return empty cars via a gravity-driven route) turned east to go around Wilkes-Barre Mountain, past the Seven Tubs Natural Area, returning to Ashley through Wilkes-Barre. The environs of the Lehigh to Susquehanna Trail are mostly forested land, although the route also passes several small settlements. The backtrack links both the Tubs and urban Ashley and Wilkes-Barre, largely through heavily forested country.

Action Following the recommendations of the trail feasibility study, work with Luzerne County Parks Department and other Partners to acquire the L&S right-of-way and develop it into a non-vehicular trail as part of the D&L Trail. Ensure clear trail linkages between the L&S and specific visitor sites in Wilkes-Barre, Ashley and White Haven.

First Priority: Lehigh Gorge Trail (White Haven to Downtown Jim Thorpe)

This route also follows the old L&S and the active Conrail route, formerly competing railroads. The L&S traces the western side of Lehigh Gorge and replaced the Upper Grand section of the Lehigh Navigation after the flood of 1862. The natural scenery here is among the finest in the Corridor, confined at the bottom of a steep valley that

includes several hairpin turns. Stripped bare by lumbering in the heyday of the industrial, canal era, the gorge's slopes now are verdant habitat for such animals as bobcat, eagles, bear and the endangered eastern woodrat.

The DER/Bureau of State Parks has converted the L&S route into a trail at the heart of the Lehigh Gorge State Park from White Haven to Penn Haven (where road access is available). Penn Haven is the current southern terminus because of an at-grade crossing with the active Conrail line, which shares the western shoreline with the L&S south of Rockport. Resolution of the Conrail crossing preventing a continuous trail through the Gorge is presently under negotiation; the through-trail will ideally include a marked, at-grade crossing with the active rail line.

The trail from Penn Haven south to Glen Onoko is intact, but pedestrians may not cross the active tracks at Penn Haven. At the southern end of the trail, the Coalport/Glen Onoko access area is presently connected with Jim Thorpe only by an unsafe route that involves walking along either Route 903 or active rail lines and a railroad bridge.

Throughout the length of this segment of the D&L Trail, access is limited, and because of terrain may always require longer distances between access facilities than the goal for this section of ten to fifteen miles.

Action Coordinate with DER/BSP to support resolution of the Penn Haven rail crossing access issue on the trail in Lehigh Gorge State Park.

Action Work with DER/BSP, the Borough of Jim Thorpe and Conrail to establish a trail connection from Glen Onoko into downtown Jim Thorpe. This may include renovating a railroad bridge crossing the river and negotiating right-of-passage near active tracks. The Corridor and bridges are owned by DER.

Action Work with the Pennsylvania Game Commission and DER/BSP to develop public access points to the Lehigh Gorge trail, including parking facilities at Tannery and Rockport. Establish at least one scenic overlook accessible to the trail between Penn Haven and Jim Thorpe.

First Priority: Route on the West Side of the Lehigh River in Carbon and Lehigh Counties

This "west side trail" is an important partner route to the actual canal towpath, providing an alternative, interim trail connection for the D&L Trail. The canal towpath — on the east side of the Lehigh — will take considerable work before it is developed into a continuous trail as described in the section above on the D&L Trail. Both Carbon and Lehigh counties are finalizing plans to acquire from Conrail the abandoned L&S right-of-way from the Packerton rail yards through Lehighton to Whitehall Township in Lehigh County. Combined with the D&L Trail through the Lehigh Canal Park (Jim Thorpe to Parryville), and the D&L Trail from Parryville through Palmerton to the

Northampton-Carbon county line once it is established, this west-side route will ultimately help to create a loop trail that will be a major recreational asset to this portion of the Corridor.

Action As necessary, facilitate acquisition of the west side right-of-way. Assist in developing the right-of-way into a trail as part of the D&L Trail.

Second Priority: Tributary Routes Feeding into the Passage

A number of spur and feeder lines exist, leading from the anthracite fields to the historic transportation route, often along tributary streams. Many of them are historically significant, particularly the Switchback Gravity Railroad (between Summit Hill and Mauch Chunk), the Beaver Meadow (first anthracite-carrying locomotive railroad in the Corridor) and the route through Weatherly (where innovative locomotives were built — in shops that survive — and tested on the steep hills). Others include the Quakake and Hazleton routes, and Lizard Creek and Nescopeck Creek. They hold significant potential for rail-trails with high interpretive value. These rights-of-way eventually could enable multiple loop trails around the region, linking anthracite mining fields and communities to the Passage along the historic route the coal itself once followed. No inventory of these trails has been completed.

Action Using the inventory presently being developed by PennDOT, DER, DCA and NPS, determine the extent and status of all abandoned or disused rail lines in the Corridor, identify opportunities to convert them to trails as part of the D&L Trail system and develop plans accordingly.

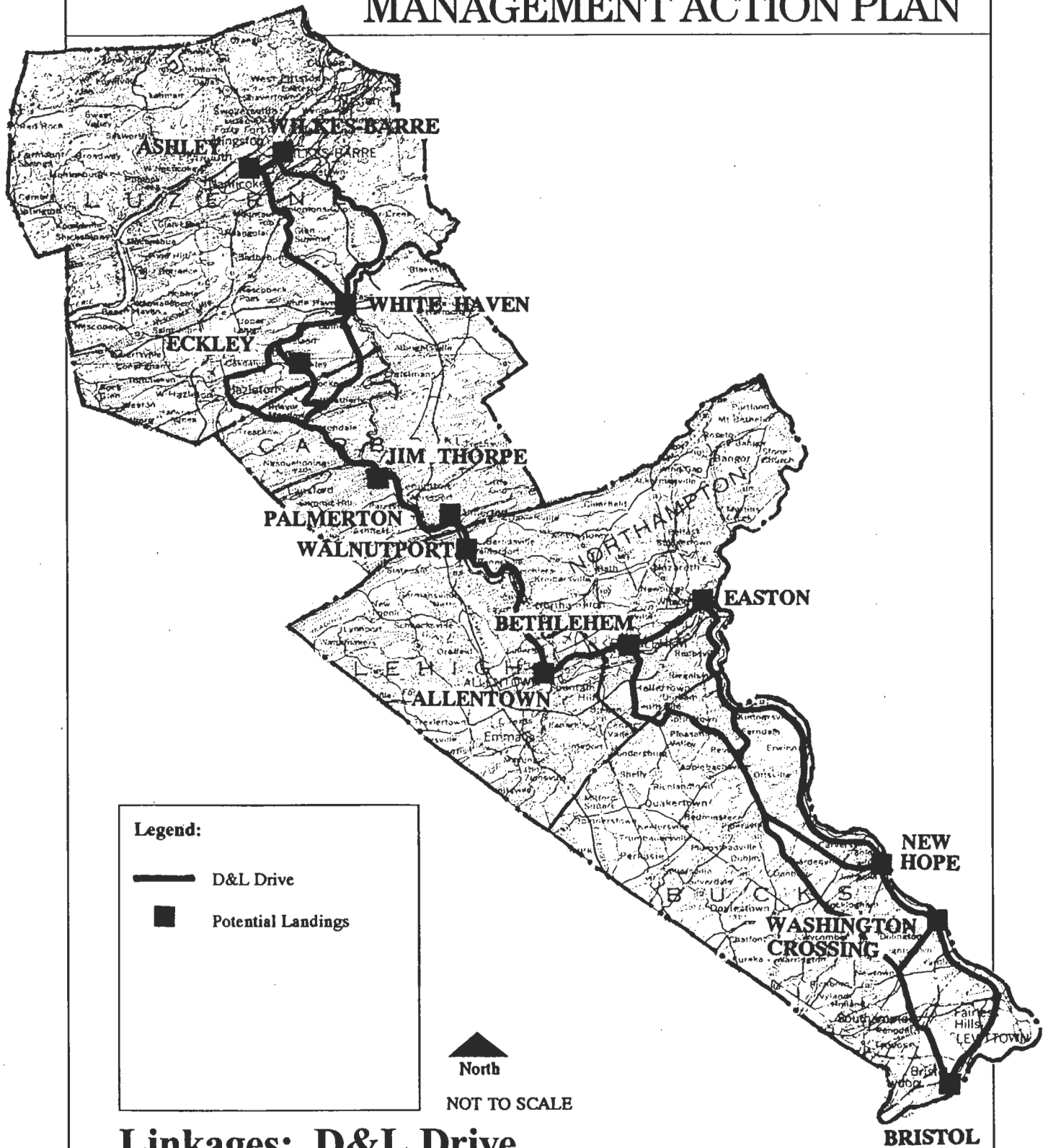
Action Implement plans to convert rail rights-of-way to trails.

Policy for the Delaware & Lehigh Drive



An important companion to the emphasis on recreational and interpretive linkages developed through improvements to the canals and D&L Trail is the need to serve the driving public wishing to visit key places in the Corridor. Thus, this Plan establishes the Delaware & Lehigh Drive (“D&L Drive”) as a route to traverse the entire Corridor and to move efficiently among the Corridor’s many resources, attractions and communities.

The D&L Drive is essentially a web of major roads linking all Corridor Landings (visitor orientation centers, described in Chapter 5). Figure 4.5 illustrates the recommended route. This designated road circulation system is not necessarily the same as tour routes, because directness from one Landing to the next is the primary criterion. Tour routes, which will generally be confined to areas allowing less than a day’s drive within the Corridor, are expected to join the D&L Drive for portions of its route. (See Chapter 5 for discussion of interpretive driving tours.)

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN



Legend:

-  D&L Drive
-  Potential Landings

Linkages: D&L Drive

Figure 4.5

The D&L Drive uses no limited-access highways; general scenic and interpretive value also helped to delineate the route where possible.

The primary means of identification of the D&L Drive will be through maps and guides produced for promotion purposes, with signage kept to a minimum to avoid confusion with tour route markers. Both tour routes and the D&L Drive will help to determine priorities for the Commission's work on scenic protection as described in Chapter 6.

Action Designate the D&L Drive in all printed material produced by the Commission, and work with PennDOT and others who produce maps and guides to delineate it in their materials.

Action Install a modest number of directional signs at turning points along D&L Drive.

Understanding the Corridor: Creating an Interpretive System

Introduction

The interpretation of the Corridor's cultural and environmental heritage is the engine driving the entire Corridor initiative. Underlying all the efforts to create physical linkages, conserve historic and natural resources, promote sensitive economic development and encourage greater tourism, is a new understanding of the Corridor and its heritage. Interpretation involves constructing a conceptual framework within which the Corridor's many place- and time-specific stories can be told, through the creation of an integrated system of programs, facilities, exhibits and publications. Interpretation will enable people to understand the connections between the historic transportation system and the transformations it wrought on these lands and the people who have lived here.

Spanning the full geographic scope and historic sweep of the Corridor, the interpretive system will bring new awareness to the Corridor as an entire landscape, while also strengthening the place of individual communities and sites within the overall story of the Corridor. In the development of such a "partnership park" as the Corridor, in which intangible cooperative agreements are as important as tangible physical developments, the interpretive system will be the most exciting new creation. It will be as powerful in connecting and defining the Corridor as creating the D&L Trail, as described in the preceding chapter.

The Four Interpretive Themes

What is the substance of this new creation? For the purposes of this comprehensive Corridor interpretation system, research and numerous discussions with knowledgeable historians and existing interpreting organizations have yielded the following four themes. These themes capture the heritage and significance of the Corridor, while also allowing room to interpret the stories and distinctive places that contribute to the larger picture.

Interpretive Theme

Connecting and Defining a Region: *Stories In the Corridor*

- the importance of transportation and its relationship to the growth of Corridor communities and industry
- other modes of transportation in the Corridor: Native American pathways, rivers, roads, railroads
- innovations in engineering and construction on the Delaware and Lehigh canals
- operating the canals
- lives of canal workers and families
- the role of the canals in transforming the region
- gravity railroads, steam railroads, inclined planes
- the canals and the abandoned railbeds as historic and recreational resources today
- the Corridor concept

Connecting and Defining a Region

In the 18th and 19th centuries, primitive roads and river transportation alone could not meet the need to connect growing towns and the resource-rich but mountainous areas of eastern Pennsylvania. The construction of the Delaware and Lehigh canals and their associated railroads ignited an explosion of commerce, productivity and settlement. The transportation system became the economic backbone of the Corridor's industrial age. These canals operated longer and later than any others in America, and today, as historic and recreational resources, they are the backbone of the Corridor.



Jim Thorpe was a center of commerce and transportation — the nexus of anthracite railroads and the Lehigh Canal.

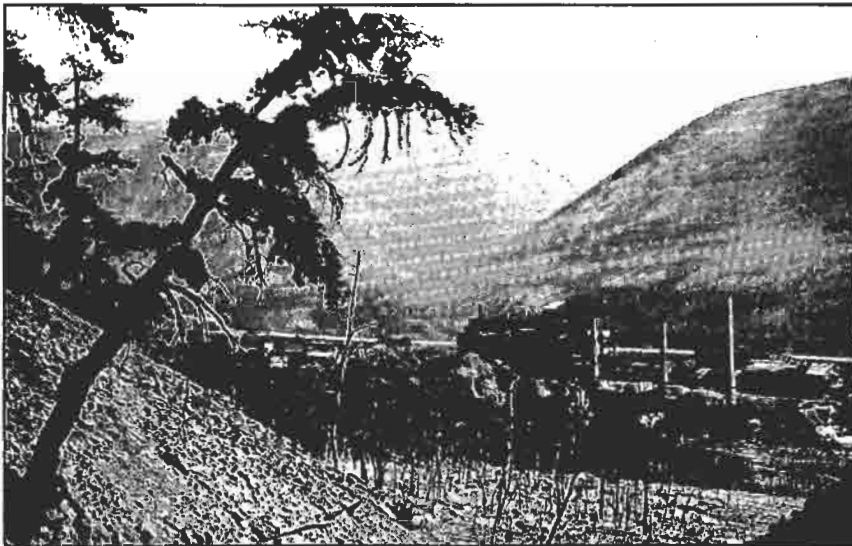
Interpretive Theme

Working With Nature

The natural resources of the Corridor, particularly coal, iron, water and timber, have been exploited for centuries. They were responsible for the growth and wealth of the region, but their extraction and processing were responsible for scenes of great devastation. Through natural processes and human intervention in a spirit of stewardship, however, the despoiled areas are gradually being regenerated. In a 21st-century economy that places less value on extractable resources, gives more credence to sustainability and places greater value on environmental health, outdoor recreation and scenic beauty, the high quality of the Corridor's natural and recreational resources will be the key to its future.

Working With Nature: Stories in the Corridor

- natural resources and their limits
- natural regeneration
- environmental remediation
- public and private roles in regeneration
- changing values
- the geography and geology of the Corridor
- the Corridor's natural systems
- floods and other disasters caused by exploitation
- modern living patterns and their effects on the environment



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The story of industrialization, its environmental consequences, and natural regeneration can be told throughout the Corridor, and particularly dramatically at Palmerton.

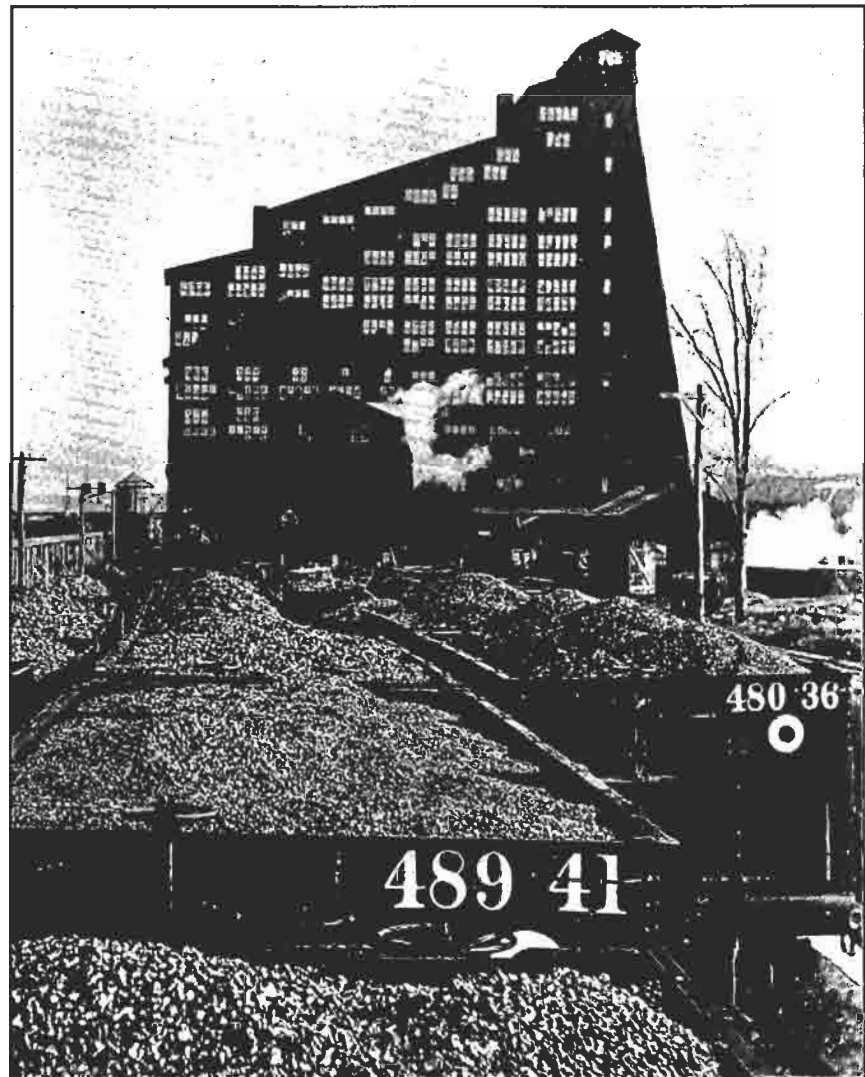
Interpretive Theme

Coal, Commerce and Industry: *Stories in the Corridor*

- anthracite mining and technology
- innovations in commerce and business practices; the rise of corporations
- technological innovations in industry
- early industries: iron and forging, charcoal, tanning, lumbering, boat building
- the development of the steel, mineral, manufacturing and textile industries
- the effects of industrialization or settlement patterns, urbanization and immigration
- entrepreneurs and inventors

Coal, Commerce and Industry

The discovery of anthracite and the drive to transport, market and use it were responsible for the sudden and accelerated industrial and urban development of the Corridor. This reliable and inexpensive fuel allowed the concentration of industry in growing urban areas along coal transportation routes, where steel, textiles, manufacturing and mineral processing were the basis of a new diversified industrial economy. The immense capital and capacity offered by anthracite necessitated innovations in ways of doing business.



Courtesy Library of Congress

Anthracite was the generator of wealth and commerce throughout the Corridor. Ashley's Huber Breaker, seen here in 1940, still stands as a reminder of the millions of tons of hard coal that were mined, processed and transported.

Interpretive Theme

Transformation of People and Places

The Corridor is the synergetic sum of the people who have come here, attracted by the opportunities for a better life. It embodies their ideas, and their response to the lands and resources they found here. With ideas and innovations, they transformed their surroundings into towns and cities, while opportunities and necessities transformed them. Change has characterized the Corridor, yet the history of the change is recorded in the many rich layers of its heritage, as well as in its living cultural traditions.

These four interpretive themes are intertwined and encompass numerous sub-themes. Collectively, they tell the comprehensive story of this exceptionally rich place. But only through a systemic approach will "the mute stones speak," giving residents and visitors alike access to the vivid and powerful stories that are today locked in the Corridor's fabric of people and places.

This and the following sections of this chapter explain the goals and the needs for the proposed interpretive system, amplify the overall strategy and describe the individual elements of the system.

Transformation of People and Places: *Stories in the Corridor*

- the lives of Native Americans and their experiences after contact
- social and philosophical ideas and history: religious freedom and equality
- the historic and current immigration experience, ethnicity and distinctive neighborhoods
- the lives of women and children and their roles in industry
- transformation of the work force, and the labor movement
- the causes and consequences of growth
- how the landscape was and is being shaped
- industrialization, urbanization and suburbanization
- urban responses to distinctive physical and economic forces: canal towns, coal patch towns, company towns
- the vernacular architectural heritage: agricultural, residential, industrial, commercial and religious structures
- the resiliency of the region and its people



For more than 300 years, each successive group of immigrants has left an imprint on the Corridor, often seen in town form or in religious architecture, as here in Nesquehoning.

Joseph E.B. Elliot

Existing Interpretation: Issues and Needs

The many interpreting organizations at work in the Corridor address a wide range of subjects and periods and use a variety of interpretive methods. They include volunteer organizations as well as professionally staffed county historical societies, state and local historical museums, environmental centers, and organizers of special cultural events and activities. They include three state historic parks and such institutions and sites as Hugh Moore Historical Park and Museums in Easton, the Mercer Museum in Doylestown, the Lenni Lenape Museum in Allentown, Historic Fallsington and the Walnutport Canal Association. (For a complete inventory, please refer to the Technical Appendix, *Interpretive Resources Inventory and Analysis*. Many potential interpreters are also listed in Chapter 7.)

Together, these organizations form a strong base of Partner institutions and a strong core from which to expand into cooperative interpretation of the Corridor. In the transition to a truly comprehensive interpretive system, however, several gaps are apparent:

- The interpretation of industrial heritage currently covers only the canal story (as told at Hugh Moore Historical Park and Museums) and the anthracite story (as told by the Pennsylvania Historical and Museum Commission's Eckley Miners' Village in Luzerne County). Through a coordinated interpretive system, the integrated story of anthracite, industry and the Corridor-long transportation system can be interpreted throughout the Corridor. As is the case in other places throughout the country, the Industrial Revolution is a "new" and under-appreciated story that, beyond these two sites, has not been fully told in the Corridor.
- The Jacobsburg Environmental Education Center of the Bureau of State Parks interprets the cultural geography of the Corridor — the defining relationship between human industry and natural resources. In conjunction with other Corridor natural resource interpreters, Jacobsburg's outreach programs are useful models for the needed development of Corridor-wide programs that interpret the integrated natural resources theme.
- The natural resources story in terms of the "working with nature" theme as a whole and the important story of resource extraction — exploitation and environmental degradation and its consequences, a story that holds vital lessons for our time — are not currently offered. While natural resource interpreters do exist here, few are able to provide full interpretive programs. These stories could become part of the interpretive mission of a number of Partner institutions.

- Individual stories of social development and the settlement of towns and cities are interpreted at sites such as Pennsbury Manor, Historic Fallsington, Historic Bethlehem, the Lenni Lenape Museum, Eckley and others. But the complete and integrated stories of immigration, ethnicity and labor are currently not interpreted.
- At least 30 sites, features, places and linkages important to the Corridor's heritage are not yet interpreted. Now, in the context of the Corridor, each provides an opportunity to cultivate greater understanding of Corridor heritage and an opportunity for greater involvement of individual communities in developing and telling their own stories.

There are a number of dedicated, competent, hard-working interpreting institutions, but there is currently no system that addresses the overall themes of the Corridor as a whole. Through participation of interpreting institutions in the Corridor interpretive compact, and with technical assistance and funding from the National Park Service and the Commission in enhancing Partners' capabilities, it will be possible for residents and visitors to understand both the larger themes, and the significance and interrelationship of each of the sites and resources.

It is possible for residents and visitors to have more complete access to the vigorous history and culture of the Corridor. In fact, this Plan bases key actions as set forth in Chapters 4 and 6 on the establishment of a comprehensive interpretive system that makes clear the value and significance of Corridor resources: it is the basis for the community regeneration goals that are the foundation of the Corridor initiative itself.

In the context of the entire Corridor, the great need — and an exciting opportunity — is to establish a permanent *system* of interpretation, based on setting forth the context and overarching themes that give meaning to and link existing interpretive sites both physically and thematically, and adding to them important, newly interpreted heritage sites. The interpretive system will provide the structure and resources through which to coordinate stories, methods, expertise and information. It will provide a coherent, informative and exciting visitor experience.

Existing organizations have acknowledged that they do not have the resources or mission to take on such an organizational and leadership role. The establishment of an effective and exciting system for an area of the size, complexity and significance of the Corridor will depend on the partnership of all the institutions and the leadership of a single organization having expertise and depth.

Strategy for Creating Comprehensive Corridor Interpretation

Interpretive Strategy

Interpreters of Natural Resources in the Corridor

- Wyoming Geological and Historical Society
- Luzerne County Parks Department
- Carbon County Environmental Education Center
- Beltzville State Park Environmental Learning Center
- Northampton County Parks and Recreation
- Jacobsburg Environmental Education Center
- Poole Wildlife Sanctuary
- Bucks County Department of Parks and Recreation
- Honey Hollow Environmental Education Center
- Bowman's Hill Wildflower Preserve
- Silver Lake Nature Center

The strategy for the interpretive system is to create an overall intellectual and spatial framework for understanding the Corridor, and to provide comprehensive visitor services. In addition to enhancing the capabilities of sites and institutions that individually tell the Corridor's component stories, this system will provide the glue, or context, to hold the individual pieces together. The Partners, the Commission and the National Park Service will develop this context by telling the overall story of the Corridor in a number of places. This overall story will show how the different places and themes of the Corridor integrate to form a whole greater than the sum of its parts — in other words, to make it clear why this place is a Corridor, not simply regions or communities or five counties.

The system is based on two key components — the roles of an Interpretive Compact and of the National Park Service — plus a spatial organization that incorporates all interpreters and sites.

Role of the Interpretive Compact

An active partnership among the Commission, the Corridor's many interpreting organizations and the National Park Service is required to implement the entire interpretive system envisioned in this Plan. The vehicle for this partnership will be an Interpretive Compact, crafted jointly by the Commission and its interpretive Partners. The Compact will spell out the overall agreement among the various interpretive Partners regarding each member's commitments for implementation and coordination, as well as ultimate benefits.

The Compact's purpose is to provide a broad forum for coordinating presentation of the Corridor's central themes and stories, promote inter-institutional cooperation and increase the capacities of individual interpreting organizations. It is designed not to replace or substitute for existing programming, but rather to add focus on the Corridor story and enhance the Partners' existing interpretation.

The National Park Service will be requested to develop an interpretive plan for the Passage. Additionally, through the Compact, one of the Commission's first actions will be to develop a detailed interpretive plan for the entire Corridor. The Commission and the National Park Service will work with Interpretive Compact Partners to carry out Corridor-wide interpretive goals by providing financial support and technical assistance for exhibits, programs and training identified in the interpretive plan.

The Commission will work with interpretive Partners in meeting their interpretive commitments by providing matching grants to support

professional assistance, curatorial and exhibit services, and the development of interpretive programs, publications and guides.

The Commission's Interpretive Specialist will work with the National Park Service to support the Compact, as well as to coordinate the work of the Compact in the Reaches.

The role of the Interpretive Compact will be twofold:

Develop an Interpretive System:

- Work with the National Park Service to produce an interpretive plan for the Passage. This process will include setting policies and funding priorities for interpretation and obtaining specific commitments from Compact Partners;
- Work with the Commission to develop an interpretive plan for the balance of the Corridor;
- Develop kiosks, wayside exhibits and signs at key outdoor locations in the Corridor. For visibility and the sake of momentum this work will begin in advance of completing the interpretive plans;
- Develop tours of all kinds — driving, bicycling, hiking, canoeing — to link scattered sites into an effective interpretive system and to foster understanding of the linkages among the resources;
- Develop comprehensive Corridor exhibits for Landings;
- Develop context-setting exhibits at major Partner sites, in cooperation with Partner institutions;
- Guide and participate in the development of cultural, natural and historical programs for incorporation into an educational curriculum for the Corridor, for primary, middle and senior grade levels; and
- Promote interpretation of key uninterpreted sites.

Promote Corridor and Compact Program Development:

- Identify staff training needs and advise on developing training opportunities. This is to address not only interpretive skills, but organizational management skills to enhance Partners' capacity to administer their programs and sites;
- Serve as a forum for information exchange;
- Serve as Corridor advocate and liaison with key state and federal agencies whose programs can assist in Corridor interpretation and development of heritage attractions;
- Help to raise funds and to advise on Commission grants, policies and decisions;

- Support the Stewardship Compact (see Chapter 8); and
- Work with the Committee on Cultural and Historic Resource Conservation (see Chapter 8).

Action Establish and facilitate operation of an Interpretive Compact.

Action Produce an interpretive plan for the Passage, with the cooperation of the Partner institutions, the Commission and the National Park Service.

Action Implement the Passage interpretive plan.

Action Produce an interpretive plan for the Corridor beyond the Passage in collaboration with interpretive Partners, the Commission and the National Park Service.

Action Implement the Corridor-wide interpretive plan.

The success of the Interpretive Compact will depend on the participation of a wide range of partners. Pictured is the Pennsylvania Historical and Museum Commission's Thompson-Neely House at Washington Crossing State Historic Park.



Joseph E.B. Elliott

Role of the National Park Service

The Commission recommends that Congress direct the National Park Service to establish a permanent interpretive presence in the Corridor Passage. The Commission recognizes that the National Park Service, like all local, state and federal agencies, is over-extended in its current operations and responsibilities and constrained in its current budget. The primary NPS responsibility proposed by this Plan, however, is simply for leadership in interpretation. The themes of the Corridor and the cultural, natural, recreational and historic resources of the Corridor are nationally significant, and the NPS — the nation's leader in interpretation — has a valid and well-justified role to play here. The NPS will

not be asked to own or manage land and resources, making this a highly cost-effective way for it to carry out its own mission of enabling public use and enjoyment of the nation's premier cultural and natural resources.

The National Park Service's interpretive role in the Passage will be to:

- Assure the strength and clarity of the Corridor-wide interpretive themes by taking the lead in identifying the programs, facilities and services necessary to support the broad connecting themes. Direction will be provided through preparation of an interpretive plan, with the cooperation of the Partner institutions and the Commission through the Interpretive Compact;
- Provide some personal visitor services and overall interpretive programming in support of those themes, in cooperation with existing Partner sites and at facilities to be established by the Commission in cooperation with Partners;
- Provide technical assistance and training with and for willing interpreting organizations — through the Interpretive Compact — to enhance visitor services, publications, exhibits and audio-visual presentation in support of each organization's focus and in support of the overall interpretive system
- Assist the Commission and members of the Interpretive Compact to develop educational outreach programs and curricula on Corridor-wide themes;
- Provide architectural programming services and museum and interpretive planning services for the development of the National Canal Museum, in partnership with the City of Easton, Hugh Moore Historical Park and Museums, the Pennsylvania Historical and Museum Commission, and the Delaware Canal State Park; and
- Provide architectural programming services and interpretive planning services to the Commission and its Partners in planning Corridor Landings.

In those portions of the Reaches that are beyond the Passage, the National Park Service will be requested to provide these services on a reimbursable basis, or as directed by Congress.

Action Produce an interpretive plan for the Passage, with the cooperation of the Partner institutions, the Commission and the Interpretive compact.

Action Implement the Passage interpretive plan.

Action Produce an interpretive plan for the Corridor beyond the Passage in collaboration with interpretive Partners and the Commission.

Spatial Organization of the Interpretive System

The Plan organizes the Corridor spatially into a series of cultural landscapes, each characterized by distinct settlement patterns, geographic features and historical stories, and each linked to one another by the historic transportation system. (This physical arrangement has in part influenced the Corridor boundary, as explained in Chapter 2 and illustrated in Figures 3.3 and 7.0.)

The Passage

The historic transportation system — the canals and the mountain railway that were constructed to bring the anthracite coal to market — is the linear thread that defines the Passage, which includes the historic industries, communities and lands immediately adjacent. It runs from the Wyoming Valley to the Delaware Canal's intersection with the Delaware River in Bristol.

The Reaches

Beyond the Passage are eight Reaches, landscapes with a critical mass of resources that contribute to the Corridor's national significance. Each Reach's special attributes — natural areas, anthracite fields, historic industries or agricultural valleys — extend and support the Corridor's key themes. The interpretive structure of each Reach revolves around a number of interpretive sites, facilities and linkages that connect the resources within the Reach and also connect one Reach to another. The eight Reaches are fully described in Chapter 7. In brief, they are:

The Wyoming Valley Reach: At the northern end of the Corridor, oriented along the Susquehanna River, this valley supplied coal to the Lehigh Navigation. It includes the city of Wilkes-Barre and the smaller industrial and mining towns of Ashley, Nanticoke and Pittston, and the surrounding ridges.

The Anthracite Fields Reach: This Reach, comprising the anthracite field east of Hazleton, includes patchtowns and anthracite mining landscapes, and the historical linkages that brought coal into the Lehigh Gorge through such places as Weatherly, Penn Haven and Rockport.

The Audubon's Lehigh Reach: This Reach features the spectacular Lehigh Gorge and the abundant natural, recreational and scenic resources that have captivated thousands of visitors, including John James Audubon, who visited there in 1829.

Jim Thorpe and The Panther Valley Reach: This Reach includes the Panther Valley and the towns of Jim Thorpe and Summit Hill. This is the axis along which the first commercially mined anthracite was conveyed to the canal transportation system.

The Canal Towns Reach: The influence of the Lehigh Canal is quite evident in this Reach, an area of agriculture, the small industrial towns

of Lehigh and Palmerton, and such distinctive one-industry towns as Slatington and Walnutport.

The Lower Lehigh Valley Reach: The urban center of the Corridor, the Lower Lehigh Valley is dominated by the three cities of Allentown, Bethlehem and Easton, all made wealthy by the canal and the industries it fed.

The Delaware Canal Reach: Stretching nearly 50 miles, this narrow river valley landscape is characterized by small market, mill and canal towns, interspersed with farms and forest.

The Canal's End Reach: Originally an agricultural region much like that of the Delaware Canal Reach, 20th-century industrialization and suburbanization have transformed this landscape. Bristol, the industrial and shipping town at the terminus of the canal system, is the center of this Reach. Other towns include Morrisville and Historic Fallsington.

Links Beyond the Corridor

The Corridor does not exist in interpretive isolation, and so its visitors and residents will be encouraged to explore some of the other related heritage areas under development nearby, including the Lackawanna Heritage Valley State Heritage Park, the proposed Schuylkill River State Heritage Park, the Delaware & Raritan Canal Park in New Jersey, the Appalachian Trail and the Delaware Water Gap National Recreation Area. These "beyond-Corridor" linkages are shown on Figure 3.3.

Creating an Integrated Interpretive System

The new interpretive system is based on the four themes, on the roles of interpretive Partners and on the structure of the Passage and the Reaches, all of which were described in the preceding sections. Components of this system are described below. Details of this system — for example, the types of exhibits, routes of tours and locations of wayside interpretive panels — will be developed in interpretive plans that will be produced by the National Park Service and the Commission in consultation with potential Interpretive Compact Partners, local governments, the state, property owners and others.

Visitor Orientation through Corridor Landings

The initial contact between the visiting public and the Corridor will generally take place in one of ten visitor orientation sites, to be known as the Corridor Landings, which will be operated by a variety of interpretive Partners. The Commission will work with Partners in developing these sites, with the dual purpose of helping to present the full Corridor and Reach picture to visitors wherever they may first encounter the Corridor, and also of ensuring that some of the primary benefits

Criteria for Siting the Landings

Location:

- in the Passage
- as central a location as possible within each Reach
- only one Landing per Reach (with the exception of the Lower Lehigh Valley Reach, which will have three to accommodate high visitation occasioned by urban density)
- as close as possible to the historic transportation route
- easily accessible via major transportation arteries leading into the Corridor from regional markets
- easily accessible via the D&L Drive (note that the D&L Drive may be altered to accommodate final decisions on Landing sites in some Reaches)

Site characteristics:

- sufficient parking and ease of circulation for both cars and tour buses
- where feasible, development of the Landing should involve adaptive reuse of a historic structure
- where feasible, the site should relate to Corridor themes

Operation:

- existence of a Partner or Partners willing to cooperate with the Commission in developing the Landing
- existence of a Partner or Partners willing to operate and maintain the Landing

Spin-off benefits:

- where feasible, location within or in conjunction with a heritage attraction or interpretive site to allow for cooperative marketing and operation
- where feasible, located in or within easy walking distance of downtowns, commercial areas, or areas with commercial potential; presence or potential of the presence of a Main Street program will add weight to this judgment
- where feasible, located within easy walking distance of recreational trails
- where feasible, located so as to permit parking for water access to a canal or river
- where feasible, located so as to be near evening activities, to expand potential for overnight stays and cooperative evening events such as candlelight house tours or community performances

of the Corridor — the interpretive system, pride of place and increased tourist visitation — are equally shared across the Corridor. Each Reach will have at least one Landing near its center, usually located on the historic transportation route, and in conjunction with major heritage attractions, where possible.

A Landing will serve two functions. First, it will be a gateway to the Corridor and to each Reach. In orienting tourists (which include both residents and visitors to the region), the Landings will provide the overall Corridor story and direct visitors out to discover other sites and attractions in the Reach and the rest of the Corridor.

Each Landing will also provide services to enhance visits to the Corridor, such as welcoming, restrooms, reference service for lodging and advice from knowledgeable professional or voluntary staff on Corridor features, directions and route choices.

The actual locations of the Landings, their level of development and the timing of their establishment will depend strongly on the interests and availability of local Partners. The Landings may differ quite a bit one from another, but they will be established according to basic criteria, as shown in the adjoining sidebar. "Temporary Landings" may be established in some Reaches. These will involve small exhibits temporarily installed as places that already are staffed and serving as interpretive facilities, such as the Jim Thorpe Visitor Center and the Canal Museum in Easton. In some cases, fully developed Landings will be created at the location of temporary Landings; in others, new Landings will be developed at the most advantageous location and site.

Action Work with Partners to develop ten Landings (listed below in north-to-south order; see Figure 5.1):

Wyoming Valley Landing:

- Work with Luzerne County and other Partners to study feasibility, location, site selection and Partner responsibilities for a Landing in the Wyoming Valley Reach. Candidates include the Stegmaier Brewery, the Huber Breaker in Ashley and Kirby Park.
- Work with Partners to design and develop a Wyoming Valley Landing.

Anthracite Fields Landing:

- Work with the Pennsylvania Historic and Museum Commission to establish the Eckley Miners' Village Visitor Center as an immediate and permanent Landing.

Audubon's Lehigh Landing:

- Work with DER/BSP, the U.S. Environmental Protection Agency and the National Audubon Society to design and establish a joint BSP visitor center/Landing in White Haven.
- Work with Partners to develop the facility.

**Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN**

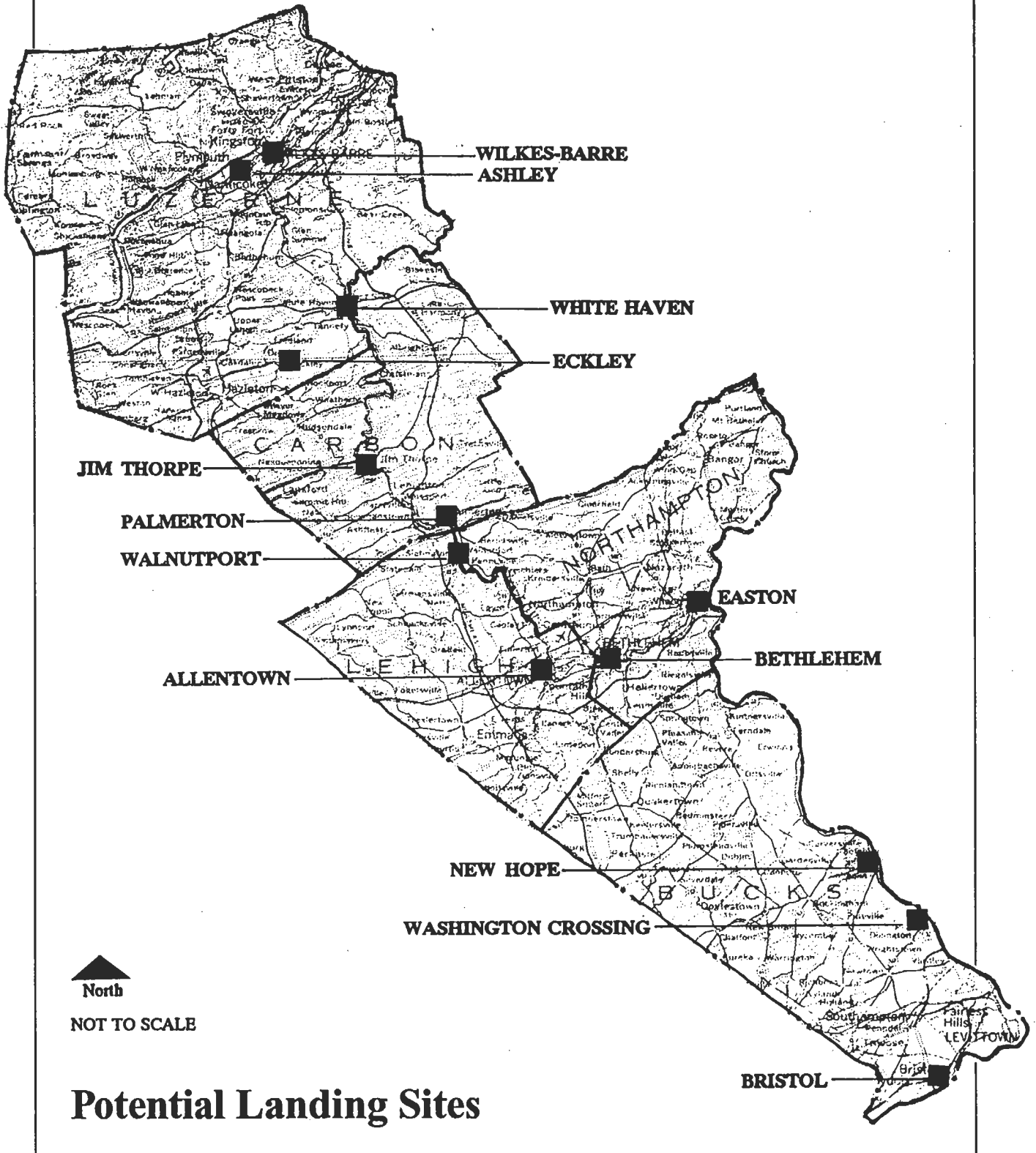


Figure 5.1

Jim Thorpe and Panther Valley Landing:

- Work with Carbon County, the Borough of Jim Thorpe and other Partners to establish a temporary Landing at the Jim Thorpe Visitor Center.
- Study feasibility, site selection and Partner responsibilities for a Landing in Jim Thorpe.
- Work with Partners to design and develop a Jim Thorpe Landing.

Canal Towns Landing:

- Work with the Walnutport Canal Association, the Boroughs of Walnutport and Palmerton, and other Partners to study feasibility, location, site selection and Partner responsibilities for a Landing in the Canal Towns Reach.
- Work with Partners to design and develop a Canal Towns Reach Landing.

Lower Lehigh Valley, Allentown Landing:

- Work with the City of Allentown and other Partners to establish a temporary Landing at the Art Museum or City Hall.
- Study feasibility, site selection and Partner responsibilities for a Landing in Allentown. Top candidate is the A&B Packing Company headquarters building in the Transportation Museum/Lehigh Landing mixed-use development.
- Work with Partners to design and develop an Allentown Landing.

Lower Lehigh Valley, Bethlehem Landing:

- Work with the City of Bethlehem, Historic Bethlehem, Inc., the Bethlehem Collegium and other Partners to establish a temporary Landing at the exhibit space at 509 Main Street.
- Study feasibility, site selection and Partner responsibilities for a Landing in Bethlehem. Candidates include 509 Main Street, the Ice House on Sand Island and historic, industrial structures of Bethlehem Steel.
- Work with Partners to design and develop a Bethlehem Landing.

Lower Lehigh Valley, Easton Landing:

- Work with Hugh Moore Historical Park and Museums, the Forks of the Delaware Task Force, the National Park Service and other Partners to establish a temporary Landing at the Hugh Moore Historical Park and Museums.
- Study feasibility, site selection and Partner responsibilities for a Landing in Easton in relation to the proposed National Canal Museum.
- Work with Partners to design and develop an Easton Landing.

Delaware Canal Landing:

- Establish a temporary Landing at the Locktender's House in New Hope.
- Establish a temporary exhibit at the Washington's Crossing State Historic Park Visitor Center.
- Work with PHMC, DER/BSP, Borough of New Hope, Friends of the Delaware Canal and other Partners to study feasibility, location, site

selection and Partner responsibilities for a Landing in the vicinity of New Hope. Candidates include the Thompson-Neely site, Union Camp complex and Washington's Crossing State Historic Park Visitor Center.

- Work with Partners to design and develop a Delaware Canal Landing.

Canal's End Landing:

- Work with the Borough of Bristol, the Grundy Foundation, DER/BSP and other Partners to establish a temporary Landing in Bristol at the Riverside Theater.
- Study feasibility, site selection and Partner responsibilities for a Landing in Bristol.
- Work with Partners to design and develop a Bristol Landing.

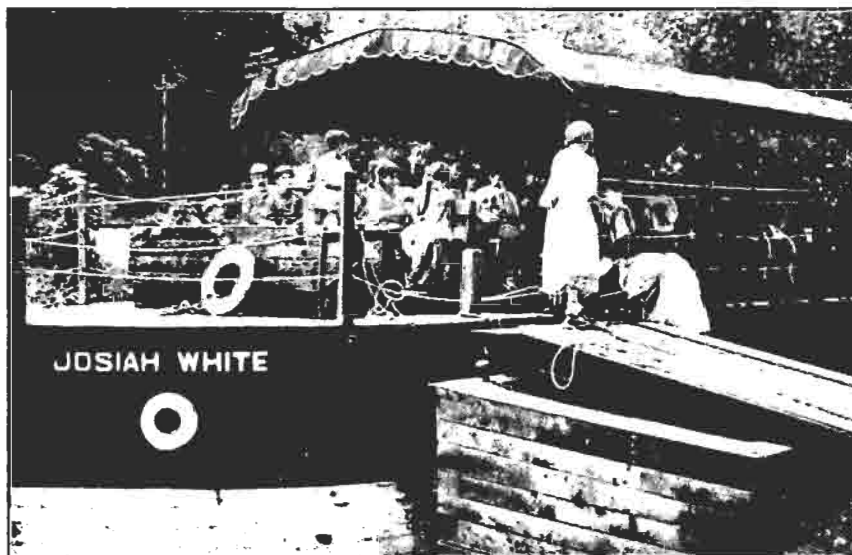
Action Work with PennDOT and the Pennsylvania Department of Commerce/Economic Development Partnership to show locations of Landings, as well as the boundary of the Corridor, on state maps and guides.

Interpretive Sites and Facilities

The interpretive system will blend new facilities, existing interpretive sites and institutions, and sites that are currently uninterpreted. For each Reach, the Commission and its Partners will organize a network of different types of interpretive sites into itineraries and tours. The menu of interpretive sites comprises Partner sites, key uninterpreted sites, major heritage attractions, kiosks and wayside exhibits.

Partner Sites

Partner sites will be the location of the most in-depth interpretation. Existing interpretive Partners will continue to interpret the stories currently in their missions, and the Commission will assist them in expanding their missions to include interpretation that links the institution's own thematic focus to that of the overall Corridor. Each



Courtesy Hugh Moore Historical Park and Museums

Corridor interpretation will be primarily based on the remarkable capacity of the more than 50 existing interpreting organizations already providing services here. The Plan calls for assisting these interpretive Partners in their missions and coordinating their interpretive contributions to the overall Corridor themes. Hugh Moore Park's canal boat ride is a popular way to learn about life on the canals.

Key Uninterpreted Sites

- Ashley Breaker and Ashley Inclined Planes
- Mountain Top
- Glen Summit
- The future Lehigh to Susquehanna Trail
- White Haven, a lumber and canal town
- Upper Grand Division, Lehigh Canal
- Rockport Tunnel and Inclined Plane
- Penn Haven Planes
- Glen Onoko
- Weatherly Railroad Shops
- Beaver Meadow, Quakake, Room Run and Buck Mountain Railroads: feeders to the Lehigh Navigation
- Anthracite patchtowns between Hazleton and Eckley
- Jim Thorpe and the Lehigh Coal & Navigation Company
- Switchback Gravity Railway
- Summit Hill and Lansford, anthracite towns
- Palmerton, a planned industrial community and the zinc works
- Slatington and slate quarrying
- Walnutport and the Lehigh Navigation
- Thomas Iron Works, Hokendauqua
- Catasauqua, textiles and manufacturing
- Bethlehem Steel
- South Bethlehem
- Freemansburg, a canal town
- Change Bridge, Hugh Moore Park
- Jacobsburg Village and Boulton Gun Works ruins
- Stouts Valley and surrounding agricultural landscape (including Riegelsville, Durham, Coffeetown, Cook's Creek)
- Raubsville, the Theodore Roosevelt Recreation and Conservation Area at Lock 22
- canal villages: Uhlerstown, Point Pleasant, Lumberville, New Hope and Yardley
- Carversville
- Virginia Forest Recreation Area and Hal Clark Park north of New Hope
- the New Hope Mule Barge Ride
- New Hope & Ivyland Railroad
- Morrisville
- Levittown and suburbanization
- Bristol

(Sources: *Interpretive Resources Survey and Analysis* and the Commission)

Joseph E. B. Elliott



Sites such as Bethlehem Steel represent important parts of the Corridor's history. The Commission will seek partners to interpret such stories.

institution will be encouraged to present basic orientation information: guides to nearby sites, programs and attractions; maps; visit-planning information; and context-setting programs. Thus, visitors will be able to learn about the overall Corridor story at each site in a way that adds extra meaning to the primary story told at that site. Examples of existing interpretive sites where context-setting and community-heritage programs might be based include: Wyoming Geological and Historical Society's headquarters, Historic Fallsington, the Mercer Museum, Pennsbury Manor and sites owned by the Lehigh County Historical Society. The currently interpreted sites that were identified as key to a Corridor-wide interpretive system in the Technical Appendix, *Interpretive Resources Survey and Analysis*, are illustrated in Figure 5.2.

Action Create an exhibit presenting the Corridor-wide story, for installation at all Landings and interested Partner sites.

Action Sponsor a technical assistance, training and matching grants to existing interpretive organizations to enhance their programming, coordinate their interpretive themes with the Corridor themes, and improve staff capabilities, using the services of Commission staff, the Pennsylvania Federation of Museums and Historical Organizations, the National Park Service and others.

Action Provide matching grants and technical assistance for exhibits and visitor services at Partner sites.

Key Uninterpreted Sites

There are many sites, events and linkages important to telling the comprehensive Corridor story that currently are uninterpreted or inadequately interpreted (see sidebar and Figure 5.3). In some cases, interpreting organizations have plans underway to develop interpretation. In others, there are neither plans nor resources to interpret them. For many of these, potential interpretive Partners can be identified, and the Commission will work to forge partnerships to interpret those sites. For other sites, no obvious Partner exists and the Commission will spearhead efforts to develop them as Corridor interpretive sites. The Corridor interpretive plan will set priorities for developing appropriate interpretation at some of these key sites. (In addition to teaming up with existing facilities and institutions, the Commission will assist the development of selected new interpreting institutions and sites, as described below under "major heritage attractions.")

Action Provide matching grants to existing and new interpretive organizations to encourage them to address key uninterpreted sites according to the Corridor and Passage interpretive plans.

Major Heritage Attractions

Some Partner sites have the potential to become major heritage attractions — to attract 50,000 or more visitors a year. Even before the Corridor initiative was underway, a number of plans were under study for the development of museums and other facilities that can conserve

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN

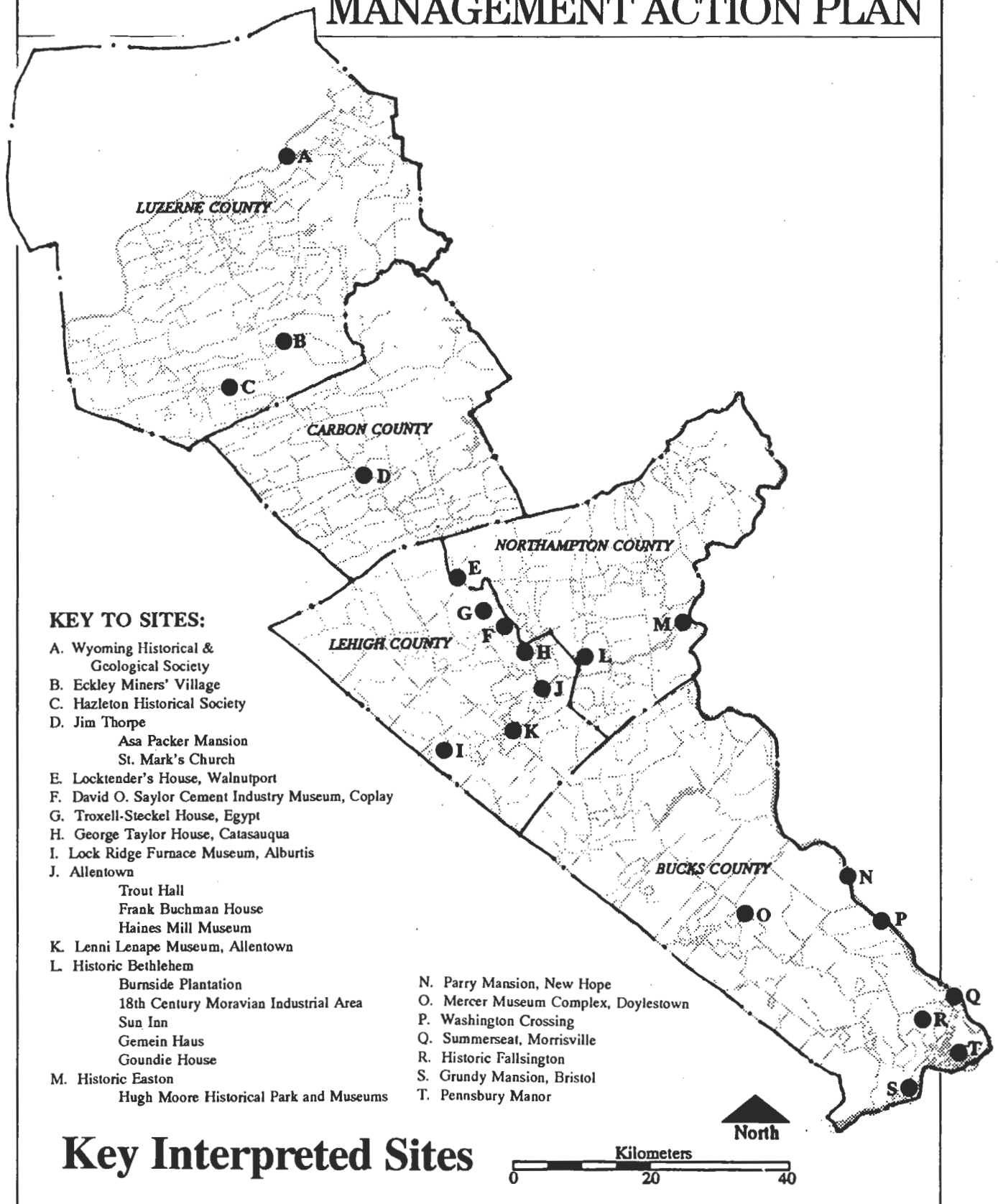


Figure 5.2

Natural Features with High Interpretive Potential

Luzerne County:

- Tannery Quartz Formation
- Buttermilk Falls
- Kendall Creek and Wetlands
- The Apex
- Turner Swamp
- Pole Bridge Swamp
- Tubs Natural Area

Carbon County:

- Beltzville Dam
- Centerfield Fossil Zone
- Stony Ridge
- Hawks Falls
- Mt. Pisgah Uranium Site
- Devils Pulpit
- Split Rock

Lehigh/Northampton Counties:

- Jasper Park
- Hexenkopf Hill
- Bauer Rock
- Elephant Rock Woods
- Geologic Park
- Henry Woods

Bucks County:

- Durham Caves
- Ingham Spring
- Delaware River Fall Line
- Delhaas Woods
- High Rocks
- Ringing Rocks
- Afton Lake
- Silver Lake Park

(Source: *Natural and Recreational Resources Evaluation* and the Commission)

and interpret what have turned out to be key Corridor themes and resources, and which aim for heavy visitation. With coordination in development, mission and promotion, such facilities can become important components of the overall interpretive framework for the Corridor, increase visitation to other Corridor sites and make powerful contributions to the local economy by attracting additional visitors and encouraging them to stay for longer periods of time.

The Commission's policy regarding new or expanded major heritage attractions will be to encourage their development; advocate and support the multiple objectives of high-quality interpretation, visitor services, strong interconnections among them and with Corridor sites and institutions, and local economic benefits through tourism; and provide seed money for basic development and for enhancements to programming that will help to meet these multiple objectives.

Potential sites include the following:

- *The Lehigh Gorge State Park Visitor Center; the National and State Heritage Corridor Landing at Lehigh Gorge:* Lehigh Gorge State Park plans call for a park visitor center at White Haven, to be located near exits of the Pennsylvania Turnpike and I-80. Considerable existing recreation-oriented visitation already exists in the area. The site can also serve as a visitor orientation facility for Hickory Run and Nescopeck State Parks and both the Corridor's Audubon's Lehigh and Anthracite Fields Reaches. Considering all these factors, this facility has great potential as a Corridor Landing and the nucleus of a major heritage attraction, which is the park itself and the hundreds of thousands of acres of public lands in the region.

Ways to connect this facility to White Haven in order to spin off economic benefits to the town are described in more detail on page 176.

- *Eckley Miners' Village; the National and State Heritage Corridor Landing at Eckley:* Eckley is part of the Pennsylvania Anthracite Museum Complex, and with its restored anthracite patch town and excellent museum, it is an extremely strong interpretive Partner. As a Corridor Landing for the Anthracite Fields Reach, and with additional restoration of structures, augmentation of its programs, and promotion it has the potential to greatly increase its visitation.
- *The Museum of Transportation at Allentown:* This museum is the centerpiece of Lehigh Landing, a waterfront recapture project which will also include meeting space, restaurants, and a riverwalk. (Lehigh Landing is described in a sidebar on page 198.) The focus of the museum is automobile and truck transportation, and the collections, which are complete, include numerous antique automobiles, Mack Trucks, and even a complete 1920s filling station. Feasibility studies and planning for this museum were completed in 1991, and the complex is expected to be under construction within the next three

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN

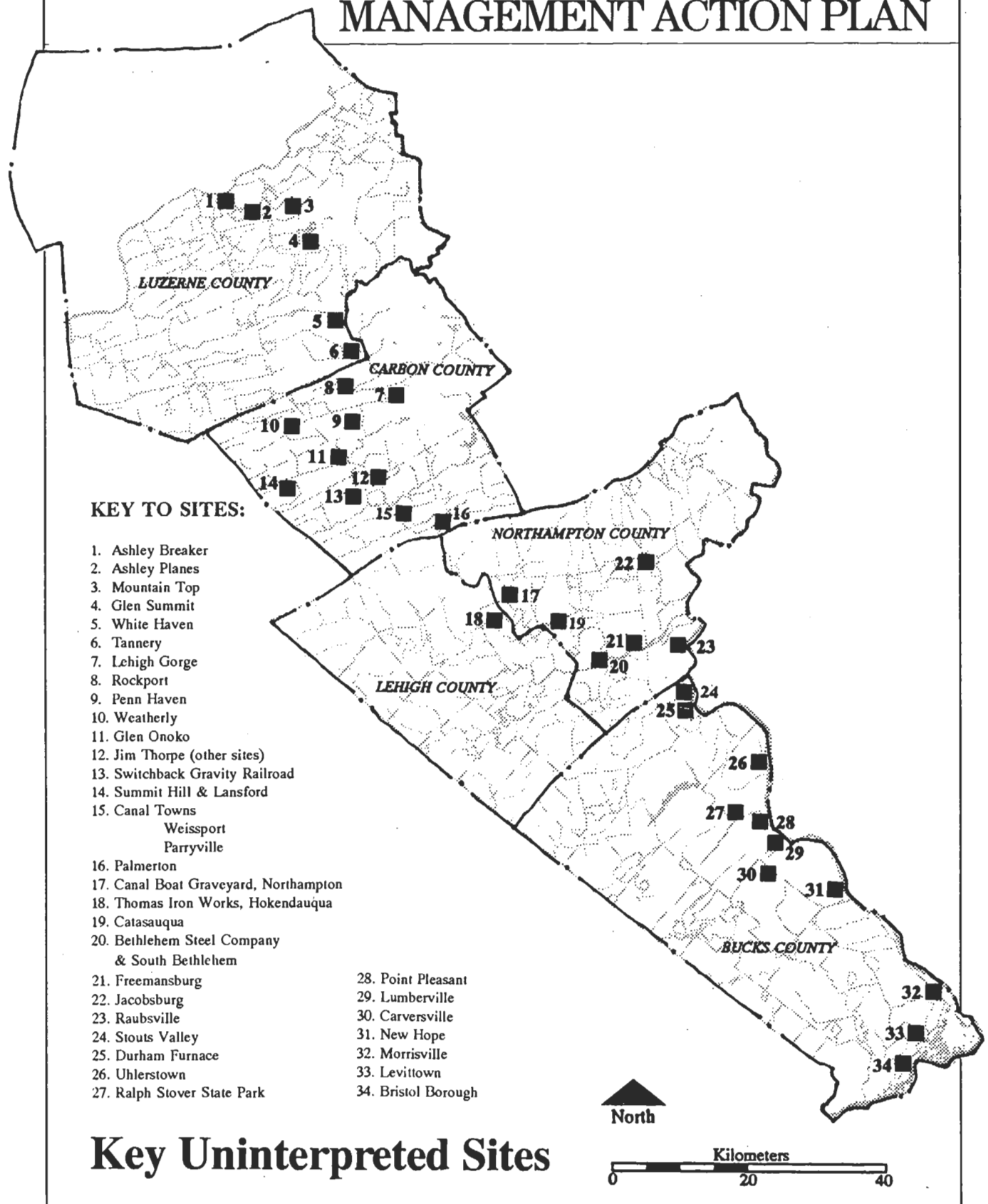


Figure 5.8

■ IDEAS FROM THE CORRIDOR:

A National Canal Museum and Landing

No institution in America adequately interprets the history and significance of canals and early transportation to the nation's development. It is possible to rectify this through a partnership to develop and manage a national canal museum at an unparalleled location: the junction of the nation's two longest and last-operated and most fully intact towpath canals.

At Easton is the confluence of the Delaware and Lehigh Rivers, the triple junction of the nationally significant Delaware and Lehigh Canals and the Morris Canal, as well as the junctions of seven historic railroads. The Hugh Moore Historical Park and Museums (HMHPM) operates a small and expanding canal and industrial history museum at this site, and maintains a large collection of artifacts and a primary archive of canal and transportation history. HMHPM has restored a lockhouse, a lock and six miles of the Lehigh Canal, and operates an interpretive canal boat ride for visitors. The Lehigh Canal is on the National Register and is a National Recreation Trail. Other potential Partners include:

- The Pennsylvania Department of Environmental Resources/Bureau of State Parks (BSP), which owns and manages the 60-mile Delaware Canal State Park, the northern border of which adjoins the Hugh Moore site. The Delaware Canal is a National Historic Landmark and National Recreation Trail. The Bureau also owns and manages the 26-mile Lehigh Gorge State Park, which encompasses the nationally significant Upper Grand section of the Lehigh Canal.
- The Pennsylvania Department of Community Affairs (DCA), which administers the State Heritage Parks Program and has been the primary cooperator in and funder of this Plan.
- The Pennsylvania Historical and Museum Commission (PHMC), which is a member of the State Heritage Parks Task Force and has cooperated in developing the National Heritage Corridor's historic resource inventory.
- The National Park Service (NPS), which assisted the Commission in preparing this Plan, and which has unparalleled experience in the development of interpretive exhibits and programs at all scales.

The national significance of the canals; the presence of artifacts of early river transportation, later railroad transportation, and the early industry they brought about; the existing operations and management capacity of the BSP and HMHPM; and the potential participation of the NPS, DCA and the PHMC in funding and/or planning the museum indicate that an innovative partnership is strongly possible. The museum would be an important anchor for the Corridor.

A National Park Service Special Resource Study could assess the feasibility of the proposal, and lead to a formal agreement among the partners for the development and operation of the facility.

years. Partners are the City of Allentown, the Allentown Economic Development Corporation, the Pennsylvania Historical and Museum Commission, the American Truck Foundation and owners of individual collections.

- *The Museum of the Industrial Revolution:* Feasibility studies and early programming have been underway since 1986 for this facility, which would tell the catalytic role of the Lehigh Valley and the Corridor in the American Industrial Revolution. Because of the wealth of historic industrial resources in the Lehigh Valley, a number of locations are being considered, including historic buildings in Easton's Enterprise Zone, parts of early iron industry buildings at the Bethlehem Steel plant in Bethlehem, and other locations. A substantial portion of the museum's ultimate collection is already in hand. Partners include Hugh Moore Historical Park and Museums, the cities of Bethlehem and Easton, the Commonwealth, local industries and private historical and industrial archaeological organizations. Projections call for the museum to be open in part in three to four years.
- *The National Canal Museum:* This museum — described in detail in the sidebar — could become an extremely important basis for interpretation and visitation in the Corridor. It will fill a national gap in interpreting the history and significance of canals to the nation's growth, and, like the other heritage attractions described above, its development will be the product of an unusually broad public/private partnership.
- *Additional heritage attractions* are probable, but are not yet sufficiently detailed to be described in this Plan. New or expanded facilities, tours or events that could broaden the offerings of the Corridor are desirable for interpretive and cultural tourism purposes, and the Commission is interested in participating in discussions and development of feasible projects throughout the Corridor.

Action Support development of major heritage attractions through matching grants; ensure coordination of interpretive services and of promotion of new attractions and existing interpretive sites.

Kiosks and Wayside Exhibits

Kiosks are stationary, freestanding interpretive displays to be placed at heavily visited locations outdoors to orient visitors. Consisting of a combination of maps ("you-are-here"), illustrations and text, kiosks will interpret their immediate surroundings, but more importantly will direct people to Corridor Landings and nearby interpretive sites. They will provide a visual presence for Corridor interpretation and will facilitate one of the main missions of the interpretation system: to focus people on understanding the overall Corridor themes, then fan them out to explore and discover other sites.

Wayside exhibits are a second type of stationary interpretive display, to be focussed more strongly on interpretation of a particular site or location, rather than on orientation. Waysides will be employed at roadside pull-offs and at key trailside and canalside points to interpret a localized site or event. These operate in much the same fashion as the familiar Pennsylvania Historical and Museum Commission historical markers, but will not be readable from an automobile and will employ more variety in content and design.

Eye-catching sculptural elements — such as a bronze statue of a locktender in a site along the Lehigh or Delaware Canal — will help bring to life the history of the Canals and other places where modest exhibits can be effective. Landscaping and interpretive panels might complete a wayside exhibit, and provide an interesting interlude for a driving tour. Waysides are especially useful in helping to interpret large-scale features such as a cultural landscape or physiographic regions. Although they will be designed to interest a casual passer-by, waysides will not stand alone; they will be organized as elements along such interpretive and recreational linkages as self-guided tours, auto-tape tours and hiking trails.

Action Develop and install interpretive kiosks and/or wayside exhibits at a minimum of ten sites in the Corridor during the first three years. Additional installations for later years may be identified in the Corridor and Passage interpretive plans.

Driving Tours and Interpretive Trails

A well-developed system of interpretive linkages are especially important because of the long distances involved in the Corridor — the paths of circulation that tie together, intellectually and physically, the interpretive experience of the Corridor. Such linkages will transform a constellation of discrete, scattered sites into an effective interpretive system relating interpretive themes to different sites.

Driving tours will be the Corridor's most important type of interpretive linkage because the reality is that most people will experience the Corridor in their automobiles or on buses. Interpretive driving tours can be guided — by an interpretive ranger, a volunteer, a professional guide on a bus, or self-guided — using a brochure, map, cassette tape or radio-frequency transmitter. Driving tours will follow a sequence of interpretive sites and stories, by routes that best capture the dramatic sequence of the stories being told. These routes may overlap with the route of the D&L Drive (Figure 4.5), but they will contrast markedly with its intent, which is to provide the most direct route from one end of the Corridor to another.

Interpreted trails are a second important type of interpretive linkage. They are expected to draw fewer users because of the physical exertion and time involved in using them, but they will reward users by giving a more intimate look at resources. Developing these linkages will involve interpreting existing recreational trails — particularly the D&L Trail, shown on Figure 4.4 — with wayside exhibits, as well as develop-

Potential Sites for Wayside Exhibits and Kiosks Include:

- | | |
|---------------------|--------------------------------------|
| · Wilkes-Barre* | · Delaware River & Canal |
| · Ashley Planes | · Theodore Roosevelt Recreation Area |
| · Ashley | · Durham |
| · Glen Summit | · Narrows Picnic Area |
| · Eastern Middle | · Upper Black Eddy |
| · Anthracite Fields | · Tincum Park |
| · Hazleton | · Point Pleasant* |
| · Weatherly | · Virginia Forest Recreation Area |
| · Rockport | · Lumberville |
| · Lehigh Gorge | · Doylestown* |
| · Panther Valley | · Newtown* |
| · Parryville | · Yardley* |
| · Palmerton* | · Morrisville* |
| · Slatington* | · Levittown |
| · Walnutport* | · Pennsbury |
| · Catasauqua* | · Fallsington |
| · Hokendauqua* | · Bristol* |
| · Williams Township | |
| · Freemansburg* | |
| · Jacobsburg | |
| · (Nazareth) | |

* Kiosks may be appropriate here.

IDEAS FROM THE CORRIDOR:

Hidden Trail

Trails used by the Corridor's first inhabitants, the Lenni-Lenape, were the first roads for European settlers. In many cases, these early routes are now major highways used by thousands of people every day. The routes of the primary Native American trails are known, and could be marked with signs and interpretive waysides that explain how they were sited and what they connected. A trail used for a nefarious purpose, the Walking Purchase (see page 18), could be marked as well.

Potential Interpretive Tour Routes

A pilot interpretive tour route has been developed on the theme of agriculture, featuring the rural countryside of central Bucks County (see pilot interpretive tour in the Technical Appendix, *Interpretive Resources Inventory and Analysis*) There are many other tour route opportunities throughout the Corridor that will provide visitors with insights into the history and cultures of the region, especially once potential Partner interpretive exhibits and programs are developed and the Landings are in place. Some potential theme tour routes, where resources are close enough to accommodate a single day's tour, are:

Anthracite: Miners and Millionaires

- Wilkes-Barre River Street Historic District
- Ashley Breaker
- Nanticoke
- Hazleton
- Lattimer
- Eckley

Taming the Terrain: Transportation

- Jim Thorpe
- Switchback Gravity Railroad
- Summit Hill
- Weatherly
- Rockport, Penn Haven Planes

Canal Towns

- Jim Thorpe
- Weissport
- Parryville
- Bowmanstown
- Walnutport

Natural Resources: Mining and Minerals

- Summit Hill
- Palmerton
- Walnutport and Slatington
- Cementon
- Saylor Cement Museum, Coplay

Industrial Heartland: Lehigh Valley

- Hugh Moore Historical Park and Museums
- Bethlehem 18th-century industrial area
- Bethlehem Steel
- South Bethlehem neighborhoods
- Allentown Waterfront: Phoenix Mills, Transportation Museum

Four Centuries of Humans and Nature

- Bristol Borough
- Historic Fallsington
- Pennsbury Manor
- Levittown
- GROW Landfill

During the development of the interpretive plan, and as some of the important uninterpreted sites are interpreted through Partner participation, these and other "special interest" tour routes will be planned in detail. Tour formats will include mapped or audio-cassette driving tours, guided bus tours and bicycle and hiking routes.

ing new trails with dual goals of providing interpretive and recreational resources. The latter will include rail-to-trail projects along historic rights-of-way, especially in the northern Reaches of the Corridor.

Action Work with interpretive Partners to develop and implement topical driving, walking and other tours. These tours may extend beyond a single Reach (see sidebar).

Action Work with Partners in one Reach to identify, develop and implement interpretive tours.

Action Staff and train interpretive rangers on canal rides, train excursions, canal walks and other walking tours and hikes.

Signage and Information

A unified graphic system is an important element in tying together the disparate elements of the Corridor in a way that is immediate and clear to visitors and residents experiencing the Corridor. Through a grant from the National Endowment for the Arts to the Hugh Moore Historical Park and Museums, the Commission is now working with Partners to develop a comprehensive environmental graphics system for signage, brochures and other publications. The endowment's grant has been matched by the State Heritage Parks Program and the Friends of the Delaware Canal. Wayfinding and interpretive signage will be based on the results of that project. The visible presence of uniform signage will greatly aid visitor movement and will make the Corridor's interpretive stories more accessible to residents as well as visitors. In addition to providing new graphic displays in the Corridor, the Commission will take advantage of such modern visitor communication technology as low-frequency radio transmitters.

Action Develop a signage system and install directional signage at key locations. Design/install as much of the signage as possible in the first year; complete the system by year two; add or alter signs as driving tours, Landings and access points are developed or changed.

Action Sponsor an environmental graphics demonstration project in Delaware Canal State Park, incorporating signs, wayside exhibits and other components of the signage system. Design and install as much of this system as possible in the first year.

Action Install low-frequency radio travellers' information systems at five to seven locations in the first three years. Additional installations may be identified in the Corridor and Passage interpretive plans.

Publications and Audio-visual Materials

A number of publications and guides will make the Corridor story and themes accessible and its linkages coherent. These will include a primary map/brochure, modeled on the existing visitor map produced

by the National Park Service, the Corridor's tourism promotion agencies and several other early Partners; booklets and maps on different themes and on the different Reaches; a pocket "citizen's guide" to experiencing the Corridor, on the model of a trail guide, with a detailed map and wayfinding instructions (see sidebar); special-interest guides and maps; and other materials. In addition, the Commission and its Partner will work separately and together to create slide shows; documentary, interpretive or promotional videos or films; audiocassettes to accompany driving tours; interactive videodisc and computer displays to accompany exhibits and kiosks; and other audio-visual materials as appropriate in providing interpretive and promotional aids. The production and distribution of these publications will be coordinated by the Commission through the Interpretive Compact and the tourism promotion agencies.

Action Develop and distribute interpretive publications and audio-visuals through matching grants to Partners and direct Commission action.

Action Produce a pocket "citizen's guide" to the Corridor.

Action Revise the Corridor's visitor map developed by the National Park Service to reflect the proposed interpretive framework and facilities.

Action Select two highly visited sites or events to jointly develop a site/ event/Corridor brochure as a demonstration project in the first year. Use the experience to improve planning and implementation of more publications under the Corridor and Passage interpretive plans.

Action Create or provide matching grants to create simple travelling exhibits on cultural, natural and historic resources and themes.

Interpretive Staff

Knowledgeable guides and interpretive rangers will be a cornerstone of the interpretive system, since they are often the most effective means of stimulating visitor understanding and appreciation, providing information and orientation, and helping to ensure protection of resources. At interpretive facilities throughout the Corridor, rangers, local interpreters and volunteers will perform such duties as conducting specific tours and other interpretive programs. This interpretive staff can also reach out to Corridor communities, bringing Corridor interpretation to its residents rather than the other way around.

Through the Interpretive Compact, training and technical assistance can be provided to Partners to enhance their staffs' capabilities, establish or expand volunteer programs and promote other staff-building actions, both to serve their existing organizational missions and to help present overall Corridor themes. Because of their presence in the field, interpreters often will act as ambassadors for the Corridor, providing visitors with information on recreational opportunities, tourism attractions and services.

IDEAS FROM THE CORRIDOR:

A Citizen's Guide to the Corridor

As the Commission has worked to develop its Management Action Plan, it has amassed volumes of information and photographs on the Corridor's history, its resources and its likely future. Through its public involvement process, the Commission has also heard a great deal from citizens and leaders on what it is about this region that is most important to them, and what they want to see carried forward. The next important step is to return this information to the people — to translate it into language and pictures in a format that can reach as many people as possible.

A "user's guide" can be the key to accessibility to the National Heritage Corridor: the coffee-table connection from each home to the concept of the Corridor and to its resources. This user-friendly summary and guide would weave together all the information necessary for the layperson to use and understand the Corridor's historic, cultural, natural, recreational and economic sites and opportunities.

The book can be used primarily to market ideas and resources to residents and visitors, and it would also have an important role in bringing civic and corporate leaders on board, in fundraising for Corridor projects and in attracting appropriate and desirable economic development to the area.

The Fine Arts

There is a well-developed tradition of fine arts in the Corridor, with numerous venues for music, theater and art to be found throughout. Among the most well-known are the Michener Arts Center in Doylestown, the Allentown Art Museum, the Sordani Gallery, the Riverside Theater, the Bucks County Playhouse, the State Theater, the Touchstone Theatre Company in South Bethlehem and the Pennsylvania Stage Company. There are also innumerable university-sponsored and private galleries, dance and chamber music societies, symphonies and arts festivals.

All have been and will continue to be important parts of interpreting the Corridor's historic and contemporary culture.

In the Passage, interpretive personnel who may participate in joint Corridor/Partner programs may include staff from the Bureau of State Parks, the Pennsylvania Historical and Museum Commission, locally based interpretive Partners and the National Park Service, all coordinated by the National Park Service in concert with the Interpretive Compact. In the Reaches, the staff and volunteers will be associated with local Partners, to be coordinated through the Interpretive Compact.

Action Sponsor technical assistance, training and matching grants to existing interpretive organizations to enhance their programming, coordinate their interpretive themes with the Corridor themes, and improve staff capabilities, using the services of Commission staff, the Pennsylvania Federation of Museums and Historical Organizations, the National Park Service and others.

Action Facilitate establishment of a corps of volunteers under the National Park Service's Volunteer-in-the-Parks Program.

Education

Overall Strategy

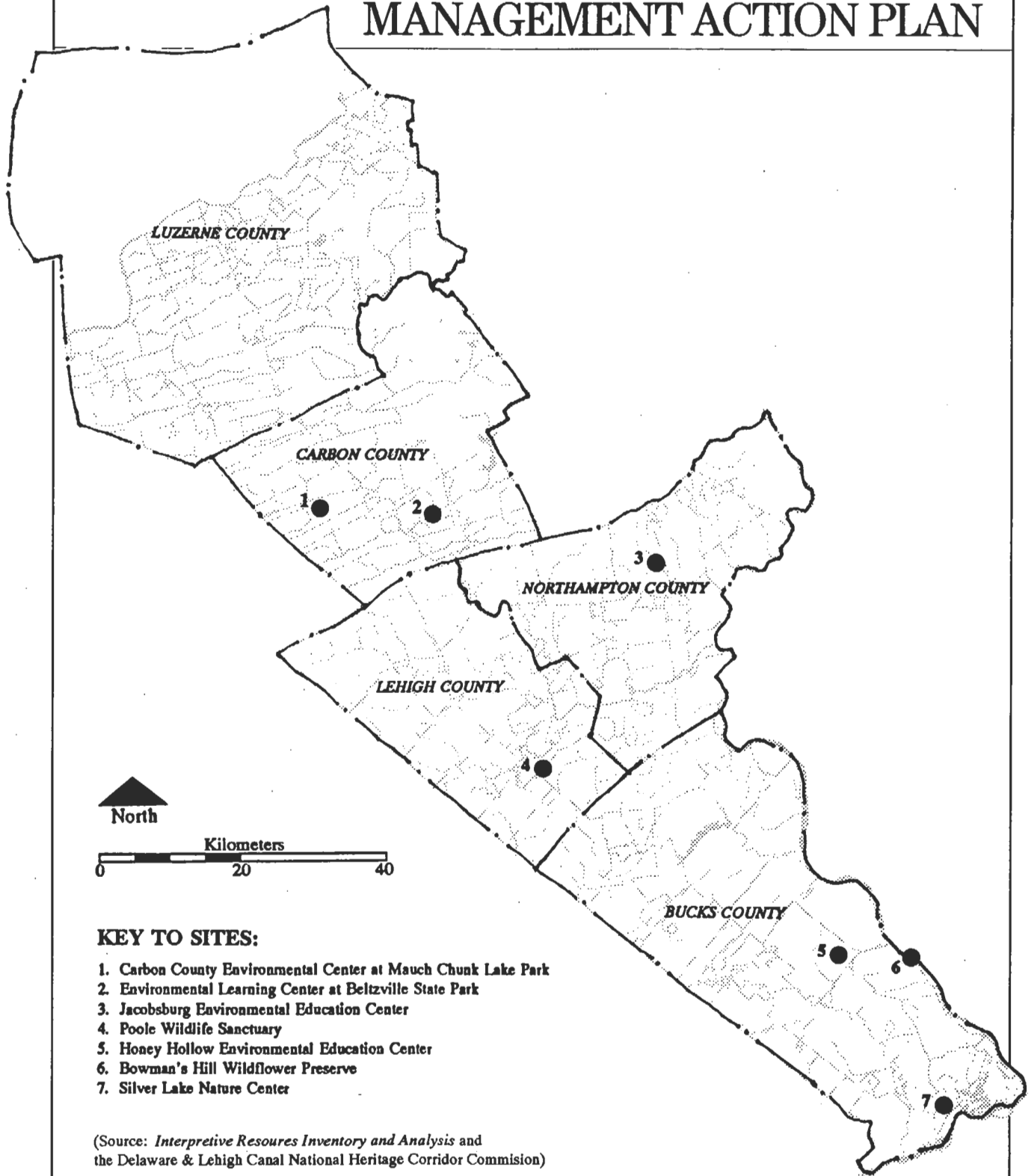
Though interpretation, by definition, is an educational endeavor, education as a specific Corridor goal deserves separate attention. The Commission, the National Park Service, the National Trust for Historic Preservation and Interpretive Compact Partners, working with Pennsylvania Department of Education staff and local education specialists, will provide support and assist in creating locally and individually tailored programs. The beginning focus will be on one grade level and will move outward from there to address every educational level, primary through university. The Commission will work through the existing structure of state Intermediate Units, school districts and institutions of higher education. The Commission will also work closely with existing educational outreach organizations, such as the Bureau of State Parks' environmental education program, Hugh Moore Historical Park and Museums' teacher in-service program, the Roving Nature Center and others.

The Commission will coordinate and provide small matching grants for curriculum and lesson-plan development, materials development and class field visits. Equal emphasis will be placed on natural and historic/cultural resources and themes.

Programs

The policies and programs outlined here will apply equally to Reaches throughout the entire Corridor. Programs to be supported include such educational activities as school programs, teacher training programs, college seminars or special study courses.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN



Corridor Environmental Education Centers

Figure 5.4

Primary, Middle and Secondary Programs

The Commission will work with Intermediate Units in and around the Corridor to develop school programs that will fit into the prescribed curricula already in place in school districts. Model and actual lesson plans will provide the overall Corridor heritage context as well as deal with the resources local to the particular school district as they reflect Corridor themes. Small matching grants will enable school groups to participate in field trips to Corridor interpretive sites, including pre-visit and post-visit classroom sessions.

One promising potential partner is the Pennsylvania Geographical Alliance, an affiliate of the National Geographic Society and supported by the Pennsylvania Department of Education, whose mission is to integrate geographic education in school curricula throughout the state. The activities of the Alliance often include teacher training sessions and summer institutes as well as producing lesson plans and distributing educational materials directly to schools. Another potential Partner is the "Teaching with Historic Places" program developed by the National Trust for Historic Preservation and the National Park Service, which uses National Register properties as the basis of activities to teach history.

Action Work with the Pennsylvania Department of Education to fund Intermediate Units to enable classroom teachers to cooperate with interpretive Partners to develop cultural, natural and historical programs for incorporation into an educational curriculum for the Corridor, for primary, middle and senior grade levels.

Action Work with the Pennsylvania Department of Education and Intermediate Units to develop cultural, natural and historical educational curricula for all educational levels.

Action Provide matching grants or contracts to interpreting institutions to enhance their educational outreach to classrooms and summer children's programs.

Action Provide matching grants for school visits to Corridor cultural, natural and historical sites.

The Corridor's Colleges and Universities

- Kings College, Wilkes-Barre
- Wilkes College, Wilkes-Barre
- Pennsylvania State University, Hazleton Campus
- Luzerne County Community College
- Lehigh County Community College
- Northampton County Community College
- Allentown College of St. Francis de Sales
- Cedar Crest College, Allentown
- Muhlenburg College, Allentown
- Pennsylvania State University, Allentown Campus
- Lehigh University, Bethlehem
- Moravian College, Bethlehem
- Lafayette College, Easton
- Bucks County Community College
- Delaware Valley College, Doylestown

Collegiate and Graduate Programs

On the collegiate and graduate level, there are a myriad of research activities that could open new windows on understanding the Corridor's development while encouraging students and faculty to take advantage of the superb Corridor "classroom." The Commission will encourage college and university faculty and students to explore and publish on topics relevant to Corridor themes, and will help to sponsor and provide information for seminars or courses that focus on issues relevant to Corridor goals. The model for this is Lafayette College's 1992 seminar course that investigated the relationship between storm water drainage and the Lehigh Canal. The course resulted in a valuable report provided to the Commission, as well as a worthwhile learning opportunity for the student researchers. This is clearly an area where

the students, the colleges, the Commission and Corridor residents can mutually benefit.

ACCOMPLISHMENTS

Lafayette College has established a menu of undergraduate educational projects focusing on the environmental and historic elements of the Corridor.

Action Work with colleges so that specific Corridor research needs can be met through faculty and student work.

Adult and Community Programs

To reach beyond the colleges, universities and schools themselves, educational programs in the form of seminars/symposia/conferences can attract a wider, public, adult audience. These would provide an opportunity for adults to participate in a more formal educational program than simply visiting interpretive sites and participating in tours. For example, Hugh Moore Historical Park and Museums annually sponsors a Canal History and Technology Symposium.

Partner sites will also be the locus of community heritage programs, which will provide an outreach function to extend the benefits of interpretation to local communities. Community heritage programs can include nearly anything of local historic or cultural interest, including cultural celebrations and commemorations, documentation and artifact conservation, and small exhibits and other programs.

Action Work with interpretive, cultural, conservation and historical preservation Partners to create community heritage and public outreach programs for individual communities with and without Partner sites.



Conserving and Enriching the Corridor: Protecting Key Resources and Capitalizing on Heritage Development

Introduction

The preceding two chapters address ways to navigate the Corridor — to move along the rivers and roads, and along the D&L Trail; and ways to create appreciation and understanding for the Corridor through education and interpretation of historic, cultural and natural resources. This chapter adds a third dimension: ways to protect and improve the Corridor itself. It addresses the physical and human resources that make the Corridor so extraordinary, and the economic needs that must be considered to retain and improve the area's vitality.

Today, growth patterns that were set in the 18th and early 19th century by agricultural settlers, urban entrepreneurs and industrial pioneers are still evident throughout the Corridor in both rural and urban landscapes. Where this occurs, it is easy to understand and enjoy Corridor resources. In many places, however, new technologies and new reasons for growth have obscured the earlier patterns, and “reading” the earlier layers of the Corridor's history is consequently more difficult. Today's communities, roads and buildings are built to different rhythms: of the automobile, of a huge and growing population, of technological evolution, of a national economy.

As a result, while the old and the new, and the natural and the built, have blended successfully in many places, such success is less and less likely to happen by accident. Thus, it is vital to assure that key Corridor resources are taken into account when they might be affected by proposals for new development and change.

Key resources in the Corridor include scenic views, interpretive tour routes, trail corridors, the visual context of the canals and other historic sites, historic buildings and historic communities both large and small, prime farmland, wildlife habitat, environmentally sensitive sites (wet-

lands, habitat for rare and endangered plant and animal species, sites of special geological interest), and healthy streams and their valleys and watersheds. The Corridor possesses a remarkable number of these resources that, taken together, provide more than simply a setting for the D&L Trail and the interpretive system. Despite 300 years of development and change, the ecosystem that existed before European settlement is still strongly apparent in much of the Corridor; moreover, communities and structures record an unbroken story of the Corridor's cultural settlement and human enterprise. Given access and interpretation, visitors and residents can enjoy and learn about a wide array of resources, many of them of singular national significance, others significant for their abundance and quality in a relatively small area.

Tourism development and other economic pursuits, and protection of resources are two sides of the same coin. Without these resources, visitors and residents would not be interested in touring the Corridor. This provides a significant economic motivation for protecting and enhancing resources in the Corridor, in addition to protecting these resources for their own sake. Moreover, by injecting new dollars into the Corridor's economy, visitors and residents touring the Corridor help build upon its strengths. Economic activity provided the engine that made this Corridor what it is today, and economic vitality is needed still. Local economic growth is the key to financing long-term regeneration of historic buildings and communities, providing needed investment in further environmental, scenic, cultural and recreational resource protection, and developing the D&L Trail and interpretive system described in the previous chapters.

Conserving the Corridor

This section first discusses threats to key resources, and then sets forth a basic partnership strategy for approaching resource protection, involving the Commission, local governments, state agencies and nonprofit institutions. It then describes and specifies actions for five categories of key resources: environmental, scenic, cultural, historic and recreational resources. Included within these categories are comments on the various land management tools and approaches that can be employed to protect many of these resources. For the sake of clarity, resources and actions to protect them are presented in these categories. In practice, however, most conservation actions serve to protect a variety of resources, and the strongest approaches are those that make linkages among all the categories, to their mutual benefit. Therefore, some actions are repeated from category to category with slight alterations; where this is the case, the same action can be used to address several resources, often at the same time in an integrated fashion. Such repetitive actions appear only once under the "multiple resources" category in the Actions Matrix in Chapter 8.

Threats to Corridor Resources

Inappropriate development is a continuing and widespread source of threats to key Corridor resources. Its impacts may occur directly, by replacing resource-rich sites with pavement and new buildings. Or these impacts may occur indirectly, perhaps by causing a need for such added infrastructure as roads and sewage treatment plants, which can have widespread impacts on wildlife habitat or scenic resources, and which can spur more growth in their vicinity. More insidious indirect effects — because they are virtually invisible — happen when suburban development saps the vitality of urban areas or contributes to water quality problems accumulating as a result of many different developments.

Growth in the Corridor is occurring steadily, but this trend varies according to location in the Corridor. Commercial and industrial construction is occurring throughout the Corridor, but is primarily drawn to Allentown, Bethlehem and Easton, which have benefited in recent years from completion of Interstate 78; the Wyoming Valley, served by Interstate 81; and lower Bucks County, served by a number of major routes.

In many cases, road improvements will make new places available for development — and encourage development investment outside urban areas. A proposed interchange on the Northeast Extension of the Pennsylvania Turnpike near Jim Thorpe; the extension of Route 33 from Route 22 to Interstate 78 between Easton and Bethlehem; and other such changes elsewhere will increase the desirability of acreage in their vicinity for new residential and commercial construction.

In general, urban centers are declining in population while new residential construction is occurring on former farmland and forested land outside urban centers. The scenic ridges around Wilkes-Barre, for example, long considered difficult and cold places to build, are today in demand as scenic homesites for those with the means to overcome distance, climate and the challenge of building on steep slopes. In much of the Corridor, new housing relies on septic systems and wells, and as a result can be scattered wherever environmental regulations permit septic sites. Public sewer and water make possible denser new residential neighborhoods, such as are seen in the Lehigh Valley and Bucks County.

None of this growth of roads, housing or other development is necessarily bad in and of itself. Rather, what can harm key Corridor resources is the ill-advised location, scale or appearance of development, be it commercial or residential, scattered or dense. Thus it is not development, but *inappropriate* development that is the threat. Compounding this problem is lack of adequate municipal regulations to address its worst impacts, a problem which varies based on location in the Corridor.

Many municipalities, especially those north of Allentown, have only the most basic land use regulations and in many cases do not see a need to invest limited municipal funds in planning efforts. Others are actively encouraging greater residential development, which is thought to bring in new tax dollars, at least until communities reach a certain size when residents must find the tax dollars to pay for new schools, professional firefighting, police, new roads or improved intersections, parks and libraries.

Still other communities, throughout the Corridor, have older regulations that do not make use of more flexible development procedures — clustering housing on a portion of a developable lot, for example, in order to save some of the remaining land for wildlife habitat, water quality protection, or other enhancements that can make both the community and the new neighborhood more attractive. Lack of flexibility makes it difficult for conscientious developers to opt to protect special resources without a great deal of expense and hassle. A few communities, however, have updated regulations which can meet with approval among neighbors, property owners and developers.

A concern as great as poorly planned development is the lack of development in urban areas. With the exception of New Hope in Bucks County and Jim Thorpe in Carbon County, which bustle with tourists, the Corridor's larger communities are suffering the financial impacts of dwindling tax bases.

Allentown and Bethlehem can claim some success in avoiding the worst of this problem. But even they are struggling with the competition represented by suburban shopping centers, "greenfield" (open land) development for new commercial and industrial uses, and suburban bedroom communities. Urban sites too constricted for the sprawling new one-story development familiar to the suburbs, the difficulties perceived in adaptive use of older buildings, and the perception of urban places as less desirable to live are all problems the cities face.

Other problems that threaten Corridor resources include neglect, through lack of funds for maintenance or, in the case of historic buildings, also for lack of viable uses; and, sometimes, ignorance of the importance of these resources or of their very existence by owners, developers and municipalities. Other discussion of threats to key Corridor resources can be found in Chapter 2, "The Need for the Plan."

Ways to meet all of the threats described above are set forth in the following discussion of strategy and descriptions of key resources and actions.

A Partnership Strategy to Conserve Key Corridor Resources

To further the protection of key Corridor resources by owners, developers and regulatory bodies, the Commission will enlist many Partners: county and municipal governments, planning agencies, public eco-

conomic development corporations, land conservancies, civic leadership groups and foundations, and agencies for cultural or historic affairs. It will also work directly with elected public officials at the municipal, county and state levels. It will not attempt to duplicate the functions of its Partners, or necessarily advance their specific interests, which are, as a rule, more focused either geographically or within a particular discipline than the Commission is expected to be. Rather, it will ask Partners to examine their policies and programs affecting resource protection and to take specific steps both separately and together in the common task of conserving the Corridor.

This partnership strategy will achieve its greatest strength in the form of the Stewardship Compact, which will further both the conservation efforts described in this chapter and the preservation of the historic transportation routes and development of trails and access described in Chapter 4. The Stewardship Compact will maintain and enhance the Passage's integrity as a physical resource and seek to create bonds among municipalities, counties and other entities that will result in increased conservation of key Corridor resources within and beyond the Passage. The Stewardship Compact is described in Chapter 8, along with the Interpretive Compact and Commission committees and staffing that will reinforce the Stewardship Compact and resource protection efforts.

Action Convene, initiate and administer a Corridor Stewardship Compact.

The following paragraphs further describe the role of the Commission and its municipal, county, nonprofit, state and federal Partners in resource protection. (See also Chapter 8 and Figure 8.1.)

Role of the Commission in Resource Protection

In addition to serving as a Corridor-wide advocate and convener in forming the Stewardship Compact and encouraging other partnerships, the Commission is able to protect Corridor resources through its power of environmental review of federal projects; through information sharing — potentially an especially powerful approach; through endorsing Partners' advocacy for increased state protection for key Corridor resources and state programs for urban revitalization; and through matching grants and technical assistance to Corridor Partners to encourage them to act on behalf of Corridor goals. Technical assistance will be provided by the Commission both directly and by working through counties, state agencies and nonprofit organizations. The Commission will require entities expecting to benefit from Commission programs and funding to adopt this Plan, a policy termed "cross-acceptance" discussed further in Chapter 8.

To promote information-sharing, the Commission will sponsor periodic workshops, training programs, seminars and other gatherings for municipal officials and staff, conservation-minded groups and Corridor residents on a wide variety of resource conservation topics, including both governmental action and various aspects of conservancy action.

These workshops will be sponsored directly by the Commission or supported by Commission grants to Corridor Partners. The Commission will publicize successful use of land management techniques to protect key Corridor resources and revitalize urban areas.

Joining Forces

Municipalities are responsible for managing land and development within their boundaries, governed by state rules set forth in the Municipalities Planning Code (MPC). But, as is the case in so many places around the nation, the suburbanizing trends both they and their surrounding municipalities struggle to cope with are often bigger than any one of them is able to address.

Thus, like the protection of Corridor resources, the direction of growth throughout the Corridor requires strategic attention from all possible actors. Joint planning and investment in infrastructure is encouraged by the state's MPC. A principal feature is that the code permits multi-municipality ordinances. An example in the Corridor is the Newtown Joint Municipal Comprehensive Plan and Zoning ordinance, the first such ordinance in the state. The zoning is based on desired regional growth patterns, and each municipality does not need to provide for every use and all possible forms of development. Two other examples of joint planning in the Corridor: the Joint Planning Commission serving Lehigh and Northampton counties, and the new Two Rivers Area Joint Municipal Planning Commission, formed to allow Easton and surrounding municipalities mutually to address water, sewer and road concerns.

Role of Municipal Governments in Resource Protection

Municipal governments can be highly knowledgeable about key Corridor resources within their boundaries, to a level of detail that includes property lines. They are able to protect and enhance resources by controlling the negative impacts of development and purchasing critical parcels, and by taking other steps as suggested in the descriptions of key Corridor resources found below.

In general, municipalities are responsible for guiding development through zoning and subdivision regulations. Their provision of sewer service, which can affect the pace and location of development, is subject to review by the state's Department of Environmental Resources under Act 537, as are stream crossings and development potentially affecting wetlands under other state laws.

Municipalities' power to guide development is quite broad, and may be fine-tuned to fit their individual needs. Communities that are reluctant to impose full-fledged zoning and subdivision restrictions may be receptive to specialty or single-purpose ordinances focusing on particular Corridor resources within their boundaries. Design controls within a limited distance of trails, for example, would be useful, and need not be tied to controls on the use of a given parcel, its size, or other limits associated with zoning and subdivision. An excellent guide to all municipal land management programs is *Guiding Growth: Building Better Communities and Protecting Our Countryside — A Planning and Growth Management Handbook for Pennsylvania Municipalities* (Pennsylvania Environmental Council, Philadelphia 1992).

Action Seek official approval of this Plan by the governing bodies of the Corridor's municipalities and incorporation of the Plan actions into their comprehensive (and other) plans.

Role of Counties in Resource Protection

All five counties are well situated to provide technical assistance and help municipal governments think strategically about what approaches might work to protect or enhance Corridor resources specific to their communities. Counties are also able to maintain county-wide databases and maps on resources, purchase critical parcels and take other steps directly as suggested in the descriptions of key Corridor resources found below.

Counties are responsible for review of municipalities' comprehensive plans, county-wide storm water management plans, waste management plans (which affects the location and expansion of landfills) and provision of county parks, all of which can affect land use. They also provide some oversight on municipal land development by commenting on municipalities' zoning ordinances, subdivision and land development ordinances, and the actual plans for individual developments.

Pennsylvania has a relatively weak system of county government in terms of the counties' ability to manage land directly, although Luzerne County has instituted county-wide zoning where municipalities have not yet done so. The other four counties provide their municipalities with technical assistance — Lehigh and Northampton through their Joint Planning Commission. Such assistance varies with both the counties' and the municipalities' ability to pay, and not all municipalities receive this important technical assistance.

Action Seek official approval of this Plan by the governing bodies of the Corridor's counties and incorporation of the Plan actions into their comprehensive (and other) plans.

The Role of Land Conservancies and Other Groups in Resource Protection

Of note in the Corridor is the existence of a number of land conservation organizations, commonly called land trusts or land conservancies. These organizations collectively and separately offer expertise in natural resource management, recreation and many land protection methods, plus familiarity with local issues and an ability to generate volunteer services and donations.

These organizations, and similar ones based outside the Corridor, offer the Commission an additional avenue for sharing information about Corridor resources and goals and encouraging action. Specifically, among existing and potential Partners are:

- The Bucks County Conservancy, based in Doylestown and serving the Delaware Valley region, which owns and manages historic structures, conservation lands and easements; conducts greenway planning; prepares management plans for natural areas; and undertakes historic resource surveys. The conservancy can provide technical consultation for conservation planning and historic preservation and for management of historic properties and natural areas.
- The Wildlands Conservancy, based near Allentown and serving eastern Pennsylvania, which owns and manages nature preserves and sanctuaries, counsels local governments on open-space and recreational issues, conducts stream-corridor conservation projects, conducts a farmland and open-space conservation-easement program, coordinates acquisition of public lands for state and local governments, and conducts environmental-education programs. The conservancy can provide technical and resource-discovery assistance in any of these realms.
- The Nature Conservancy, based in Philadelphia and serving the entire state, which conducts surveys of threatened and endangered species and acquires and manages or resells critical habitat to public agencies; it is a chapter of the national organization also known as The Nature Conservancy, based in Arlington, Virginia.

Liaison: A Vital Commission Role

In conserving Corridor resources, the Commission has a significant opportunity to advocate its interests to a wide variety of governmental and nonprofit groups spanning and intersecting the Corridor and advancing particular aspects of resource conservation:

- the Delaware River Greenway
- the U.S. Environmental Protection Agency's Delaware Estuary Program
- the Lackawanna trail project connecting the Corridor to the Lackawanna Heritage Valley
- the GreenPlan Alliance, an open space/greenbelt effort for the Philadelphia region led by the Pennsylvania Environmental Council with assistance from the National Park Service
- the Delaware Valley Regional Planning Commission
- the Delaware River Basin Commission
- the Susquehanna River Basin Commission
- state agency advisory bodies on trails, state parks, transportation and others with the potential to affect key Corridor resources
- the Schuylkill State Heritage Park Project
- the Appalachian Trail Conference

By becoming involved in such groups, the Commission can also share information about their activities with Corridor Partners, or support particular programs in which some Partners are directly involved. In some cases, it may be advantageous for the Commission to develop memoranda of understanding (MOUs) and other cooperative, collaborative relationships with such groups concerning implementation of this Plan and coordination of other agencies' actions with those of the Commission.

Commission Powers to Enhance the Corridor under Public Law 100-692

Planning

Public Law 100-692, the *Delaware and Lehigh Navigation Canal National Heritage Corridor Act of 1988* (Appendix A), provides in Section 8 (Duties of the Commission) that the Commission is to "present a unified historic preservation and interpretation plan for the Corridor." Local governments continue to possess the power and responsibility for implementing the land use implications of such a plan, aided by the Commission. The legislation states that this plan is expected to:

...recommend policies for resource management which consider and detail the application of appropriate land and water management techniques, including the development of intergovernmental cooperative agreements, that will protect the Corridor's historical, cultural, scenic, and natural resources in a manner consistent with supporting appropriate and compatible economic revitalization efforts.

The Commission's implementation of the plan is to include "encouraging local governments to adopt land use policies consistent with the management of the Corridor and the goals of the Plan, and to take actions to implement those policies" as discussed throughout this chapter.

Resource Protection

Another significant provision lies in Section 7 (Powers of the Commission), in which the Commission is empowered to acquire real property:

...by gift or devise; or by purchase from a willing seller with money which was given or bequeathed to the Commission on the condition that such money would be used to purchase real property, or interests in real property, in the Corridor. Any real property or interest in real property acquired by the Commission...shall be conveyed by the Commission to an appropriate public agency, as determined by the Commission. Any such conveyance shall be made as soon as practicable after such acquisition; without consideration; and on the condition that the real property or interest in real property so conveyed is used for public purposes.

"Public agency" is understood to be a governmental entity. The Commission intends to clarify its legislation to include nonprofit land conservancies, construed to be public agencies based on the public support test applied as a part of their status under Section 501(c)(3) of the federal Internal Revenue Code. "Public purposes" does not necessarily require physical public access; the Commission may receive and re-convey a conservation easement that accomplishes such public purposes as habitat or watershed protection, or providing a visual buffer for a trail or greenway. The concept of not requiring physical access to fulfill public purposes is supported in the Internal Revenue Code under provisions applying to the deductibility of conservation easements as charitable contributions.

Other nonprofit and civic groups in the Corridor, both volunteer and professionally staffed, also can provide support in resource protection and management. These include watershed associations, recreation and sportsmen's clubs, environmental groups, historic preservation organizations and county historical societies.

The Technical Appendix, *Natural and Recreational Resources Evaluation*, identified a clear need for nonprofit land conservancy action in Carbon and Luzerne counties. The Pennsylvania Land Trust Association (PaLTA), a state-wide organization of land trusts, will provide help to individuals, organizations and institutions in any county to explore their options for encouraging such actions. The Wildlands Conservancy, which has several programs ongoing in the region, and the Bucks County Conservancy are willing to serve in more focused ways to the same end.

At the national level, a number of organizations exist to support the efforts of local conservancies and other groups through technical advice and small matching grants, including the Land Trust Alliance, the Rails-to-Trails Conservancy, Scenic America, and the National Trust for Historic Preservation, all based in Washington D.C.; the Conservation Fund, a national organization based in Arlington, Virginia, which advises greenway advocates and acquires critical properties for eventual resale to public agencies; and the Trust for Public Land, based in San Francisco with a regional office in New York City, which advises land trusts and also acquires critical properties for eventual resale to public agencies.

The Role of State and Federal Agencies in Resource Protection

State and federal agencies can have both direct and indirect impacts on resource protection activities in the Corridor. Direct impacts involve state and federal environmental permits, environmental reviews of the impacts of projects on special resources designated by state or federal agencies, and purchases of land and interests in land. Indirect impacts are caused by state and federal activities that encourage construction or resource protection through grants or the tax code.

Environmental permits generally concern water quality; stream crossings and encroachments; wetlands; air quality; mining of coal and non-coal resources; the location and engineering of landfills, hazardous waste processing, roads and other infrastructure; and archeological and historic sites. Although environmental permits are generally not linked to various methods of land use regulation in use at the local level, such permits can significantly affect owners' and developers' decisions regarding land development. In general, the state is responsible for such permitting, with various kinds of oversight from federal agencies. Pennsylvania's lead environmental permit agency is the Department of Environmental Resources (DER), but the Pennsylvania Historical and Museum Commission (PHMC) and the Pennsylvania Department of Transportation (PennDOT) also become involved in such permitting as needed. (PennDOT not only builds roads and must receive permits from the DER and PHMC to do so, but also reviews permits for access

to state highways, which affects the pace and scale of development.) Federal agencies involved in environmental permitting are the Environmental Protection Agency, the Department of the Interior (Bureau of Mines, Fish and Wildlife Service) and the Army Corps of Engineers. (The Army Corps constructs flood control and navigational aids — dams, levees, etc. — but it also issues permits affecting dredging, filling and other activities in the nation's waterways and wetlands.)

Special resources designated by state or federal agencies, or both, include scenic and recreational rivers, the level of water quality in rivers and tributaries (the better the water quality in a given stream, the greater the level of review of permits for discharge of wastewater; "exceptional value" streams in Pennsylvania, of which there are two in the Corridor — Cooks Creek and Stony Creek — cannot receive such discharges), long-distance and recreational trails, wild areas on public lands, wetlands, areas unsuitable for mining, threatened and endangered species, agricultural security areas (largely a local designation program), and historic and archeological resources. DER, PHMC and the Pennsylvania Department of Agriculture are involved in various designations at the state level. PennDOT is in the process of developing a designation process for scenic roads (called "scenic byways" under federal legislation mandating this program). At the federal level, the EPA supports stream designations for water-quality purposes. Under the Department of the Interior, the National Park Service is involved in designating wild and scenic rivers, National Natural Landmarks, National Historic Landmarks and resources listed in the National Register of Historic Places; and the Fish and Wildlife Service is involved in protecting threatened and endangered species and wetlands of interest to the North American Waterfowl Management Plan.

Maps and images that can assist local groups in beginning the identification process for special natural resources are available from the Department of the Interior's U.S. Geological Survey, which can in turn direct inquirers to other sources of aerial and satellite information developed by the federal government. The state is in the process of upgrading various computer databases that can also serve this function; DER's Pennsylvania Geological Survey can guide inquirers to particular sources of both maps and databases. PHMC can provide information about the locations of known historic sites, and PennDOT is in the process of developing information about the locations of railroad rights-of-way.

On purchases of land and interests in land, many state and federal agencies engage in these practices, although with limited dollars: DER's Bureau of State Parks and Bureau of Forestry, PHMC's Bureau of Historic Sites, the Pennsylvania Game Commission and the Pennsylvania Fish and Boat Commission buy property for conservation and management purposes (for river access in the case of the latter agency), and the Department of Agriculture buys development rights in agricultural security areas. Other state agencies buy land for construction or development, and can enable the purchase of land by local agencies for development purposes. Roads, of course, are a good example of this, but as another example, the Commonwealth can accomplish or support the

Implementation of the Commission's power to acquire real property or interests in property requires funding; establishment of an endowment fund to make critical acquisitions is listed among actions in this chapter. The existence of an endowment fund to make critical acquisitions of real property or interests in property is assumed in actions listed in this chapter that discuss environmental, scenic, cultural, historic and recreational resources and the potential for working with Partners to make critical acquisitions.

Federal Project Review

A further legislative provision enabling the Commission to enhance the Corridor is Section 11 (Duties of Other Federal Entities), which provides that "any federal entity conducting or supporting activities directly affecting the flow of the Canal or the natural resources of the Corridor" is required to consult with the Secretary of the Interior and the Commission in order to support the Plan "to the maximum extent practicable."

The Commission's review power is similar to the Section 106 review under the National Historic Preservation Act (see also page 124), which requires federal agencies to consult with, in Pennsylvania, the executive director and staff of the Pennsylvania Historical and Museum Commission regarding impacts on historic and cultural resources. Section 106 affords protection to historic and cultural resources significant to the Corridor; the Commission intends to clarify its legislation also to include these resources.

The Commission's review power is also similar to the environmental impact statement process under the National Environmental Policy Act, providing an additional check on the impacts of federal projects on the Corridor. Still another protection for the Corridor from the impacts of federal projects is Section 4(f) of the Highway Transportation Act of 1966, which protects parks, recreation areas, wildlife refuges and historic sites from the detrimental impacts of federal highway projects unless it can be shown that there is "no feasible and prudent alternative."

Implementation of the Commission's federal review power is addressed in sections in this chapter discussing environmental, scenic, and recreational resources.

purchase and redevelopment of major old industrial properties. PennDOT is enabled by federal legislation to buy and remove billboards, and is mandated to remove illegal billboards. Federal agencies also engage in land purchases, and less frequently in the purchase of interests in land, generally speaking to add to national parks and forests — neither of which exist in the Corridor — but also, on rare occasion, in relation to wild and scenic rivers. The upper and middle sections of the Delaware River are so designated, and the lower section, which in the Corridor, is being studied for designation.

On indirect impacts — encouraging construction or resource protection through technical assistance, grants or the tax code — the Department of Community Affairs, working with the DER on the state's comprehensive outdoor recreation plan to guide local requests for funding, makes grants for numerous purchases of land at the local level (see recreational resources, below). Also, PennDOT has a new program for "enhancements" (see sidebars on pages 45 and 133). Both programs receive considerable federal financial support, the former from the federal Land and Water Conservation Fund and the latter from transportation funding. The Department of Community Affairs also assists local governments in improving their land use regulations and provides other technical assistance. The National Park Service provides technical assistance to protect and enhance rivers and trails (again, see recreational resources, below). Other federal and state agencies provide technical assistance toward the protection of designated resources discussed above.

The state and federal tax codes are designed to encourage charitable contributions, which can include gifts of property and easements to governmental and nonprofit entities, and a modest tax incentive is available for appropriate rehabilitation of older buildings. In general, however, these "tax breaks" are offset by the tax codes' encouragement of investment in new construction that is largely occurring outside urban areas in the Corridor.

The Tubs Natural Area is a 500-acre Luzerne County park centered on seven glacial pools tucked in a high valley. The park was acquired and preserved through a public-private partnership among local advocacy groups, the county and the Commonwealth — the type of environmental action which the Corridor effort will directly support.



Luzerne County Parks Department

Many of these programs are discussed below in sections on the five key resource categories (environmental, scenic, historic, cultural, recreational). For more information about this large and complex area of resource protection, four references are available: the Technical Appendix, *Land and Scenic Resources Inventory and Analysis*; *The Atlas of Pennsylvania*, especially the section on "Environmental Overview" (Temple University Press, Philadelphia 1989); *Summary of Pennsylvania Environmental Laws and Regulations* (Pennsylvania Environmental Council, Philadelphia 1990); and *Saving America's Countryside: A Guide to Rural Conservation*, especially the chapter on "Help from the Outside" (Johns Hopkins University Press, Baltimore 1989).

Protecting Key Corridor Resources

"Key resources" are those environmental, scenic, cultural, historic and recreational resources of greatest importance to the character and functioning of the Corridor. The stewardship of these resources, including providing greater access to them, is not only addressed here, but also in Chapters 4 and 5.

The following sections describe key Corridor resources and list actions needed to protect them.

Key Environmental Resources

Introduction

"Environmental resources" as this term is used in this Plan are resources that are valuable in their own right, not as recreational resources but as necessary parts of the web of natural and human life to be found in the Corridor. Environmental resources include rivers and streams, wetlands and sites of geological or biological interest, including wildlife habitat and habitat for threatened or endangered species of plants and animals.

The entire drainage system of the Corridor — rivers, streams, lakes and wetlands — is critical to supporting habitats for fish, plants, animals and birds. Also, several Delaware River Islands support rare and endangered species, and protection methods are currently being studied by the Delaware River Greenway in cooperation with the National Park Service to determine protection needs.

In the lower Lehigh Valley, with its setting of dense population and intense development, greenways and lands remaining open for natural and recreational uses become even more important to the quality of life, human and otherwise. This area already possesses a high number of natural lands and park. The canal and D&L Trail can bolster this system by serving as the central spine of a regional greenway strategy for linking and expanding the natural lands and outdoor recreation opportunities of the lower Valley. To the extent that development

What Is a Greenway?

A greenway promotes the interplay of environmental resources and habitat enhancement. By using such linear resources as utility easements, abandoned rail corridors, canals, stream valleys and strips of land dedicated between development sites, a greenway can:

- link such existing green spaces as parks and historic sites and increase their environmental (and recreational) value;
- improve wildlife habitat by promoting the movement of birds and animals over more extensive areas; and
- improve aquatic habitat, since added natural lands cleanse storm water and release it slowly into streams.

A greenway offers a significant opportunity for enhancing or providing recreational trails and hunting and fishing access, but it need not include public access to accomplish its environmental benefits.

ACCOMPLISHMENTS

Delaware River Greenway, a consortium of more than 40 environmental agencies and organizations in Pennsylvania and New Jersey, has been formed under the auspices of the Bucks County Conservancy. Its goal is conservation of river edges and islands, from the Delaware Water Gap to Bristol.

High-Priority Natural Sites in the Corridor

Fifty natural sites have been identified in the Technical Appendix, *Natural and Recreational Resources Evaluation*, as deserving increased protection, special management or improvement for recreation. These sites are listed below in the order of their priority as determined by a point system. Below is a list, by county and in order of priority, that highlights the wide variety of issues and recommendations related to these sites:

Luzerne County:

- Nescopeck Park Area (rare plants, Corridor linkage)
- Lehigh Falls (sensitive shoreline, interpretive access)
- Seven Tubs Natural Area (Corridor linkage; complete park development)
- Ashley Planes/Solomon Creek Valley (protection and access)
- Penobscot Mountain (sensitive habitats, scenic value, access)
- Boyles Pond/Beaver Dam Swamp (manage surroundings; continue conservation activities)
- State Gamelands 119 (public lands linkage; improve public use)
- Haystack Mountain (rare plants; manage with Penobscot Mountain)
- Prospect Point/Wilkes-Barre Mountain (improve public use)
- Green Mountain (access and rail-trail project)

Luzerne/Carbon Counties:

- Lehigh Gorge (rare species, Corridor and public lands linkage; complete and implement park plan)
- Bear Creek Forest/Stream Valley (water quality, rare species and breeding area, mature forest)
- F.E. Walter Dam and Reservoir (rare birds, access; complete management plan)

Carbon County:

- Hickory Run Boulder Field and Park (rare invertebrates, Corridor linkage, interpretation; complete park plan)
- Broad Mountain (rare and important wildlife)
- Appalachian Trail Area/Blue Mountain Ridge (access; manage surroundings)
- Mount Pisgah (access, interpretation, environmental evaluation)
- Lehigh Canal Park Area (facilities; complete Corridor linkage)
- Flagstaff Mountain Overlook (Corridor linkage)
- Glen Onoko Falls/Lehigh Gorge (rare plants, Corridor linkage; improve public use)
- Rockport Tunnel Area/Lehigh Gorge (wildlife habitat; improve public use)
- Mauch Chunk Lake Park Area (Corridor linkage; increase environmental education programs)
- Bald Mountain Area (wildlife habitat)
- Stony Creek Area (water quality, headwater wetlands; manage surroundings)
- Lehigh Gap/North Side (revegetation, Corridor linkage)
- Black Creek Valley (scenic value, water quality, Corridor linkage)

continues to encroach upon stretches of the canals and D&L Trail in Luzerne, Carbon and Bucks counties, their role as the central spine of regional greenway strategies in those areas will also grow.

The Technical Appendix, *Natural and Recreational Resources Evaluation*, details the many environmental resources and issues in the Corridor. In sum, there are 67 specific sites identified as of geological interest, including caves, waterfalls, peat deposits, fossil sites, special rock outcroppings and major springs. Special plant and animal species are found in association with some of these sites and at numerous other places around the Corridor. Plant species of concern are on the edge of survival, and special consideration needs to be given to the sites where they are found in order to ensure their viability. In the northern region, animal species require extensive range and/or undisturbed habitat provided by the expanse of public lands in that region; these are black bear, bobcat, porcupine, timber rattler and the eastern woodrat. River otter and osprey are being reintroduced in eastern Pennsylvania and have been sighted on both the Delaware and the Lehigh. Rare and threatened species of bats, frogs, turtles, fish — the shortnose sturgeon, a federally listed endangered species — and small mammals are found throughout the Corridor.

Bake Oven Knob is one of the two major lookouts for hawk migration along Blue Mountain in Pennsylvania, and the Corridor is located on the Atlantic flyway, one of the four major waterfowl migratory routes in the United States.

Twenty-seven streams in the Corridor are classified as “high quality” by the Pennsylvania Department of Environmental Resources, and another 28 are cold-water fisheries; five of these support natural reproduction of trout. Monocacy Creek, Bushkill Creek and the Little Lehigh Creek, flowing through the Allentown-Bethlehem-Easton urban area, all support trout fishing; the Monocacy is one of the few native trout streams in the nation that flows through a city of more than 75,000 people. Two streams in the Corridor are classified as exceptional value — Stony Creek in Carbon County and Cooks Creek in Bucks County.

Cooks Creek also has both bog turtle and red-bellied turtle wetland habitat, with one bog turtle site being permanently protected. Silver Lake, a part of the Bucks County parks system, is permanently protected habitat for the red-bellied turtle. Thirteen priority wetland sites, totalling more than 2,200 acres, are located in the five-county area.

Land Management Techniques for Environmental Resources

Techniques in the land management toolkit that are available to Corridor municipalities and specifically identified as useful for the protection of environmental resources in the Technical Appendix, *Land and Scenic Resources*, include use of conservation overlays, official mapping — both especially useful for protection of streams and greenways — and local environmental review in which the developer is required to inventory wildlife habitat and threatened and endangered

species. Performance zoning may also have some utility. County storm water management plans under Act 167 can be used to address water-quality concerns and the impacts of high flows on canal structures. Sites of limited extent, such as parcels of land with geological or biological interest and smaller, high-priority wetlands, may be acquired or otherwise protected by government acquisition (including acquisition of easements) or conservancy action.

Action Encourage counties and municipalities to assist in implementing this Plan by developing protection plans for environmental resources with the help of *ad hoc* Corridor Plan committees. Urge each to recommend ways and means to implement the plans. To the extent possible, municipal plans should be developed with county and conservancy assistance and consultation with adjoining municipalities. The Pennsylvania Natural Diversity Index, a computerized database managed by the Department of Environmental Resources, is available for assistance in planning and review of development.

Action Provide each municipality with mapped and narrative survey information pertaining to the municipality's environmental resources and issues affecting them, derived from the Technical Appendix, *Natural and Recreational Resources Evaluation*.

Action Support existing conservation organizations which function on a county-wide and broader basis to conserve environmental resources.

Action Work with Partners (nonprofits, individuals, corporations) to increase land conservancy services in Luzerne and Carbon counties.

Action With the guidance of the Stewardship Compact, convene a special Partners coalition (including state agencies and government and nonprofit entities in Luzerne and Carbon counties) to create a public lands open space and recreation master plan for Anthracite Fields, Audubon's Lehigh and Panther Valley Reaches.

Action Work with counties to provide technical assistance and matching grants to municipalities to assure conservation of environmental resources.

Action With the guidance of the Stewardship Compact, design regional or Reach-specific greenway strategies. These strategies should incorporate both existing greenway projects in the Corridor and Linkages recognized in the boundary map.

Action Urge the Department of Environmental Resources to assign high priority for the state share of storm water funding for basin planning within the Corridor.

Action Request the help of DER and the Pennsylvania Fish and Boat Commission in assessing the status of water quality in the Delaware and Lehigh watersheds, including the status of acid mine drainage, storm water drainage and water quality investment.

Lehigh/Northampton Counties:

- Bushkill Creek (greenway, fishing access, water quality)
- Monocacy Creek (greenway, water quality, Corridor linkage)
- Lehigh River/Slatington to Allentown (rail-trail project, access, clean-up, repair canal structures)
- Hugh Moore Park (add facilities, evaluate natural features)
- Lehigh Mountain (trail restoration; acquire easements)
- South Mountain Area (protect and manage lands and surroundings, improve public use)
- Island Park (rare plants, access)
- Little Lehigh Creek (water quality; protect and manage lands and surroundings)
- Catasauqua Lake (access, water quality, cleanup, Corridor linkage)

Bucks County:

- Cooks Creek Watershed (water quality, scenic value, geology, greenway, recreational sites, wildlife habitat)
- Nockamixon Cliffs and Watershed (rare plants; protect surroundings)
- Delaware River Palisades/Stockton Formation/Indian Rock Ravine (wetlands, geology, scenic value; protect surroundings)
- Delaware River Islands (important species and habitat, access)
- Tohickon Creek (geology, water quality, scenic and recreational value, greenway, archeology)
- Bowman's Hill (wild plant sanctuary, facilities; protect viewshed)
- Biles Island and Creek (rare plants, wetlands, unique habitat)
- Tincum Creek Watershed (water quality, scenic value, public lands linkage, historic resources; manage surroundings)
- Durham Mines/Rattlesnake Hill (unique habitat, geology)
- Five Mile Woods (rare plants; protect surroundings)
- Bristol Marsh (wetlands; implement management plan)
- Hendrick (environmental and recreational value; for sale)

Action Work with the Delaware River Greenway, the National Park Service and others to protect the river islands of the Delaware River as special habitat. Support similar study of Lehigh River islands.

Action Cooperate with The Nature Conservancy in its Delaware River Campaign.

Action Assist in acquisition of identified critical lands with immediate threats for which no other protection method is viable.

**National Natural Landmarks
in the Corridor**

- Hickory Run Boulder Field, Carbon County
- Monroe Border Fault, Bucks County

**Potential National Natural
Landmarks in the Corridor**

- Seven Tubs Natural Area, Luzerne County
- Bake Oven Knob, Lehigh County
- Lehigh Gorge, Carbon County
- Ringing Rocks, Bucks County
- Tohickon Creek Triassic Formation, Bucks County
- Nockamixon Cliffs, Bucks County
- Delaware River section of the Stockton Formation, Bucks County
- Bowman's Hill, Bucks County

[Sources: National Park Service files, 1987; *Potential Ecological Natural Landmarks: Piedmont Region, Eastern United States* (Department of Botany, University of North Carolina, 1975); *Potential Geological Natural Landmarks: Piedmont Region, Eastern United States* (Department of Geology, University of North Carolina, 1975); and the Commission]

Commission Review of Environmental Resources

Among the Commission's legislated responsibilities is the requirement that "any federal entity conducting or supporting activities affecting the flow of the Canal or the natural resources of the Corridor" must consult with the Commission, together with the Secretary of the Interior. This presumes the Commission's right to review and comment on federal or federally supported undertakings that might affect the Corridor at an early stage in the planning, especially in the area of environmental resources. This power enables the Commission to protect the Corridor's key resources by encouraging avoidance, mitigation and project improvements that enhance the Corridor.

The separate federal review process using environmental impact statements under the National Environmental Policy Act should also protect the Corridor. Similarly state permits, licenses, construction projects and other programs have great potential to affect environmental resources, both positively and negatively, and should be reviewed. Also, federal designation of National Natural Landmarks provides added protection for the unique environmental resources highlighted under this program. (See sidebars.) Although this designation is largely honorific, the National Park Service does work with owners to create management plans and assesses the conditions of the protected resources on an annual basis, affording a modest level of technical assistance to and accountability on the part of the owners.

Action Develop and promulgate guidelines for Commission review and comment to federal and state agencies on federal activities affecting key environmental resources; include staff guidance for processing.

Action Assure that federal actions reviewed under the National Environmental Policy Act incorporate review of their impacts on the Corridor.

Action Over the long term, establish the same obligations of Commission review and consultation on state and state-supported projects as exist on federal projects.

Action Assist the National Park Service in designating sites already identified as potential National Natural Landmarks, in part by helping to obtain owner consent.

Action Work with conservation organizations to identify other potential National Natural Landmarks and obtain owner consent for their designation.

Key Scenic Resources

Introduction

The Corridor's scenic qualities are nationally significant. Features include dramatic topography — mountains and a river gorge — spectacular vistas; abundant water views; and beloved agricultural and small town landscapes. For most residents and visitors, it is the scenery that gives the Corridor its meaning and definition, or "imageability."

On a local scale, one purpose of the Commission is to enable each community to "put its best foot forward" — that is, to work together to provide quality assurance for the Corridor experience for its visitors and residents. Scenic resources and the visual effects of land management and resource protection are integral to the Corridor's management. In the years ahead, one of this Plan's most striking effects could be its impact on the visual character of the Corridor. As land development and changes to the landscape occur in the usual manner beyond the Corridor's boundary, the Corridor will emerge as even more distinctive than it appears currently — if recommendations in this Plan are followed by all agencies whose land management and resource protection activities also affect the "look" of the land and communities in the Corridor.

This Plan is concerned with scenic resources not only for their own sake but also for their role as the "backdrop" or context for the Corridor's key cultural, historic and recreational resources, including all interpretive resources. Scenic resources are important:

- as aspects of cultural landscapes, particularly road corridors within these landscapes;
- as the context of the D&L Drive and various interpretive driving tours; and
- as the context of historic and recreational resources, including individual sites, linear resources — especially the D&L Trail — and historic districts.

The study of cultural landscapes is a way of assessing and understanding a place, by examining the influence of natural resources and physical geography on the patterns of human settlement and culture, and likewise looking at the effects of human endeavors on the natural environment. In some places, these relationships are especially apparent and worthy of protection.

Cultural landscapes are not necessarily "scenic." Even if they are of low or neutral visual quality, for example, mined lands, they may in fact be highly imageable and tell part of the Corridor story through a particular

Article I, Section 27 of the Constitution of the Commonwealth of Pennsylvania
A unique provision of Pennsylvania's constitution states in its entirety that:

The people have a right to clean air, pure water, and to the preservation of the natural, scenic, historic, and aesthetic values of the environment. Pennsylvania's public natural resources are the common property of all the people, including generations yet to come. As trustee of these resources, the Commonwealth shall conserve and maintain them for the benefit of all the people.

In its use of the words "preservation" and "conservation," Article I, Section 27 sets a standard for regulation of all manner of development affecting the environment — a word obviously used here in its broadest sense.

It is also a rare, explicit endorsement of the idea that scenic values should be protected by state action, and by extension, local action. Scenic values are considered by courts and environmental and land use regulators to be the most subjective of environmental values and thus difficult to protect. (It is not widely known that more than twenty years of research supports the concept of universal human perception of certain scenic values such as water, green and expansive views.) Moreover, land use regulators rarely consider scenic values to be covered by the power they exercise to protect the "health, safety and general welfare" of their communities, a power regarded as the basic legal foundation for many land management techniques. Article I, Section 27, therefore, provides an important legal encouragement for state and local programs protecting scenic resources.

**Cultural Landscapes
Identified in the Corridor**

- Ashley (Luzerne County)
- Lehigh Gorge (White Haven to Jim Thorpe)
- Eastern Middle Anthracite Fields (Luzerne and Carbon counties)
- Jim Thorpe to Summit Hill
- Palmerton (Carbon County)
- Slate (around Slatington and Walnutport)
- Upper Lehigh Valley Agrarian Landscape (Lehigh and Northampton counties)
- Allentown
- Bethlehem
- Easton
- Stouts Valley (Northampton County)
- Delaware Canal (Easton to Morrisville)
- Bucks County Agrarian Landscape
- Metropolitan Corridor (lower Bucks County, Bristol to Interstate 95)

(Source: *Inventory and Assessment of Cultural Landscapes*)

landscape. This distinction, however, makes little difference in terms of actions needed to protect all cultural landscapes.

The Technical Appendix, *Inventory and Assessment of Cultural Landscapes*, identified 14 significant cultural landscapes in the Corridor (see sidebar). This report informed further study and definition, first of potential interpretive districts, and finally, creation of the Corridor Reaches. Land use management systems developed or updated in each of the Corridor Reaches should specifically refer to the distinctive and specific characteristics of the cultural landscapes studied for this Plan as being among the important resources to be protected.

Land Management Techniques for Scenic Resources

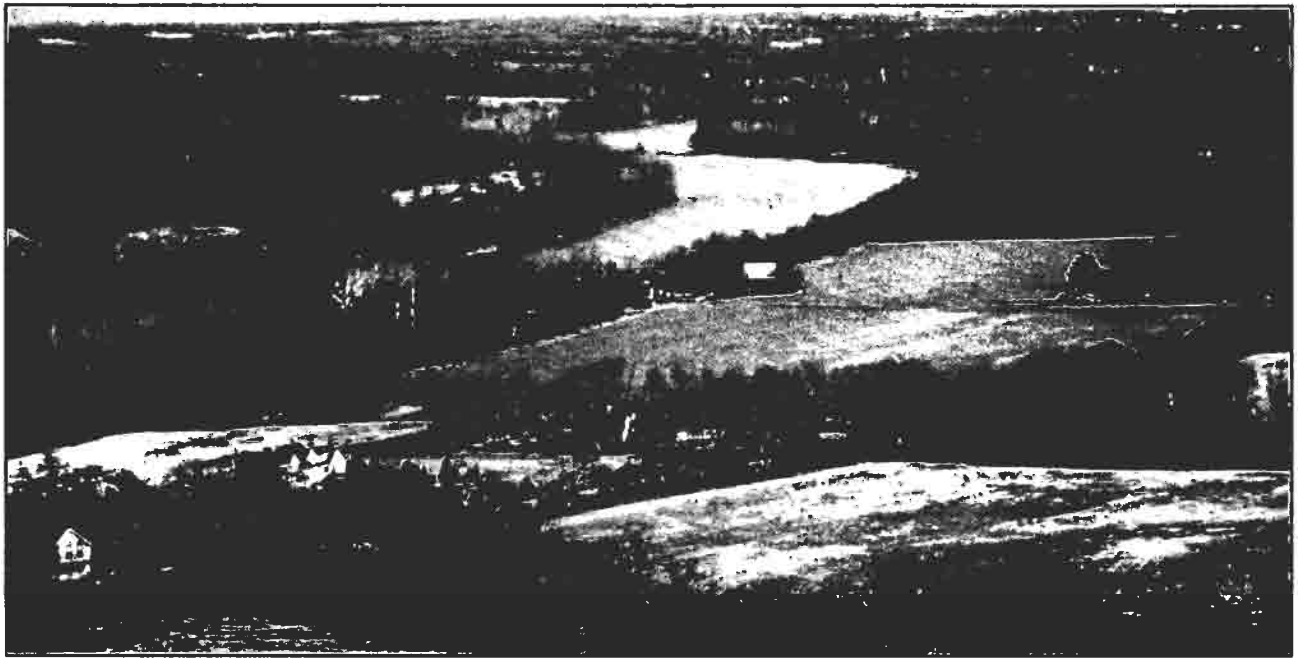
Actions to protect scenic resources fall into three categories:

- evaluation and delineation (performed according to objective standards);
- designation (an official act of a government agency able to influence management); and
- development and implementation of a management plan or a component of a comprehensive plan .

A management plan addresses management of land use and development (including design standards), lists visually sensitive sites that are critical for acquisition, and sets standards for both utility installation and maintenance and for highway design and maintenance.

As part of a local management plan for scenic resources or a component addressing scenic resources for a comprehensive plan, all existing and potential municipal land use controls can be examined in terms of how they are likely to affect the identical resources' visual quality. The size and placement of buildings on a site, their landscaping and the look of roads and utilities all affect the appearance of development, and are typically regulated under a community's zoning ordinance and subdivision or land development regulations.

Going beyond basic zoning and subdivision, all specialized land use controls available to municipalities listed in the Technical Appendix, *Land and Scenic Resources*, have some utility in protecting scenic resources. Bonus incentive zoning, scenic corridor zoning and billboard regulation are especially useful. Local environmental review that includes examination of scenic impacts can accomplish a finer-grain consideration of individual development, concerning both conservation of existing scenic character of a given site and proposed mitigation. Mitigation might be based on local design guidelines developed especially to promote and maintain scenic character of land use change and development.



Courtesy Hugh Moore Historical Park and Museum

Beyond land use controls, municipalities can examine their road maintenance practices concerning their impacts on such areas as vegetation, berms, bridge maintenance and replacement, guide rail design and sign placement. Maintenance and development of lands owned by municipalities — ranging from parks to maintenance sheds to township offices — can also be examined for scenic impacts.

Sensitive sites of limited extent may be acquired or otherwise protected by government acquisition (including acquisition of easements) or conservancy action.

Action Encourage counties and municipalities to assist in implementing this Plan by mapping and developing protection plans for scenic resources with the help of *ad hoc* Corridor Plan committees. Urge each to recommend ways and means to implement the plans. To the extent possible, these plans should be developed with conservancy assistance and consultation with adjoining municipalities.

Action Provide each municipality with mapped and narrative survey information pertaining to the municipality's cultural landscape resources and issues affecting them, derived from the Technical Appendix, *Inventory and Assessment of Cultural Landscapes*.

Action Support existing conservation organizations which function on a county-wide and broader basis to conserve scenic resources.

Action Work with Partners (nonprofits, individuals, corporations) to increase land conservancy services in Luzerne and Carbon counties.

Action Work with counties to provide technical assistance and matching grants to municipalities to assure conservation of scenic resources.

Power to protect the Corridor's outstanding scenic resources rests largely with more than 100 individual municipalities. The Commission will work on a cooperative basis with state and local governments and private organizations to ensure both local and larger-scale conservation of landscapes such as the Delaware River Valley.

Commission Review of Scenic Resources

In the Commission's review of federal undertakings for their environmental effects, it will consider scenic impacts when negotiating to mitigate and/or improve projects.

Action Develop and promulgate guidelines for Commission review and comment to federal and state agencies on federal activities that explicitly state that the visual quality of the Corridor is one of the Corridor values to be protected.

Action Over the long term, establish the same obligations of Commission review and consultation on state and state-supported projects as exist on federal projects.

ACCOMPLISHMENTS

Scenic Rivers

The state scenic rivers program has significant potential to influence the appearance of river corridors. Pennsylvania's Department of Transportation and Department of Environmental Resources (which is responsible for the scenic rivers program) have jointly published design guidelines for roads within designated scenic river corridors.

State Action to Protect Scenic Resources

State permits, licenses, construction projects and other programs have great potential to affect scenic resources, both positively and negatively. By far the most significant state action to protect scenic resources in the Corridor, however, would be to establish a formal scenic roads program. Actions to protect various roads within the Corridor should be organized under a single program operated by the state to maintain standards across the multiple jurisdictions that exist in the Corridor.

Pennsylvania does not have a complete scenic roads program, although in 1988 the legislature designated the Delaware River Scenic Drive along the Delaware River on Routes 32, 611 and 209 (Act 1988-134, House Bill 1982), the second such road to be designated in the state. The designation carries no provisions addressing administration, regulation or funding. With enactment by Congress of the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA), with its provisions for scenic byways funding contingent on a qualified state program, there is now a major incentive for Pennsylvania to establish a full-fledged scenic roads program.

Action Advocate establishment of a state scenic roads program with a component designed for use in state heritage parks.

Action Advocate and seek use of PennDOT/ISTEA funds for selective highway beautification and landscaping projects.

Key Cultural Resources

Introduction

From the time of the Corridor's European settlement in the 17th century to the present day, the many ingredients of immigration experience, ethnic identity, religious beliefs, occupation, language and community affiliation have combined into a rich cultural heritage. The Technical Appendix, *Cultural Resources Survey*, reveals a picture far more complex than a simplistic understanding of America as a "melting pot." Folklife reflects the intense diversity of Corridor communities and resources.

Promoting a deeper understanding of the Corridor's cultural heritage will give residents a greater appreciation of their own identity and that of others who are "different," combat any lingering sense that history and heritage are "something others have, not me," highlight the unique, often-intangible qualities of Corridor communities, and demonstrate that immigration has been a constant here for more than 300 years.

Cultural heritage is an important aspect of Corridor interpretation. It requires a strong documentation and interpretation program. It also requires efforts to assure the continuation of cultural practices, and the Commission intends to be active in promoting this heritage.

Like existing interpretive sites and Partners oriented to history as described in Chapter 5, cultural organizations in the Corridor have varied orientation and goals. With few professional practitioners of "cultural conservation" in the Corridor, the Commission's roles of convener, interpreter and celebrator are clearly needed. The expectation is that by encouraging individuals and groups already perpetuating cultural heritage through events, traditional practice and other means, and by highlighting cultural heritage in the overall interpretive system, the Commission will in the long run build a strong constituency for more programs supporting cultural heritage activities.

Land Management Techniques for Cultural Resources

Cultural landscapes, in which longstanding and recent cultural influences can be seen in a distinctive place, and individual cultural sites, which are the setting for traditional practices, can be protected using various land management techniques.

In general, the discussion and actions in the section above on scenic resource protection apply to the protection of cultural landscapes and the context of individual cultural sites. The trick here is first understanding which resources should be targeted for protection, not always simple to do. By combining the approach of cultural conservation specialists — who document and map vernacular regions and the residents' "sense of place" — with that of traditional land planners, the cultural meaning embedded in the landscape, as well as the landscape itself, can be both identified and conserved.

Toward the practice of this combined approach, the Commission encourages municipalities and counties to officially recognize and plan for the protection of their cultural heritage, in addition to relying on nonprofit historic preservation and interpreting institutions whose missions include cultural conservation. Moreover, the Commission's support of documentation and further study of the Corridor's cultural heritage will include provisions that:

- such work document the locations in which cultural practices and activities take place, as well as document the cultural heritage itself; and



Courtesy Hugh Moore Historical Park and Museums

The Plan calls for the conservation of both historic and contemporary ethnic and workplace traditions through support of local organizations which practice them. Here, foundry workers pause in their work at Bethlehem Steel, ca. 1918.

- documentation of location be followed by an evaluation of the extent to which the practice or activity is place-dependent. Where a key cultural resource is highly place-dependent, the Commission will work to assure the protection and enhancement of that site.

Action Encourage municipalities to identify and, where appropriate, map cultural resources as location information becomes available from surveys that document cultural heritage, in order to identify opportunities for applying land management techniques for cultural resource protection.

Action Provide each municipality with mapped and narrative survey information pertaining to the municipality's cultural landscape resources and issues affecting them, derived from the Technical Appendix, *Inventory and Assessment of Cultural Landscapes*.

Action Work with the Pennsylvania Heritage Affairs Commission and with counties to provide technical assistance and matching grants to municipalities to assure conservation of cultural-resource sites.

Action Provide technical assistance and small matching grants to existing conservation, preservation and interpreting organizations to conserve cultural-resource sites.

Cultural Documentation and Interpretation

In addition to the need for locational information, future studies are a necessary step in developing interpretation of the Corridor's cultural heritage. In large part, cultural conservation depends on interpretation — on bringing the importance and richness of local cultural resources to the forefront in ways in which they can be understood, appreciated and supported.

Cultural heritage is about people; it is the Corridor's residents themselves who, deep down, know their heritage best — whether they realize it today — and who can best present that heritage to visitors. While cultural heritage will play a significant, long-term role in generating tourism in the Corridor, the Commission will focus its efforts first on its audience of Corridor residents, especially through schools in grades K-12. The Commission will forge partnerships with Corridor residents and organizations in developing an understanding of how to conserve the Corridor's cultural heritage and make it a part of the Corridor experience for visitors.

Commission support for all further study and documentation of cultural resources in the Corridor will be based on:

- a combination of themes suggested by the Technical Appendix (see sidebar) and the interpretive themes set forth in Chapter 5; and
- the importance of a given study to interpretation and enhancement in the Passage and Reaches.

Because occupational history and culture and ethnic heritage are integral to social and industrial history — major themes of the Corridor — they deserve highest priority in future studies. Research could include oral history, analysis of archival collections and material culture, and use of ethnographic methods. The Commission's support of cultural research will be accomplished largely through contracts and matching grants issued to interpretive Partners and cultural specialists.

Action Support cultural resource studies proposed by Partners that support the interpretive themes and enhance knowledge or resource protection in the Passage and related areas of the Reaches.

Action Work with community organizations, Intermediate Units, colleges and the Pennsylvania Heritage Affairs Commission to develop interpretive programs for use in primary and secondary schools and in libraries. These can include slide-tape programs on cultural resources and the Corridor-wide theme of "transformations of people and places"; and photographic essays that include historical and contemporary images taken both by ethnographers and area residents.

Action Work with partners to develop traveling photo exhibits that illustrate Corridor cultural resources. The exhibits can rotate among museums, libraries, schools and events in the Corridor.

Action Work with partners to develop a Corridor folklife display-demonstration-performance program to travel to existing local festivals and events.

Action Work with a wide variety of partners and seek outside funding to organize a Corridor conference on 1) the heritage and folklife of the Corridor, and 2) the current field of cultural heritage programs as it is developing in National Heritage Corridors and similar entities throughout the United States.

Topics for Further Study of Cultural Resources in the Corridor

The Technical Appendix, *Cultural Resources Survey*, identified the following themes for the Commission, Partners and scholars to study further:

- the Corridor as a haven for early immigrants seeking religious freedom
- historic and contemporary migration
- ethnic identity and community heritage
- cultures from the workplace
- Pennsylvania German culture
- African American culture
- the social history of religions
- religious belief, custom and ritual as expressed in the everyday life of family and community

A Sampling of Corridor

Cultural Heritage Events

- Folkfest, Mercer Museum, Doylestown
- Corn Planting Ceremony, Lenni Lenape Society, Allentown
- Canal Days, Walnutport
- Patch Town Days, Eckley Miners' Village
- Handwork Festival, Bethlehem
- Canal Festival, Hugh Moore Park, Easton
- Celtic Classic Highland Games and Festival, Bethlehem
- Ethnic Christmas, Eckley Miners' Village
- Gymanfa Ganu, Luzerne County
- Eisteddfod Festival, Luzerne County
- Canal Days, Freemansburg

Cultural Resource Protection Activities

Like its work with interpretive partners specializing in natural and historical themes and sites, the Commission's work with cultural resource partners will focus on fostering positive working relationships, not only with organized groups of practitioners and interpreters, but also with informal community-based groups and individuals. The Commission will endeavor not only to build one-to-one relationships with all parties, but also to convene them toward the development of a network for cultural heritage.

The Commission's technical assistance to cultural resource partners — both nonprofit and unincorporated civic groups — will cover event planning, project design, fund-raising and organizational management, including working with volunteers. In addition, the Commission will endeavor to provide opportunities for practitioners to continue and perpetuate their crafts, music or other cultural activities.

If their sponsors wish, existing cultural events — as documented in the calendar of events provided in the Technical Appendices, *Historic Programs Analysis* and *Cultural Resources Survey* — plus any other events, new or newly identified, might receive wider promotion in the tourism promotion plans for the Corridor. Those that will not be negatively affected by larger attendance will be included in those plans. Events capable of handling larger attendance with help from the Commission will be targeted for technical assistance from the Commission before promotion. Events not targeted for tourism promotion will nevertheless receive technical assistance as Commission resources allow.

Like other resource-protection actions discussed in this chapter, the Commission's efforts for cultural resources will be labor-intensive. See Chapter 8 for a discussion of staff and committee support.

Action Offer technical assistance to community cultural resource groups in such areas as event planning and facilitation, project design (for exhibits and preservation activities), fundraising and resource management.

Action Work with community organizations, colleges, TPAs, and the Pennsylvania Heritage Affairs Commission to develop a calendar of events and a series of cultural tour guides that provide illustrated interpretation of Corridor history, heritage and folklife. The guides could encourage and enable visitors to visit significant sites and to participate in activities and events. Examples of potential tour topics include vernacular architecture, neighborhoods, ethnic foods, ethnic and regional festivals, industry and workplace, and farm and rural landscapes.

Key Historic Resources

Introduction

The Corridor's heritage is not only one of cultural resources, but also of the physical remains of the long history of both its urban and rural places from the 17th to the 20th century.

These physical remains include the old buildings and landscapes that make up what we recognize today as the Corridor's historic character. But they also include the pre-documentary sites of Native Americans, where what is known about their life before and during early contact with European settlers must be gleaned from material remains alone. And they include archeological sites created since the time of European settlement: study of the remains of Tannery in the Lehigh Gorge, for example, might tell us much about life and work in this now-vanished 19th-century industrial community to supplement what is known from papers and pictures.

These historic resources constitute significant and unique community and economic assets, and they deserve Commission attention and advocacy to protect the Corridor's unique remains of its history and its strong historic character.

Historic preservation has been practiced in America for well over a hundred years, with federal funding for local and state historic preservation activities in place since 1966. Pennsylvania has had a statewide law supporting local preservation efforts since 1961. Historic preservation is therefore one of the most well-developed systems for local resource protection available in the Corridor. In the Corridor itself, however, relatively few places have taken advantage of historic preservation programs and opportunities.

The Technical Appendix, *Historic Programs Analysis*, documents the extent of historic preservation activity currently to be found in the Corridor, and it is summarized here. In the Corridor overall, there are 49 historic districts listed in the National Register, 14 of which are protected in addition by local designation, with another five districts being solely locally protected. These 19 local districts are found in Lehigh (two, in Allentown), Northampton (one, the Bethlehem Historic District) and Bucks (14 local districts) counties. Luzerne and Carbon counties have a total of three National Register districts, one of which, Eckley, is a state museum site. Extensive county-wide surveys are underway in Northampton and Bucks counties; Luzerne and Lehigh counties are in the process of beginning similar programs. Although other structures individually listed in the National Register would change this picture somewhat, the lack of survey and historic district activity in Luzerne, Carbon and Lehigh counties indicates that the communities of the Corridor have a long way to go in documenting and protecting resources in these counties. Worse, the River Street Historic District in Wilkes-Barre — Luzerne's only National Register district — is losing buildings at such an alarming rate that its National Register designation could at some point in the future be rescinded.

Historic Preservation Techniques

The following list of historic preservation techniques, which can be practiced by federal, state, local and private Partners, provides brief explanations and an indication of opportunities for the Corridor and relevant actions.

Section 106 Review: Resources listed in the National Register of Historic Places under the National Historic Preservation Act of 1966 are protected under Section 106 of the same act. This "Section 106 review" calls for federal agencies to consult with the Pennsylvania Historical and Museum Commission (PHMC) and the national Advisory Council on Historic Preservation when their projects (including federally funded programs conducted by states and localities) might affect historic resources listed in or eligible for the Register. An eligibility determination is undertaken by the PHMC in the absence of a Register listing, but PHMC and federal agencies generally rely on available survey data: this is one reason why it is so important to conduct surveys (see below), even if they do not lead to actual Register listings because of a lack of money to pay for that step. When environmental resources are also involved in federal undertakings, as they frequently are, the Section 106 review may be undertaken in conjunction with the environmental impact statement process (EIS) required under the National Environmental Policy Act of 1969 (NEPA). While Section 106 is effective in preventing the detrimental impacts of federal undertakings, it does not affect state, local or private undertakings. To mitigate the latter impacts, a local ordinance is helpful.

Action Negotiate a memorandum of understanding with the Pennsylvania Historical and Museum Commission concerning coordination of the Commission's environmental reviews and the PHMC's responsibilities under Section 106 of the National Historic Preservation Act.

Surveys and National Register Listings: Like all other key Corridor resources, the first step in protecting historic resources is to locate and evaluate them. For historic resources, this process is called the historic resources survey or inventory. Surveys can lead to listings in the National Register of Historic Places, the nation's list of sites, structures, objects and districts that are locally, state or nationally significant in architecture or history. Listing a historic resource in the Register requires filling out a special state form and obtaining the owner's consent (a majority in the case of a district). If first approved by the PHMC, the National Park Service, which maintains the Register, then determines whether the resource should be listed. Listing enables owners of commercial properties to receive investment tax credits for improvements (see the section on public investment below). Listing does not prohibit an owner from rehabilitating or even demolishing a property, unless pursuing the investment tax credit.

Even if a survey does not lead to actual National Register listings because of a lack of money to pay for that step, a survey is useful in the Section 106 review process. More information on funding and assistance for surveys and the National Register is available from the PHMC.

Action Work with the Pennsylvania Historical and Museum Commission and others to provide small matching grants for existing or new local historic preservation organizations or municipal historic preservation committees, to aid them in 1) publicizing county survey finds and 2) determining and supporting next steps based on their county survey, including National Register listings and local ordinances.



Michael Bruce

Many of the Corridor's most significant historic resources are protected, including the cement kilns at the Lehigh County Historical Society's David O. Saylor Cement Industry Museum. Hundreds more can be conserved by individual actions on the part of private owners and local governments. The Commission will support this, as well as cooperative preservation of major buildings that help to define the Corridor.

Local Ordinances: Local designation of sites and districts can be an important component of conservation of a community's heritage. This is generally accomplished by passage of a special ordinance, which calls for official designation of protected resources and then review by a local architectural review board when one of these resources is affected by a proposed change. Proposals triggering such review may be for the erection of a sign, demolition or aesthetic changes such as remodeling or re-landscaping. The board, acting under design guidelines, determines the appropriateness of the proposed changes and advises the municipal governing body whether it should issue a certificate of appropriateness allowing the owner to proceed. Historic districts are further discussed in the Technical Appendices, *Historic Programs Analysis* and *Land and Scenic Resources*.

Action Encourage local and National Register historic district designations to follow county historic resource surveys.

National Historic Landmarks: Historic resources that are of national significance may be also designated as National Historic Landmarks (NHL) in studies conducted by the National Park Service and based on research into specific American history themes. The survey work summarized in the Technical Appendix, *Historic Resources Survey*, identified 14 NHLs in the Passage alone. Designated NHL sites are also listed in the National Register to afford them Section 106 protection as

ACCOMPLISHMENTS

Historic American Buildings Survey photographer Jack Boucher has completed the documentation of a number of historic Bucks County houses and barns. He was assisted by the Bucks County Conservancy.

discussed above, otherwise, the listing is largely honorific, but may serve to distinguish these resources as most deserving of national investment or special policies in the event of new legislation or increased federal appropriations.

Action Complete the listing of the Lehigh Navigation as a National Historic Landmark; study the system upstream of the current study area for potential amendment to the designation.

Action Work with historic preservation organizations to identify other potential National Historic Landmarks according to established national and Corridor themes, and to bring them to the attention of the National Park Service.

Historic American Buildings Survey; Historic American and Engineering Record: Structures and communities of architectural or engineering (industrial) significance might also be recorded through measured drawings, photographs and other documentation through either the National Park Service's Historic American Buildings Survey (HABS) or Historic American Engineering Record (HAER). In the late 1970s, HAER conducted a study of the Lehigh Navigation system which was an important basis for Corridor designation. The Commission recently engaged HAER to document the Old Forge at Bethlehem Steel and the Huber Breaker in Ashley. HABS has recorded a few structures of architectural importance at various places in the Corridor. Like surveys, HABS and HAER information — which can vary from simple drawings and photographs to sophisticated planning studies — can provide new information and insights about a community's or site's history and physical heritage.

Action Encourage the National Park Service to review the Corridor for other potential HABS or HAER recording projects and draw up a plan for undertaking them in priority order.

Public Outreach: Without community education efforts, such regulatory programs as the National Register and local ordinances are less likely to receive the community support they need to continue and grow. Besides leading to various designation and reviews, another reason surveys are so useful is that they can form the basis of a program for such public outreach. Illustrated publications, exhibits, newspaper articles and even such typical items offered for sale by historical groups as calendars and posters can be developed from surveys, and usually meet with great success in the community. The creation of local historic preservation organizations or formation of municipal historic preservation committees to help publicize study findings and determine and support next steps based on the county survey, including National Register listings and local ordinances, deserve high-priority attention from all county survey offices in the Corridor.

Action Encourage the formation of a historic preservation office in Carbon County.

Action Provide small matching grants and coordinate technical assistance from the PHMC and other sources for all county historic preservation offices to aid the development and progress of county-wide surveys throughout the Corridor.

Archeology: Archeological resources that are listed in or eligible for listing in the National Register are generally protected by the National Historic Preservation Act and Section 106 review, and rarely by local ordinance. Typically, for a federal undertaking, a project manager is required to perform a carefully designed first-level review of the site to determine if archeological resources are present in any quantity. The results of this review determine whether to proceed to the next step, which is to undertake a full-fledged survey involving limited excavation and study. If this step shows that significant archeological resources are present and avoidance is not possible, agencies usually are required to perform “recovery,” or excavation, before proceeding with their project. Although expensive and less desirable than leaving the site undisturbed until research designs can be carefully formulated, utilizing the most up-to-date recovery technologies, salvage excavation at least assures that the resource is documented.

Action Encourage county surveys to include archeological information, both from early records and fieldwork. (Knowledge of site locations should be shared only with the PHMC, to discourage looting.)

Land Management Techniques for Historic Resources

Actions to protect the Corridor’s key resources begin with identification and mapping of key sites in a given municipality, including not only those from any surveys done in the area, but also interpretive resources identified as important to the Corridor effort. All specialized land use controls listed in the Technical Appendix, *Land and Scenic Resources*, have some utility in the protection of historic resources. In addition to historic districts as discussed above, bonus incentive zoning, scenic corridor zoning, billboard regulation and conservation overlays are especially useful. Occasionally, historic resources are owned by municipalities — ranging from park properties to township offices — and can be protected by municipal policies and spending, including National Register listing and submission of any plans for changes to a local board of architectural review, where applicable. Even zoning ordinances provide preservation opportunities. For example, light commercial uses such as bed-and-breakfast lodgings could be permitted in a residential zone, or parking requirements could be reduced for restored, designated historic buildings.

As a specialized aspect of the larger discipline of land management, historic preservation has sometimes remained isolated from other aspects of land management. Recent thinking — including the influence of heritage corridors — has led to greater attention in both urban and rural areas to the idea of assuring that historic preservation is recognized in the general planning for the area. As a result, historic

National Historic Landmarks in the Corridor

- Asa Packer Mansion, Jim Thorpe
- George Taylor House, Catasauqua
- Delaware Canal, Bristol to Easton
- Gemeinhaus, Bethlehem
- Old Water Works, Bethlehem
- Washington's Crossing State Historic Park, Bucks County
- Honey Hollow Watershed, Solebury Township
- John Chapman House, Upper Makefield Township
- Keith House, Washington's Headquarters, Upper Makefield Township
- Summerseat, Morrisville
- Pennsbury Manor, Doylestown
- Mercer Museum, Doylestown
- Fonthill, Doylestown
- Moravian Pottery and Tile Works, Doylestown

IDEAS FROM THE CORRIDOR:

Planning for the Forks of the Delaware

The people of the Forks of the Delaware area value a long-range comprehensive approach that addresses their full cultural heritage and engages all sectors of their community.

The efforts of the Forks of the Delaware Heritage Corridor Task Force center on a comprehensive process that involves both facility and community program activities. Working through an "Urban Conservation Plan," the Easton area will address projects related to Organizational, Assessment and Planning, Policy and Program Development, Facilities Development (both public and private), and including economic development issues, needs and opportunities. Aspects such as neighborhood preservation projects, urban folklore projects, archeologic management studies, arts economic development, and cultural tourism planning represent just part of the range of topics this local initiative is intent on addressing.

preservation sometimes becomes part of a larger effort, perhaps called a rural conservation plan or an urban conservation plan. Such plans might not only consider general environmental, natural-resource or land-management concerns, but also social, economic, transportation or other topics that can affect the future of historic resources as a part of a whole community. An example of an urban conservation plan exists in Easton (see sidebar), and rural conservation planning — whether it is called that or not — is practiced widely in Bucks County.

Action Provide each municipality with mapped and narrative survey information pertaining to the municipality's historic resources and issues affecting them, derived from the Technical Appendix, *Historic Resources Study*. In addition, encourage municipalities to map historic resources based on county survey information.

Action Encourage counties and municipalities to assist in implementing this Plan by developing protection plans for historic resources with the help of *ad hoc* Corridor Plan committees. Urge each to recommend ways and means to implement the plans. To the extent possible, these plans should be developed with conservancy assistance and consultation with adjoining municipalities, and integrate into existing plans.

Action Work with counties to provide technical assistance and matching grants to municipalities to assure conservation of historic resources.

Action Encourage municipalities to use incentives in zoning ordinances that encourage historic preservation.

Public Investment in Historic Resources

Public investment by Corridor Partners to protect historic resources may include both matching grants and acquisition for restoration or maintenance. Main Street programs — described in the section below on economic development — are also a form of public investment, as are federal/PennDOT ISTEA grants (see sidebar, page 133).

Grants for restoration or maintenance are generally hard to come by for the historic property owner, public or private. Yet, nothing may be as great an investment in encouraging an owner of a historic property to improve the building's appearance as a small grant for a job as simple and frequently performed as paint or window replacement. The key is to require accurate restoration or maintenance no matter how small the grant or the job. The attractive and frequently dramatic comparison of the "before-and-after" can be a powerful encouragement for others, and make a statement to outsiders and visitors that the neighborhood is a cared-for place. Free design assistance to property owners has also been an important catalyst for basic facade restoration.

A more general form of public investment is the federal investment tax credit allowed to owners of income-producing buildings for the cost of improvements made to older buildings, which has spurred extensive

private reinvestments in old buildings. The 20 percent Investment Tax Credit is available for the substantial rehabilitation of buildings listed on the National Register and certified as historic. The improvements must meet standards set. A 10 percent tax credit is available for the substantial rehabilitation for nonresidential purposes of buildings built before 1936. (The improvements must meet standards set by the Secretary of the Interior and reviewed and approved as meeting those standards by the National Park Service.) Although the credits were cut back in the Tax Reform Act of 1986, they were not eliminated — a measure of their effectiveness on public policy. The Commission will support adaptive reuse of buildings in the Passage as a means of addressing one of the most significant threats to old buildings, their obsolescence.

Acquisition by Partners — both governmental and nonprofit — may involve not only outright purchase, but also the acquisition of easements. Sometimes known as “facade” easements, these protect the exterior of buildings much as conservation easements can protect open land by restricting the right to alter the building’s historically or architecturally significant exterior appearance. Easements may be acquired by gift or purchase, but either way, because tax deductions are available for charitable donations of easements to qualified recipients, public investment is involved.

A decision to acquire a historic building for public or nonprofit ownership should be an action of last resort. Ownership is a much greater commitment to maintenance than in the case of easements, where owners retain use and most control over their property, including maintenance responsibilities. Acquisition should be undertaken only when control of the building or its repairs cannot be accomplished any other way or when public access to the interior is desirable. Acquisition of historic buildings is impractical without adequate funding for maintenance, preferably in the form of an endowment. Moreover, public or nonprofit ownership removes these buildings from the tax rolls and removes the human element that can contribute to their special quality. The same concerns apply to historic landscapes even when buildings are not involved.

Commission actions in support of preservation will be prioritized based on the results of this Plan’s Technical Appendix surveys and on significance in relation to Corridor themes.

Action Support existing historic preservation organizations to conserve historic and cultural resources.

Action Encourage historic preservation organizations, municipalities and others to establish modest grants programs or design assistance, or both, for maintenance and restoration of buildings located in National Register and locally designated districts, including Main Street areas.

Key Outdoor Recreation Resources

Introduction

In helping to provide improved outdoor recreation, the Commission performs one of its most visible tasks, crucial to its focus on the historic transportation route and Corridor-wide linkages as described in Chapter 4.

The Commission will concentrate on enhancing and completing the D&L Trail along the historic transportation route from Ashley to Bristol and creating and enhancing access for water-based recreation, especially on the Delaware and Lehigh rivers. An additional focus for the Commission in the second five years of this Plan will be developing a full network of trails throughout the Corridor, which requires additional planning in the initial years of the Plan. Further discussion of the D&L Trail and other trails in the Corridor is in Chapter 4.

An important reference in all future outdoor recreation planning in the Corridor is the Technical Report, *Natural and Recreational Resources Evaluation*, portions of which are summarized below. Much of its detailed information will be important in future planning for both the Corridor and the Passage, especially its identification of high-priority recreation projects and the extensive number of potential Partners for their implementation.

Outdoor recreation planning and recreational resources in the Corridor are impressive. The basic elements are generally in place or underway to construct a Corridor-long D&L Trail, complete with side trails and good access to both trails and rivers. Moreover, outdoor recreation's potential role in enhancing tourism in the Corridor is enormous. A continuous, largely watered canal system, a long-distance trail along the entire historic transportation route, and a well-defined regional network of trails will link an already impressive set of attractions:

ACCOMPLISHMENTS

The Pennsylvania Fish and Boat Commission is investing \$3.2 million in a five-year program to improve anadromous fish migrations up the Delaware and Lehigh Rivers.

- The region is nationally recognized for its water-based recreation opportunities on its two popular rivers, numerous trout streams and Beltzville, F. E. Walter and Nockamixon reservoirs. There are a number of streams with populations of native trout, even within heavily populated areas.
- The Delaware River, and the Lehigh upon completion of fish passageways at several dams, provide a major opportunity on the East Coast for American shad fishing — estimated in 1986 at a potential value of \$3.2 million in local recreational expenditures.
- The Appalachian Trail crosses the Corridor along Blue Mountain and at the Lehigh Gap, and five other trails in the region are nationally designated: the Lehigh Canal Heritage Trail in the Canal Towns Reach, the Lehigh Parkway Heritage Trail in Allentown, the Switchback Railroad Trail in Jim Thorpe, the Delaware Canal Heritage Trail and the Towpath Bicycle Trail in Northampton County.

- More than 75,000 acres of state gamelands, used not only by thousands of hunters but other recreation-oriented visitors — are in or near the Corridor — more than 61,000 in Carbon and Luzerne counties alone.
- A further 45,000 acres of parkland is available for public enjoyment within five miles of the D&L Trail, in ten state parks and at least 140 county and local parks. Thirty-two are part of or adjacent to the route, including Delaware Canal State Park and Lehigh Gorge State Park.

ACCOMPLISHMENTS

Encompassing fully a third of 45,000 acres of parkland in the Corridor is Hickory Run State Park, lying along the eastern flank of the Lehigh Gorge. It was constructed in the 1930s by the federal Civilian Conservation Corps, and like many such CCC projects, is considered one of the “jewels” of the state’s extensive system.

Before greater use of the Corridor’s recreational resources can be widely promoted, however, much remains to be done: completing the D&L Trail, adding more parking and access to both the Trail and the Delaware and Lehigh Rivers, and assuring ongoing maintenance of the Trail. Interpretation can also play an important role in wise use of the resources. The primary audience for Commission actions to support recreation in the early years will be the Corridor’s residents. This is because an eager core constituency of resident users developed through the Commission’s leadership — along with existing recreation providers — can support continued improvements to all of the Corridor’s recreational resources.

ACCOMPLISHMENTS

The Delaware Canal flows through eighteen municipalities in Bucks County, and a number of them are adopting a model zoning ordinance that will provide help in protecting the setting of the canal.

Land Management Techniques for Outdoor Recreational Resources

Techniques available to municipalities and identified as useful for the protection of environmental resources in the Technical Appendix, *Land and Scenic Resources*, include use of conservation overlays and official mapping, both of which are especially useful for protection of streams and greenways used for recreation. Since recreation generally requires some public access to a site, acquisition techniques — including public access easements — are also useful. The Pennsylvania Municipalities Planning Code permits municipalities to require developers to dedicate land for recreation purposes, or to require a fee in lieu of land. In addition, techniques discussed in the scenic resources section above may be applied to protect the surroundings of recreation sites and corridors.

The existence of large amounts of public lands within and adjacent to the Passage and Reaches in Luzerne and Carbon counties presents a major opportunity for the Commission. State and local land-managing agencies should work together to coordinate their recreation and resource-protection planning and create linkages to enhance the Corridor.

Action Encourage counties and municipalities to assist in implementing this Plan by developing protection plans for recreational resources with the help of *ad hoc* Corridor Plan committees. Urge each to recommend ways and means to implement the plans. To the extent possible, these plans should be developed with county and conservancy assistance and consultation with adjoining municipalities.

Action Provide each municipality with mapped and narrative survey information pertaining to the municipality’s recreational resources and issues affecting them, derived from the Technical Appendix, *Natural and Recreational Resources Evaluation*.

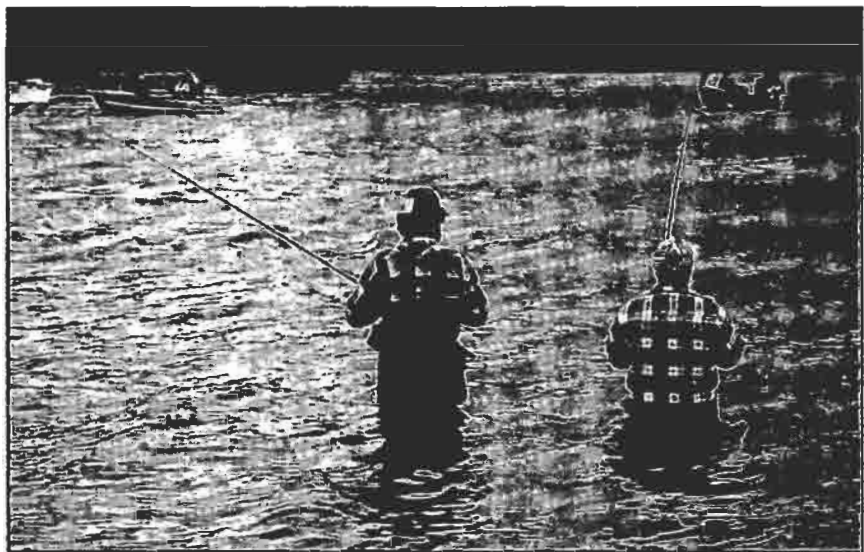
Action Support existing conservation organizations to conserve recreational resources.

Action Work with Partners (nonprofits, individuals, corporations) to increase land conservancy services in Luzerne and Carbon counties.

Action Through the Stewardship Compact, convene a special Partners coalition (including state agencies and government and nonprofit entities in Luzerne and Carbon counties) to create a public lands open space and recreation master plan for the Wyoming, Eastern Middle Anthracite, Audubon's Lehigh and Panther Valley Reaches.

Action Work with counties to provide technical assistance and matching grants to municipalities to assure conservation of recreational resources.

Completion of the Delaware & Lehigh Trail and improved public access to the rivers and canals are Corridor priorities, and the Commission will work with state and local partners to achieve these.



Joseph E.B. Elliot

Commission Review of Recreational Resources

The Commission's power to review federal undertakings for their environmental impacts does not explicitly contemplate review of impacts on recreational resources. The Commission will, however, consider such impacts when negotiating to mitigate or improve projects through its power of review.

Action Develop and promulgate guidelines for Commission review and comment to federal and state agencies on federal activities that explicitly state that outdoor recreation in the Corridor is one of the Corridor values to be protected.

Action Over the long term, establish the same obligations of Commission review and consultation on state and state-supported projects as exist on federal projects.

State and Federal Action for Recreational Resources

The Department of Environmental Resources (DER) and the Department of Community Affairs (DCA) each operates several important

state-level recreation programs. DER is responsible for preparing the State Comprehensive Outdoor Recreation Plan (SCORP), which is the basis for state spending decisions to be funded by the federal Land and Water Conservation Fund (LWCF). Local grants for land acquisition and park facility development are made through the DCA. The SCORP is also a comprehensive review of plans throughout the state for trails, parks, water-based recreational access, wetlands protection and many other aspects of recreation. It is updated periodically; the current plan covers 1991-97. In addition, the state has initiated a state trails advisory board in response to recent federal legislation and has undertaken a comprehensive survey of potential rail-trail corridors around the state.

In addition to its LWCF responsibilities, the DCA provides advice to local governments on recreation planning and matching funds through the state's program under the Recreational Improvement and Rehabilitation Act. RIRA funds can be used for acquisition and development of recreational lands and facilities of all kinds. DCA also provides technical assistance through its regional offices — for the Corridor from its regional offices in Scranton and Philadelphia — on all aspects of recreation planning, development, operations and conservation. DCA is also the lead agency for the State Heritage Parks Program, which includes recreation among its goals.

In addition to RIRA, significant new funding for recreational facilities is now available from the Pennsylvania Department of Transportation (PennDOT), under the Federal Intermodal Surface Transportation Efficiency Act of 1991 (see sidebar).

Federal recreation assistance is provided by the National Park Service's Rivers and Trails Conservation Assistance Program, for the Corridor through the mid-Atlantic regional office in Philadelphia. The program covers scenic rivers, trails and greenways plus any environmental and historic resources associated with these linear resources. The program has provided assistance to the project in Luzerne County for the Lehigh to Susquehanna Trail (see sidebar, page 66).

Action Encourage coordinated use of RIRA and LWCF programs to support key Corridor conservation goals.

NOTE: Other actions concerning rivers and trails are to be found in Chapter 4.

Enriching the Corridor: Tourism and Economic Development

An important focus of the Corridor initiative is to encourage appropriate economic development within the context of preservation and resource conservation. One of the explicit tasks of the initiative is to adopt a regional approach to enhancing the area's economic competi-

ACCOMPLISHMENTS

Lower Makefield Township is using RIRA funds to complete a comprehensive recreation plan with emphasis on the township's connection to the Delaware Canal State Park.

What is ISTEA?

The federal Intermodal Surface Transportation Efficiency Act of 1991 provides significant new funding for what are called "enhancements" to transportation systems. In Pennsylvania, the state is expected to receive \$51 million over the next six years (\$4 million in the state's fiscal year of 1992-93) for distribution to the following project categories as established by PennDOT:

1. Provision of facilities for pedestrians and bicycles.
2. Acquisition of scenic easements and scenic or historic sites.
3. Scenic or historic highway programs.
4. Landscaping or other scenic beautification.
5. Historic preservation.
6. Rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals).
7. Preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian or bicycle trails).
8. Control and removal of outdoor advertising.
9. Archeological planning and research.
10. Mitigation of water pollution due to highway runoff.

tiveness and health through increased tourism, more job opportunities through the stimulation of small business growth and private investment, and a better overall image that will aid existing industrial and economic development marketing and recruitment efforts.

The intent is a balance between conservation and development to sustain and enhance the region's already strong quality of life. To achieve this balance, the Commission will work with a special focus on heritage tourism, offerings and attractions that feature the Corridor's rich history and natural beauty. Further, the Commission will champion opportunities for wise economic development, especially when it involves the re-use of historic resources or would otherwise advance Corridor goals; Main Street programs and Enterprise Zones are two such opportunities. A given in promoting tourism and economic development in the Corridor is the concept of "synergy": when the Corridor's substantial recreational resources are better developed and more accessible, when its fascinating history and cultural traditions are more visible through improved interpretation, and when the physical and intellectual linkages among its attractions are better developed, the greater the potential for sustained economic growth and regeneration. Thus, tourism and economic development become integral, inseparable pieces of the whole of the Corridor effort.

The preservation and promotion of an area's distinctive historic sites and natural environment means that tourism-based businesses such as Lumberville's Black Bass can thrive. There are numerous opportunities for the development and growth of small businesses based on cultural tourism, especially in the Lehigh Valley and the canal towns north of Allentown.



Tourism: Issues and Existing Resources

Tourism is already an important element of the economy in the Corridor. The region is blessed with a number of major visitor attractions: the Pocono Mountains area, with the charm of Jim Thorpe and a plethora of resorts, recreation facilities and vacation destinations; the Lehigh Valley, with its convention and conference facilities and special events (Christmas in Bethlehem, the Allentown Fair, MuskiFest); and Bucks County with its legendary scenery and country antiques.

The Corridor is located in one of the most densely populated sections of the Northeast. Within a 250-mile radius of the central part of the corridor live 53 million people, just under 20 million households. Roughly 34 percent of this total is older than 45 years of age, a particularly important segment of the heritage tourism target market due to their leisure time and travel inclinations. More importantly, a substantial percentage of this group are in the high income category.

A second important segment of the tourism market is families with children. Almost three million of the total 20 million households are in this category. The demographics of this market signify major opportunities for heritage tourism and economic development in the Corridor.

Though bound together by the rivers, canals and similarities of heritage, the Corridor demonstrates regional differences in terms of existing attractions and essential support services: transportation access, lodging, restaurants and shopping. In the northern region, tourism is primarily recreational in nature and relates to the nearby Poconos and ski areas as well as to the numerous available fishing, boating, whitewater rafting and camping opportunities. With excellent access from Interstate 81 and the Northeast Extension of the Pennsylvania Turnpike, there are also ample lodging and eating facilities, especially in Luzerne County. With the exception of the shops of Jim Thorpe, however, there is weakness in terms of retail offerings in much of Luzerne and Carbon counties. Also, a number of the most promising interpretable places — Eckley Miners' Village as an example — are not near lodging and other visitor services, and are hard to find.

The Lehigh Valley also has excellent access via Interstate 78, which connects it with New York, New Jersey and Harrisburg, and the Northeast Extension, connecting to metropolitan Philadelphia as well as the Wilkes-Barre/Scranton region. The valley has many excellent attractions, which include the highly popular Dorney Park and Wildwater Kingdom in Allentown, and a number of well-attended special events and festivals, including the Great Allentown Fair, MusikFest, Christmas in Bethlehem and Celtic Fair. The Lehigh Valley's tourism services are also good, with a focus on corporate travel.

In Bucks County are located some of the Corridor's most popular destinations. Upscale singles and couples are attracted to the county's famous ambience, bed-and-breakfasts, antique galleries, specialty shops and restaurants centered around New Hope and other canal communities. Families with children are drawn to Sesame Place and to the tubing and canoeing facilities along the Delaware at Point Pleasant. For these reasons, it can be said that Bucks County is the most developed part of the Corridor in terms of both its attractions and tourism support services.

Many of the Corridor's heritage attractions are open to the public and promote themselves, with varying degrees of success. While attendance at individual sites is relatively low, the total number of visitors and the diversity of audiences is impressive. With upgrading and expansion

◆ IDEAS FROM THE CORRIDOR

Get Me to the Shops on Time

The very successfully reopened New Hope & Ivyland Railroad runs from New Hope to a spot near, but beyond walking distance of Peddler's Village — both are intensely visited sites beloved by shoppers. A trolley-bus connection between the rail stop and Peddler's Village could be established so that visitors could begin at either town and visit the other by rail.

☛ IDEAS FROM THE CORRIDOR

Passport Please

A National Park System support group publishes "Passport to the National Parks," a popular booklet and series of stamps used by visitors to record their trips to the various parks. A similar series could be set up to include all the Partner sites of the Corridor, helping to publicize the less-visited sites.

where appropriate, better interpretation and public programming, and with stronger linkages, these heritage attractions could become much more prominent elements in the region's overall tourism experience.

The majority of non-resident visitors will likely enter the Corridor via automobile, on one of the interstates or the Northeast Extension. Few visitors are likely to "do the Corridor," that is, to start at one end and spend the week or two it would take to experience it all. Partly due to the diversity and richness of the Corridor's resources and offerings, they will likely experience it in pieces rather than as a whole, making it very important that the linkages be strong and simple. The D&L Drive, described in Chapter 4, will be the dominant organizing element for visitors. The tours that branch from it and the drive from one feature to the next are critically important in terms of their influence on the visitor's decision to stay longer and experience the Corridor more intensely. If the wayfinding is simplified and the pull of the next feature is strong enough, visitors are more likely to remain longer or return sooner.

Tourism Marketing

The primary tourist market area from which existing Corridor attractions do and will attract their patronage includes the metropolitan area of New York on the north through Washington, D.C. to the south, and Harrisburg to the west. It includes much of New Jersey, Delaware and Maryland and is one of the largest and wealthiest markets nationwide (see Figure 6.1).

Logically, the southern part of the Corridor draws more successfully from the Baltimore/Washington, D.C., part of the market area as well as the Philadelphia/New York corridor. The central and northern parts of the Corridor draw more from the Philadelphia/New York/Harrisburg market area. A significant portion of the Corridor's market is the residents of the Corridor — for example, Bucks residents trying whitewater rafting on the Lehigh, or Wilkes-Barre residents taking in MusikFest in Bethlehem. A major portion of the attendance at existing heritage attractions is Corridor residents.

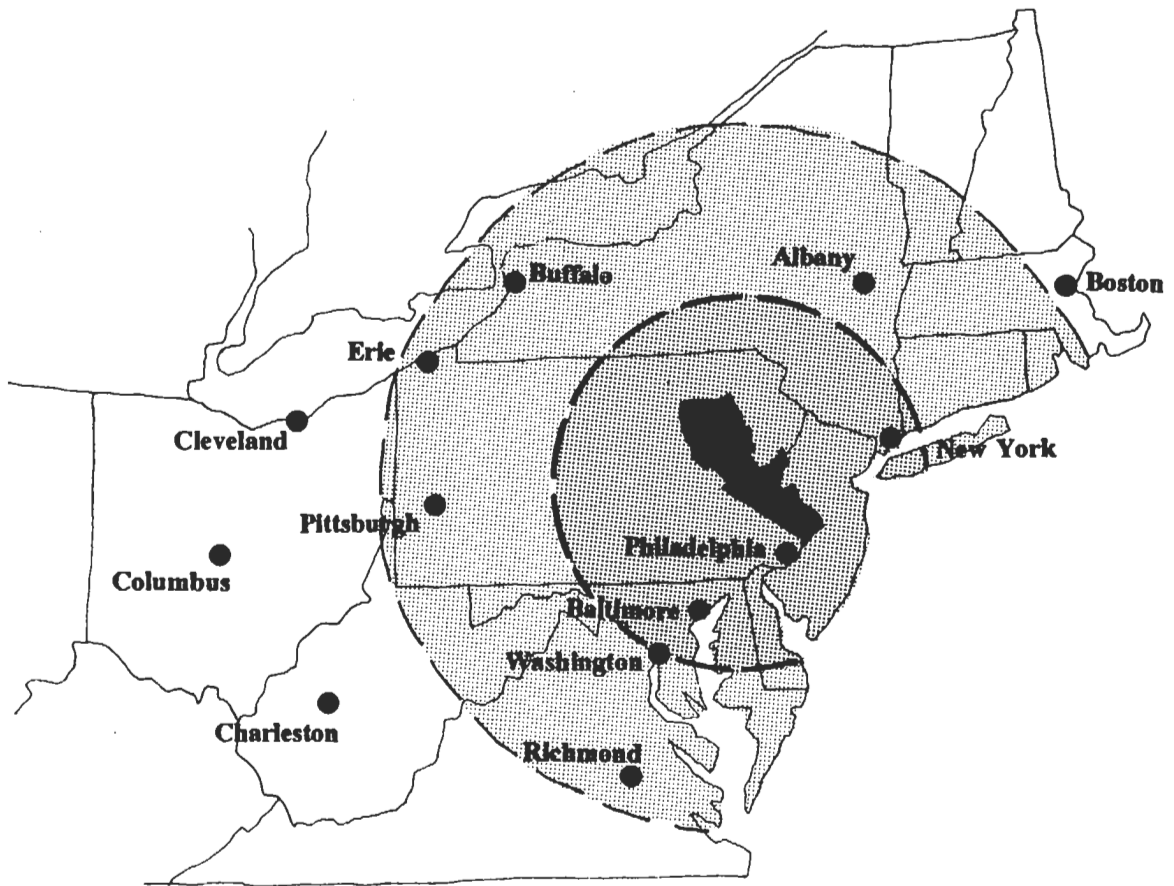
The major focus of Corridor marketing will be on this primary tourist market area, generally, the 150-mile radius shown on Figure 6.1. As the Corridor's interpretive programs and enhanced heritage attractions come on line, and as a Corridor-related tourism promotion program is implemented, substantial support will come from a secondary market area made up of most of upstate New York and Connecticut, Rhode Island and Massachusetts, Ohio as far west as Columbus, Virginia as far south as Richmond, parts of West Virginia and western Pennsylvania.

The Corridor is served by five tourism promotion agencies (TPAs; see sidebar) that each do a good job of marketing the attractions of their respective regions, given their limited staffing and budget. All have been participating in the Corridor planning and are supportive of the goals. The TPAs will be eager and helpful partners, but to fulfill the Corridor's potential, each will require additional resources.



Corridor Tourism Promotion Agencies

- Luzerne County Tourism Promotion Agency (serves Luzerne County as well as neighboring Lackawanna County)
- Carbon County Tourism Promotion Agency
- Pocono Mountains Vacation Bureau (the Monroe County TPA, but it also works in Carbon, Wayne and Pike Counties to promote the Poconos)
- Lehigh Valley Convention & Visitor Bureau (serves Lehigh and Northampton Counties)
- Bucks County Tourist Commission

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN



Legend:

-  Primary Market
-  Secondary Market


North
NOT TO SCALE

Market Areas

Figure 6.1

Sometimes bureaucratic boundaries inhibit TPAs from taking a larger regional approach to their marketing. Each serves its own area well, but there are jurisdictional obstacles to creating a Corridor-wide approach. The policies of the Department of Commerce, Bureau of Travel Marketing, which has yet another definition of regions, may inadvertently contribute to this situation. The Bureau does not yet promote State Heritage Parks as destinations, but it does encourage regional tourism marketing through its Matching Fund program — which allows funding for cooperative promotional efforts between two or more TPAs.

Cooperative programming is a good first step toward creating a Corridor-wide approach. Although there has been little experience with cooperative programming among the Corridor's TPAs heretofore, they have responded positively to the idea. Three of them — the Pocono Mountains Vacation Bureau, the Lehigh Valley Convention and Visitor Bureau, and the Bucks County Tourist Commission — were the Commission's first Partners when they helped develop and distribute the Corridor's visitor brochure.

Two of the TPAs, the Pocono Mountains Vacation Bureau and the Luzerne County Tourism Promotion Agency, are regional in scope and cover areas that reach well beyond the Corridor. Since TPAs receive much of their funding support from member dues, member priorities and thus a given TPA's agenda may not always be in harmony with Corridor needs.

In summary, existing Corridor attractions and visitor support systems are excellent resources to be tapped for heritage development purposes, and there is a framework for tourism marketing. The opportunities upon which the Corridor initiative can build include the following:

- There are a fair number of heritage attractions, some of which generate a significant amount of attendance. These can form the foundation of Corridor tourism and marketing efforts. Such attractions include Eckley Miners' Village, Jim Thorpe, Historic Bethlehem, Hugh Moore Historical Park and Museums, the Mercer Museum and New Hope.
- The Corridor's extensive number of attractions means that millions of visitors are already coming to the area and are aware of individual recreational, historic and entertainment resources. With the development of stronger physical linkages and enhanced interpretation that presents these resources as an interconnected part of a larger story and experience, a considerable number of these visitors can be attracted to heritage-oriented activities, extending the benefits of tourism throughout the Corridor. Such an approach is working well in the Illinois & Michigan Canal National Heritage Corridor in Illinois.
- The Corridor also has an extensive tourism support system, consisting of a broad package of attractions and visitor services. It is, therefore, in a good position to compete for tourism dollars.

- Many areas of the Corridor enjoy virtual year-round visitation, especially New Hope, Bethlehem and the Poconos and adjoining recreational areas. This year-round visitation reduces seasonal employment and thus is an important element of the Corridor economy.
- A large number of bus tours already come to the area to stop in and near New Hope and Bethlehem. These tours can be extended to include other heritage activities in the Corridor.
- The Corridor has a strong highway access system with an impressive number of entry points from adjacent areas — including the affluent New York and New Jersey markets.
- Water is one of the most important amenities and value enhancer for all types of tourism and real estate development. The presence of the two rivers and the watered sections of canals represents a real asset that is untapped or unrecognized in many places.

Despite these strengths, the Corridor also has a number of important obstacles to address:

- The existing heritage attractions are not linked to one another for interpretive, marketing or other purposes, nor are they linked to existing non-heritage and recreational facilities.
- None of the area's existing heritage attractions are completely developed with the necessary support system to offer the tourist a full entertainment package. Eckley Miners' Village lacks lodging and retail; Jim Thorpe needs parking as well as more retail and lodging facilities; the Lehigh Valley requires more bed-and-breakfasts and retail; and New Hope severely lacks parking facilities.
- The heritage-related attractions that already exist within the Corridor are not marketed or interpreted to their full potential.
- The Corridor has a few heritage-related festivals, but more are needed to complement interpretation and to provide a critical year-round mass of special events to attract visitors to the Corridor.
- Many sites that could be heritage attractions are currently not interpreted or ready to receive visitors.

The Corridor abounds with opportunities for tourism enhancement or enrichment. Many of the obstacles listed above reach beyond tourism marketing and concern the need to develop some of the missing pieces. Yet, the TPAs are not in a position to spearhead development. The Commission's policies on tourism are an effort to bridge this gap and to build from the already significant level of tourism activity that exists today.

Economic Development: Issues and Existing Resources

In the arena of economic development, the Commission will embrace opportunities for the rehabilitation and productive reuse of historic resources for purposes that reinforce Corridor goals, especially in the Landing communities and the Passage. Other important concerns include creating opportunities for small business development and strengthening the Main Streets of the Corridor's many distinctive downtowns, especially in the Passage.

A multitude of organizations are dedicated to economic development within the Corridor. They include business leadership groups; numerous chambers of commerce; local economic development offices; non-profit economic development corporations; and foundations in Bristol and the Lehigh Valley. All have a strong sense of purpose and good capabilities. With some exceptions, most of them take a traditional view of economic development: recruiting and nurturing manufacturing and service businesses that create jobs and tax base. Few economic development agencies — in the Corridor and elsewhere — give small business or tourism much attention. Thus, it is no surprise that at present, few have heritage-oriented initiatives or tourism high on their agendas.



Mary Means & Associates, Inc.

Main Street programs (see sidebar, page 144) to revitalize local economies and rehabilitate historic downtowns have already been successful in a number of Corridor towns, such as here in Jim Thorpe. The Plan calls for extending the program to communities throughout the Corridor.

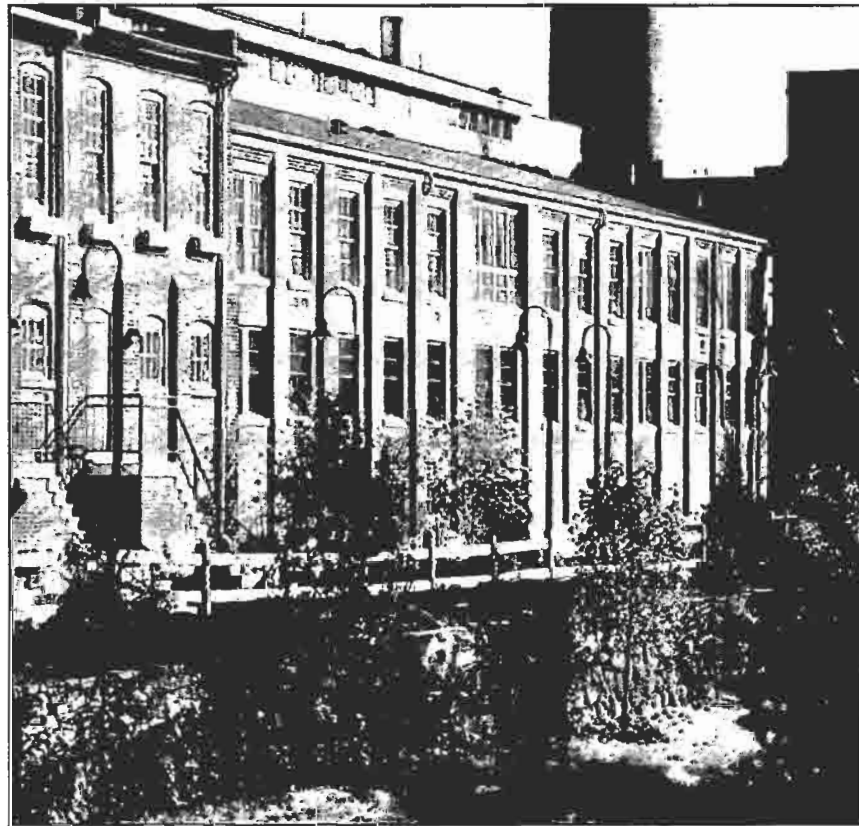
State and federal agencies with programs that assist or could assist economic development initiatives in the Corridor include the state's Department of Commerce/Economic Development Partnership and Department of Community Affairs, and at the federal level, the Small Business Administration, the Economic Development Administration and the U.S. Department of Housing and Community Development. In particular, the Department of Community Affairs can provide assistance on creating enterprise zones in Corridor communities; Easton already has such a zone.

Action Contract with the Pennsylvania Downtown Center to provide circuit-riding technical assistance to fledgling Main Street efforts and other interested Corridor towns.

Tracking the Value of the Corridor Investment

Though better coordination of a myriad of activities and projects undertaken by the Commission and its Partners, the Corridor initiative is destined to produce significant results. One of the most compelling ways of communicating the progress and impact is by comparisons. An easily overlooked but vital function involves monitoring the economic impact that will occur as these interwoven strategies are implemented over time. This information can be invaluable in demonstrating success to elected officials, funding agencies or investors.

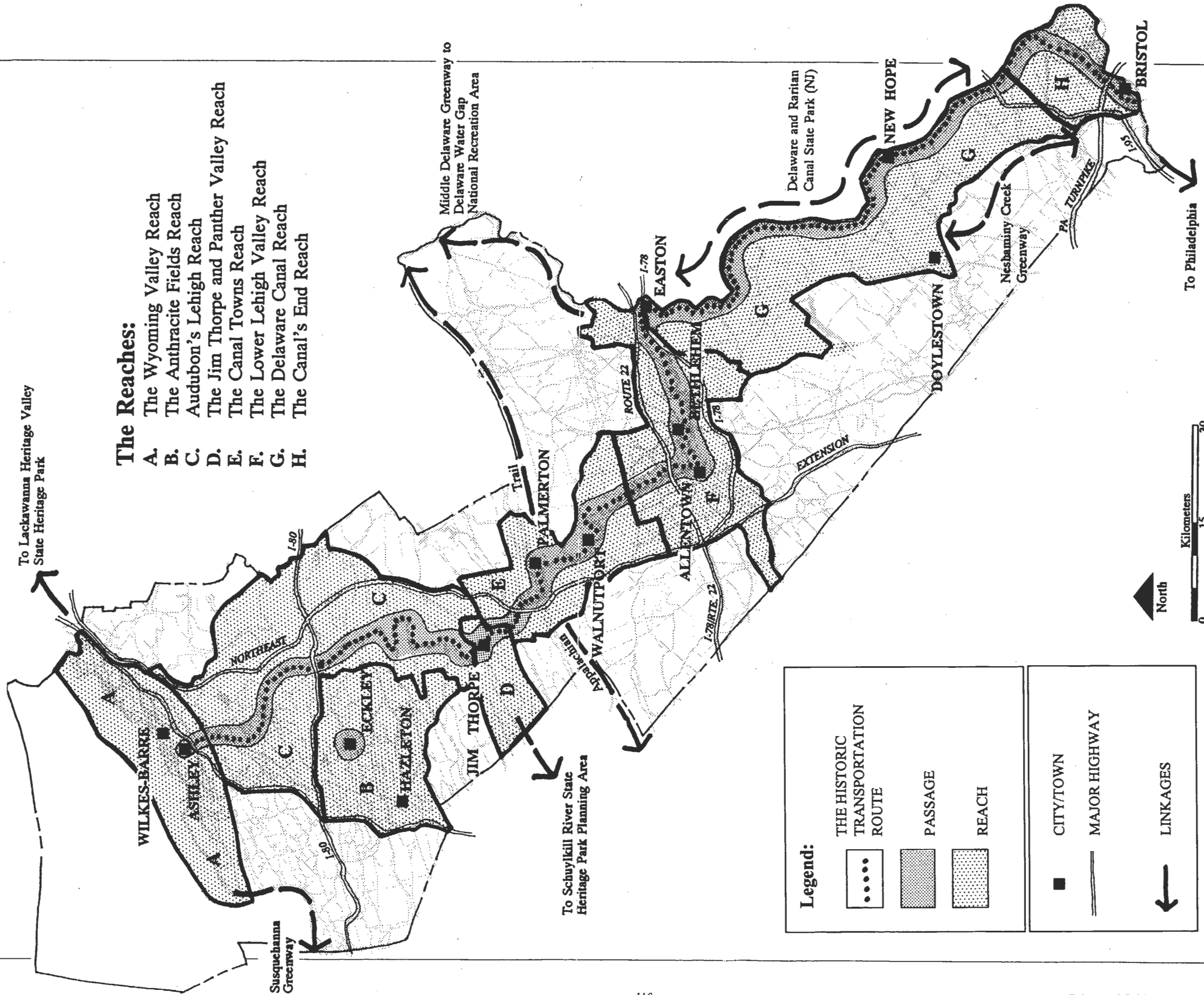
Action The Commission will work with Corridor counties to compile and maintain key economic indicators: centralized documentation of increased visitation, economic investment, job creation, etc. — the economic performance of the growing web of heritage development and tourism linkages in the Corridor over the years. Easily adapted models exist at the National Main Street Center at the National Trust for Historic Preservation.



Through a grant and loan fund, the Commission will support the rehabilitation of historic buildings for new uses. This former box factory, located between the canal and the river in New Hope, has been adapted for housing.

Michael Bruce

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN



Corridor Reaches

All such marketing efforts should be carefully targeted to those audiences likely to respond. Further recommendations are contained in the Technical Appendix, *Economic Resources Inventory and Analysis*.

Action Work with individual TPAs, interpretive Partners and major regional attractions (e.g., Sesame Place, Dorney Park, Beltzville State Park and Lehigh rafting outfitters) on cooperative marketing to extend visitor stays and encourage visitor return.

Physical Development to Support Tourism and Economic Activities

The Commission will also lend support to the development of historic buildings in the Passage, especially when such projects can be catalytic in fostering new activity or access to the Canals or riverfront. It will encourage economic development projects within the context of historic preservation in the Corridor's older downtowns, including affordable housing projects using older buildings to keep or return residents and increased vitality to large and small town centers. As broad criteria for the Commission's support, the Commission will support soundly conceived projects that enjoy broad community support and which when implemented will 1) serve as a highly visible demonstration of Corridor values; and 2) leverage additional desirable heritage development activity and investment nearby.

The Commission will encourage heritage tourism development by serving as a link between economic development agencies, tourism promotion agencies and existing and potential heritage attractions; and by serving as a catalyst to implement key development initiatives when they hold significant potential for heritage tourism and for advancing the economic health of Corridor communities.

To accomplish this, the Commission will seek new sources of funding, including federal and state appropriations, in order to create a Heritage Development Grant and Loan Fund. In the first five years, the Commission will target grants to three to five heritage development projects in Landing or Passage communities that will be catalytic in terms of momentum, leverage additional development, and advance the Corridor's central interpretive themes.

It is understood that communities or development organizations may have potentially excellent candidate projects that are in an earlier state of development and which, if properly packaged, might become viable candidates for such "catalytic" funding. These efforts may need technical assistance for such early activities as market analysis, planning, design and development finance packaging. The Commission will use funds in this category for seeding such projects through matching grants. These projects will later be eligible for implementation assistance through the larger "heritage development project" category.

In terms of the "catalytic project" category, eligible costs will include front-end planning, design and packaging assistance, professional fund-raising assistance, and planning and funding for the preservation/

Leveraging the Landings:

Their Potential Economic Role

The Landings, as described in Chapter 5, will serve as major visitor orientation points in each of the Reaches, and consequently will generate significant activity. As such, they hold potential for stimulating additional economic investment in their immediate vicinity, if they are strategically sited, developed and managed. Ways to increase their potential as economic catalysts include:

- *Creative site selection:* This plan provides general guidance for the location of eight of the ten proposed Landings. (One, at White Haven, is slated to be developed as part of BSP's visitor center for Lehigh Gorge, on state-owned land adjacent to downtown, and another is to be established at the state historical site, Eckley Miners' Village.) Further detailed site planning and design must be done before any construction takes place. Ideally, Landings will be housed in rehabilitated historic structures with strong interpretive potential. If Landings are located near downtowns, or within easy walking distance to potentially commercial areas, or near recreational facilities, there is a much stronger prospect of generating further, complementary development.
- *Exciting design and programming* that will hold visitors' attention and send them forth to linger in the vicinity before exploring further afield. This philosophy about the role of Landings should be coupled with an outlook on the part of Landing Partners that emphasizes outreach and involvement with the local business and tourism community.
- Including in the programming and development of the Landing or nearby location, the prospect of *evening activities* — performances, special events — that could lead to overnight stays.
- *The presence of a Main Street program* or other downtown management entity that can work with the Commission and its Landing Partners to create and take advantage of the synergy comes from a well-placed, well-programmed Landing facility.

restoration of historic buildings incorporated into the proposed project where the additional cost of desired preservation might exceed that of new construction. "Gap" or "bridge" loans will be available from this category when timing is a critical factor.

In later years of the Corridor Plan, as Landings and other interpretive facilities and recreational opportunities are developed, the Heritage Development Grant and Loan Fund should be expanded to address small business development related to heritage tourism. The Commission will also facilitate such development by working through economic development Partners and Main Street programs (see below).

Action Create a Heritage Development Grant and Loan Fund to seed and package outstanding catalytic projects, developed either by Partners or by the Commission.

Action In later years of the plan, expand the mission of the Heritage Development Grant and Loan Fund to target small business development related to heritage tourism.

Action Work with DCA and the Pennsylvania Housing Finance Agency to encourage creation of affordable housing in historic structures.

What is a Main Street Program?

Pioneered by the National Trust for Historic Preservation in the late 1970s, a Main Street program is an approach to downtown revitalization that has proven valuable to small towns and cities where the downtown still possesses significant architectural character. The four elements of the Main Street approach — creating a strong organization for downtown, promoting and marketing it as a destination, enhancing its image through design improvements, and restructuring its mix of uses to meet contemporary market needs — are actively and consciously managed by a professional director. Jim Thorpe and Easton were two of the national pilot communities where the Main Street approach was shaped. Both experienced dramatic results during their years of participation. Through the Department of Community Affairs, the Commonwealth supports and assists local Main Street efforts, helping fund project managers among other eligible activities. The Pennsylvania Downtown Center, assisted by DCA, provides technical assistance, training and networking services.

Main Street Programming

The Commission will encourage and support broad regeneration programs like Main Street that will lead to greater organizational and development capacity at a local level, and that will incubate other economic projects (see sidebar). It will seek to provide technical assistance for Main Street efforts in Corridor communities, both in towns that have had official Main Street projects, and for those that have not, but which could benefit, focusing on these in the Passage that can muster significant local leadership and financing. To provide technical assistance, the Commission will work with the Pennsylvania Downtown Center, the Department of Community Affairs (DCA), Preservation Pennsylvania, the National Trust for Historic Preservation and local leaders. As one element of this collaboration, the Commission will explore with DCA the opportunity for flexibility and experimentation in the state's Main Street Program as it operates in heritage parks and corridors. Presently, towns that have been in the program are not eligible to re-enter for ten years. Several — including Jim Thorpe, Easton, Bristol — no longer have Main Street managers and could benefit greatly from having such a resource, particularly within the context of the Corridor initiative.

Action Provide technical assistance for Main Street revitalization efforts in selected Corridor communities.

Promising Projects

There are a number of promising heritage-related development projects in various stages of planning that offer unique opportunities for Corridor enhancement (see sidebar). They create exciting re-use potential for important historic resources and interpretive venues, especially in the Landing communities.

A number of Corridor communities have either benefited from organized Main Street efforts or are trying to develop viable downtown revitalization programs. These include Wilkes-Barre, Hazleton, Jim Thorpe, Allentown (the state's first special assessment district), Bethlehem, Easton and Bristol. Pennsylvania's Main Street Program has provided several of these communities with support for staffed management and marketing programs. These towns and others (Palmerton, Catasauqua, Slatington and Walnutport among others) possess significant overall architectural character in their downtowns. Coupled with an enhanced tourism marketing effort, these communities could represent a significant opportunity for small business development were there better coordination and linkage to Corridor attractions and were there more available technical assistance.

Strategy for Tourism and Economic Development

Role of the Commission

Strategically, there is one over-riding missing link in the Corridor's ability to spur tourism and economic development. If few Corridor economic development organizations reach beyond a traditional economic development focus to include tourism in their priorities, and if the orientation of the TPAs is to marketing, no entity exists that deals with tourism development: the creation of more and better visitor attractions and support services. Further, there is no one economic development organization that encompasses the entire Corridor region. Yet, one of the most pressing needs is to create linkages, to attract more visitors and to extend their stay in the area and, hence, their economic impact. The absence of a dedicated desk on which responsibility for tourism development rests suggests a gap that could be filled through the Corridor initiative.

To achieve the promise of the region and the balance intended by Congress and the Commonwealth, the connections among interpretation, recreation, tourism and economic development must be made. Thus, the approach taken for tourism and economic development must reach beyond traditional perspectives on either. It is in this arena that the Commission will provide leadership, by serving as the champion for strategic heritage tourism development.

Much of what is needed to provide a more dynamic visitor experience goes beyond adding more or improving existing heritage attractions. It also sometimes reaches beyond traditional approaches to interpretation. What is needed involves the creation of strong visitor-friendly

Promising Heritage Development Projects

White Haven: The DER/BSP plans to construct a Visitor Center for Lehigh Gorge State Park here, and the Commission has proposed joint development as a Corridor Landing as well. At the center of three state parks and more than 50,000 acres of public land, there is potential for the town to serve as a destination for combined cultural and natural heritage tourism.

Eckley Miners' Village: The owner of this state museum site, the Pennsylvania Historical and Museum Commission, is actively pursuing a development plan to rehabilitate some of the village's many buildings, some of which may be suitable for conversion to such purposes as overnight accommodations, housing for elderly miner families, and elements of a training and conference center.

Allentown: The city and the Allentown Economic Development Corporation are spearheading the Lehigh Landing riverfront revitalization project, which involves the conversion of a number of historic industrial buildings to house cultural, entertainment and retail activities. The cornerstone of this project will be the proposed Transportation Museum. Lehigh Landing and the museum are well into the developmental planning stages.

Bethlehem and/or Easton: The Hugh Moore Historical Park and Museums has been collecting industrial artifacts and archival materials to serve as a foundation for a proposed "Museum of the Industrial Revolution," which would interpret the Corridor's 19th- and early 20th-century industrial development.

Easton: Under the aegis of a mayoral commission on the "Forks of the Delaware," efforts are underway to develop the National Canal Museum, to provide the proper setting and facility for presenting the development of canals and the role they played in the nation's economic growth and expansion. This effort would build upon the nationally significant collections and canal archives at Hugh Moore Historical Park and Museums.

New Hope: The Union Camp industrial complex, close by the Delaware Canal in the center of New Hope, is under consideration for redevelopment, potentially to contain a mix of retail and housing and potentially a site for interpretive facilities and badly needed additional parking.

linkages among interpreted heritage sites and the Corridor's diverse other attractions (e.g., amusement parks, ski lodges and rafting experiences). Visitor-friendly is here taken to mean linkages and programming in which the visitor's expectations and needs have received careful consideration. Here, there is an overlap with marketing, for the packaging of experiences and attractions can be very appealing.

In the areas of tourism and economic development, the Commission will focus its energy and resources on reinforcing and enhancing Corridor values. It will not substitute for or duplicate the work of the region's strong TPAs or economic development entities. Rather, it will provide leadership and additional resources when appropriate to advance the development and marketing of an integrated network of heritage-based attractions and visitor services throughout the Corridor. A key priority will be the enhancement of the capacity and capability of Corridor Partners — the tourism promotion and economic development agencies and operators of heritage attractions.

Action Advocate and promote enhancement of existing heritage attractions and the development of new major heritage attractions.

Action Convene representatives of the Corridor's economic development and tourism promotion agencies and major heritage attractions in working sessions to focus on incorporating elements of the Corridor initiative into their own agendas and foster interagency communications and programming.

Action Strengthen the TPAs to enable them to become the Commission's marketing partners by contracting with them to provide specific marketing services. Such services should include:

- development and distribution of maps and itineraries identifying existing Corridor attractions in a unified presentation;
- an "800" number for visitors to call for information;
- providing computerized event and facility information at the Landings;
- development and marketing of packages linking existing heritage attractions to support facilities to offer the visitor a total tour package (an example might include a day at Eckley Miners' Village coupled with an overnight stay in Jim Thorpe in a mine owner's home converted to bed-and-breakfast lodging);
- development and marketing of similar packages that link some of the non-heritage attractions to existing heritage attractions to capitalize on the existing strong tourism base (for example, Sesame Place with New Hope, or Dorney Park with Bethlehem);
- development and marketing of special-interest tours to such groups as ElderHostel and Smithsonian Associates.

Exploring the Corridor: The Eight Reaches

Introduction

The sections that follow describe the Corridor's eight Reaches (Figure 7.0). As introduced in Chapter 3, a Reach is defined by its particular natural, historic and cultural resources, by historical development and interpretive potential, and by the interaction between people and the land that shaped distinctive places and landscapes. Each Reach has a strong and important interpretive story to tell, and each extends and supports the Corridor's key themes.

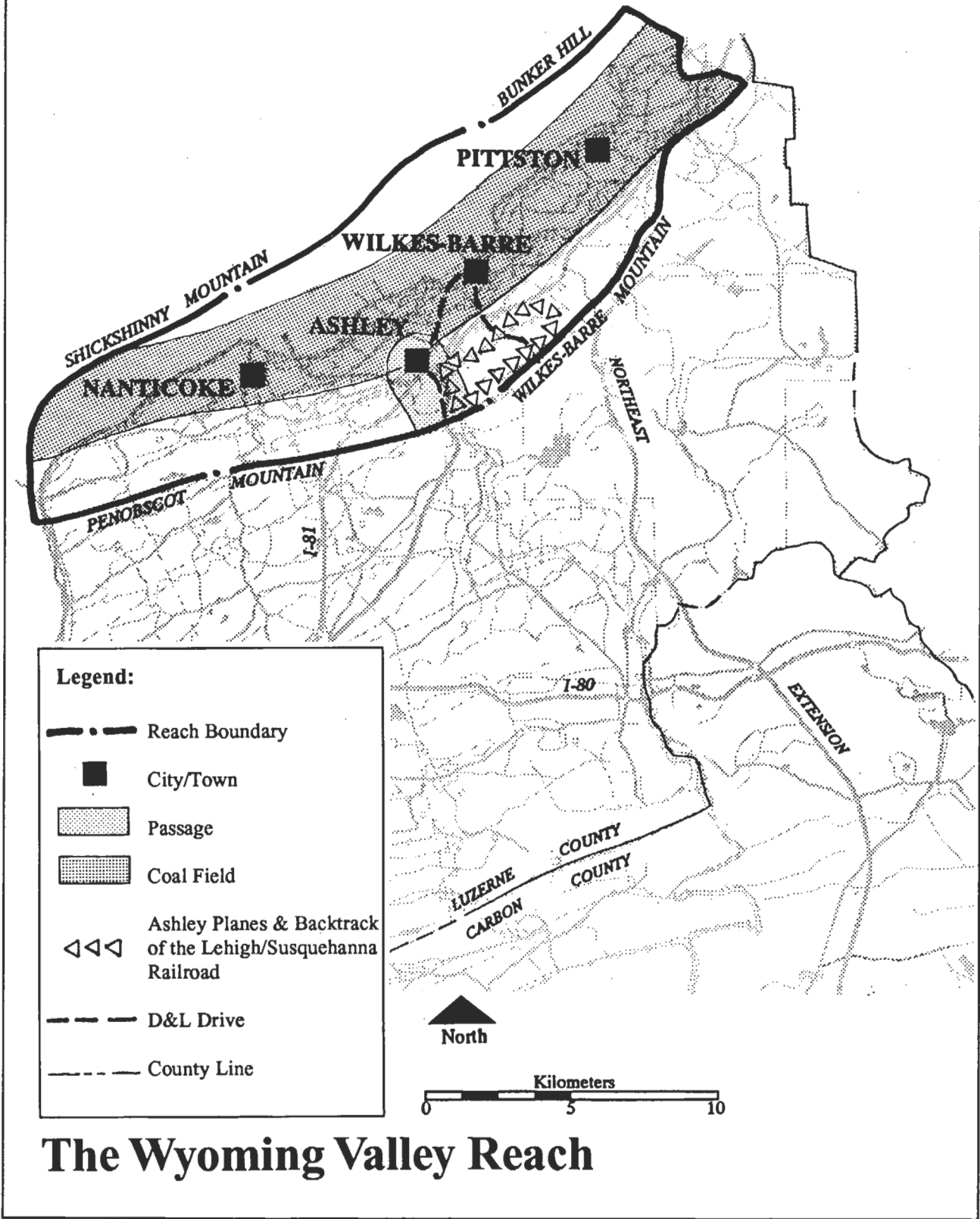
The organizing principle for each Reach is overtly interpretive, and the Plan uses this means of comprehending the Corridor as a way to organize all the actions and resources needed for implementation.

In this chapter, a section on each Reach starts with a description of the Reach as a place, briefly outlines the general trends affecting its future and then, in sections reflecting this Plan's organizational structure, deals with the policies for navigating, understanding, conserving and enriching that Reach.

The issues that frame the actions presented in each Reach are found in Chapters 4 through 6, as are a large number of Corridor-wide actions that affect many or all of the Reaches. Thus, the actions presented in each Reach do not constitute the definitive list for that Reach. Rather, they are offered as guidance for the Reach's civic leaders and public officials as they review local priorities and initiatives within the context of the Corridor initiative. The intent of the Corridor initiative is to create added regional value for all supporting efforts through the umbrella of the Commission.

Within each Reach, the Passage — the historic transportation route and the adjacent historic towns and national and cultural resources — will receive the highest priority and serve as the target for the most intensive attention during the Plan's early years. In subsequent years, more attention can and will be given to opportunities beyond the Passage, once momentum is established.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN



The Wyoming Valley Reach

Figure 7.1

The Wyoming Valley Reach

A linear valley with a legacy of intense industry and mining, and one of the Corridor's three anthracite fields, the Wyoming Valley bears both the scars and the proud heritage of hard-coal mining: a rich mix of ethnic cultures, degraded but dramatic physical landscapes and a battered economy. The extraordinary cultural scene and the striking physical and natural environment distinguish it as entirely different from any other place within the Corridor. The intent in this Reach is to conserve the industrial and cultural heritage and the natural resources of the valley, which will provide a basis for economic revitalization.

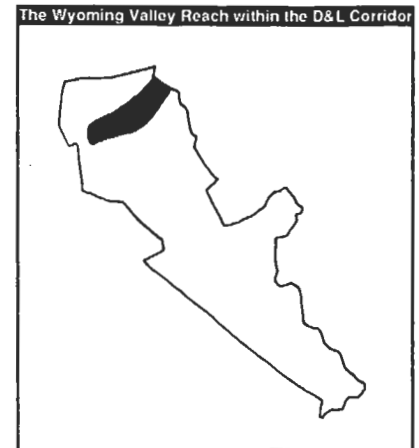
Description

The northern end of the Corridor is anchored by the Wyoming Valley, a compact, linear valley trending southwest to northeast and bisected by the Susquehanna River. The green hillsides contrast with the valley's floor, where anthracite deposits precipitated much industrial and urban development, a nearly continuous belt of cities, towns, industries, mines, roads and rail lines.

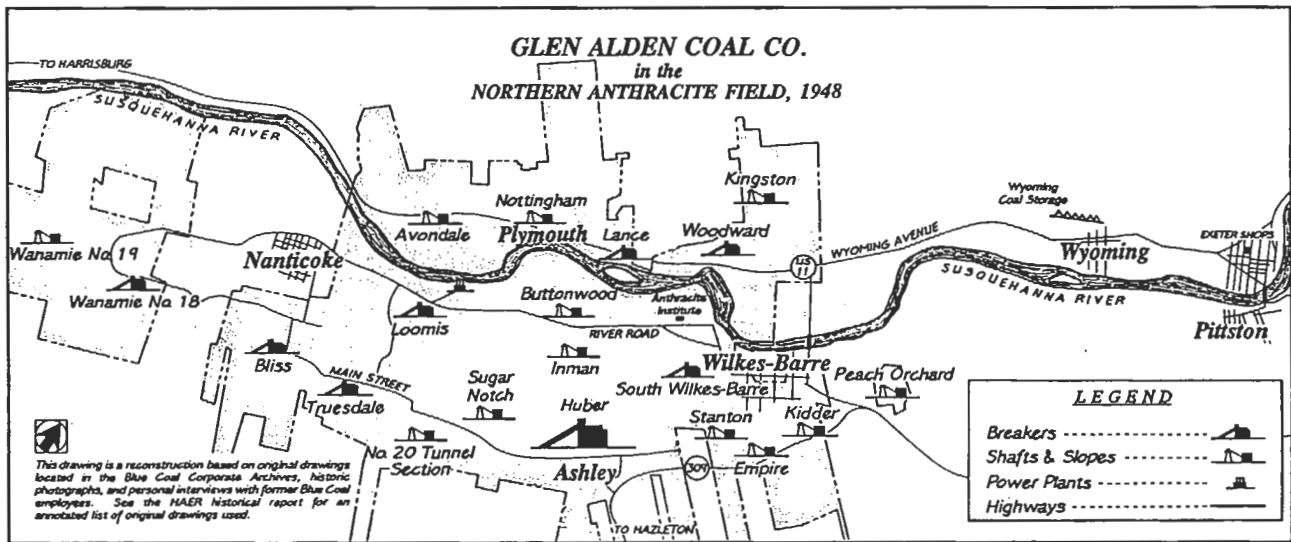
Rivers gave the Wyoming Valley strong connections to the world beyond, northeast along the Lackawanna to Scranton and on to New York via canals and roads, and southwest via the Susquehanna and the North Branch of the Pennsylvania Canal to Harrisburg, and on to Baltimore. The rivers' geographic influence has continued to this day, thanks to highways following the valleys. Although the early southern link across the mountains with the rest of the Corridor has faded with the decline of both coal and rail, trains still run through the Lehigh Gorge and over the mountains to meet Wyoming Valley lines in the railyards around Pittston, and a pleasant secondary road traces the route from Ashley, where coal was first shipped out of the valley, to White Haven.

Unlike the rest of the Corridor, the original European settlement of this Reach was by New Englanders from Connecticut, creating a New England settlement pattern whose remains today are faint. Frontier conflict among settlers and Native Americans lasted until nearly the end of the 18th century.

What shaped the Wyoming Valley as we know it today came with the development of the Wyoming anthracite field and the transforming industrialization and urbanization that resulted. The valley's story in relation to the Corridor, however, is twofold: the development of its anthracite fields, and the technological achievement in moving anthracite over the valley's confining ridges to connect to the lucrative markets to the south. This tremendous effort required ingenious acts of engineering and daring, as well as the hard toil of countless workers. Much of the valley's coal found its outlet to the Philadelphia and New York markets via the Lehigh Navigation and Delaware Canal, once entrepreneurs and engineers created a series of steep inclined planes



at Ashley, rising 1,000 feet above the valley floor through Solomon's Gap beside the crest of Penobscot Mountain. Anthracite mined in the Wyoming Valley — and processed at such locations as the Huber Breaker in Ashley — among the largest breakers ever built — was shipped by rail to the Lehigh Canal, and later by the Lehigh & Susquehanna/Central Railroad of New Jersey to Jim Thorpe and south. This story of geographical barrier and industrial triumph was repeated throughout the Corridor in each of the landscapes descending to the Delaware tidewater, but is most dramatically told here at a highly accessible site, the Ashley Planes.



Historic American Engineering Record

Although the Wyoming Valley was settled by New England farmers, it was developed by coal companies. This map shows the extent of a single company's holdings in the valley in 1948.

The Passage in the Wyoming Valley Reach consists of the Ashley Planes right-of-way. The Reach provides a context of forested ridges and unique natural areas together with sharply contrasting industrial and mining communities that possess rich architectural and cultural evidence of their past.

Challenges, Opportunities and Priorities

The major challenge in this Reach is economic revitalization. The economy of the valley has been in steady decline for some time. Larger trends of de-industrialization and restructuring have taken a toll on the economy, as well as devastating floods and the famous 1959 Knox Mine Disaster, which flooded mines underlying the valley. This episode effectively shut down mining in the valley. As a result of these factors, the urban fabric of the valley is, in places, in serious need of revitalization that not only will inject economic life, but will leave communities intact and prosperous, thriving from the spirit and determination to rebound that has marked these communities as much as mining, and mining's decline.

Main Street assistance (see sidebar, page 144) presents a strong opportunity for Wyoming Valley communities — especially Ashley, Pittston and Nanticoke. Moreover, in places with industrial heritage and architectural resources as strong as those in this Reach, the reuse of historic structures always presents opportunities. Other avenues toward economic revitalization are already being actively pursued by local organizations: active recruitment and strengthening of traditional and innovative new industries, a burgeoning tourism sector of regional proportion and highway-centered commercial development capitalizing on the valley's location on several major highway routes (Interstate 81 and the Northeast Extension of the Pennsylvania Turnpike).

In such a heavily developed landscape, interpretation can help improve imageability — to understand it is to appreciate it on its own terms — and convert the valley's rich history into a resource for economic revitalization through tourism. This emphasis on the opportunities presented by interpretation can make an even greater impact if linked with well-focussed revitalization measures. Such measures include, at a very basic level, protection and development of key elements of this landscape: protection of historic resources through documentation and local historic district designation, recognition of cultural resources, open space and hillside conservation, protection of rare natural resources and development of recreational resources.

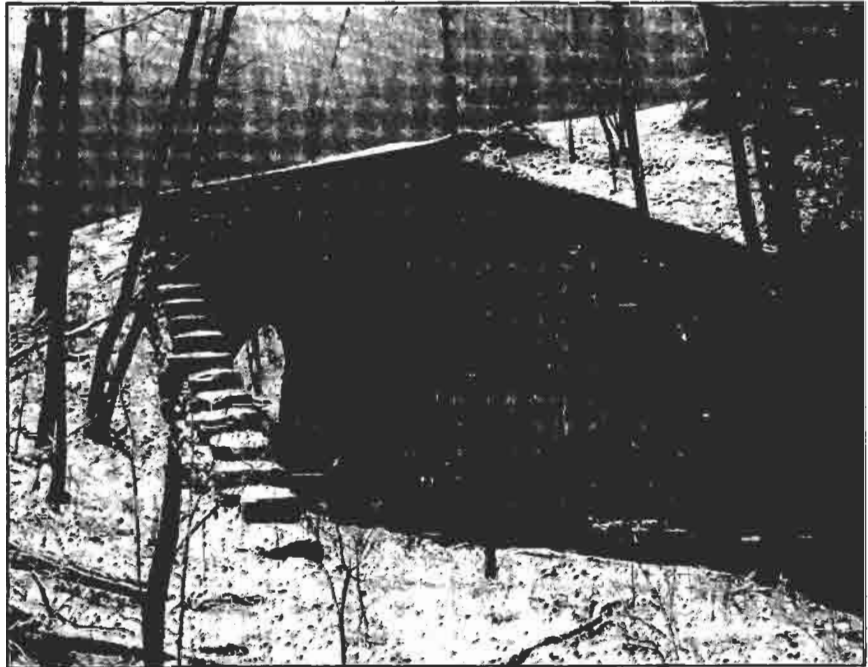
Besides the priorities of Main Street assistance and interpretation, another is greater emphasis on protecting and enhancing the natural environment, long an integral part of life in the valley. The land yielded the resources for a subsistence life of agriculture and rural industry of furnaces. And in the industrial age, it yielded anthracite, the source of the wealth, and the toil of the entire valley, shaping much of the landscape. In this age of rediscovering our heritage, natural resources again afford opportunities to shape the future life of valley residents. The reclamation of mineland is a positive step toward the future, and expanded cooperation with DER and the emerging Earth Conservancy holds promise for addressing concerns on a regional scale. Addressing the issues of industrial contamination must also be part of the valley's future.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("Navigating"), Chapter 5 ("Understanding") and Chapter 6 ("Conserving and Enriching"). In addition, a large number of Corridor-wide actions affecting the Wyoming Valley Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for Wyoming Valley's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

Navigating the Reach

One of the intents of this Plan is to strengthen the ties among different places in the Corridor, including the physical and historical connections among the various Reaches. In this vein, the Wyoming Valley has an immediate opportunity to contribute to the implementation of this Plan through development of the Lehigh to Susquehanna Trail along the historic right-of-way of the Lehigh & Susquehanna Railroad, including the Ashley Planes and Backtrack, as a part of the Corridor's Delaware & Lehigh Trail (see Chapter 4). The D&L Trail is a recreational project as well as an opportunity to provide a direct, physical connection between White Haven and Wilkes-Barre. It is equally important as an intellectual linkage, tying the Wyoming Valley to the Lehigh Gorge, the other anthracite regions, and the historic transportation corridor through which much of its coal was transported. Implementation of the Delaware & Lehigh Drive will provide an additional, more-accessible linkage with the Corridor (see Chapter 4 and Figure 4.5.)

The Ashley Planes allowed anthracite to be hauled on the Lehigh & Susquehanna Railroad over the mountains from the Wyoming Valley to the Lehigh Canal. The planes and the abandoned rail line are now the subject of an ambitious rail-to-trail project that will be a major link in the Delaware & Lehigh Trail.



Joseph E. B. Elliott

Linkages within the Reach

This reach is well-served with Interstate 81, major highways and city streets. With the borders of towns and Wilkes-Barre abutting one another either visually or literally, distinct entrances from one to another would provide a meaningful context for these linkages.

Action Develop this Reach's portion of the Lehigh to Susquehanna Trail: the Ashley Planes, the Backtrack and the Backtrack's link past the Seven Tubs Natural Area and on through Wilkes-Barre.

Action Provide good signage and access facilities to the Lehigh to Susquehanna Trail from the Reach's urban centers; provide directional signs from major highways.

Action Improve entrances to towns and Wilkes-Barre through landscaping and specially designed signs.

Linkages to Other Reaches and Places outside the Corridor

The D&L Drive, paralleling the D&L Trail here, is the primary southward linkage to the next Reaches in the Corridor. Access from beyond the Corridor is provided by Interstate 81 and the Northeast Extension of the Pennsylvania Turnpike. A major opportunity in this Reach exists to join forces with the Lackawanna Heritage Valley State Heritage Park, which adjoins the Corridor.

Action In concert with the Lackawanna Heritage Valley, the Department of Environmental Resources and the National Park Service, identify other rails-to-trails possibilities.

Understanding the Reach

Interpretation of the valley's historical patterns of industrialization, historical linkages within and beyond the Corridor, physical geography and natural resources presents the most immediate opportunity in making this Reach a vibrant part of the Corridor. Presentation of the valley's history and geography, and the history of the Corridor of which it is part, can instill a greater awareness about local resources, accomplishments and ingenuity and hence a greater sense of community pride and value.

Visitor Reception

The location for a Landing in this Reach must be determined in cooperation with potential Partners, both interpretive and governmental. The dramatic, abandoned Huber Breaker in Ashley might provide the setting for a Landing directly accessible from Interstate 81, but sites in Wilkes-Barre or elsewhere in the Reach may also be suitable, including the Stegmaier Brewery and the headquarters of the Wyoming Historical & Geological Society.

Potential Interpretive Stories in the Wyoming Valley Reach

Connecting and Defining a Region

- The Ashley Planes and Backtrack
- All historic routes for coal shipments

Coal, Commerce and Industry

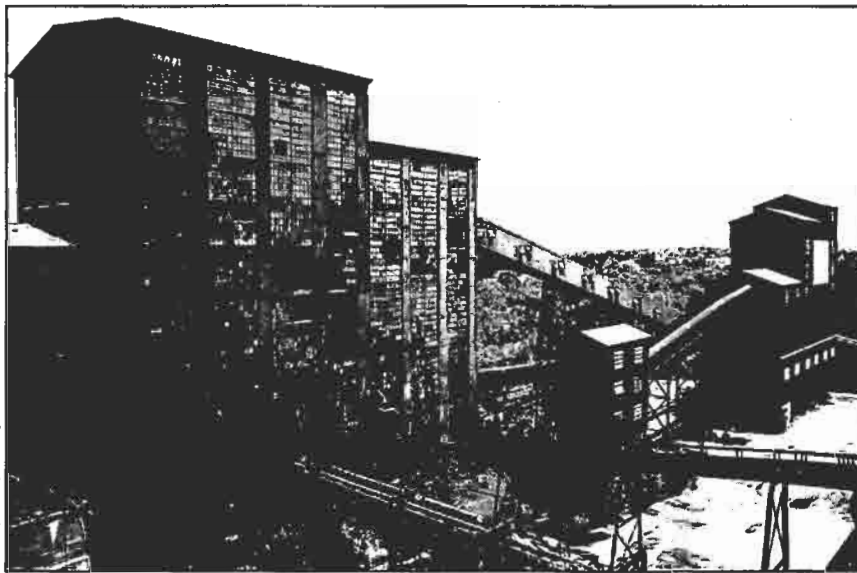
- The technology of anthracite mining, including the development of breakers and deep mining
- The Knox Mine Disaster
- Industrialization and urbanization

Working with Nature

- The natural, geographic obstacles to transportation
- The geology of the Wyoming Anthracite Field

Transformations in People and Places

- Early settlement from New England; frontier conflicts with Native Americans
- The people who worked and lived here
- The communities created around work
- Labor history
- Development of Wilkes-Barre and its rivalry with Scranton
- Effects of extensive access to interstates



Enormous breakers once dominated the skyline of the coal region. One of the few that remains is the Huber Breaker at Ashley—an important local symbol of mining and the lives of miners and their families.

Potential Interpretive Partners in the Wyoming Valley Reach

- Wyoming Historical and Geological Society
- Ashley Breaker Preservation Society
- Luzerne County Department of Parks and Recreation
- Lehigh Anthracite Region Heritage Advocates

Lands Already Protected in the Wyoming Valley Reach

- State Gamelands 207

(Source: *Natural and Recreational Resources Evaluation*)

Significant Unprotected Natural Features in the Wyoming Valley Reach

- Ashley Planes/Solomon Creek Valley
- Penobscot Mountain- Haystack Mountain
- Prospect Point/Wilkes-Barre Mountain
- Lily Lake

For these sites, the Bucks County Conservancy, the Wildlands Conservancy and The Nature Conservancy have recommended various actions, including management plans, linkages with adjacent protected lands for the enlargement of habitat corridors, interpretive programs, study of specific features, protective zoning or acquisition — or both — and other land protection techniques.

(Source: *Natural and Recreational Resources Evaluation*)

Action Establish a permanent Landing in the Wyoming Valley Reach: study feasibility and location, perform site selection, determine partner responsibilities and design and develop the Landing.

Interpretive Sites and Tours

Wilkes-Barre, with its architectural wealth derived from coal mining, provides both a sharp contrast with outlying coal towns and the culmination of the anthracite story in this Reach. Self-guided automobile tours or commercial bus tours might originate in Pittston or Nanticoke, wind through other coal towns and end in Wilkes-Barre, tracing the movement of coal as it left the ground, moved to market and made coal barons the wealthiest patrons of the city. Other points of interest are the downtown riverfront historic district, Market Square and the Stegmaier Brewery.

A wayside exhibit will be established at the site of the Knox Mine Disaster. A kiosk will be located in downtown Wilkes-Barre.

Action Establish and mark a "Coal Road" link between Pittston, Wilkes-Barre, Ashley and Nanticoke.

Action Provide wayside markers or other meaningful entrances to each of these towns.

Conserving the Reach

Protecting Environmental and Scenic Resources

Attention to issues of land management, protection and interpretation of natural resources, and development of recreational facilities in the Wyoming Valley has begun but needs further attention. Efforts such as the county park at the Seven Tubs Natural area represent a significant commitment and achievement; similar energy and resourcefulness could be directed at other natural resource and land management issues.

Hillsides are important to maintaining the Wyoming Valley's sense of place, and relate directly to its heritage of overcoming physical obstacles to transportation; encroachment or unsympathetic development would damage these qualities.

Action Encourage municipalities to protect hillsides through governmental and private action. (See Technical Appendix, *Land and Scenic Resources*.)

Action Undertake recommendations in the Technical Appendix, *Natural and Recreational Resources Evaluation*, to protect significant unprotected natural features (see sidebar).

Action Support efforts to create a Susquehanna River greenway.

Protecting Cultural and Historic Resources

The cultural heritage of many eastern and southern European immigrant groups in this valley is a *living* heritage. It calls for a battery of conservation measures and a sensitivity to bolstering the livelihood and integrity of these communities.

Building from the historic resources and cultural surveys done in association with this Plan, support for cultural and historic resource protection programs in this Reach and cultivation of a broader information base are needed.

Action Based on historic resources surveys, promote National Register nominations, local historic ordinances and other methods to encourage private investment in historic resources.

Action Interpret cultural resources in communities and workplaces, with specific reference to coal mining and railroading.

Action Develop an ethnic heritage/labor heritage festival to be rotated among small towns willing to host it each year.

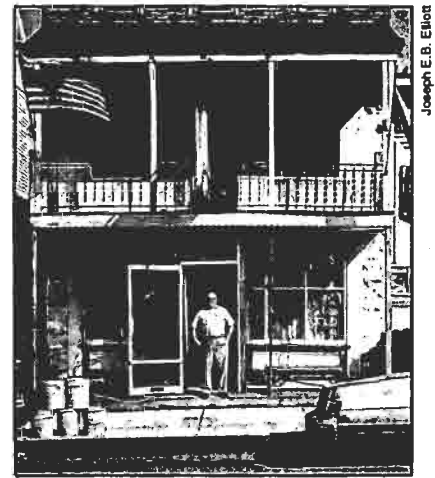
Enriching the Reach

Tourism

The primary tourism need in this Reach is to strengthen interpretation. Although there are various interpreted and uninterpreted sites of general interest such as the Ashley Planes, the Huber Breaker at Ashley and the Wyoming Historical & Geological Society's Museum, there is no visitor reception and little or no interpretive context or physical linkage (road routes or trails) provided to create a comprehensible "whole" from this Reach's small collection of existing interpretive sites (outside Wilkes-Barre) and potential ones. The more prosaic aspect of tourism, that is, services — lodging, eating places and retail shops — are already generally in place, although more variety would help to attract visitors and keep them in the area for longer periods.

Both natural and cultural amenities are desirable in the marketing message for this Reach and others north of Blue Mountain. Cross-linking the audiences to which each kind of resource appeals can broaden the overall tourism market and capture more visitors staying for longer periods.

Working with other Corridor organizations — especially the Luzerne County Tourism Promotion Agency — the Reach can capitalize on its strong heritage resources and excellent access to attract a greater number of travellers already passing by, and attract a greater number of destination visitors. The Corridor initiative presents a further opportunity to bolster linkages to the south via the D&L Drive, provide better visitor facilities such as interpreted historic sites and routes and promote attractive recreation opportunities such as the D&L Trail and natural features like the Seven Tubs Natural Area.



Despite the decline of the coal industry, communities and traditions remain strong in the Wyoming Valley. Opposite the Huber Breaker, Chick's Cafe has served miners for many years.

IDEAS FROM THE CORRIDOR:

An Ashley Breaker Park

The monumental Huber Breaker in Ashley is one of the largest coal breakers ever built. Highly visible and accessible to millions of Interstate 81 travellers, it could be stabilized and transformed into an "outdoor sculpture" and central focus for a park like Seattle's Gasworks Park and Sloss Furnace in Birmingham, Alabama. The park could offer visitors a walking trail with interpretive panels explaining the breaker and the region's mining history, and such recreational pleasures for valley residents as picnicking, bicycling and a playground. Summer outdoor concerts, heritage fairs or other events that take advantage of the site's accessibility, open land and potential for parking would add even more vitality to the site.

This park could be linked to the Lehigh to Susquehanna Trail, which is planned to follow the route of the Ashley Planes that once lifted coal from Ashley over the valley's rim to the rail line down to White Haven. The route, along with the "backtrack" right-of-way running past the Seven Tubs Natural Area and Wilkes-Barre, is part of the D&L Trail's planned northern loop.

Moreover, the site offers one option in the Wyoming Valley for the Reach's Landing, possibly using the Blue Coal Company offices next to the breaker. Tourism generated by the park and the Landing — either or both — could stimulate added downtown retail activity in Ashley.

Conversion of the breaker and the park would be a challenge for a variety of reasons: the scale of the stabilization needed, the need for a unique park design, the clean-up of any environmental problems, and resolution of ownership questions.

Action Work with the joint Luzerne County Tourism Promotion Agency to develop a Corridor message and promotion strategy highlighting "natural plus cultural heritage" in this Reach.

Economic Development

Main Street assistance, small business development and reuse of historic buildings wherever possible are appropriate revitalization strategies for small communities in this Reach.

When an economic development project reinforces such Corridor values as reuse of historic structures, interpretation and recreational and heritage development, the Commission will consider supporting it through the Heritage Development Grant and Loan Fund described in Chapter 6. One building of special concern in Wilkes-Barre is the Stegmaier Brewery, a monumental brick building filling a large city block and reflecting the heyday of regional breweries in Pennsylvania and the diverse industries found in Wilkes-Barre. It is a spectacular landmark on the city's east side. If a reuse project for a structure such as the Brewery were close to being feasible, Commission support could make the difference between feasibility and failure. Although several efforts have stalled in the past, interest in the Brewery's redevelopment continues. A principal need is an exhaustive exploration of all feasible options — commercial, residential, governmental, industrial, or some combination thereof.

Action Strengthen tourism services (particularly in smaller communities where some interpretation will be placed, such as Ashley) by sponsoring Main Street technical assistance.

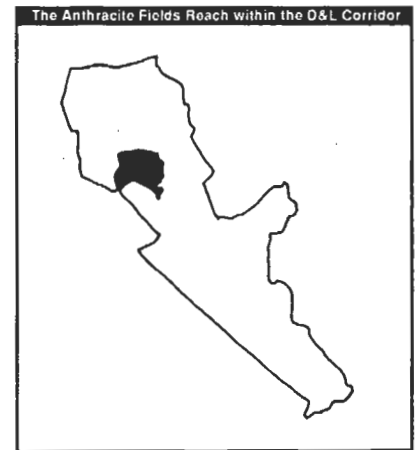
Action Encourage exploration of adaptive reuse options for the Stegmaier Brewery.

Action Explore the use of enterprise zones in Wilkes-Barre and other locations to encourage private investment.

The Anthracite Fields Reach

This is a landscape that can tell its own story. Visible everywhere are collieries, culm piles, old anthracite railroads, enormous strip mines, old strippings newly covered with small trees, and coal patch towns lined up just beyond the edge of the coal fields. Less evident but no less important are the communities and cultures forged around work and immigrant traditions, and the beginnings of the labor movement.

As the demand for anthracite has continued its slow downhill slide for the last half-century, the character of the region also has changed. The intent here is to conserve essential characteristics of the anthracite landscape so that it continues to be meaningful and intelligible; to conserve and interpret the stories of immigration and labor; and to support the extension of heritage tourism to this Reach.



Description

This remote and mountainous region, far from navigable rivers or even primitive roads, remained only sparsely populated many years after the areas all around it were settled. It was only after the discovery of coal and the establishment of the first rudiments of the historic transportation system in 1820 that European settlers came here in large numbers.

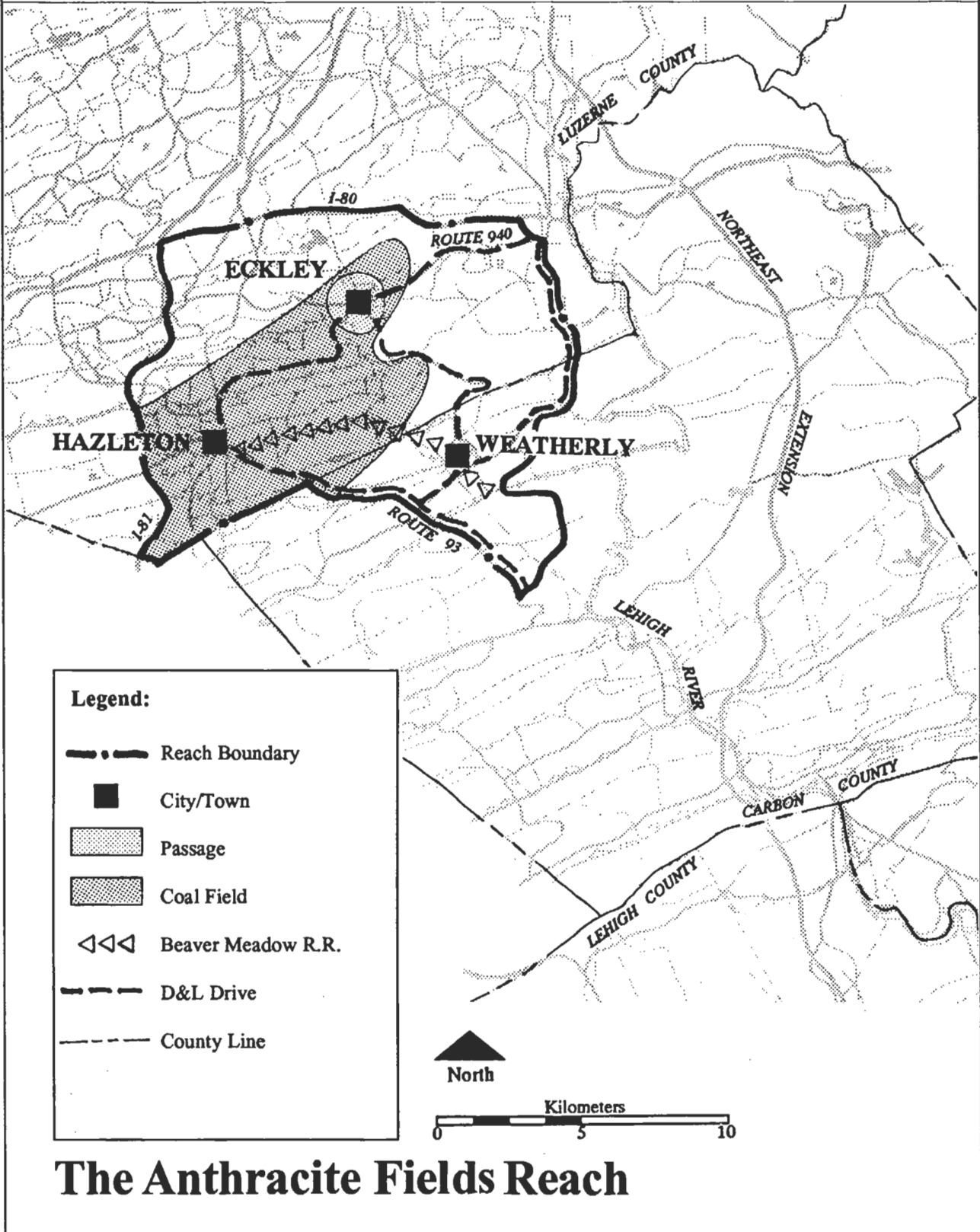
The first sizeable population was recruited by mining entrepreneurs. Thousands of experienced miners and engineers were brought here from England, Scotland, Wales and Germany in the 1820s and 1830s to establish mines and adapt European technology to the particular conditions of the American anthracite fields.

As the market for coal expanded exponentially, Irish laborers fleeing famine were recruited by mine operators in the 1840s and 1850s. Beginning in the 1860s, and continuing into the 20th century, eastern Europeans, Baltic peoples and Italians came to the region, driven from their homes by famine, conscription and repression.

The later immigrants found that the earlier English-speaking Protestant immigrants ran the new world. The Protestants owned the mines, the transportation systems, the housing and the stores. They were the superintendents of the mines, and held the best paying and most skilled jobs. The later immigrants suffered extreme religious, ethnic and work discrimination for many years.

In response, the Irish and Eastern European immigrants developed strong ethnic and religious communities, centered around ethnic Catholic parishes. Beneficial societies and the continuation of European traditions contributed to maintaining national identities. The parishes and fraternal societies that developed to meet early needs are still strong, and the ethnic character of neighborhoods and towns is still evident today. Exploitation of the miners by the operators led to attempts to organize unions to cope with the worst abuses. Union

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN



The Anthracite Fields Reach

Figure 7.2

efforts began as early as the 1840s, led by the Irish, who were at the bottom of the heap at that time. Although temporary gains were sometimes made, organization was fragmented and ineffective, and the miners always lost ground in the end.

After the Civil War, wages were cut severely and working conditions worsened. It was then that operators began bringing in large numbers of Eastern European and Italian immigrants to dilute the influence of the Irish. Unionists again tried to organize, but could not achieve solidarity across all four anthracite fields and across ethnic divisions. Their efforts had the effect of alarming the large coal and transportation companies, including the Lehigh Coal & Navigation, and the companies began to cooperate to break the unions through economic pressure, dislocation, harassment and violence.

Another 20 years of small strikes and ineffective organization, often answered with violence and answered back with retributions, produced no gains for the miners. During this time, however, the Eastern Europeans and Italians joined the Irish as some of the most exploited workers in the country, and began to join them in attempts at unionization as well. In the Eastern Middle Anthracite Field in 1897, following a long series of provocations, a line of Eastern European and Italian strikers began marching from Hazleton to a company patch town called Lattimer, seeking to shut down a non-striking mine. As the unarmed marchers reached the outskirts of town, a line of panicked sheriff's deputies, armed with rifles, opened fire and killed 19 marchers and wounded 32. The Lattimer Massacre brought the various immigrant communities together in resistance against the worst depredations of the operators, and led to the strengthening of the nascent United Mine Workers Union.

The Eastern Middle Anthracite Field is the smallest of the four Pennsylvania fields, and comprises a group of narrow, parallel basins that sit on a high plateau, enclosed by Spring Mountain on the south and Green Mountain on the north. Because the coal outcrops here are on ridgetops, rather than buried deep below the surface, quarrying or stripping has always been the method of mining. Stripping continues today, and it is not uncommon for a driver on one of the Reach's narrow, twisting roads to come around a bend and be confronted by an enormous drag line operating in a landscape that resembles the surface of the moon. On the thousands of acres of land that were stripped before recent regulations on restoration were established, hardy aspens and birch trees have recolonized the oddly sized and shaped piles of culm — rock and soil — separated from the coal and left behind. The coal landscape has a severe beauty. The devastated lands are astonishing in their starkness, and are framed by green ridges that divide them.

Patch towns such as Jeddo and Drifton cling to the edges of the coal fields, with never a structure or a road venturing onto the valuable ground. These company towns were the norm here, built cheaply and quickly to attract laborers to a remote region. The coal and transportation companies owned the houses, school, stores and streets, and made

Imageable Places in the Anthracite Fields Reach

- . Buck Mountain
- . Beaver Meadows
- . Drifton
- . Ebervale
- . Eckley
- . Freeland
- . Harleigh
- . Hazleton
- . Highlands
- . Hollywood
- . Japan
- . Jeansville
- . Jeddo
- . Junedale
- . Lattimer
- . Milnesville
- . Oakdale
- . Pardeesville
- . Stockton
- . Tresckow

(Sources: *Inventory and Assessment of Cultural Landscapes* and the Commission)

and enforced the laws. Eckley, an 1854 patch town, was typical. Once occupied by a mosaic of ethnic groups, it illustrates the eunomic design of the company towns — a man's ethnicity and rank in the mines was translated into the size and location of his housing. Now called Eckley Miners' Village, this National Register Historic District is a museum of the Pennsylvania Historical and Museum Commission.

The city of Hazleton was and is the economic center of the Eastern Middle Anthracite Field. A handful of powerful families dominated the region through their ownership of land, mines, railroads, banks, lumber companies, ironworks and retail operations. As in many industrial towns in Pennsylvania, their mansions and churches sit on the highest hill, overlooking their holdings.

Railroads were the key to getting the anthracite to the Lehigh Canal and to market, and the Reach is crisscrossed with mostly abandoned anthracite lines. The railroad town of Weatherly, at the center of the Reach, was a junction of two of the lines, and the site of locomotive construction and repair shops where significant technological innovation occurred.

Stretching east from Weatherly to the Lehigh Gorge are the only farmlands in the Reach, small-scale, rolling and lovely.

Thousands of immigrants were recruited to mines and patch towns—both owned by coal operators, and exploitation led to many years of labor action. Here a woman picks coal from a culm bank during the Great Strike of 1902.



Library of Congress

Challenges, Opportunities and Priorities

A great deal of mining is still underway in this Reach, but modern strip mining is carried out with large machines, and with few workers. Since the end of World War II, residents have been leaving in search of work, and towns have declined and even disappeared completely. Thousands of acres of disturbed land remain, and the Reach is the source of acid mine drainage that pollutes the Lehigh River. There are three challenges for this Reach: to conserve enough of the essential elements of the anthracite cultural landscape so that it remains understandable and meaningful; to interpret these elements and their interrelationships, as well as the stories of ethnicity and labor; and to reclaim the damaged lands and waters for new uses.

The basic elements of the landscape are the patch towns, with their linear and economic design; the coal operations that surround them and which may include a breaker, sheds, washers and active and reclaimed mine lands; the anthracite railroads and their support facilities; and the city of Hazleton, which illustrates the wealth to be had from mining. In the years since the industry began to decline, residents have been reluctant to celebrate the history of mining. More recently, however, people have come to understand the importance of the region's history and of their families' contributions to it. The anthracite landscape represents the hardships and the triumphs of the last 150 years.

The Commission will provide assistance to local preservation and cultural organizations and to municipalities in identifying and protecting the components that are important and meaningful.

Interpretation also will be essential in clarifying the meanings and relationships of the landscape elements of the Reach, and in conserving the cultural heritage of the residents.

Although this Reach sits beyond the Corridor's passage, Eckley is delineated as a part of the Passage to signify the potential of early Corridor investment in the Landing and any associated development there.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("Navigating"), Chapter 5 ("Understanding") and Chapter 6 ("Conserving and Enriching"). In addition, a large number of Corridor-wide actions affecting the Anthracite Fields Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for the Anthracite Fields Reach's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

Navigating the Reach

Linkages within the Reach

No major roads traverse the Reach, and many of the existing ones have no identifying signs. Eckley itself is extremely difficult to find.

There are no public access trails in the Reach, although the routes of the old anthracite railroads offer intriguing possibilities to link this Reach to the Lehigh Gorge.

Action Work with PennDOT and municipalities to install signs with road names on roads in this Reach as well as directional signs to key places and interpretive sites.

Action As part of a Corridor-wide inventory and assessment of rails-to-trails opportunities, work with the Department of Environmental Resources and the National Park Service to determine the ownership and feasibility of establishing trails on historic anthracite railroad rights-of-way. Possibilities include the old Buck Mountain Railroad and the Hayes Creek branch of the Lehigh Valley Railroad, which could link to Eckley.

Linkages to Other Reaches and Places Outside the Corridor

The D&L Drive (see Figure 4.5) provides the primary link to the Audubon's Lehigh Reach and the Jim Thorpe and Panther Valley Reach. Access from beyond the Corridor is provided by Interstates 80 and 81, at Hazleton, and Interstate 80, at White Haven.

Understanding the Reach

Visitor Reception

Eckley Miners' Village will be the site of the Corridor Landing for this Reach, established in cooperation with the Pennsylvania Historical and Museum Commission. Eckley is an outstanding interpretive facility comprised of a visitor center, a historic patch town and a museum that represents mining, ethnicity, labor and the lives of the people.

Provisions for visitor reception will also be made at the two far ends of the Reach. One will be in Hazleton, at a facility still to be determined. The second will be the proposed Lehigh Gorge State Park Visitor Center/National Heritage Corridor Landing in White Haven. Although this facility primarily will serve the Audubon's Lehigh Reach, it can serve as an eastern gateway for the Anthracite Field, introducing the thousands of Lehigh Gorge visitors to the stories of anthracite.

Action Establish a Landing at Eckley Miners' Village, in cooperation with the Pennsylvania Historical and Museum Commission.

Action Determine a willing and capable visitor reception Partner in Hazleton and cooperatively establish a satellite information facility, potentially with exhibit and other interpretive capability.

Potential Interpretive Stories in the Anthracite Fields Reach

Connecting and Defining a Region

- The routes of the anthracite railroads

Coal, Commerce and Industry

- Mining operations and technology
- Business practices and monopolies in anthracite

Working with Nature

- The effects of mining
- Reclamation methods

Transformations in People and Places

- Immigration and ethnicity
- Labor history
- Patch towns and company towns
- Weatherly, a railroad town
- Hazleton and coal barons

Action Provide visitor information for the Anthracite Fields Reach at the proposed Lehigh Gorge State Park Visitor Center/National Heritage Corridor Landing at White Haven.

Interpretive Sites and Tours

The historic and landscape resources of the Reach will be best seen on tours, and there are a number of possibilities for tours and waysides.

Eckley Miners' Village, White Haven and Hazleton will be the starting points for self-guided driving or commercial bus tours that include working mining operations, patch towns and important sites in labor history, particularly Lattimer. Wayside exhibits will support the message of the tours.

Kiosks will be located at a visitor reception center in Hazleton and at Weatherly.

Action Establish and mark a "Coal Road" link between White Haven, Eckley, Weatherly and Hazleton.



Potential Interpretive Partners in the Anthracite Fields Reach

- Eckley Miners' Village
- Greater Hazleton Historical Society Museum
- Lehigh Anthracite Region Heritage Advocates
- Luzerne County Recreation and Parks
- Carbon County Environmental Education Center
- Audubon's America program of the U.S. Environmental Protection Agency
- National Audubon Society

(Source: *Natural and Recreational Resources Evaluation*)

The Pennsylvania Historical and Museum Commission's Eckley Miners' Village, part of the Pennsylvania Anthracite Complex, is one of the premier interpretive facilities in the Corridor, and a strong Partner for interpretation of Corridor themes.

Conserving the Reach

Protecting Environmental and Scenic Resources

This region is burdened with the environmental results of decades of unregulated mining: acid mine drainage and unsafe old mine sites with pits and unstable culm banks. At the same time, the region's landscape, while not always "scenic" in the sense of pretty, is perhaps all the more distinctive and interesting for the evidence of its extensive mineral resources — from dramatic active open pit mining to aspen saplings covering older culm areas. These areas are interspersed with lands not underlain by anthracite, occasionally in the form of ridges that frame the surrounding landscape, other times with developable land occupied by patch towns and newer development.

Lands Already Protected in the Anthracite Fields Reach

- State Gamelands 141 and 187

(Source: *Natural and Recreational Resources Evaluation*)

**Significant Unprotected Natural Features
In the Anthracite Fields Reach**

- Green Mountain
- Black Creek Valley
- Bald Mountain Area

For these sites, the Bucks County Conservancy, the Wildlands Conservancy and The Nature Conservancy have recommended various actions, including management plans, linkages with adjacent protected lands for the enlargement of habitat corridors, interpretive programs, study of specific features, protective zoning or acquisition — or both — and other land protection techniques.

(Source: *Natural and Recreational Resources Evaluation*)

Action Work with the Department of Environmental Resources to determine the Commission's role in addressing abandoned mine reclamation and acid mine drainage.

Action Work through the county planning department to provide technical assistance for municipalities seeking to establish or upgrade their planning and development guidelines with the goal of protecting key elements of the anthracite landscape.

Action As a key part of the interpretive program for this Reach, express the significance of the anthracite landscape, and introduce and foster an ethic of stewardship.

Action Undertake recommendations in the Technical Appendix, *Natural and Recreational Resources Evaluation*, to protect significant unprotected natural features (see sidebar.)

Protecting Cultural and Historic Resources

Ethnic communities remain strong and cohesive, and actions will be taken to support the vibrant cultural life here.

Because many of the Reach's historic resources have not been highly valued until recently, they have received little protective action so far. An anthracite context study has recently gotten underway that will survey anthracite-related resources in all four fields and enable action to protect important aspects of this heritage. It is supported by the Lackawanna Heritage Valley State Heritage Park, the Wyoming Historical & Geological Society, the Pennsylvania Historical and Museum Commission and the Pennsylvania State Heritage Parks Program.

Action When sponsors of ethnic festivals and events desire attention and visitation, promote these as part of Reach and Corridor promotion activities.

Anthracite mining is in decline, but continues to define the region. The coal landscape, towns and people of this Reach make it a powerful cultural landscape with strong possibilities for interpretation and cultural tourism.



Joseph E.B. Elliott

Action Work with the Pennsylvania Historical and Museum Commission, Eckley Miners' Village, Luzerne County, Wyoming Historical and Geological Society and Lehigh Anthracite Region Heritage Advocates to carry out an in-depth historic resource survey throughout the Reach, and to promote National Register nominations and local historic ordinances.

Enriching the Reach

Tourism

Despite the excellent facilities at Eckley Miners' Village and the evocative landscape of this Reach, there is little existing visitation here. The region is only lightly promoted as a visitor destination, and it is difficult for a visitor to obtain information or services here.

Action Work with the Luzerne County Tourism Promotion Agency and the Hazleton Chamber of Commerce to develop a tourism promotion program for the Reach.

Action Work with Partners to ensure that visitor information, including interpretation and information on services, is readily available at Hazleton, Eckley and White Haven.

Economic Development

Situated near the interchange of Interstates 80 and 81, Hazleton can serve as a gateway to this Reach and to the Corridor.

Eckley Miners' Village comprises dozens of historic structures, a model breaker and a museum, and it is expensive to maintain. It is possible to add uses to the village which will enhance visitors' experiences, increase appreciation of the resource and return needed revenues.

Action Work with Partners to initiate a Main Street program in Hazleton, with the goals of historic preservation, establishing visitor services and capturing tourism spinoff.

Action Following up on Main Street, visitor service and interpretive site development, work with the Luzerne County Tourism Promotion Agency to promote Hazleton as a gateway destination to the Anthracite Fields Reach.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
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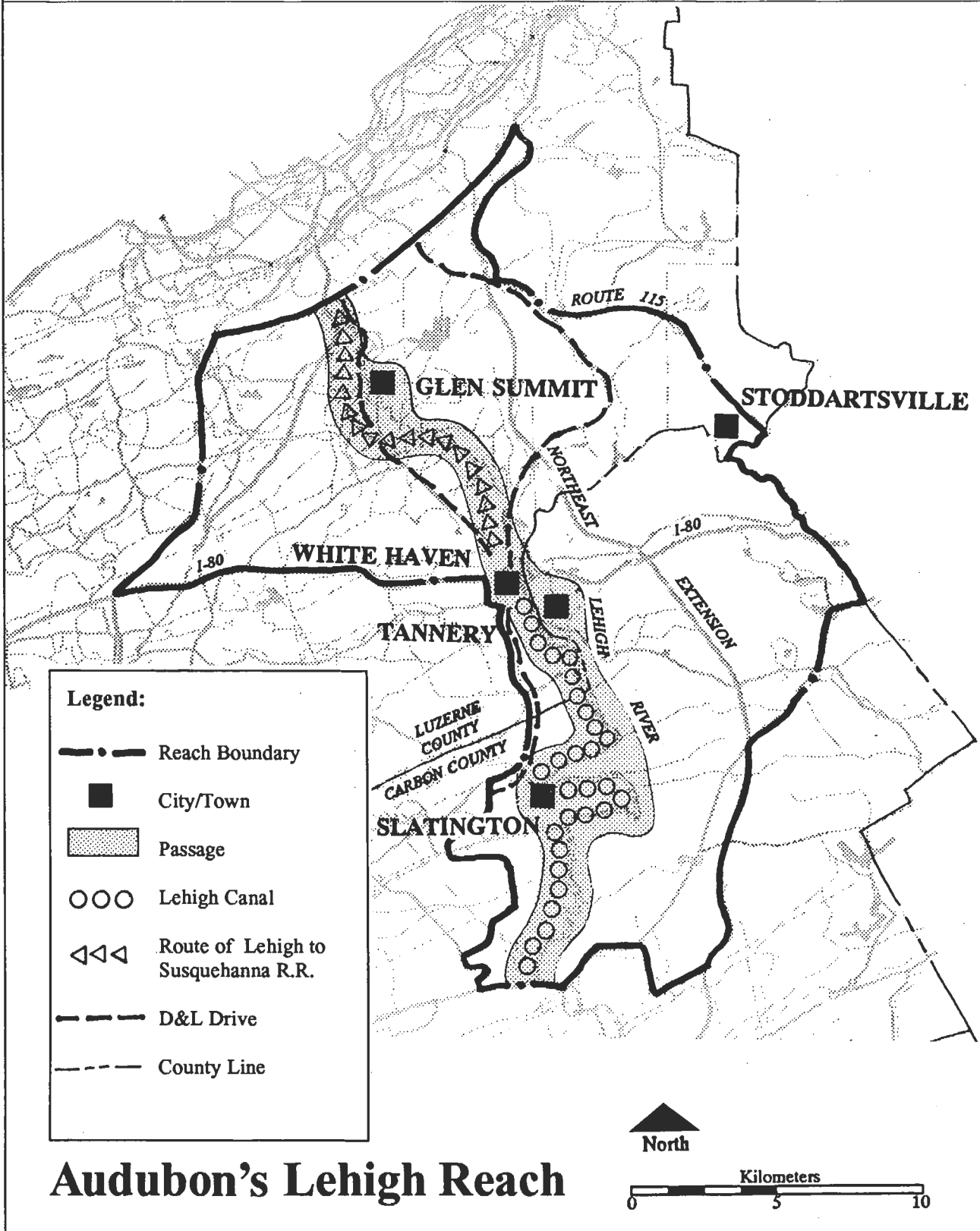


Figure 7.3

The Audubon's Lehigh Reach

This Reach is the wildest, the most undeveloped and, in many ways, the most beautiful in the Corridor. Two mountain ranges converge here — the Appalachians and the Poconos. Spectacular views of long green valleys and wooded slopes are common from their peaks, and the backcountry is studded with ponds and wetlands left by the last glacier. The towns are few and small, and many of them are survivors of a different economy — one dependent on the railroads and small-scale agriculture and lumbering.

There are numerous high quality natural areas here and extensive open space — three state parks, thousands of acres of state game lands and an important county park. The Reach contains the premier recreational resources of the Corridor.

The intent for this Reach is to enhance and protect the outstanding recreational opportunities, open lands and natural resource values, and to promote them as the basis of environmental and recreational tourism.

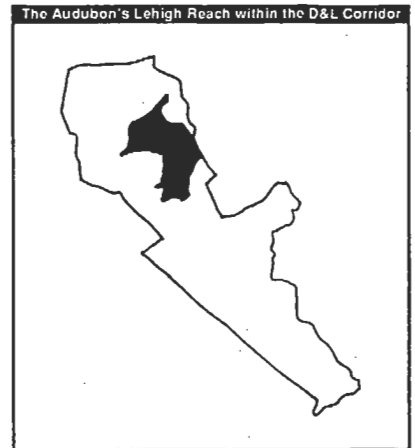
Description

This region has always been sparsely populated. Following the American Revolution, settlers moved in and cleared some land for farming, but a larger part of the population was made up of loggers and rural industrialists.

In 1829, John James Audubon visited what was then called the Great Pine Forest, and stayed for six weeks birding and sketching as the guest of the woodcutting field boss for the Lehigh-Coal and Navigation Company. The Company owned thousands of acres of virgin white pine and hemlock forest, used for construction of coal arks and as marketable timber. Audubon wrote that

Trees one after another were, and are yet, constantly heard falling, during the days; and in calm nights, the greedy saw mills told the sad tale, that in a century the noble forests around should exist no more. Many mills were erected, many dams raised, in defiance of the impetuous Lehigh. One full third of the trees have already been culled, turned into boards and floated as far as Philadelphia.

By 1841, 38 sawmills stood on the Lehigh between White Haven and Jim Thorpe. Almost every tributary was dammed to provide water power for the mills and to create ponds to hold the logs until they could be floated to market on Lehigh River freshets. The bark from the logs provided tannin for curing leather, which became an important industry here — by 1855, the Lehigh River village of Tannery was the second largest producer of tanned hides in the nation.



The rural economy was energized by the construction of the Upper Grand section of the Lehigh Navigation, from Jim Thorpe north to White Haven, with a branch to Stoddartsville, and the construction of the Lehigh & Susquehanna Railroad, from White Haven north to Wilkes-Barre. Completion of these final segments of the historic transportation system, in 1838 and 1846 respectively, meant that anthracite from the Wyoming Valley field and the Eastern Middle field could be easily and inexpensively shipped to New York and Philadelphia.

The Upper Grand, built in the Lehigh River's Gorge, was Josiah White's and Erskine Hazard's greatest engineering innovation. The river was transformed into a series of slackwater pools behind 20 massive dams. Twenty-nine "high lift" locks — higher than ever before attempted — enabled canalboats to traverse the change in vertical grade in the Gorge.



Annle Bohlin

The Audubon's Lehigh Reach has long been popular with outdoor enthusiasts, and has a surprisingly strong historic story to tell as well. With interpretation and promotion, a natural/cultural tourism industry could be developed here that could help conserve the scenic beauty and outstanding natural resources.

On the west side of the Gorge, lumber camps became coal transshipment points, as feeder railroads were built to bring anthracite from the fields to the west. The Buck Mountain Coal Company built a gravity railroad and canal wharves at tiny Rockport, as well as the only water-powered breaker in the anthracite region. The Hazleton Railroad and the Beaver Meadow Railroad ended dramatically in parallel inclined planes at a 33 percent grade to Penn Haven on the Canal. White Haven, the junction between the L&S and the Canal, profited most of all.

But in June of 1862, 30 hours of rain fell on thousands of acres of clearcut land that had lost the ability to absorb rainwater. The runoff created an enormous flood, measured at 27 feet above normal at Jim Thorpe. Mill dams on the Lehigh's tributaries burst, and more than 200,000 logs were washed into the river, where they acted as battering rams, breaching every one of the Lehigh Navigation's enormous dams. The Upper Grand was finished. Within five years, the L&S Railroad was extended south to replace this section of canal, to last a century in its turn in the Corridor's transportation story.

Today, this Reach, and particularly the Lehigh Gorge, is wilder and emptier than during Audubon's visit. The forests and the river have recovered, and now possess outstanding natural resource and recreation values.

More than 100,000 acres of land are in public ownership here. State game lands protect many mountain ridges, and are open for hunting and hiking. Hickory Run State Park offers fishing, camping and trails for hiking and cross-country skiing. Nescopeck State Park — yet to be developed — is the site of a number of species of special concern. Francis E. Walter Reservoir provides fishing and water sports. Luzerne County's 600-acre Seven Tubs Natural Area protects a rare series of cascading ponds which were etched in bedrock by glacial meltwater.

At the center of this Reach is the Lehigh Gorge. Cut into the rock of the Pocono Plateau by the Lehigh River, the 30-mile gorge is a dramatic landscape of steep slopes covered in hemlock and rhododendron, rocky escarpments and side streams that end in waterfalls. The twisting, fast-running Lehigh and many of its tributaries are designated state scenic rivers. The gorge and its viewshed are protected as the Lehigh Gorge State Park, and are highly popular for white water rafting and fishing. Hiking and mountain biking are growing rapidly on the trail that the Park has established on 26 miles of the abandoned right-of-way of the old Lehigh & Susquehanna, Lehigh Valley and Central New Jersey Railroads.

North of the Park, from White Haven to Wilkes-Barre, a multi-jurisdictional effort is underway to acquire and develop the final 28 miles of the L&S as a public trail, part of the Corridor-long Delaware & Lehigh Trail (see Chapter 4).

There is a well-developed private recreational industry. Outfitters put thousands of rafters on the Lehigh each year, and ski resorts, which have helped to make the Poconos famous, have been established on lands which once belonged to the Lehigh Coal & Navigation Company.

The Passage here is one of the most remarkable parts of the Corridor's historic transportation system. It includes the route of the old Lehigh & Susquehanna Railroad, from Ashley to White Haven, and the Upper Grand section of the Lehigh Navigation, which stretched from White Haven to Jim Thorpe. Along the L&S, the Passage includes Routes 437 and 309, Nescopeck State Park, adjoining state game lands and the towns of Solomon Gap and Glen Summit. Along the Upper Grand, the town of White Haven and the Lehigh Gorge and Hickory Run State Parks are included.

Challenges, Opportunities and Priorities

Conservation and economic development are primary concerns in this Reach. The existing base of recreational opportunity and use is high, and the region is becoming better known for all that it offers. The threat of overuse is already felt in some places. There is an abundance

of natural resources, including numerous wetlands, but some of the most rare and important resources are not protected. (See the Technical Appendix, *Natural and Recreational Resources Evaluation*.) This Reach is at the edge of the action in the Poconos, and is becoming more desirable as a location for second-home and retirement developments. The challenges here are interrelated: to improve the economic health of the region while protecting the environmental health and scenic beauty that are increasingly the basis of the economy.

There is a need to enhance tourism resources here and to promote them to a wider audience. Some potential segments of the tourist market could be better served here, particularly the enormous and growing market for heritage tourism. Older people who are less interested in active recreation could be attracted if the historic resources and stories, and the scenic beauty and natural qualities were interpreted and promoted. Families could be encouraged to visit and to stay longer if more lodging at moderate prices were available, including bed-and-breakfast lodging, campgrounds and farm vacations. Vacationers in general are more likely to visit and stay in a place which offers both recreation and culture. This Reach has these valuable resources, and they can be built upon by linking interest in recreation and natural resources to interest in historic resources in order to broaden the base of tourism and extend the length of visits.

There is a need to extend the benefits of recreational and heritage tourism to more communities in the region, and to take the pressure off places such as Jim Thorpe, which is at tourism capacity. Places such as White Haven could be developed as entry points, serving the dining, lodging and retail needs of visitors.

There is a need to protect the scenic landscapes and sensitive environmental resources for which the region is known; to ensure a balance between development and conservation; and to manage growth pressure from the Poconos. In other words, there is a need to protect what is special and keep this place from turning into every other place. Municipalities are sparsely populated here, and few have zoning or other development guidelines. Assistance could be provided to help them achieve both their economic and their conservation goals. Assistance could be offered in developing local organizations to operate as private sector conservationists. Additionally, the large land-managing agencies could work in concert to bring conservation values to the forefront in their current and projected operations.

There is a need for a sense of stewardship to be institutionalized among residents and governments here. In addition to the opportunities described above, the U.S. Environmental Protection Agency and the National Audubon Society have jointly established "Audubon's America," a program designed to conserve, enhance and interpret the natural and cultural resources of the areas where Audubon traveled, wrote and painted. This Reach could be part of an early demonstration project which is planned to promote stewardship, interpretation and environmental tourism for a proposed network of public and privately owned natural areas.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("Navigating"), Chapter 5 ("Understanding") and Chapter 6 ("Conserving and Enriching"). In addition, a large number of Corridor-wide actions affecting the Audubon's Lehigh Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for Audubon's Lehigh Reach's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

Navigating the Reach

This Reach is primarily recreational and natural in character, and most of its finest assets will be seen by people with the time and ability to hike, bicycle or raft to points which will never be served by roads. For others, the resources can be made understandable by establishing access points where meaningful glimpses can be had.

Linkages within the Reach

In this Reach, the Passage and its resources are primarily accessible by the D&L Trail, which encompasses the old right-of-way of the Lehigh & Susquehanna Railroad. Within the Lehigh Gorge State Park, the Trail has been largely completed by the Bureau of State Parks, with only the Penn Haven crossing left to resolve. North of the Park, the abandoned right-of-way must still be acquired and developed.

Lehigh Gorge State Park Plans call for the development of a ridgetop trail through the park. Additional trail possibilities include linking Nescopeck State Park to the D&L Trail; connecting state game lands to the Trail and to each other to form loop trail opportunities; and establishing a trail from the northern end of the Lehigh Gorge State Park through F. E. Walter Reservoir lands to Stoddartsville.

Action Develop access points at Rockport in the Gorge and along the Lehigh to Susquehanna Trail.

Action Facilitate acquisition and development of the Lehigh to Susquehanna Trail, as a segment of the D&L Trail.

Action Improve the rail-trail connection from Jim Thorpe to Glen Onoko and north into the Gorge as part of the D&L Trail.

Action Work with the Department of Environmental Resources, the Pennsylvania Game Commission, the Army Corps of Engineers and other Partners to study and/or develop side trails to connect the major recreational and cultural resources.

Linkages to Other Reaches and Places outside the Corridor

The D&L Trail and D&L Drive (see Figures 4.4 and 4.5) will provide primary links to the Wyoming Valley, Anthracite Fields and Panther Valley Reaches. Routes 437 and 115 are significant secondary links.

The ownership of the historic anthracite railroad rights-of-way, particularly that of the Beaver Meadow Railroad, is unknown, but there is a possibility that these could someday provide trail connections from the Lehigh Gorge west to such coal and railroad villages as Weatherly and Beaver Meadow.

Action As part of a Corridor-wide inventory and assessment of rails-to-trails opportunities, work with the Department of Environmental Resources and the National Park Service to determine the ownership and feasibility of establishing trails on historic railroad rights-of-way.

Action Improve the rail-trail connection from Jim Thorpe to Glen Onoko and north into the Gorge as part of the D&L Trail. This includes trail construction on county-owned railroad lands and re-decking the Nesquehoning trestle bridge owned by the Bureau of State Parks, plus resolving the crossing at the active rail line just south of Penn Haven.

Understanding the Reach

There are two interpretive goals for this Reach: to express the importance of natural resources and stress the need for stewardship; and to express the remarkable and largely hidden cultural story in a landscape that is generally seen as "only natural."

Visitor Reception

White Haven will be the site of a joint Lehigh Gorge State Park Visitor Center and National Heritage Corridor Landing, located just south of town adjacent to the D&L Trail and the Lehigh River. The Landing will be linked interpretively and physically with the town center of White Haven, the D&L Drive and the D&L Trail. The Landing will also serve as a visitor reception point for the Anthracite Fields Reach, as described in the section on that Reach.

Action Plan and develop a joint Lehigh Gorge State Park Visitor Center and National Heritage Corridor Landing at White Haven.

Interpretive Sites and Tours

In cooperation with the three state parks, and with Luzerne County Parks and Recreation, kiosks and waysides interpreting both natural and cultural themes will be placed at areas already receiving significant visitation and at key resources, which are now uninterpreted.

Kiosks will also be located in the center of White Haven, and in the lodges of the largest ski resorts. Waysides will be placed on the Lehigh to Susquehanna Trail and at potential interpretive sites along the D&L Drive.

In this Reach, which is so strongly natural and recreational, and so little-developed, most of the cultural resources are inaccessible by road. Most tour route opportunities will be for hikers, bicyclists and rafters, who will have access to the Reach's primary natural and cultural resources. The thousands of recreationists who already visit the Reach are a ready-made

Potential Interpretive Stories in the Audubon's Lehigh Reach

Connecting and Defining a Region

- Early river transport on the Lehigh River
- The Upper Grand section of the Lehigh Navigation

Coal, Commerce and Industry

- Early rural industries, including logging, milling, tanning and agriculture
- The operations of the Lehigh Coal & Navigation Company here

Working with Nature

- The natural environment of the Reach and how it was transformed through logging, the damming of the River, and wastes from small river-edge industries
- Regeneration of the natural resources
- Active recreation based on natural resources
- Conservation applications and the need for stewardship
- The importance of wetlands

Transformation of People and Places

- Early settlement of the region
- Rural industrial settlements and canal and railroad towns
- The Glen Summit railroad resort
- Transformations in the Poconos

Potential Interpretive Partners in the Audubon's Lehigh Reach

- Lehigh Gorge State Park
- Hickory Run State Park
- the future Nesciopeck State Park
- Luzerne County Department of Parks and Recreation
- Audubon's America
- The National Audubon Society
- The Nature Conservancy
- The Wildlands Conservancy
- Lehigh Anthracite Region Heritage Advocates
- Wyoming Historical and Geological Society
- Carbon County Environmental Education Center

audience for the Corridor's interpretive message. Vehicular interpretive tour routes will encompass those of the Reach's cultural resources which are accessible, as well as those of the adjacent Reaches.

Action Create interpretive installations geared toward both D&L Trail and river users in Lehigh Gorge State Park.

Action Develop waysides and access points to allow visitors who cannot walk, bicycle or raft to view and understand the relationships of representative resources at White Haven, Tannery and Rockport.

Conserving the Reach

Protecting Environmental and Scenic Resources

Corridor inventories identified more fragile and rare natural resources here than in any other Reach. In addition, the Reach has a number of unique natural areas deserving recognition and protection, including peat bogs, oak barrens, swamps and balds. Many are in public ownership, although there are threats even in these cases from actions or intentions that do not respect natural resource values. Others are in private ownership, and threats come from lack of knowledge or understanding about the resources, or possible incompatible uses or development. The exceptional beauty of the Reach provides its identity, and its high value is an incentive for local governments to guide locations, types and forms of future development.

Action Undertake recommendations in the Technical Appendix, *Natural and Recreational Resources Evaluation*, to protect significant unprotected natural features (see sidebar).

Action Work through the county planning departments, the Department of Community Affairs and Corridor conservancies to provide technical assistance for municipalities seeking to establish or upgrade their planning and development guidelines and to enhance the planning of new communities.

Action Work through state and private groups to develop growth management and maximization strategies for municipalities and the region.

Action Work through the state and existing Corridor conservancies to develop local private nonprofit capacity focussed on land and natural resource protection.

Action Convene a special Partners coalition (including state agencies and government and nonprofit entities in Luzerne and Carbon counties) to create a public lands open space and recreation master plan.

Action As a key part of the interpretive program for this Reach, express the importance and the interrelationship of natural resources to modern life, and introduce and foster an ethic of stewardship.



Joseph E.B. Elliott

Glen Onoko Falls, on state gameland, is protected, but many more of the Reach's natural resources are not. The Commission will work with a variety of Partners to conserve the resources that make this Reach so outstanding.

Lands Already Protected in Audubon's Lehigh Reach

- Lehigh Gorge State Park
- Hickory Run State Park
- Nescopeck State Park (undeveloped)
- F.E. Walter Dam acreage
- State Gamelands 119, 187, 149, 141
- Seven Tubs Natural Area

(Source: *Natural and Recreational Resources Evaluation*)

Significant Unprotected Natural Features in the Audubon's Lehigh Reach

- Lehigh Falls
- Bear Creek Forest/Stream Valley
- Stony Creek Area
- Boyles Pond/Beaver Dam Swamp
- Pole Bridge Swamp

For these sites, the Bucks County Conservancy, the Wildlands Conservancy and The Nature Conservancy have recommended various actions, including management plans, linkages with adjacent protected lands for the enlargement of habitat corridors, interpretive programs, study of specific features, protective zoning or acquisition — or both — and other land protection techniques.

(Source: *Natural and Recreational Resources Evaluation*)

Action Work with the Department of Environmental Resources to maximize protection offered by the state scenic rivers program for the Lehigh and its tributaries. Consider federal Wild and Scenic River designation.

Action Fund technical assistance through participation in the Audubon's America program of the U.S. Environmental Protection Agency and the National Audubon Society.

Protecting Cultural and Historic Resources

Because cultural and historic resources have not been as highly valued in this Reach as natural and recreational resources have been, they have received little investigation and protection thus far. Pressure on historic resources is growing, however.

Action Perform in-depth historic resources surveys, and promote National Register nominations and local historic ordinances for Rockport, White Haven, Stoddartsville and Glen Summit.

Action Work with Lehigh Gorge State Park to document, protect and interpret the lock and dam ruins of the Upper Grand, the Penn Haven Planes, and park-owned historic resources in Rockport and other historic and archaeological sites.

Action Work with Hickory Run State Park to document and protect the Park's historic Civilian Conservation Corps structures and sites of lumber camps.

The Upper Grand Division of the Lehigh Navigation ran through what is now Lehigh Gorge State Park, and the park contains the ruins of the largest lift locks constructed at that time. Interpretation will make the connections for the hundreds of thousands of rafters, hikers and bikers who now puzzle over these massive structures.



Joseph E. B. Elliott

Enriching the Reach

Tourism

This Reach already receives high visitation, but few visitors are aware of the full breadth of the area's natural and cultural heritage. Promotion of the region for both qualities, providing interpretation and strengthening the system of visitor services will broaden the base of tourism and lead to longer stays.

Action Work with the Pocono Mountains Vacation Bureau and the Carbon and Luzerne Counties' tourism promotion agencies to develop an emphasis on the "natural-plus-cultural" aspect of the Reach (in concert with the Wyoming Valley Reach, as described in that section).

Action Convene managers of public lands and private recreational resources to develop joint marketing and promotion, visitor services and common sources and types of visitor information.

Action Participate in the Audubon's America project of the U.S. Environmental Protection Agency and the National Audubon Society.

Economic Development

In this Reach, economic development will depend both on capturing the spinoff from tourism, and on conservation of the scenic beauty and resources that make this a special and desirable place to visit and to locate.

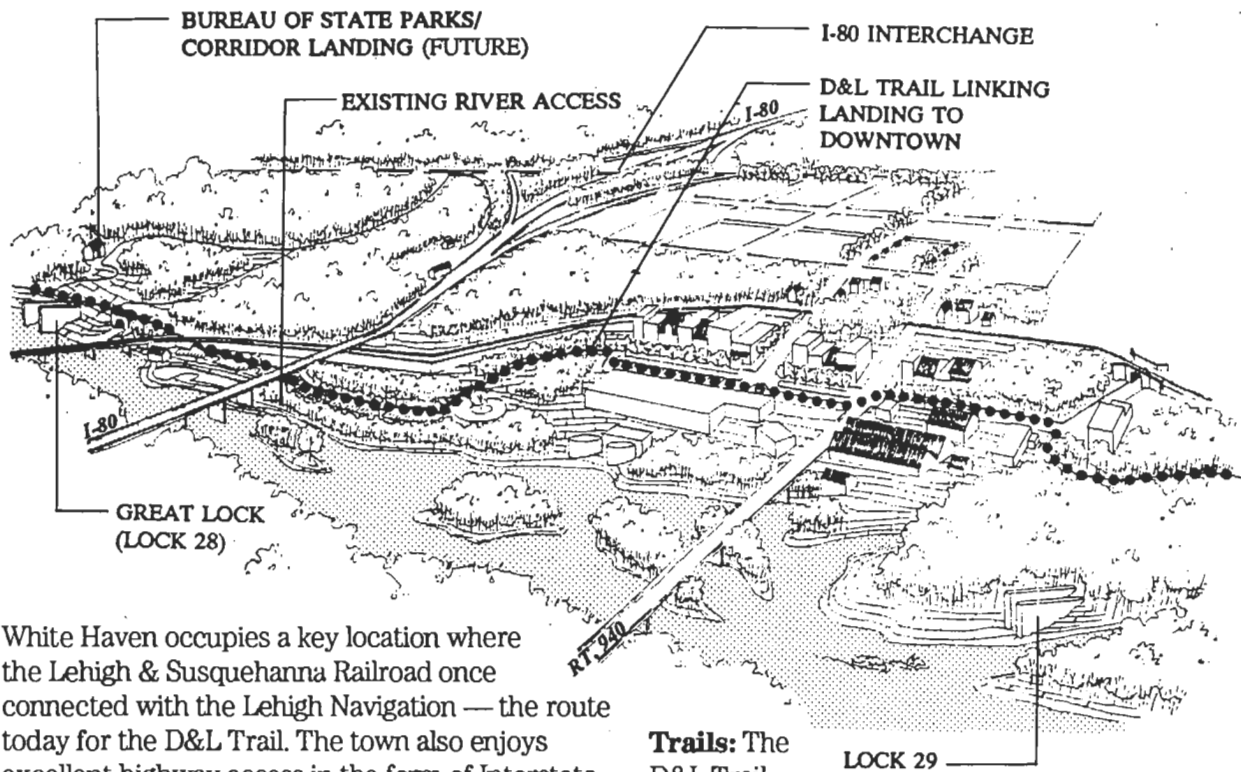
As a gateway from the Northeast Extension of the Pennsylvania Turnpike and Interstate 80, as well as a primary put-in point for whitewater boaters, White Haven already has visitors, but has little to hold them. The joint state park visitor center and Corridor Landing will help a great deal, but the town itself also needs attention (see sidebar on page 176).

Action Through a White Haven Main Street project (see page 144), restore the historic appearance of the town and develop tourism retail, restaurants and lodging to capture spending from visitors.

Action As part of the planning for the joint Visitor Center/Landing, establish pedestrian and auto connections to the center of White Haven.

Action Work through local economic development agencies to foster development of lower-cost lodging, including bed-and-breakfasts, campgrounds and farm vacations in the Reach.

IDEAS FROM THE CORRIDOR: Capitalizing on White Haven



White Haven occupies a key location where the Lehigh & Susquehanna Railroad once connected with the Lehigh Navigation — the route today for the D&L Trail. The town also enjoys excellent highway access in the form of Interstate 80, and a popular whitewater access point on the Lehigh River. The Bureau of State Parks plans a visitor center south of town, ideal for a joint venture with the Commission in creating a Corridor Landing. The Great Lock of the Upper Grand is nearby, allowing excellent interpretation of one of the more dramatic ruins in the gorge.

One important consideration in this arrangement however, is that the site is about 3/4 mile from the center of White Haven. Not far to walk — but there is little about the site currently to let visitors know a town is nearby and encourage them to visit there, as well. Creating such encouragement is a priority for the Commission in working with Partners in White Haven. Several steps appear to be desirable, as indicated in the above sketch of White Haven looking west:

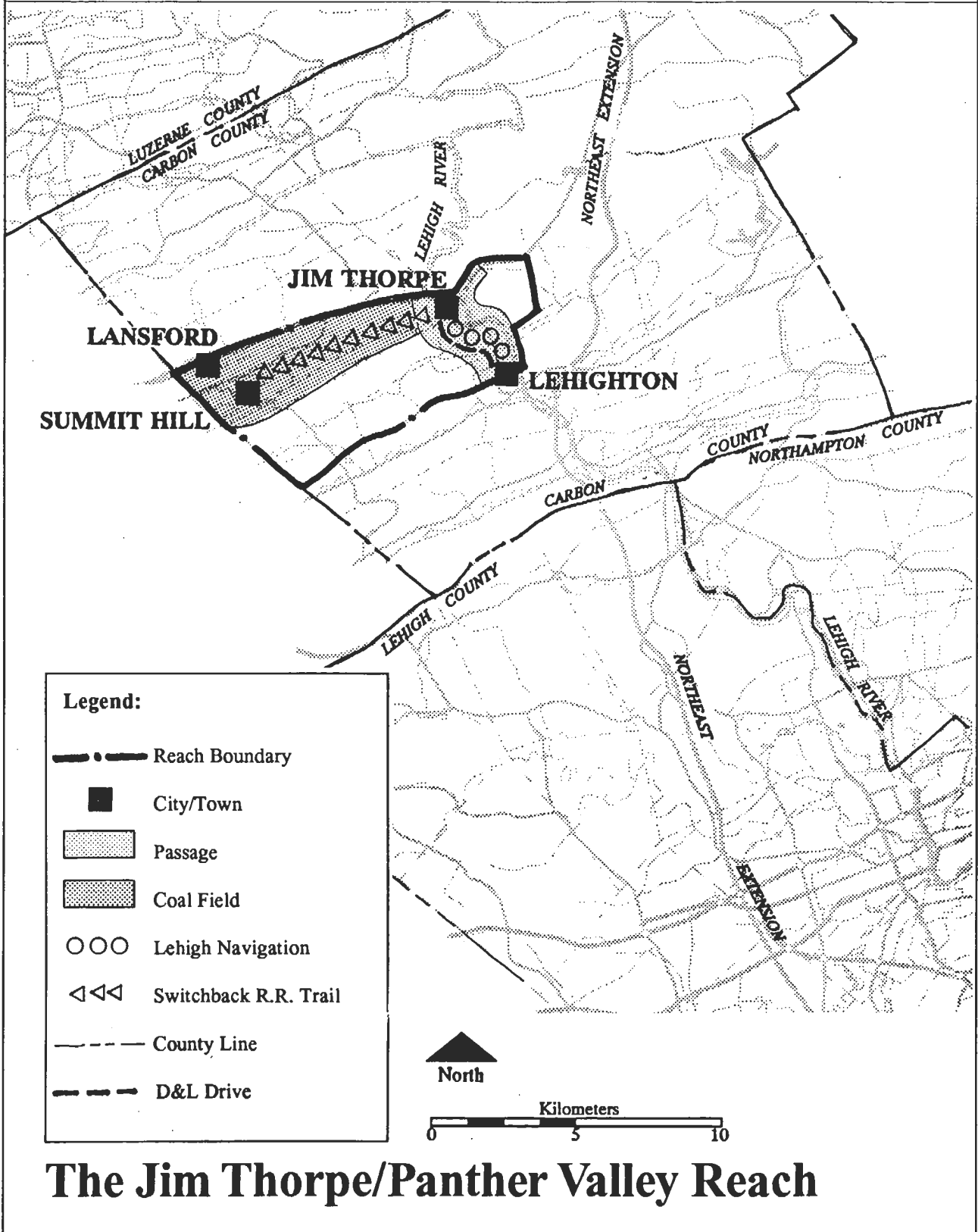
Interstate 80 interchange: Presently a clean slate, the interchange should be thoroughly signed to provide easy access to the visitor center/Landing and directly into the town of White Haven. The sense of entry into the Corridor can be enhanced by landscaping and installation of public art or heritage artifacts.

Trails: The D&L Trail through town will serve as the pedestrian and bicycle link to and from the landing. It could be visually reinforced with a distinctive pattern of tree planting, perhaps incorporated into enhanced landscaping of the parking area for rafting.

Downtown White Haven: Trail users and visitors encountering the Corridor at the visitor center/Landing can be directed to shopping, dining and lodging available in downtown White Haven and nearby. A kiosk placed in the river access area will also interest whitewater rafters in White Haven. Main Street technical assistance, including design assistance for facades and rehabilitation of historic structures, will enable existing and new businesses to capture the benefits of this recreational and tourism traffic — and give visitors added reasons to enjoy White Haven's small town charm.

Interpretation: In addition to the Great Lock ruins, interpretation of the Lock 29 ruins north of town, also on state-owned land, would encourage many visitors to walk or drive into White Haven.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN



The Jim Thorpe/Panther Valley Reach

Figure 7.4



The Jim Thorpe and Panther Valley Reach

The economic forces that transformed the Corridor over the 19th century began in this Reach. The first successful mining and shipping of anthracite occurred here; the first permanent and commercially successful railroad in the nation — now called the Switchback Gravity Railroad — was built here; and the captains of industry who transformed America's way of doing business were based here. The intent in this Reach is to capitalize on its existing recreational and heritage tourism; to spread it farther into the Corridor through coherent, intensive interpretation of the entire Reach and its relation to other Corridor resources; and to improve the D&L Trail through here as a new and dynamic element of this Reach's recreational offerings.

Description

This Reach marks a point of transition in the Corridor: a transition in the landscape as the Lehigh River emerges from the Gorge to cut across the last of the Appalachian ridges; and transition in the transport of coal down the Corridor between the Upper Grand and Lower sections of the Lehigh Navigation System.

This Reach is named in part for the narrow upper valley of the west-flowing Panther Creek where rich deposits of anthracite coal were first mined. The Panther Valley is cradled between two deeper valleys formed by the Nesquehoning and Mauch Chunk Creeks, which flow east to the Lehigh River. Successful mining and shipping of anthracite first occurred here at Summit Hill in the late 1820s. Thus the themes in this Reach overlap with those of the Anthracite Fields and Wyoming Valley Reaches, complete with labor strife epitomized by the 1877 hanging of the Molly Maguires in the town jail. With Summit Hill, the towns of Lansford and Nesquehoning became bustling anthracite mining centers, homes to successive immigrant groups that to this day give these communities a strong character. Jim Thorpe nestles deeply in the stream valley leading to the Lehigh River, a picturesque town with its main street, Broadway, winding up the valley, so narrow that many homes and the street itself were built over Mauch Chunk Creek. The tightly knit communities, compact physical setting, and anthracite/industrial story here conspire to make this Reach extremely imageable.

The outlet for the coal and the valley's point of connection to the larger world was at Mauch Chunk — now Jim Thorpe. A system of switchbacks, inclined planes, narrow-gauge gravity railroad and chutes transported and loaded the coal onto canal barges at Mauch Chunk for shipment downstream. As the home of the entrepreneurs who developed the Lehigh Coal & Navigation Company and later the Lehigh Valley Railroad — Josiah White, Erskine Hazard and Asa Packer — Jim Thorpe was the major business center of the early anthracite industry in addition to its key role as an anthracite trans-shipment point.

The Jim Thorpe and Panther Valley Reach within the D&L Corridor



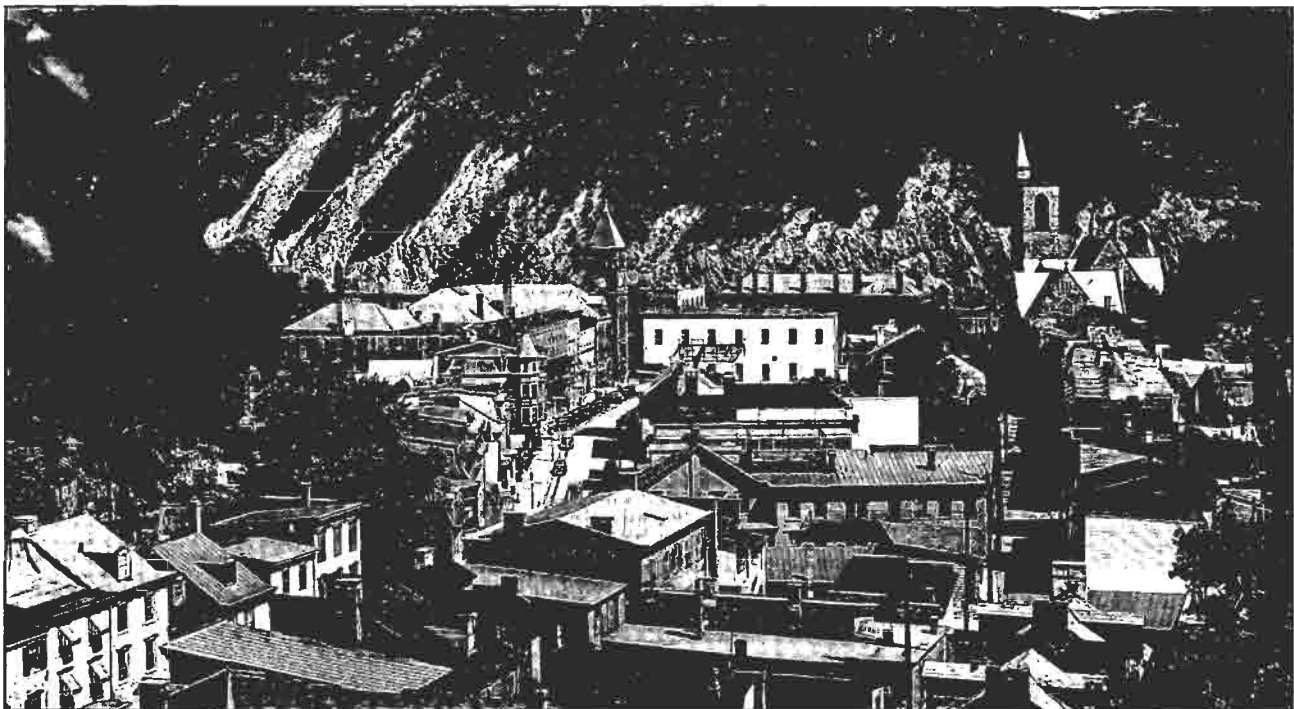
ACCOMPLISHMENTS

The Switchback Gravity Railroad Foundation has constructed two replicas of the railcars which were used to haul coal on the historic Switchback. They have also completed an engineering study on the feasibility of reconstructing the line.

The town of Jim Thorpe, little changed from this 1940 view, grew wealthy as a boatbuilding and finance center and the transshipment point between the anthracite railroads and the Lehigh Canal. Its wealth was reflected in its expressive architecture, and a recent Main Street Program and ambitious renovation plan has left a refurbished historic district that now attracts thousands of visitors each year.

Jim Thorpe also became an early tourism center, with attractions including the Switchback Gravity Railroad, which for many years was employed as “America’s first roller coaster.” Although tourists first came here to study the Industrial Revolution rather than the scenery, later in the 19th century it was known as “Switzerland in America,” and attracted artists intrigued by the contrasts among its natural setting, elaborate Victorian architecture, and bustling industry. When the town fell on hard times in the early 20th century thanks to a demise in coal, it elected to change its name in response to an offer by Jim Thorpe’s widow of a mausoleum for any American town that would name itself after the famous Native American athlete — seeking thereby to augment its tourism. A much later, and more successful, effort to transform the town capitalized on its unique architectural heritage, resulting from a plan made in the late 1970s.

The Passage here includes Jim Thorpe as well as the Lehigh River, canal route and D&L Trail. The Corridor includes only half of the Panther Valley; the other portion, continuing to the southeast into the Schuylkill River region, is divided by the Carbon and Schuylkill county line. While the Corridor stops at that line, future linkages (both physical and programmatic) will be explored along the full length of the Panther Valley in cooperation with the proposed Schuylkill River State Heritage Park.



Library of Congress

Challenges, Opportunities and Priorities

Today, Jim Thorpe continues to be a center of regional importance, notably as an attraction for tourists drawn to the town’s special visual character and historic significance, but also to its wonderful natural surroundings and the recreational opportunities this setting embodies. It has been especially appealing to visitors to the Poconos, who enjoy its shopping, meals and high-quality lodging along with strolls along

Race Street and a visit to the Asa Packer Mansion. The remainder of this Reach, however, along with adjoining Reaches, benefit less from this visitation, much of it done on a day-visit basis. Moreover, the great numbers of whitewater rafters largely simply pass through, leaving little economic benefit behind. The challenge, opportunity and priority here is to create more reasons for the same number of visitors to stay longer and advance beyond Jim Thorpe.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("Navigating"), Chapter 5 ("Understanding") and Chapter 6 ("Conserving and Enriching"). In addition, a large number of Corridor-wide actions affecting the Jim Thorpe and Panther Valley Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for Jim Thorpe's and Panther Valley's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

Navigating the Reach

This Reach possesses a good mix of both hiking and driving opportunities. The main challenge is creating and encouraging greater circulation from Jim Thorpe out to Summit Hill and other Panther Valley communities.

Linkages within the Reach

The Switchback Railroad Trail — a National Recreation Trail — goes to Mauch Chunk Lake Park, and on to the center of Summit Hill. It is an existing link between Jim Thorpe and the Reach as a whole. Driving tours beginning at a Landing in Jim Thorpe will encourage visitors to wend their way up and out of town, into the rest of the Reach.

Action Create a Panther Valley driving tour looping through Nesquehoning, Lansford, Summit Hill and back to Jim Thorpe.

Action Create a Jim Thorpe walking tour that takes advantage of the architectural interest of the town along Race and Broadway. Hardier souls could be encouraged to continue on a hiking loop connecting to the lower section of the Switchback Railroad Trail on the ridge above town, to return to town on the downgrade of the inclined plane and the road past the Asa Parker Mansion.

Linkages to Other Reaches and Places outside the Corridor

Joining Jim Thorpe to the Lehigh Canal Park and the D&L Trail, a project now underway, and to the D&L Trail through the Gorge will create important interpretive and physical linkages, albeit only for those eager to undertake moderately long hikes. Jim Thorpe's major highway access to the rest of the Corridor is via Turnpike exit 34, and the D&L Drive (Figure 4.5) passes directly through town.

ACCOMPLISHMENTS

The Pennsylvania Conservation Corps has provided a grant of work crew and funds for materials to the County for restoration of the stone walls at the cross-over on the Switchback Trail.

Action Improve the rail-trail connection from Jim Thorpe to Glen Onoko and north into the Gorge as part of the D&L Trail. This includes trail construction on county-owned railroad lands and re-decking the Nesquehoning trestle bridge owned by the Bureau of State Parks, plus resolving the crossing at the active rail line just south of Penn Haven.

Action Develop access points at Rockport in the Gorge and along the Lehigh to Susquehanna Trail.

Action Over the long term, create a D&L Trail route south through the Lehigh Canal Park that avoids the wastewater treatment south of Jim Thorpe, perhaps by routing the Trail through town and across a pedestrian bridge recreated where old abutments still exist. (See illustration, page 186.)

Understanding the Reach

Potential Interpretive Stories in the Jim Thorpe and Panther Valley Reach *Connecting and Defining a Region*

- Layers of transportation (the Lehigh Navigation system, its linkages) including the Switchback Gravity Railroad and the chutes, later valley railroads)

Coal, Commerce and Industry

- Panther Valley anthracite mining
- Entrepreneurs: Asa Packer, Josiah White, Erskine Hazard
- Entrepreneurship: the LC&N as the creator of the transportation system and the model for the vertically integrated corporation
- Mauch Chunk as a transmodal point

Working with Nature

- The effects of mining and logging on the environment
- Tourism based on natural resources
- Geography and geology of the Reach

Transformation in People and Places

- Mining communities
- Labor history
- Physical alterations in the Reach caused by mining and railroads
- Jim Thorpe resort/recreation center: from the first joyrides on the Switchback Gravity Railroad to haven for the Victorian wealthy to the present
- Architecture: the Richardsonian Romanesque style in Jim Thorpe
- Ethnic and industry influences on worker housing and community patterns

Potential Interpretive Partners in the Jim Thorpe and Panther Valley Reach

- Carbon County Environmental Education Center at Mauch Chunk Lake Park
- The Lions Club (interprets the Asa Packer Mansion)
- The Switchback Gravity Railroad Foundation
- The Last Miners' Club

This Reach's story is fascinating, essential to the spark that started the Corridor, and its landscape is particularly imageable and attractive. With the exception of Jim Thorpe's Asa Packer Mansion house museum illustrating the height of the Victorian era — considered an outstanding interpretive attraction by itself — little interpretation is available in this Reach.

Visitor Reception

Since Jim Thorpe is already a heavily visited site, busy with tourists for much of year, it is a logical place for a Corridor Landing. Although a visitor center is centrally located in the old CRRNJ train station to provide visitor services, it includes little interpretation. Site options for the Landing include the existing visitor center and the historic county jail.

Action Establish a temporary Landing in the Jim Thorpe Visitors Center to provide an immediate outlet for interpretation.

Action Establish a permanent Landing in Jim Thorpe: study feasibility, perform site selection, determine Partner responsibilities and design and develop the Landing.

Interpretive Sites and Tours

Mauch Chunk Lake Park, located midway between Jim Thorpe and Summit Hill, is an important interpretive location and already includes part of the Switchback Gravity Railroad route as a trail. A kiosk or other exhibits will be placed at the park in conjunction with the Carbon County Environmental Education Center. The mines and communities of the Panther Valley will be interpreted with a tour and wayside exhibits, including ones at Summit Hill, Lansford (perhaps in conjunction with the old wash shanty being renovated by the Last Miners Club), as well as one or two key points along the Switchback Gravity Railroad. If a Landing is established in the old county jail or other site up Broadway, a kiosk closer to the river may also be desirable.

Conserving the Reach

Protecting Environmental and Scenic Resources

The steep wooded ridges comprising the natural, physical setting of this Reach are an important component of its interpretive strength, and scenic viewpoints are equally important. In addition, this Reach forms a critical southern edge along the extensive public lands owned by the Bureau of State Parks and the Pennsylvania Game Commission.

Action Encourage municipalities to protect hillsides through governmental and private action.

Action Undertake recommendations in the Technical Appendix, *Natural and Recreational Resources Evaluation*, to protect significant unprotected natural features (see sidebar).

Action Convene a special Partners coalition (including state agencies and government and nonprofit entities in Luzerne and Carbon counties) to create a public lands open space and recreation master plan for the four northern Reaches.

Protecting Cultural and Historic Resources

This Reach is a vivid, extraordinary cultural landscape. Strong enduring communities, elements such as neighborhoods, and hilltop cemeteries with their separate ethnic identities present excellent cultural conservation and interpretive opportunities, exemplified by the grassroots effort of the Last Miners Club to preserve and interpret the wash shanty at Lansford. Both the cultural and historic resources in these communities should be surveyed. Building from the historic resources and cultural surveys done in association with this Plan, a broader information base is needed before proceeding with support for cultural and historic resource protection programs in this Reach.

Jim Thorpe may be the best example in the Corridor of the dissonance between historic significance and level of protection: for all of the considerable, successful private investment for more than a decade in the town's historic architecture, this investment is protected only by a historic district listing in the National Register of Historic Places. Property owners who have made these investments remain vulnerable to inappropriate changes made on neighboring properties; if pressures grow in the town in response to added tourism, speculative property owners and new developers may not respect the current ethic that has maintained the district's premium ambience.

Action Interpret cultural resources in all Reach communities, with specific reference to coal mining and railroading.

Action Create a three-town anthracite heritage/gravity railroad event for Summit Hill, Nesquehoning and Lansford during spring or summer when visitation to Jim Thorpe is lowest.

Land Already Protected in the Jim Thorpe and Panther Valley Reach

- Mauch Chunk Lake Park

(Source: *Natural and Recreational Resources Evaluation*)

Significant Unprotected Natural Features in the Jim Thorpe and Panther Valley Reach

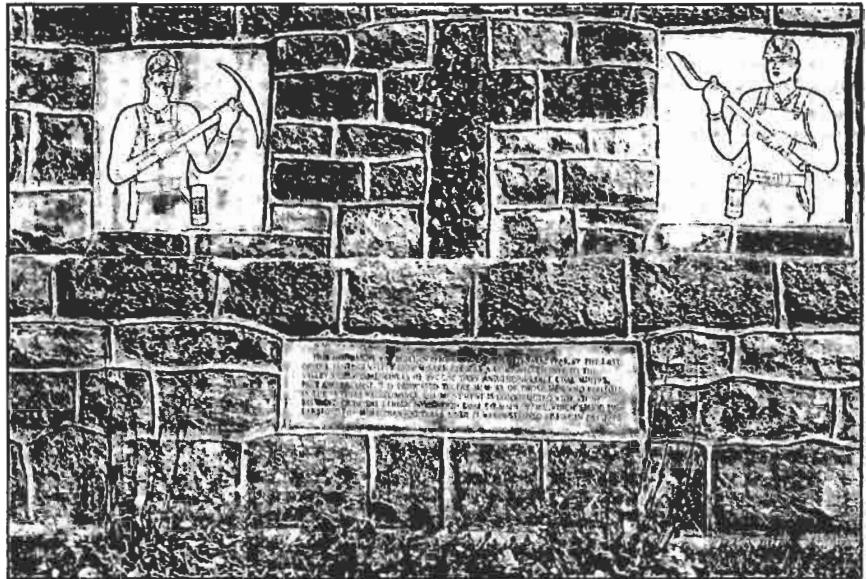
- Glen Onoko Falls
- Mauch Chunk Creek Bottomlands
- The watershed of Mauch Chunk Lake Park
- Mount Pisgah
- Flagstaff Mountain Overlook

For these sites, the Bucks County Conservancy, the Wildlands Conservancy and The Nature Conservancy have recommended various actions, including management plans, linkages with adjacent protected lands for the enlargement of habitat corridors, interpretive programs, study of specific features, protective zoning or acquisition — or both — and other land protection techniques.

(Source: *Natural and Recreational Resources Evaluation*)

Action Support an in-depth historic resources survey in the Reach (this has been done in Jim Thorpe) and promote National Register nominations and local historic ordinances by providing public outreach information on benefits as well as technical, how-to assistance.

American anthracite mining began in this Reach, in a mine that is still being worked today. The Commission will work with organizations such as the Last Miners' Club, whose memorial is seen here, to conserve and interpret this living heritage.



ETHNOLOGICA/Rita Moonnammy

Enriching the Reach

IDEAS FROM THE CORRIDOR:

A Tourism Plan for Carbon County

Jim Thorpe was the boom town of the canal and anthracite era — the headquarters of the Lehigh Canal and Navigation Company and the transfer point between mountain railroads and the Lehigh Canal. Its magnificent architecture and its setting in the mountains make it especially distinctive.

Eleven years ago, this small town funded and implemented a preservation plan and a Main Street program that have resulted in a tourism boom. More than 60 stores, restaurants and hotels have opened, and many more have seen their business multiply as visitors have poured in. However, success has brought access, traffic and parking problems, and the boom has not spilled over into the other Carbon County towns and resources that strongly illustrate National Heritage Corridor themes, and which want and could benefit from tourism dollars.

Additionally, although the town is a very significant attraction and a key segment of the D&L Trail, trail links north and south of the town still need to be established (see sidebar, page 186).

A *tourism plan* for the promotion and management of tourism throughout the county could provide a forum for decisions about the future of tourism in Carbon County; stimulate greater appreciation for tourism as an economic base for the communities involved; and involve the community in establishing D&L Trail connections.

Tourism

In the tourism marketing that will be oriented Corridor-wide, Jim Thorpe will be a pivotal location for excellent potential linkages between the natural-resource and historic-resource aspects of the Corridor. Recreation has long been a big draw to the Jim Thorpe area. The town is an attraction in itself and it is a center for the whitewater rafting and other outdoor recreation. Jim Thorpe's existing tourism business presents a solid opportunity for growth in the Reach and beyond, since so many of its visitors are already drawn there for recreational and historic interests that will be further enhanced by the Corridor initiative.

Marketed as part of the Poconos region, Jim Thorpe sees a steady flow of visitors for much of the year. Little of this flow, however, trickles out to adjoining areas. Moreover, the current level of visitation has had severe impacts on traffic circulation and parking. Another need is to increase overnight visits through enlarging interpretive and recreational opportunities in the Reach and recreational linkages beyond, and possibly by creating an evening performing arts attraction. Augmenting the lodging sector, including a greater variety of options, should be part of any strategy to increase overnight visitation.

Physical constraints to parking and circulation must be overcome if there is to be further growth in tourism in Jim Thorpe itself, however, and may require Commission participation to assure that Corridor values are maintained in any solution.

Action Work with the Pocono Mountains Vacation Bureau and the Carbon County Tourism Promotion Agency to develop special a Corridor message about Jim Thorpe “at the center of it all,” as opposed to using Jim Thorpe as a side trip for Poconos; and to capture benefits from visitation at Beltzville State Park (around 500,000 per year).

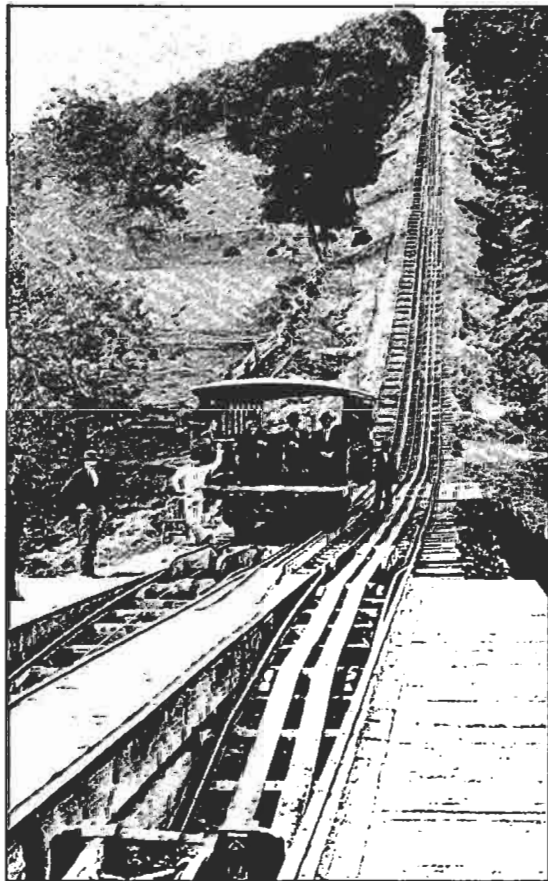
Action Explore options for parking improvements that are consonant with Corridor goals of maximizing public access to waterfront amenities and historic resources and maximizing the benefits of tourism.

Economic Development

Adaptive reuse of some of the larger mine and mill buildings in the Panther Valley as incubator space for light industry or as housing may be possible here, as well as encouraging small businesses to take advantage of a growing tourist trade once the Reach’s driving tour is in place. The Commission’s Heritage Development Grant and Loan Fund is designed to encourage such adaptive use or business projects beyond the Passage in the later years of this Plan. In this Reach, however, the primary emphasis should be on the economic benefits of tourism, deriving from enhanced interpretive and recreational opportunities both within and beyond the Passage.

Action Pursue development of a Reach-wide driving tour; cultural resource interpretation and events in Summit Hill, Nesquehoning and Lansford; and the D&L Trail and D&L Drive as a means of spreading tourism beyond Jim Thorpe. Once development of these tourism

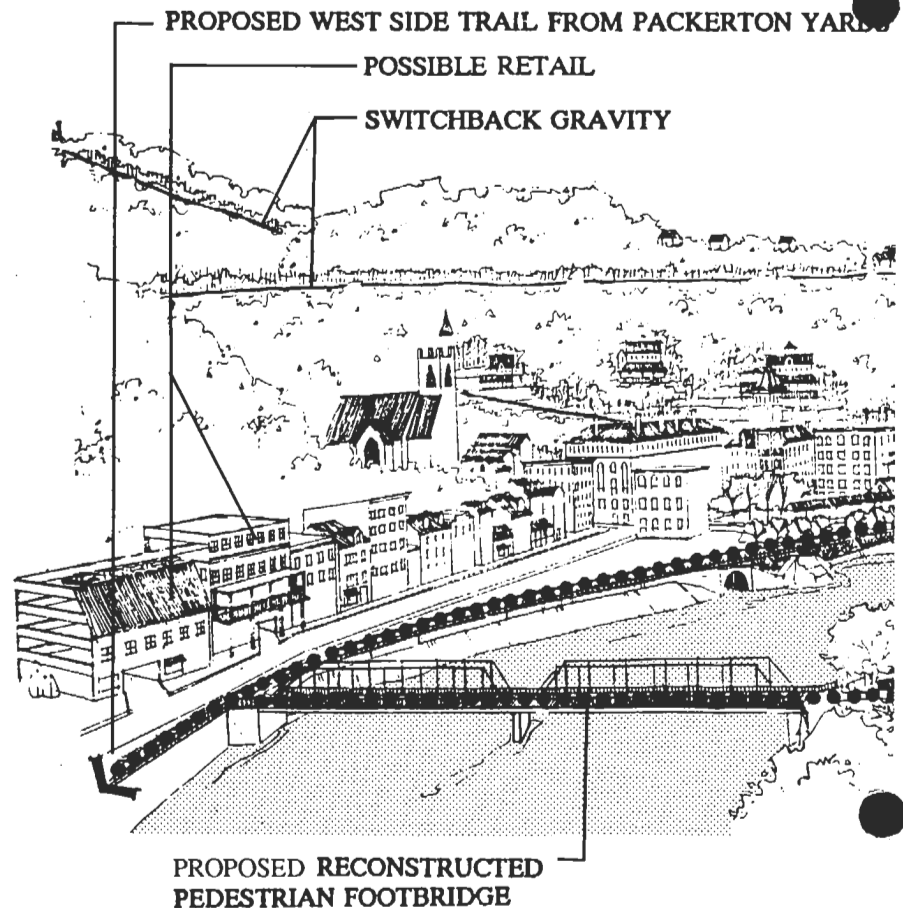
products is accomplished, aggressive promotion and marketing through tour packages and visitor information (on-site and for advance tour planning) will lead to higher traffic in the smaller towns, and therefore small business opportunities such as drive-in/carry-out restaurants and bed-and-breakfast lodgings.



Courtesy Hugh Moore Historical Park and Museums

The tourism industry here is undergoing a regeneration, but it is over a century old. Visitors first came to observe the remarkable commercial and industrial activity. After 1872, the Switchback Gravity Railroad began carrying tourists on a “roller-coaster” ride, and the area became known as the “Switzerland of America.”

IDEAS FROM THE CORRIDOR: Making Connections in Jim Thorpe

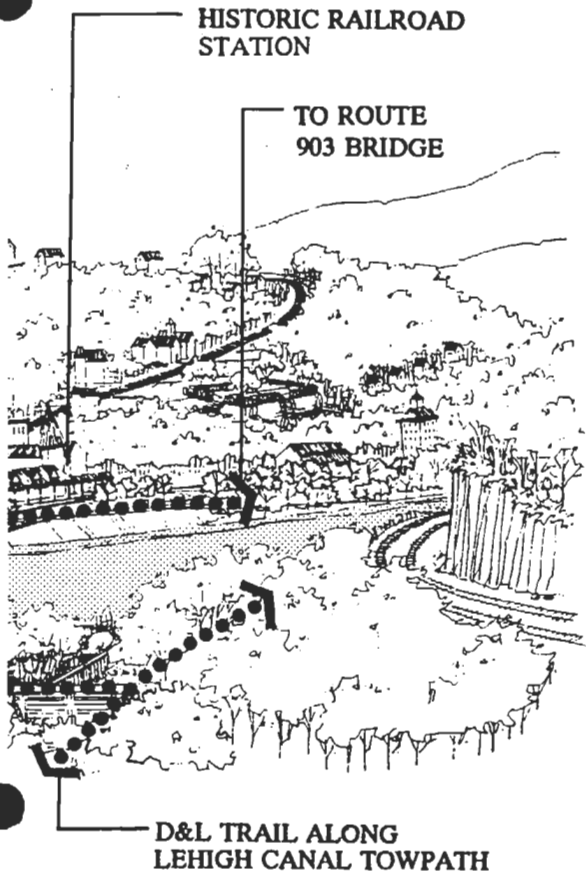


Plans are already underway in Jim Thorpe to create connections north and south with the D&L Trail along the Lehigh Canal, as described in Chapter 4. To the north, the Bureau of State Parks is working to improve the safety and trail connections up to Glen Onoko, and southward, the Commission's TRAIL program has provided funding to assist Jim Thorpe and the Lehigh Canal Recreation Commission to improve seven miles of the towpath trail. While this represents progress in allowing full access up the Canal Park and into Jim Thorpe, the walker from Glen Onoko misses Jim Thorpe altogether. True, there's the view of town from across the river, but why not dream of something more? The sketch above illustrates ideas for making better connections.

A metal truss bridge once extended across the Lehigh, at a site where today a pedestrian access bridge might be built across existing piers. Visitors could walk south along the D&L

Trail into Jim Thorpe, past the current visitor's center in the old railroad station, enjoy a stroll around the town or head up to the Switchback Gravity Railroad Trail, returning to cross the river to continue their journey along the canal. A landscaped "riverwalk" would provide an even more inviting route for the D&L Trail, along with downtown green space and greater visual access to the water.

Moreover, Carbon County is negotiating to buy the old Packerton railyards along the west bank of the Lehigh River south of Jim Thorpe. The yards will provide a spacious location for expansion of county facilities that are now at the crowded center of Jim Thorpe, and they can also provide remote parking for Jim Thorpe's many tourists. A nearby water line suspension bridge offers a needed opportunity for a pedestrian crossing over to the towpath trail.



HISTORIC RAILROAD
STATION

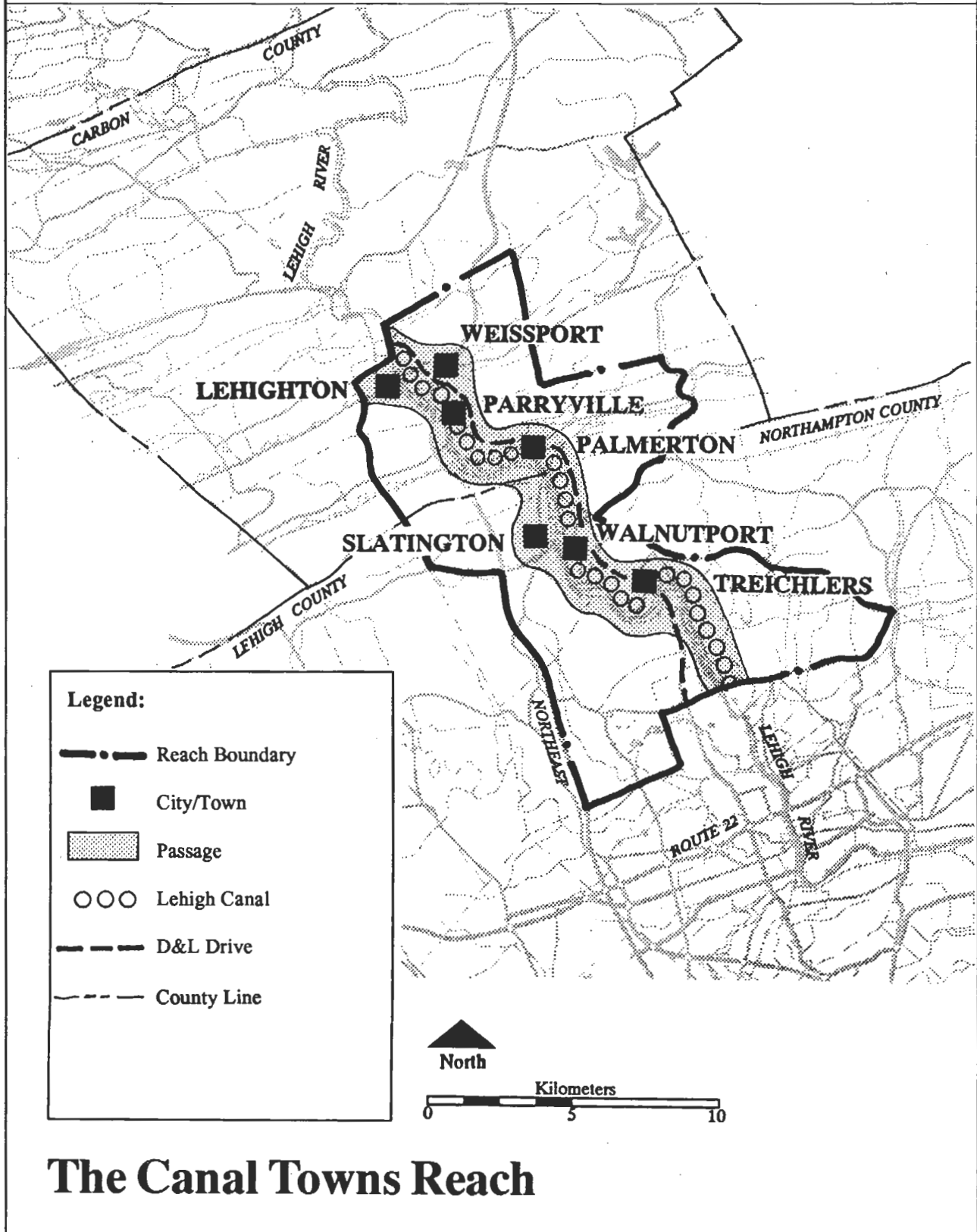
TO ROUTE
903 BRIDGE

D&L TRAIL ALONG
LEHIGH CANAL TOWPATH

The county is also looking at the abandoned west bank railroad line from the yards, north to Jim Thorpe, for conversion to a trail and a route for a motorized tram for tourists. In the short term, this west-side trail can solve the problem of lack of towpath access around the town's sewer plant on the east side of the river. In the long term, once the east side towpath connection is resolved, this trail can be part of a series of loops and connections that will make the area an outstanding place for long hikes and pleasant walks.

The sketch also conjectures that it might be possible to create new retail space south of Broadway on Susquehanna Street, along with optional parking. Indeed, today's state office building on Susquehanna Street was enlarged in 1992 to add retail space. Old views (see cover, drawing at lower right) show that many more buildings once lined this key entrance to Jim Thorpe than exist today. With the D&L Trail enticing pedestrians south, and with shoppers strolling past new stores, this area once again could offer a lively street scene to visitors entering the town.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN



The Canal Towns Reach

Figure 7.5

The Canal Towns Reach

This pastoral, intriguing landscape illustrates perhaps the greatest variety of influences on the landscape in the Corridor. Lacking coal, but rich in other natural resources and agriculture, the Canal Towns Reach is so named for the several small canal-era towns along the length of the Lehigh Navigation here — Weissport, Parryville, Bowmanstown and Walnutport — that along with seven townships have found ways to preserve their share of the Lehigh Navigation. The primary needs in this Reach are to increase physical and interpretive linkages, and to enable small towns here to improve and thrive without experiencing great change.

Description

The Lehigh River has, over millennia, eroded notches into the ridges of the Appalachians, finally and most dramatically including Blue Mountain, the easternmost of the Appalachian ridges. In cutting across the grain of the land, nearly perpendicular to the axis of the ridges, the river blazed a trail where transportation routes have successively followed: highway, railroad and canal.

North and south of Blue Mountain, which carries the Appalachian Trail across Pennsylvania, lie belts of rock that have yielded important resources for the Corridor's industrial economy. Zinc, slate and limestone for cement have produced a legacy of distinctive industrial communities and a series of sharply defined cultural landscapes, where the relationships between the land, the natural resources and human endeavor are writ large, as in the quarries, waste piles and architecture of the slate belt.

Just as the quick transition from one resource belt to the next is striking, the towns shaped by different eras of the transportation route are distinctive. The best example of such distinctiveness can be seen at Walnutport and Slatington, paired across the river south of the Lehigh Gap at Blue Mountain. On the east side of the Lehigh lies Walnutport, a canal-era village, with canal workers' housing, an inn, a locktender's house and a mule barn all proclaiming the town's origins (see photos on next page). Slatington, capital of the Corridor's slate belt, represents the exploitation of slate first enabled by the canal. It grew most rapidly at a later point in the 19th century, when the railroad was built on the west side of the river. Although slate was quarried both east and west of the river in at least 20 locations (only one of which continues today), the many large Victorian homes and a healthy, small downtown in Slatington bear witness to its increased commerce resulting from the railroad. The pair of Lehighton and Weissport, further north in this Reach, illustrate similar influences by railroad and canal, respectively.



ACCOMPLISHMENTS

The Tri-Borough Sportsmen's Club of Northampton has cleared and dredged 1280 feet of the Lehigh Canal, using \$21,000 and a great deal of volunteer labor. They have raised old #249 — one of the last coalboats on the canal — which had been sunk in a quarry on their property, and put it on public display. Congressman Don Ritter nominated the club to receive the Theodore Roosevelt Conservation Award in recognition of their volunteer conservation work, and President Bush presented the award at the White House.

These historic and contemporary photos of the Anchor Hotel in Walnutport illustrate how little the relationship of the canal towns to their "main street"—the Lehigh Canal—has changed.



Courtesy Hugh Moore Historical Park and Museums



Joseph E.B. Elliott

Another major industrial town along the canal, built very late in the 19th century as a planned industrial community, was Palmerton, built to house workers for a zinc smelter. Originally using zinc mined regionally, it took advantage of rail transportation to bring in zinc from the company's New Jersey mines, and later aluminum ore. Palmerton's tree-lined streets just a few miles east of the gigantic smelting plant contrast markedly with the plant's surroundings. Even today, more than 20 years since the plant closed its zinc operation, little grows on the north side of the Blue Mountain thanks to the operation's air-borne toxins. With interpretation, this dramatic and imageable part of the Corridor could support the theme of "working with nature" to discuss changing environmental values and regeneration.

Flanking either side of the transportation spine, this Reach also encompasses expansive and long-worked agricultural landscapes. Located on the rich soils of the Great Valley, the Pennsylvania German farmsteads south of Blue Mountain, as well as those of Carbon County, represent cultures long rooted on the land.

Challenges, Opportunities and Priorities

The challenge in the Canal Towns Reach is to establish and reinforce (through greater access and rehabilitation) the continuous canal and rail link through this Reach. This linkage offers a great opportunity to help these varied communities to unite both with one another — already evident in the northern municipalities' Lehigh Canal Park Commission, organized to care for their section of the Lehigh Navigation — and with the Corridor. Completing the continuous D&L Trail here is also an opportunity to allow Corridor promotion to take advantage of the Canal Towns Reach's intriguing Passage, in which the traveller will find something different around every bend, from the series of small canal towns at the northern end of the Reach, down to the eerie landscape marred by Palmerton's now-vanished zinc fumes — contrasting with the perfection of turn-of-the-century Palmerton itself — and on through the pastoral fields and wooded slopes above and below Walnutport and Slatington.

Completing the D&L Trail and enhancing the canal's interpretation, access and condition is the priority in this Reach. There are no major attractions and little interpretation in this Reach, and it is not expected to become one of the centers of the Corridor. This relative lack of development and the contrast its small towns and agricultural lands provide to other parts of the Corridor is important to preserve. It is important also to preserve and interpret the most significant elements that comprise the character of the distinctive Passage communities at the center of this Reach. Appropriately scaled, low-impact tourism development — such as B&Bs, walking and bicycling tours — and Main Street assistance will complement interpretation of this Reach's varied history and natural resources.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("Navigating"), Chapter 5 ("Understanding") and Chapter 6 ("Conserving and Enriching"). In addition, a large number of Corridor-wide actions affecting Canal Towns Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for the Canal Towns Reach's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

Navigating the Reach

This Reach is fully accessible by automobile, and much of the canal towpath is intact, although not fully accessible, and ultimately convertible to the D&L Trail.

Linkages within the Reach

The best linkage within this Reach is the Lehigh River. The situation of the canal is one of contrasts: Walnutport's mile-plus section is one of

The Lehigh Canal Recreation Commission is a voluntary association of seven municipalities:

- East Penn Township
- Franklin Township
- Mahoning Township
- Lehighton
- Parryville
- Weissport Township
- Jim Thorpe

the best preserved sections of canal in the Corridor, but at the other extreme, it is buried in Palmerton and Bowmanstown. Because of these and other obstacles to restoring a continuous towpath on the east side of the Lehigh to use as the D&L Trail (see Chapter 4), initially the Trail will follow the west side along a disused railway that Carbon and Lehigh counties are negotiating to acquire from Conrail. One short-term concern in creating the west side route is that the Lehigh Canal Park, a seven-mile stretch from Jim Thorpe and the Franklin Township line south to Bowmanstown, will be bypassed by the Trail. Ultimately, however, once the towpath as well as the rail line is in use as a continuous trail, this Reach will have one of the best loop trails in the Corridor and could easily attract a high number of bicyclists and other users.

Action Encourage continued use of the Lehigh Canal Park by supporting greater wayfinding and access facilities, and through interpretive support at the Landing and via interpretive tours.

Action Identify, designate and mark bicycle routes along lesser roads for interpretive and recreational purposes that can loop with both the west side rail-trail and the Lehigh Canal Park.

Linkages to Other Reaches and Places outside the Corridor

This Reach connects to Jim Thorpe to the north via the Lehigh Canal Park, to Northampton to the south via both the towpath and the planned west side rail-trail. The Appalachian Trail crosses the Corridor at the midway point in this Reach, dipping down the barren northern sides of Blue Mountain to cross Route 248 at a point where canal, road, railroad and river converge. This Reach is accessible to the rest of the Corridor via the Northeastern Extension of the Pennsylvania Turnpike, with an exit at Weissport.

Action Place a directional sign to the Lehigh Canal Park along the Turnpike once wayfinding and access are improved.

Action Establish a clear linkage between the Appalachian Trail and the D&L Trail.

Throughout this Reach, the Lehigh Canal is owned and maintained by municipalities and private owners. The Borough of Walnutport, like many others, keeps its section watered and intact.



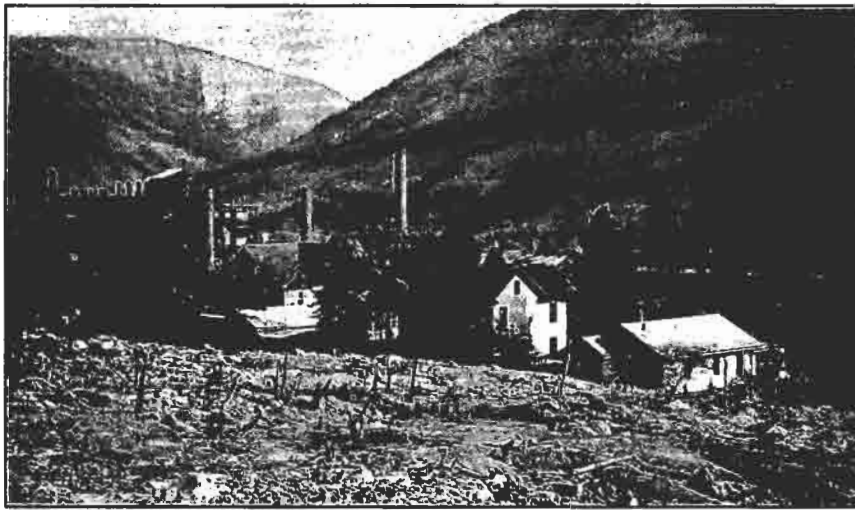
Joseph E.B. Elliott

Understanding the Reach

Visitor Reception

For the purposes of illustrating a Landing in this Reach, both Palmerton and Walnutport were selected, Palmerton because of its central location and Walnutport because of its restored locktender's house, which might easily become a temporary Landing. Another possible Landing site in Walnutport is the canal-era mule barn, adjacent to the Route 946 bridges. A permanent Landing will be determined in consultation with Partners in the Canal Towns Reach.

Action Establish a permanent Landing in the Canal Towns Reach: study feasibility and location, perform site selection, determine Partner responsibilities and design and develop the Landing in Walnutport or Palmerton.



Potential Interpretive Stories in the Canal Towns Reach

Connecting and Defining a Region

- Transportation: canals and the railroad succession

Coal, Commerce and Industry

- Mills in Lehighton

Working with Nature

- Resource extraction creating distinctive towns and effects on the natural landscape

Transformations in People and Places

- Planned community of Palmerton
- Early Pennsylvania German agricultural settlement
- Immigrant groups of the industrial heyday

The most dramatic story at Palmerton is an environmental one, but the stories of industrialization and paternalism, immigration, and town planning can also be told here.

Interpretive Sites and Tours

Walnutport's locktender's house is a "must see" interpretive site along with the fully watered canal there, where a satellite exhibit might be established. Another site where added interpretation may be possible is at the Horsehead environmental education center on zinc in Palmerton. Kiosks should be established in Slatington and Lehighton, the Reach's two largest communities, and wayside exhibits should be created for towns in the Lehigh Canal Park, especially at Parryville. An automobile or bus tour through this area should concentrate on Weissport.

Conserving the Reach

Protecting Environmental and Scenic Resources

Protection of key resources is an interdisciplinary issue here, because an orientation to the cultural landscape is important in appreciating this Reach's qualities. Principal environmental issues concern hazardous waste clean-up around Palmerton — underway under the supervision of the U.S. Environmental Protection Agency. In the years ahead, growth pressures — potentially because of tourism in this Reach

Potential Interpretive Partners in the Canal Towns Reach

- Walnutport Canal Association
- Lehigh Canal Recreation Commission
- Horsehead Resource Development, Inc.
- Northampton County Historical Society
- Lehigh County Historical Society

Significant Unprotected Natural Features in the Canal Towns Reach

- Lehigh Canal Park Area
- Lehigh Gap
- Lehigh River (Slatington to Allentown)
- Appalachian Trail Area-Blue Mountain Ridge

(Source: Natural and Recreational Resources Evaluation)

engendered by the Corridor — could affect the scenic, pastoral quality of the landscape and degrade natural features. The Technical Appendix, *Natural and Recreational Resources Evaluation*, highlights especially large segments of this Reach for protection (see sidebar).

Action Undertake recommendations in the Technical Appendix, *Natural and Recreational Resources Evaluation*, to protect significant unprotected natural features (see sidebar.)

Action Delineate the viewsheds of the west-side rail-trail and the Lehigh Canal towpath; develop and implement a greenway initiative and special municipal ordinances to address the long-term maintenance (and improvement where needed) of the visual and habitat quality of what could become one of this region's principal economic assets, the D&L Trail.

Action Work with PennDOT to identify scenic byways in this Reach, especially those suitable for bicycle use.

IDEAS FROM THE CORRIDOR:

A Park for the Lehigh Gap

The Lehigh Gap is a dramatic area where the Lehigh River breaks through the final ridge in the Appalachian chain — the Blue Mountain. The constriction caused by the mountains has meant that level land is scarce here, and part of the old Lehigh Canal has been isolated and buried by Route 248.

Part of the canal and its lock do remain, and the Lehigh Gap Historical and Preservation Society and Museum is investigating the possibility of establishing a fourteen-acre park that would include the canal, two locks, a scenic overlook and even the possibility of continuing the towpath trail.

Protecting Cultural and Historic Resources

Little is known about the cultural and historic resources in the Canal Towns Reach. While coal mining heritage does not exist here, quarrying does; in addition, work-related cultural-resource themes include canalboating, railroading, and farming. The small towns for which this Reach is named all possess considerable integrity — all the more remarkable because they are so numerous. None are currently protected in any form, and are thus as tenuous as the environmental and scenic qualities of the landscape.

Action Develop a town-to-town heritage tour that highlights natural, cultural and historic resources equally, encouraging bicycling as a major feature of the event.

Action Identify and protect historic districts, including their edges, to preserve the small-town, historic and scenic qualities of communities in this Reach.

Action Encourage the development of a Canal Towns advocacy group modelled after the Lehigh Anthracite Heritage Advocates in Luzerne and Carbon counties to encourage municipal actions in support of this Plan and to combine forces in representing the region's interests both within and outside the Reach.

Enriching the Corridor

Tourism

As in the Jim Thorpe and Panther Valley Reach, much of the Canal Towns Reach tourism is very closely related to recreation, whether tourists are attracted by nearby Beltzville State Park — drawing 500,000 users per year — the Appalachian Trail or the Lehigh Canal Park. The series of small-town experiences possible in the Passage here also offer potential tourist interest, if promotion and Main Street

assistance is made available. Bicycling in the area has great potential, and would benefit from route designations, attractions, interpretation and business development targeted to this recreational market.

Action Capture spin-off from Beltzville State Park visitation through targeted marketing.

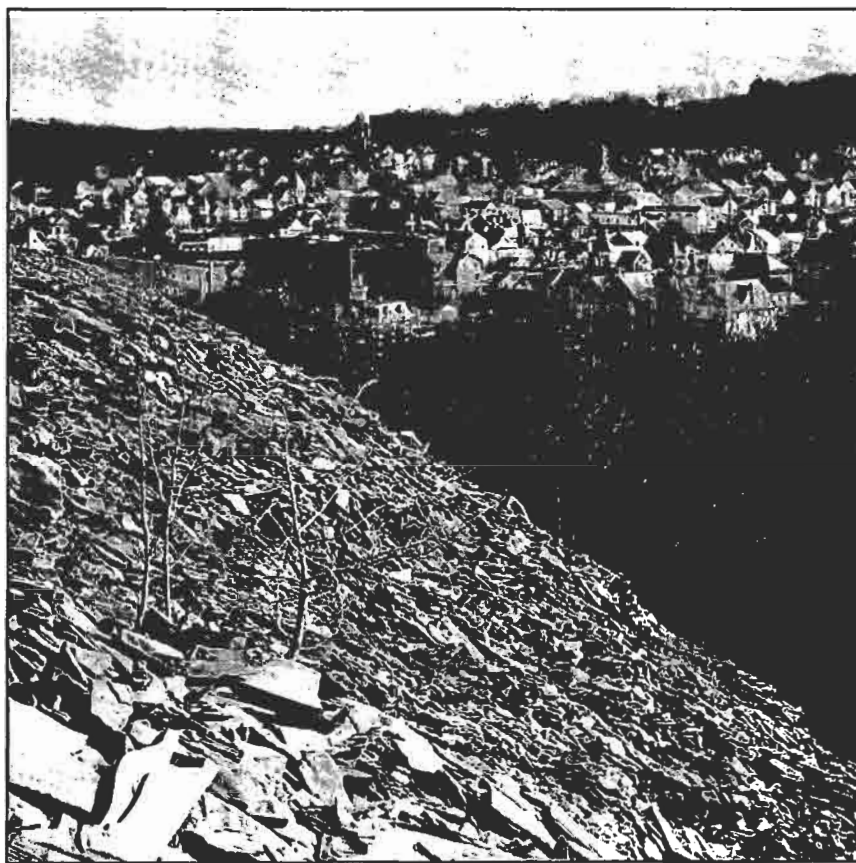
Action Create a regional event or celebration to draw attention to the continuous trail and series of towns and landscapes in this Reach, perhaps a "tour de D&L" bicycle or running event that might be expanded to other Reaches both north and south.

Action Design and implement a Reach-wide business plan.

Economic Development

Large economic development projects are not anticipated in this Reach, but Main Street assistance is expected to help improve such towns as Lehighton, Slatinton and Palmerton; even the smaller towns might benefit from the Main Street four-point approach (see sidebar on page 145) which has been successfully applied in towns with under 200 residents.

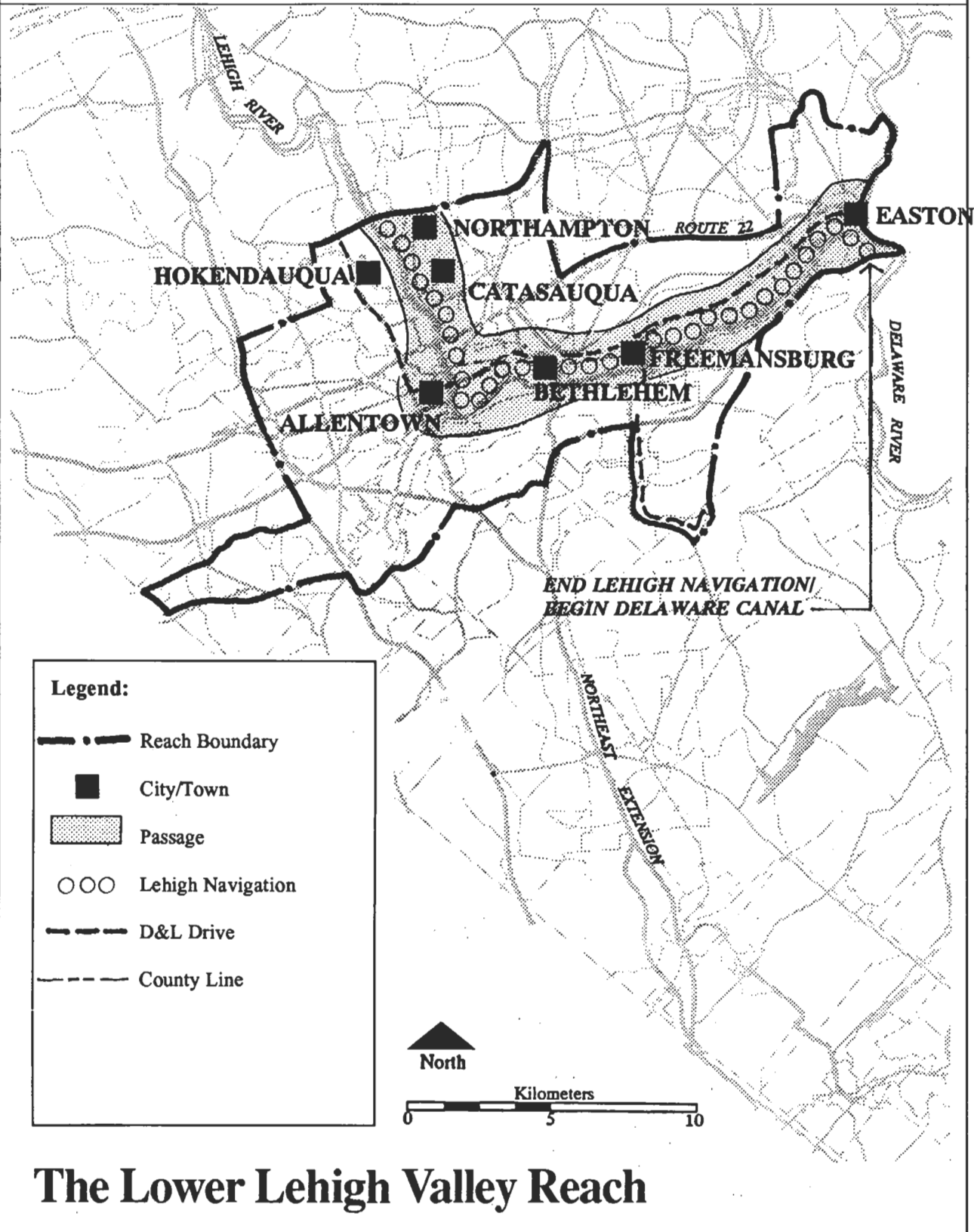
Action Create Main Street assistance programs for the Canal Towns Reach.



In the late 19th and early 20th centuries, this region was the nation's largest producer of slate. Only one slate quarry remains in operation, but reminders of the industry fill the landscape, from the waste piles to the dressed slate used proudly in sidewalks, roof slates, lintels, fence posts and many other ways, making the towns distinctive.

Joseph E.B. Elliott

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN



The Lower Lehigh Valley Reach

Figure 7.6

The Lower Lehigh Valley Reach

This Lower Lehigh Valley is the vibrant urban heart of the Corridor, where the most intensive urbanization and industrialization have occurred both historically and in modern times. In its industrial heyday, the Lehigh Valley was the center of the region's economic might, and today it continues to be a powerhouse in terms of its wealth of historic and interpretive resources, progressive business leadership and energy. The intent in this Reach is to enhance urban redevelopment, and regional greenway and trails efforts, in order to maintain this Reach's urban identity and preserve open space in the rapidly growing suburbs.

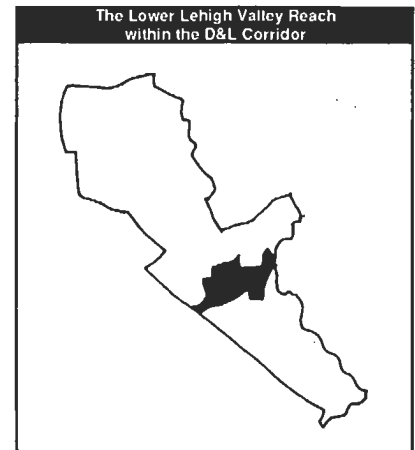
Description

Although this Reach is composed most prominently of Allentown, Bethlehem and Easton, each of which have their distinctive histories and consequently varied urban patterns and issues, in the context of the Corridor it can be viewed functionally as a single landscape. These urban centers were linked historically by the Lehigh Navigation and later by the railroads that fueled their economic ascendance and industrial development. They remain linked today by the common set of issues and opportunities this legacy leaves them.

The original early 18th century settlement of the Lehigh Valley by German farmers was soon followed by the Moravians, who created a thriving experiment in communal life based on industrial crafts in Bethlehem. From these beginnings grew a uniquely broad cultural environment in which music, art and education flourished, along with religious toleration. Scots and Irish followed, farming and building small-scale rural industry to serve local needs: quarrying, ironmaking and charcoal production, among others.

The building of the Lehigh Canal changed the scale of development in the Lehigh Valley. Here, ready transportation converged with an abundance of raw materials, capital and land — and was catalyzed by the ingenuity of a number of entrepreneurs and technological innovators, leading to an unprecedented level of industrialization and urbanization. The resulting growth brought a wave of European immigration and transformed the Lower Lehigh Valley into three thriving industrial cities by the late 19th century.

Mirroring the changes in the national and world economy, the 20th century has witnessed the decline of heavy industry as the basis for the valley's economic vitality and its diversification. Suburbanization has taken place as has the rise of a manufacturing and service economy. Even before reaching Allentown at the elbow turn of the river, the northern edge of this Reach begins with the small industrial towns of Cementon, Northampton, Hokendauqua and Catasauqua. Hokendauqua and Catasauqua flourished as industrial centers with the emergence of the anthracite iron industry made possible by the Lehigh Navigation. The nation's first successful anthracite-fueled blast furnace



IDEAS FROM THE CORRIDOR:

Bethlehem's Sand Island

Sand Island, located between the Lehigh Canal and River, is a historic industrial area in Bethlehem that has recently come back into focus as a public space. It is a model for canal and riverside rehabilitation and public use.

The City of Bethlehem celebrated its 250th anniversary by establishing a park on the eastern side of the island, which now includes boat and canoe ramps, new tennis courts, a wildflower meadow and paths for cyclists and hikers. A Lehigh Canal lock and aqueduct and the historic ice house will be restored, making Sand Island a recreational and cultural center for the city.

The western half of the island, still home to industrial buildings and operations, presents an opportunity to capitalize on some of the energy and interest created by the City by reusing some historic buildings and transforming this end.

Sand Island sits between downtown Bethlehem, with its Moravian heritage resources and retail businesses, and South Bethlehem, home of Bethlehem Steel and Lehigh University. Both sides of town are visible from the island, which could provide an important location to interpret the connections between the two parts of town. The Lehigh Canal and towpath run the length of the island, connecting it with the rest of the Corridor.

The Saquoit Silk Mill could be the centerpiece of the reuse of the western half of the island, if a proposal to reuse the complex with a mixture of housing and retail uses is successful. High visibility use of such a historic building, located directly on the canal and towpath trail, would strongly reinforce Corridor goals, integrating new development with the historic and recreational values of the canal.

ACCOMPLISHMENTS

"Bethlehem Vision," the City's newly completed comprehensive plan, focuses on Bethlehem's remarkable heritage, historic resources and natural setting as the cornerstone of its future.

IDEAS FROM THE CORRIDOR:

Allentown and Lehigh Landing

Allentown was first an agricultural market town and center of Pennsylvania German culture, but saw tremendous industrial growth with the creation of the canal and its flow of raw materials. It consequently became a highly diversified industrial center and the largest city in the Lehigh Valley. The section of the Lehigh River adjacent to downtown was lined with industrial structures.

Lehigh Landing is a waterfront urban redevelopment plan, designed to extend the downtown core to the river's edge and to reorient activity to the waterfront with a mixture of heritage, convention and entertainment attractions. Plans developed by Allentown Economic Development Corporation and the City of Allentown for the mixed-use development call for several components. Anchors include a museum of transportation and a convention center, with other elements that include restaurants, a micro-brewery and a visitor center.

Directly across the river from Lehigh landing, the course of the historic Lehigh Canal can complement Lehigh Landing as a focus of both recreation and interpretation efforts. The location of Dam and Lock #7 could become an interpreted site, highly visible and accessible from the Hamilton Street Bridge. The canal towpath here is part of the D&L Trail, and provides immediate linkage with Allentown Canal Park, neighboring Bethlehem to the east and Catasauqua to the north.

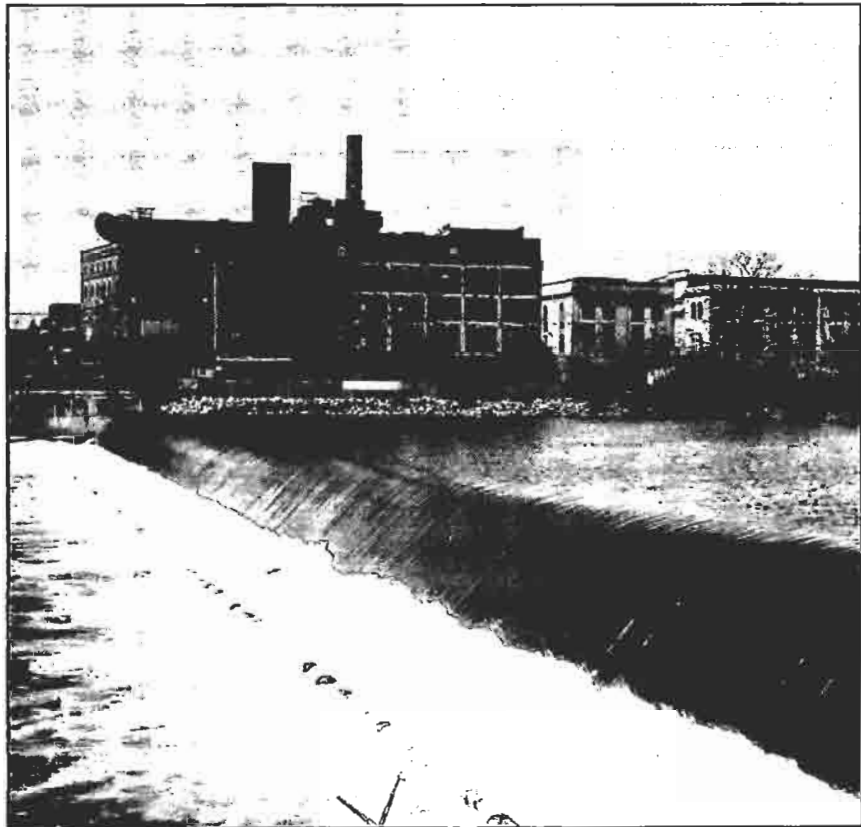
The canal on the east side of the river has historic significance for Allentown and the entire Corridor, and is valuable today as part of a Corridor-wide recreation and interpretative system. An interpretive installation might include partial excavation and ghosting of canal buildings and lock structure at Dam and Lock #7, as well as a wayside exhibit and comfort facilities for trail and river users. Support by the Commission and its Partners could lead easily to a small, but highly visible model for canal-side recreational and interpretive development.

The site of Lehigh Landing, viewed across the Lehigh River.

began in Catasauqua in 1840, at the Crane Iron Works, which is one of the Corridor's most important uninterpreted sites. Cementon and Northampton became centers of the Portland cement industry following its invention later in the century.

Hokendauqua, close by the limestone quarries providing raw materials and opposite the canal that moved the finished product to market, also became home to the Portland cement industry. This industry's early origins in the region are presented in the Saylor Cement Museum, housed in the massive brick ruins of an early kiln in Coplay. Catasauqua, Hokendauqua and Northampton boast interesting industrial origins and historic neighborhoods, ranging from company-built worker housing to city-style townhouses to large mansions built by local captains of industry.

Allentown is the westernmost of the three major cities in this landscape, and the largest. From its origins, Allentown was an agricultural market town and a center for Pennsylvania German culture. Its industrial growth was favored by its site on the western bank of the Lehigh and on Jordan Creek, which provided water power at the eastern end of the central business district, enabling the city early on to develop a diverse manufacturing economy that continues to this day. Such successful modern firms as Mack Truck, Rodale Press, Air Products and Day-Timers all received their start in and around Allentown or smaller towns nearby. The urban fabric of Allentown is quite strong, from the central business district (which redesigned and refurbished its main street with what was until recently Pennsylvania's only downtown management district) to



Joseph E.B. Elliot

the remarkably intact close-in neighborhoods (where two local historic districts help preserve the built character). Representatives of nearly 70 ethnic and cultural groups can be found in Allentown.

Allentown's diverse economy, surviving downtown and well-kept neighborhoods did not happen by accident. Allentown's innovation, civic activism, municipal planning and public-spirited investment is impressive for a city of its size, and, moreover, goes back decades. In the 1920s, the city commissioned a plan that resulted in Trexler Park and other components of an exceptional park system. This park system includes an excellent early greenway park along the Little Lehigh River. The city's project to protect South Mountain from development adds the mountain's scenic and natural qualities to the city's list of amenities. Currently, the city is beginning the renewal of the riverfront area between Jordan Creek and the Lehigh, known today as Lehigh Landing (see sidebar on page 198), a multi-dimensional project that will help reinforce several Corridor goals. Plans call for reusing several older industrial buildings for a variety of uses, including a museum of transportation, and linking the riverfront with the canal towpath on the river's east bank. A towpath trail already connects this stretch to Bethlehem to the east, and a trail is being re-established north of the Hamilton Street Dam.

Bethlehem, the oldest of the three cities, has a remarkable two-faceted heritage, as an early Moravian settlement and as home to the industrial giant Bethlehem Steel. The city was founded at the confluence of the Lehigh and Monocacy Creek in 1741 by Moravians planning missions on

ACCOMPLISHMENTS

The City of Allentown, Lehigh County, Salisbury Township and the Wildlands Conservancy have collaborated in the purchase of land and easements along Lehigh Mountain and more recently along the Little Lehigh Creek. Not only have these partners protected approximately 400 acres within the Corridor's Passage, they have also shown leadership in inter-municipal cooperation. These municipalities have been willing to expend funds from their local budgets to buy or protect critical lands in adjoining municipalities as part of their team effort, beginning with Allentown's appropriation for the purchase of a large tract in Salisbury Township. The partners have worked on a number of other major projects, most recently purchasing development easements from the Boots and Saddles Riding Club, which occupies a particularly sensitive piece of land in Salisbury Township adjacent to Allentown's Little Lehigh Parkway.



Joseph E. B. Elliott

The Moravian cemetery in Bethlehem reflects the tenet that all are equal in death, as in life. The graves of whites, blacks and Native Americans were intermixed, and all stones are the same size.

IDEAS FROM THE CORRIDOR:

A Respite for Mules and Hikers

The Borough of Freemansburg owns a 1.5-mile section of the Lehigh Canal and towpath, and leases its historic canal village structures — which include a dry section of the canal, a lock, the locktender's house and structures such as a gristmill, coalyard, sheds and bridges — to the Old Freemansburg Association (OFA).

OFA is a volunteer group with a strong track record in restoration and maintenance of the historic canal area. It has uncovered this segment of the Lehigh Canal from overgrowth and debris and restored the towpath for hikers. OFA has also begun archeological investigation of the gristmill, restoration of the locktender's house, and the reconstruction of the mule barn. These structures are the subject of OFA's multi-year restoration plan, which also includes historical interpretation and recreational development. This plan has identified the reconstructed mule barn as the building most suited for interpretive and visitor service facilities. The Old Freemansburg Association will oversee the project, provide matching funds and volunteer labor, and maintain the building after completion.

The barn will provide space for the OFA's interpretive program about the canal and village, and the only restroom facilities on the towpath trail between Bethlehem and Easton, improving the recreational experience for hikers, biker, picnickers and fishermen. It will also help to enhance the historic appearance of the canal village.

Pennsylvania's frontier. The living culture as well as the historic imprint of the Moravians uniquely marks the city with the sublime and beautifully preserved brick and stone buildings of the original settlement at the heart of the downtown. Due to the Moravians, there has always been an ethic supporting high quality industrial production here.

Big, powerful industry is the other salient theme in Bethlehem's legacy. The Moravians constructed some water-powered mills on Monocacy Creek, but it was the canal, the railroads and the economic opportunities provided by them and the abundance of local resources that inspired entrepreneurs to bring grandly scaled industry to the south bank of the river. South Bethlehem was the site of major industrial development, particularly Bethlehem Steel, which came to dominate the economy and life of the city.

The site of Bethlehem Steel, stretching for miles on the south bank of the river, is one of the most striking monuments to America's industrial might. A vast acreage of spectacular, enormous buildings, some of which remain active, each was built to play a part in the specialized process of making steel from iron, coal and limestone. Steel was milled and forged into the thousand-and-one shapes demanded as the Industrial Revolution matured in the late 19th century and transformed the nation. Here was made the steel to arm and armor the Great White Fleet and American armies in World Wars, as well as the structural steel for countless landmark and prosaic buildings and bridges.

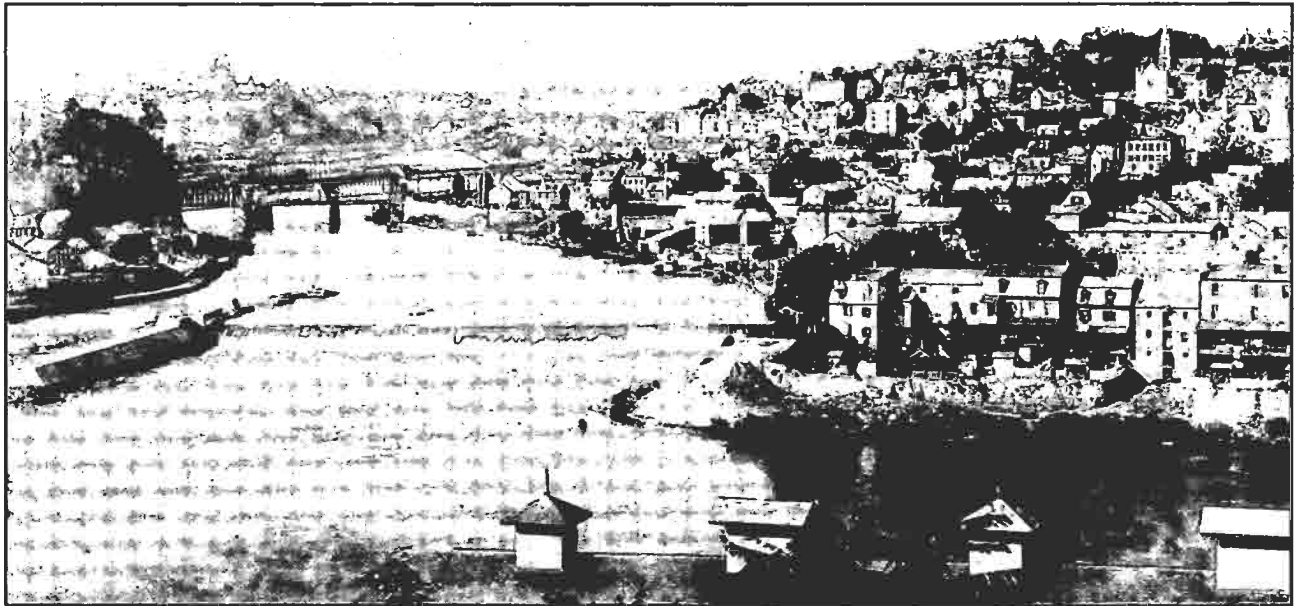
True to its dual-theme history, the Bethlehem of today is characterized by the ethnic diversity and enduring houses and factories of an industrial city, yet is also well known for its 18th-century Moravian heritage. The coming together of these two worlds in Bethlehem has produced a unique city at the center of this ever-diverse Corridor.

Like Allentown, Bethlehem's neighborhoods are extensive and well-maintained and visionary civic investment is a habit, as most recently displayed in the city's work on Sand Island, the peninsula between the canal and river through the city's heart (see sidebar on page 197). With the decline of Bethlehem Steel, the city faces a challenge to preserve its heritage. This challenge will surely be different and perhaps even greater than the rescue performed for its Moravian sites in the 1950s. Bethlehem has capitalized on the prosperity brought by a global, leviathan industry in its 20th century heyday, and is now considering its post-industrial future. Among other efforts, the recent adoption of a vision plan to guide further city development, as well as the Corridor initiative, will continue the city's record of prospering from its past.

On a drive today from Allentown to Bethlehem, the boundary between the two is virtually indistinguishable. Not so with Easton, some ten miles to the east, which is separated from Bethlehem by a broad and lovely band of farmland and wooded floodplain. Although the usual route from one to the other is Route 22 to the north, and more recently Interstate 78 to the south, an early route between the two still exists as a pleasant drive. A hidden gem to be found along this byway is Freemansburg, a

tiny canal town whose local civic association has achieved heroic preservation of a locktender's house and portions of the canal running along its main street.

Easton was laid out by William Penn's agents in the 1740s as a frontier town on small flats just north of the point where the Lehigh River joins the Delaware. Easton enjoys a large central square surrounded by handsome downtown commercial buildings that spread south and east from the square down to the banks of both rivers. The construction of the canal transformed this small town into a small city. Well-located on the natural route down the Delaware, the canal, water power and steady supplies of anthracite literally fueled development of early, diversified, densely industrialized areas along the river and canal.



Courtesy, Hugh Moore Historical Park and Museums

Easton and vicinity was as much a crossroads as an industrial center: over time the confluence of the two rivers led to the convergence of the Lehigh Canal, the Delaware Canal and, across the river in New Jersey, the Morris Canal. As transportation changed, the canals were followed by a far-reaching web of railroads, and today the interstate highway system.

Although traditional industry has declined, Easton has retained a remarkable number of its cultural resources. The historic downtown has hundreds of restored and reused buildings, and a Main Street program in the 1980s further enhanced the residential, retail and growing cultural arts district. This city of just over 46,000 is home to 46 ethnic and cultural groups, and contains intact neighborhoods whose residents and architecture reflect the rich patterns of immigration that resulted from industrialization in the Corridor.

Easton is also a pleasant college town, home to Lafayette College, and is enjoying renewed interest in its historic resources, thanks in part to some involved citizens and the economic boom brought by the latest

Easton was settled at the confluence of the Delaware and Lehigh rivers. By the end of the 19th century, it was the crossroads for three canals and seven railroads, and like Allentown and Bethlehem, it was a powerful industrial center.

transportation revolution in the area, the completion of Interstate 78. Splendid, relatively inexpensive homes and quiet small-town atmosphere have been drawing new residents from among New Jersey's commuters willing to extend their trip into Pennsylvania. Easton and the Lehigh Valley have even been listed among the emergent "Edge Cities" arrayed around New York City and its New Jersey hinterland.

Easton's early civic activism took personal form in Hugh Moore, a wealthy industrialist and open space and park enthusiast who not only endowed the Hugh Moore Park and Canal Museums, but also enabled Easton and municipalities all along the Lehigh Navigation to purchase segments of the system. Easton's Hugh Moore Park today offers a highly popular mule-drawn canalboat ride. From Chain Dam #8 to the Outlet Lock, a two and a half mile stretch of restored canal and towpath and three operating locks offer special interpretive and recreational opportunities. The museum is located downstream at the confluence, and its extensive, nationally significant archival collection awaits the opportunity to expand into a full-scale National Canal Museum.

Recently the city established a Forks of the Delaware Heritage Corridor Task Force with the mandate to implement recommendations for cultural conservation of the city's full cultural patrimony. The Task Force is also pursuing the proposed National Canal Museum, a Museum of the Industrial Revolution and the Easton Arts Initiative, working closely with the National Heritage Corridor Commission and the Two Rivers Joint Municipal Planning Commission, a new advisory body including representatives of Easton and surrounding municipalities.

The urban places in this landscape share a common heritage of early industrial development driven by the Lehigh River and Lehigh Navigation transportation route. In concert with the Corridor's abundance of anthracite and other minerals, and with the ingenuity and early capital amassed by entrepreneurs, the Lehigh Navigation transformed all three cities and the surrounding small towns. Even though they appear to have grown together, surrounded by the suburbanization and highway sprawl of recent decades, they remain distinctive places contributing to a fascinating whole much greater than the sum of the parts.

Challenges, Opportunities and Priorities

One of the biggest challenges facing the Lower Lehigh is the pressure of suburban development that threatens the character of the urban edge while sapping economic vitality from its older urban areas. Effort is needed to encourage a shift in investment towards sensitive redevelopment in the older urban cores and to reduce the consumption of open space and rural land at the fringes.

The defining features of this Reach are its regenerating river and continuous canal from Allentown to Easton. The open-space and park systems of all three cities and their tributary greenways — Little Lehigh River, Monocacy Creek and Bushkill Creek — are linked to the river and canal. These features offer a strong basis for further recre-

ational development and tourism promotion to visitors interested in recreation within an urban, historic setting that provides added cultural and interpretive opportunities. The endurance of strong architectural character in much of Allentown, especially along its industrial waterfront; in Bethlehem's unparalleled Moravian area and vigorous South Side; and in Easton's small city downtown and nearby historic neighborhoods all strengthen the attraction of this area to its residents and a variety of visitors. This Reach also possesses other advantages:

- A strong and diverse regional economy, whose business leaders and public officials have set the pace for taking regional approaches to area challenges;
- The Corridor's strongest infrastructure for tourism — lodging, food and retail services, coupled with some of the Corridor's most popular visitor attractions, including Dorney Park and Wild Water Park, with 1.7 million annual visitors, and linked to major population centers — New York and New Jersey as well as Philadelphia — via an excellent highway network;
- Numerous and diverse heritage attractions, ranging from the Saylor Cement Museum to the Lehigh County Museum, Bethlehem's several Moravian museums, Easton's Canal Museum and canalboat ride, as well as special events like the Celtic Festival and Christmas in Bethlehem, among many others, that taken as a whole, form the basis for a heritage tourism system; and
- Growing recognition of the value and opportunities for presenting the Reach's vigorous industrial heritage through such emerging initiatives as the proposed Transportation Museum in Allentown, the proposed National Canal Museum in Easton and the proposed Industrial Museum in Bethlehem/Easton.

An overall strategy to improve this Reach as a part of the Corridor includes:

- Creating a regional tourism development strategy to leverage the area's existing visitation and to build heritage attractions into the equation;
- Addressing problems of poor visitor reception, complicated wayfinding and few linkages among some of the outstanding heritage attractions in this complex urbanized area;
- Providing added interpretation on the Reach's nationally significant industrial heritage and the presence of the Lehigh Valley's rich ethnic and workplace heritage;
- Adding public access for river and canal recreation, especially between Bethlehem and Easton, and creating increased opportunities for boating on both the river and the canal between Allentown and Easton;

- Creating a critical mass of heritage development at key points in the Reach: along the Allentown waterfront and in Easton's industrial area, as examples;
- Increasing unique accommodations (small inns, heritage hotels or bed and breakfasts); and
- Addressing development threats to important viewsheds, open spaces and environmental features, as well as to unrecognized or unappreciated historic resources, especially industrial heritage resources.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("Navigating"), Chapter 5 ("Understanding") and Chapter 6 ("Conserving and Enriching"). In addition, a large number of Corridor-wide actions affecting the Lower Lehigh Valley Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for the Lower Lehigh Valley's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

Navigating the Reach

Linkages within the Reach

This Reach possesses a good mix of driving and trail linkages, although the D&L Trail route north of Allentown must be improved. Efforts to improve the D&L Trail route along the Lehigh Canal eastward from Allentown are underway.

Action Support the completion of the D&L Trail along the Conrail right-of-way on the west side of the Lehigh and along the Lehigh Canal towpath.

Action Create a stronger driving (and bicycling) linkage throughout the Reach by developing a detailed map for visitors of the Lower Lehigh Valley route identified in the Technical Appendix, *Interpretive Resources Inventory and Analysis*. Mount an intensive wayfinding effort through signage, perhaps organized as "Industry Road" or some other singular name identifiable with the Corridor (much like the "Coal Road" suggested for the Wyoming Valley and Anthracite Fields Reaches).

Linkages to Other Reaches and Places outside the Corridor

This Reach connects to the north with the Canal Towns Reach and south to the Delaware Canal Reach. The D&L Drive is a major Corridor connector (see Chapter 4), along with Route 22, Interstate 78 and, on the extreme western end of the Reach, the Northeast Extension of the Philadelphia Turnpike, all of which also lead outward from the Corridor to major markets in New York and Philadelphia.

Action Use the D&L Drive as a “spine” for development of the strong internal circulation route suggested above.

Understanding the Reach

Because of the extent of the heritage attractions — existing and potential — in this Reach, three Landings are proposed here, each to be tailored to the particular needs of Allentown, Bethlehem and Easton. Specific sites and designs should be developed in consultation with Partners. In Allentown, a potential site is the Lehigh Landing project; in Bethlehem, sites on Sand Island or in the downtown. Potential Easton sites are discussed in the sidebar on page 209.

Visitor Reception

Action Implement a detailed site selection process for locating the three proposed Landings in this Reach: on the Allentown waterfront, in Bethlehem and in Easton.

Action Develop “temporary” Landings or visitor orientation centers at such locations as Bethlehem’s Visitor Center, Allentown’s Art Museum and the Canal Museum in Easton.

Interpretive Sites and Tours

Action In cooperation with Partner institutions in the Reach, develop context-setting exhibits in Bethlehem, Allentown, Freemansburg, Easton and the Saylor Cement kilns in Hokendauqua; site waysides at the site of the Lehigh Crane Iron Works at Catasauqua, and Thomas Iron Works in Hokendauqua. With Partners, create tours for two themes, one on the canal, the other on urban and industrial places; site wayside exhibits to reinforce these tours in Hokendauqua, Catasauqua, Allentown, Bethlehem, Freemansburg and Easton.

Action Develop the mule barn in Freemansburg for interpretive and visitor services.

Action In cooperation with Partners, develop wayside exhibits and other natural-resource interpretation at Island Park/Hugh Moore Park, Bertsch Creek, South Mountain, Little Lehigh Parkway and at the fish passageways in Easton and Allentown.

Action In cooperation with Partners, conduct the needed research and develop interpretive exhibits and tours of Bethlehem’s South Side ethnic neighborhoods.

Action Support the efforts of the Bethlehem Collegium to improve the interpretive experience during the Christmas tour season.

Action Work with Partners to produce a guide to the Lehigh Valley’s industrial heritage.

Action Develop Lehigh Canal Nature Trail, Allentown.

Potential Interpretive Stories in the Lower Lehigh Valley Reach *Connecting and Defining a Region*

- Lehigh Navigation System
- Canal towns
- National story of the canal era
- Trolleys and interurbans
- Transportation: the Allentown truckbuilders; Easton as crossroads of transportation (rivers, trails, canals, bridges, railroads and railyards)

Coal, Commerce and Industry

- Industries: iron, steel, cement, silk/textiles, machine, foundry
- The Industrial Revolution in the Lehigh Valley and its ultimate impacts on America
- Financing and organizing industrial corporations
- Technological innovation and industry

Working With Nature

- Regeneration of the river and river edges, from industrial uses to natural and recreational

- Geography and natural resources

Transformations in People and Places

- Native Americans
- Religious and cultural history: Moravians
- Cultural diversity: Allentown, South Bethlehem, Easton neighborhoods
- Educational history: the growth of colleges
- Company towns (South Bethlehem, South Easton)
- Allentown and the Cities Beautiful movement
- Suburban and highway development
- Coping with change: Allentown, Bethlehem, Easton in the 20th century post-industrial era

Potential Interpretive Partners in the Lower Lehigh Valley Reach

- Hugh Moore Historical Park and Museums
- Northampton County Historical & Genealogical Society
- Lehigh County Historical Society
- Bethlehem Collegium
- Historic Bethlehem, Inc.
- Lehigh University
- Lafayette College
- Moravian Museum
- Moravian College
- Muhlenburg College
- Burnside Plantation
- Trexler Foundation
- Truck Foundation
- Lenni Lenape Museum
- Bethlehem Steel
- Poole Nature Center
- Allentown Art Museum
- Jacobsburg Environmental Education Center
- Old Freemansburg Association
- Poole Wildlife Sanctuary

Key Uninterpreted Sites in the Lower Lehigh Valley Reach

- Thomas Iron Works, Hokendauqua
- Catasauqua
- Bethlehem Steel
- Freemansburg
- Jacobsburg Village and Boulton Gun Works ruins
- silk mills throughout Reach
- workers’ housing throughout Reach

Significant Unprotected Natural Features in the Lower Lehigh Valley Reach

- Bushkill Creek
 - Monocacy Creek
 - Lehigh River (Slatinton to Allentown)
 - Lehigh Mountain
 - South Mountain Area
 - Catasauqua Lake
 - Little Lehigh Creek, upstream of Allentown
- For these sites, the Bucks County Conservancy, the Wildlands Conservancy and The Nature Conservancy have recommended various actions, including management plans, linkages with adjacent protected lands for the enlargement of habitat corridors, interpretive programs, study of specific features, protective zoning or acquisition — or both — and other land protection techniques.

(Source: *Natural and Recreational Resources Evaluation*)

Lands Protected by Conservancy Action in the Lower Lehigh Valley Reach

- Sterner Conservancy Land
- South Mountain
- Poole Wildlife Sanctuary
- Reimert Bird Sanctuary
- Lehigh Mountain Preserve

(Source: *Natural and Recreational Resources Evaluation*)

Lands Protected by Government Action in the Lower Lehigh Valley Reach*

- Louise W. Moore Park
- Archibald Johnson Conservation Area
- South Mountain
- Gertrude B. Fox Park
- Hugh Moore Park
- Frost Hollow Overlook
- Island Park

*Does not include all municipal and city parks.
(Source: *Natural and Recreational Resources Evaluation*)

Conserving the Reach

Protecting Environmental and Scenic Resources

There is strong local recognition of the need to preserve natural features and recreational lands within and beyond the cities, exemplified by the numerous greenway initiatives being undertaken along the Little Lehigh River, Jordan Creek, Monocacy Creek, Bushkill Creek and other tributaries of the Lehigh. The priority is on preserving what remains of open lands, conserving and cultivating additional recreational opportunities as population density in the region increases. An additional priority is shaping the development likely to occur from the proposed Route 33 extension, which cuts through some of the most scenic remaining agricultural and wooded land between Bethlehem and Easton.

Action Undertake recommendations in the Technical Appendix, *Natural and Recreational Resources Evaluation*, to protect significant unprotected natural features (see sidebar.)

Action Develop a regional greenway strategy to support existing and new greenways in this Reach. Potential Partners are the Joint Planning Commission and Lehigh and Northampton Counties.

Protecting Cultural and Historic Resources

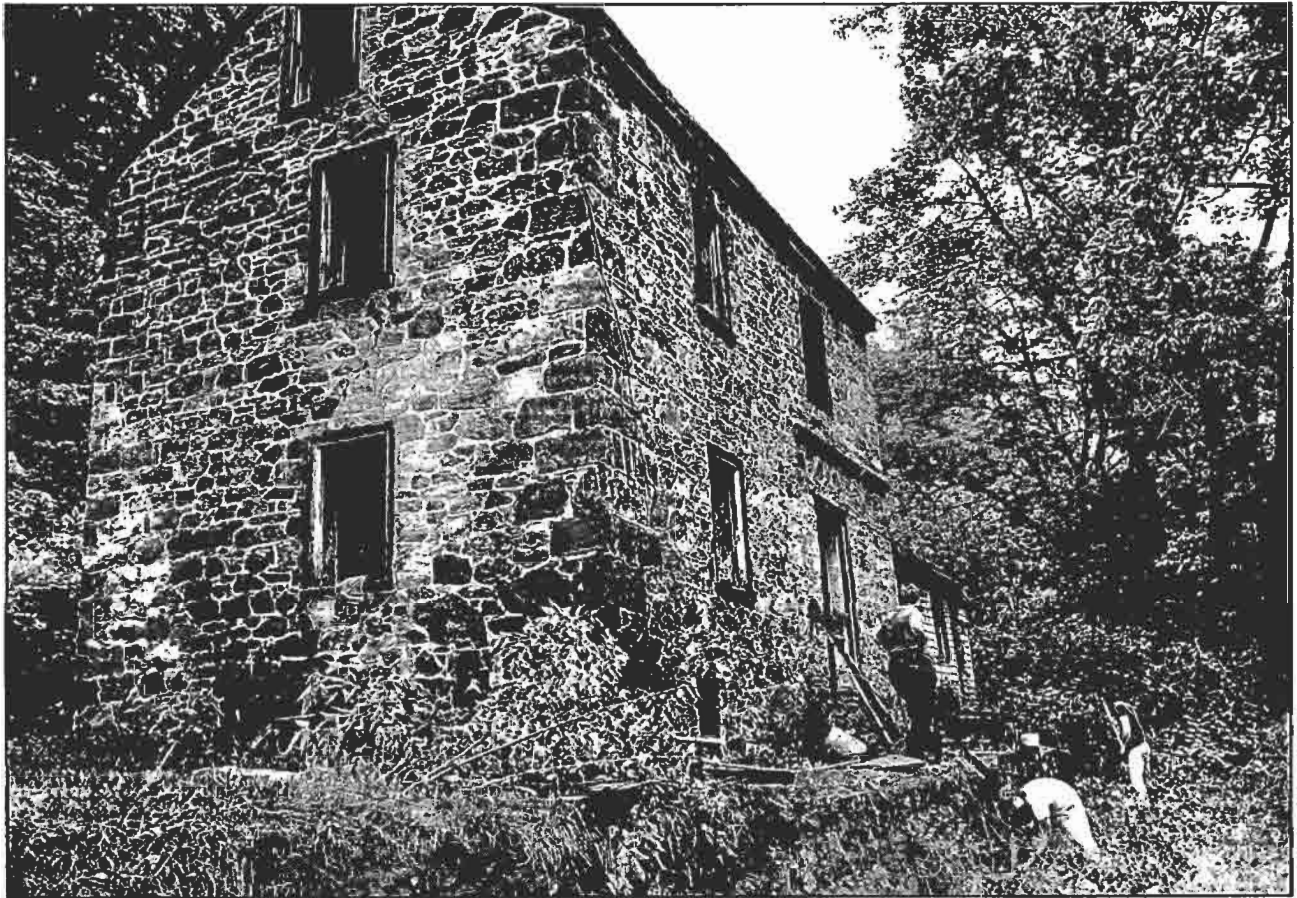
Many of the ethnic communities of the Lower Lehigh Valley remain strong and cohesive, and actions will be taken to support the diverse cultural life here. Conserving and enhancing the strong architectural character of this Reach in its small towns, vibrant urban areas and especially its less-appreciated historic industrial areas, is also a vital interest. There are historic districts in Allentown, Bethlehem and Easton, but many more could benefit from higher public awareness and appreciation, as well as protection. In both Lehigh and Northampton Counties, some of the basic resource inventory work has not been done.

Action Through grants and technical assistance, support combined documentation and reuse studies through the Historic American Engineering Record and others for significant historic industrial structures in the Reach, including such key uninterpreted sites as the Thomas Iron Works in Hokendauqua, portions of Bethlehem Steel, and several of the Reach's silk mills and other factory structures.

Action Provide matching grants for interpretation of cultural themes. In this Reach, there is particular opportunity in the area of workplace traditions and labor history, especially through oral histories that might lead to auto driving tour tapes narrated by local resident guides/hosts.

Action When sponsors of ethnic festivals and events desire attention and visitation, promote these as part of Reach and Corridor promotion activities.

Action Work with and support the efforts of Lehigh and Northampton Counties to complete historic resource surveys.



Don Fisher, Morning Call

Action Provide technical assistance and encourage the designation of local historic districts and adoption of preservation ordinances where needed.

Action Sponsor combination historic district/interpretation/cultural conservation projects in Catasauqua, Hokendauqua, Cementon, Northampton and the other small communities in the upper end of the Reach. One of the purposes is to increase public awareness of the value of heritage.

Action In partnership with such local preservation groups as Historic Easton and with the Pennsylvania Historical and Museum Commission, Pennsylvania Preservation Fund and National Trust for Historic Preservation, sponsor an annual historic preservation conference for the Lehigh Valley in the years following the 1993 State Heritage Park Program/Preservation Pennsylvania joint conference.

Enriching the Reach

Tourism

This Reach already receives high visitation. Promotion of the region's heritage, improving interpretation and strengthening the system of visitor services will lead to longer stays.

The Old Freemansburg Association is one of the most active and accomplished private canal organizations in the Corridor. Here, a cleanup day takes place at the 1829 lockhouse.

ACCOMPLISHMENTS

In order to assure the conservation of its natural and cultural resources, the Forks of the Delaware Heritage Corridor Task Force will undertake an Urban Conservation Plan which will serve as an attachment to the City of Easton's Conservation Plan. The process will result in a broader and more highly integrated system of identifying, protecting and conserving resources significant to the Corridor.

ACCOMPLISHMENTS

The South Bethlehem Historical Society has formed to commemorate and conserve the neighborhoods' strong ethnic heritage and the story of its Bethlehem Steel workers.

ACCOMPLISHMENTS

The old D&D Shirt Factory building in Northampton is being adaptively renovated into housing for senior citizens.

Action Work with the Lehigh Valley Convention and Visitors Bureau and other Partners to develop a regional tourism marketing strategy to attract patrons of Dorney Park and other major attractions to enjoy the Reach's heritage attractions, perhaps through the development of weekend packages that would appeal to the existing visitors.

Action Work with Partners, Lehigh Valley Convention & Visitors Bureau and appropriate chambers of commerce, to encourage the development of heritage lodging and other visitor service opportunities where needed.

Action Work with Partners to produce a heritage attractions guide to the Lehigh Valley, suitable for mass distribution at Landings and high visitor traffic areas, including hotels and Dorney Park.

Economic Development

In this Reach, the focus of economic development will be on adding to the critical mass of heritage attractions, encouraging small business opportunity in the historic retail cores and the adaptive reuse of heritage resources. Significant private and public investment is needed to continue and improve the strong urban cores of Allentown, Bethlehem and Easton.

ACCOMPLISHMENTS

At the Forks of the Delaware, in Easton, a set of fish climbing ladders with an observation area is being constructed. The ladders will restore the migration of shad and other fish to the Lehigh River Basin.

Action Work with Allentown Economic Development Corporation and support implementation of plans to redevelop Allentown's industrial waterfront to include the proposed Transportation Museum, micro-brewery and other mixed uses.

Action Work with Partners to initiate a Main Street program in Catasauqua, with the goals of historic preservation, small business development and establishment of visitor services.

Action Through planning grants, support the efforts of the Easton Economic Development Corporation to revitalize the city's center.

Action Work with the city of Bethlehem to attract a developer and convert the Saquoit Silk Mill for housing and commercial uses.

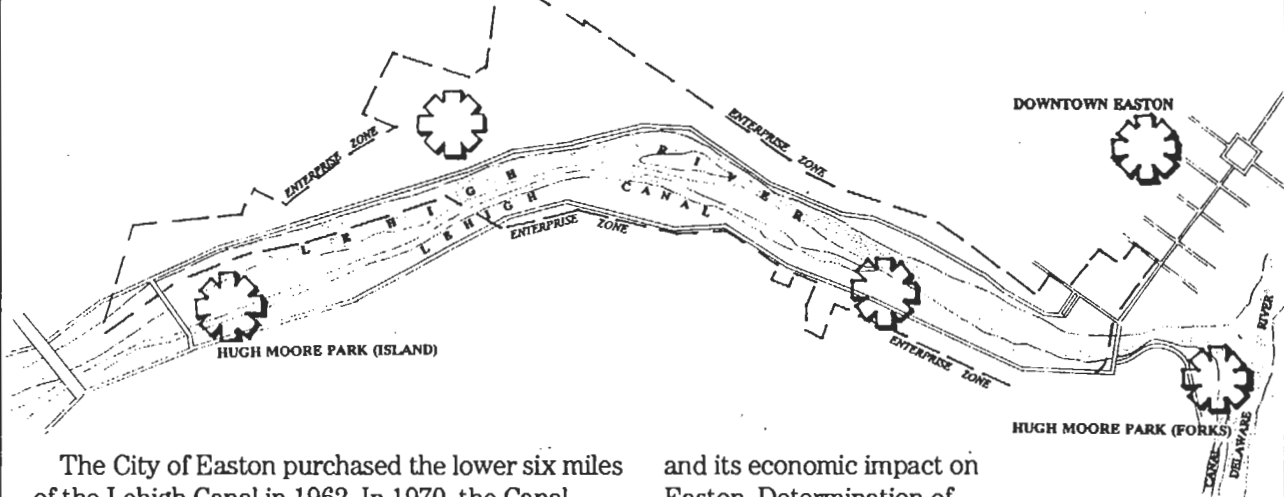
Action Work with Bethlehem Steel, the city of Bethlehem and other Partners to conduct a feasibility study for a Steel Museum, ideally to be located in part of the historic steel mill complex.

Action Coordinate with DCA and City of Easton on mutual preservation and economic goals for Easton's enterprise zone.

Action As part of the planning for the Landing in Easton and for the National Canal Museum, establish site selection criteria.

Action As part of the planning for the Landing in Bethlehem, establish pedestrian and auto linkages between the city's Historic Industrial Area, historic district, Main Street shopping area, South Bethlehem and the Landing.

Potential Locations for the National Canal Museum/Corridor Landing



The City of Easton purchased the lower six miles of the Lehigh Canal in 1962. In 1970, the Canal Museum was opened by the city in conjunction with the Pennsylvania Canal Society. The museum and its staff have become the leading institution along the Delaware and Lehigh canals interpreting the canals, anthracite, early railroads and 19th century industry. The Hugh Moore Park also operates a mule-drawn canalboat and has the only fully restored and operating locks on the D&L system.

Located at the junction of the Delaware and Lehigh canals and at a major Corridor entry point near I-78, Hugh Moore Park and Easton should play a central and growing role in the interpretation of canals and industry. With a large part of its 250-year history evident in the architecture of its downtown and neighborhoods, Easton also has great potential for heritage development that spins off from investment in interpretation.

As the Canal Museum's canal, anthracite and iron and steel collections have grown, the need for larger facilities for collections, interpretation and education has become evident. The board of the Hugh Moore Historical Park and Museums, the City of Easton and the Corridor Commission have all endorsed the expansion of the Canal Museum into a National Canal Museum. In addition, the Hugh Moore Historical Park and Museums is currently soliciting contributions for a museum to interpret the region's 19th- and early 20th-century industries. Many industrial artifacts have been collected over the last decade for this facility.

The location of these new facilities, perhaps in conjunction with the Corridor Landing planned for Easton, is critical to the Park's efficient operation

and its economic impact on Easton. Determination of the appropriate site or sites is to be the subject of a study sponsored by the Commission, Easton and other Partners.

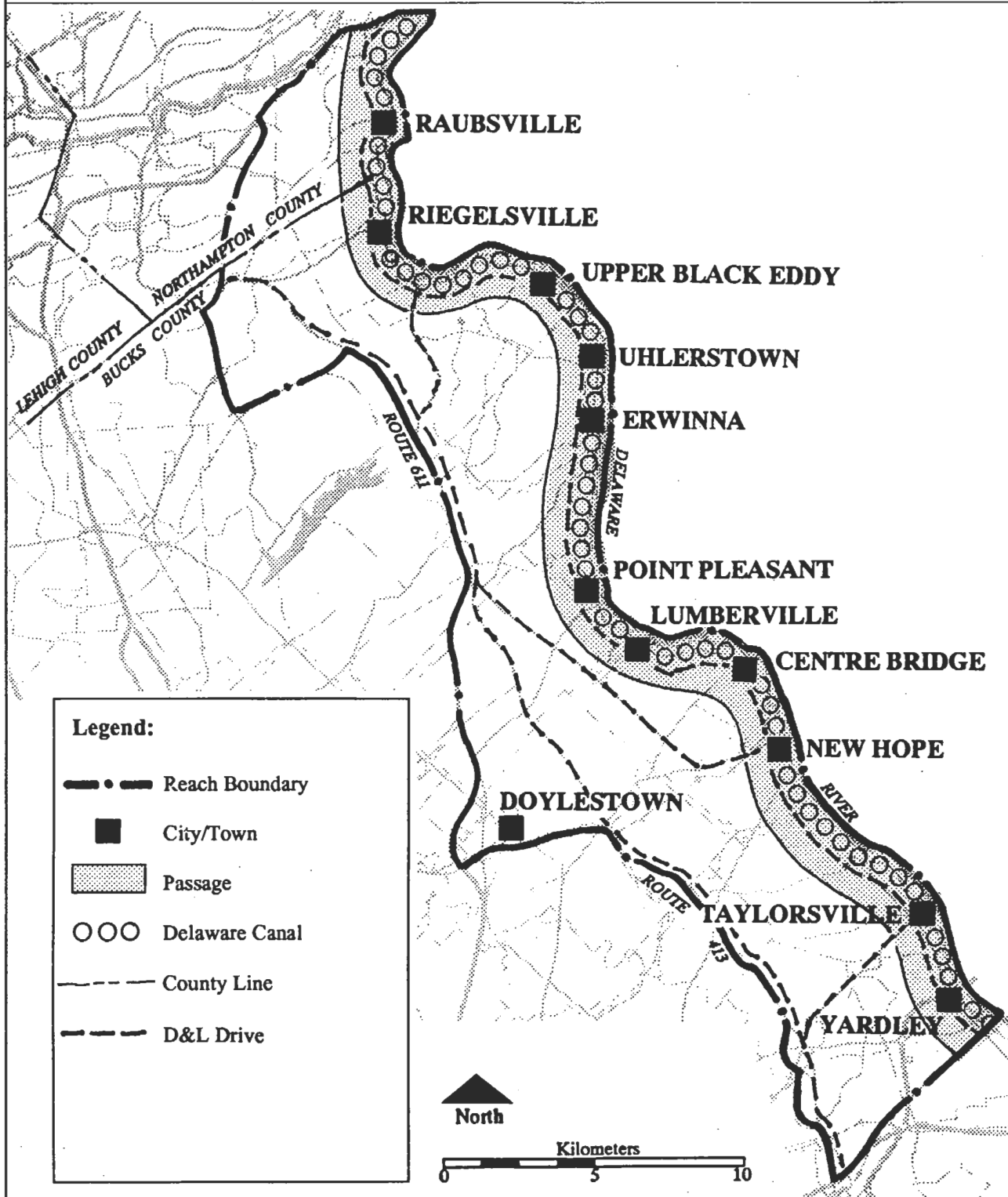
There have been early discussions on the best site for the museum, and five have been proposed: downtown Easton; the current canal museum site at the Forks of the Delaware; Hugh Moore Park Island; and at least two sites in Easton's enterprise zone (see above map). The primary concerns to be addressed in evaluating each of these sites include:

■ **Interpretation:** The historic canal and river resources here can provide a significant opportunity for interpretation. Both the Forks site, where the present HMHPM facility is located, or the Island site with its nearby canal boat ride and lock house would work on this basis.

■ **Economic Development:** The spinoff potential for a major museum is considerable; moreover, museums generally attract more visitors where multiple activities are available. Downtown Easton and this facility might enjoy mutual benefit, if an attractive site taking advantage of the downtown's historic character can be developed.

■ **Physical Planning and Circulation:** No matter whether the facility is developed at the Forks or Island sites for interpretive emphasis, or in downtown Easton for synergy with other Easton initiatives — or at a site elsewhere in Easton's enterprise zone — a principal concern will be movement of visitors and vehicles to gain the maximum interpretive and economic value from the final choice.

Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park MANAGEMENT ACTION PLAN



The Delaware Canal Reach

Figure 7.7

The Delaware Canal Reach

This Reach is famous for its wide variety of tourist attractions, including both historic resources and recreation. Its beautiful scenery is a part of this fame, the product of 300 years of peaceful settlement and agriculture and the modest change brought about by the Delaware Canal over the 100 years it operated. Its natural resources remain remarkable for their quality and variety in spite of extensive human impact.

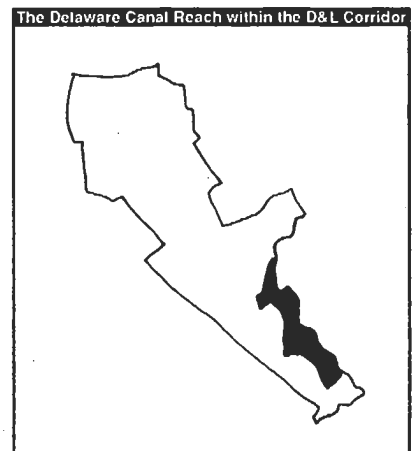
The priorities for this Reach are to better accommodate the present flow of tourists and protect resources endangered by overuse or inappropriate development. Ideally, efforts in this Reach will enhance the unique blend of history, recreation and scenery to be experienced in and along the Delaware Canal State Park and acknowledge and reinforce the many other state, county and local parks, cultural landscapes and historic settlements in this Reach.

Description

The Delaware Canal runs for 60 miles, paralleling the Delaware River from Easton to Bristol, threading its way through two distinct landscapes: one formed of the narrow valleys, wooded hillsides and cliffs, and old canal and market towns to be found in upper and middle Bucks County along the Delaware River; the other highly urbanized and developed, beginning near Morrisville, and described in the following section on the Canal's End Reach.

When it was built in 1832 as the Delaware Division of the Pennsylvania Canal, the Canal connected the Lehigh Navigation at its terminus in Easton with a route for transporting anthracite to the upper tidal portion of the Delaware River and deep-water transportation. The construction of this canal remedied the problem of using river boats to carry goods to Philadelphia, since rapids and frequent low flows made the river an unpredictable and hazardous means of transport.

Though the two canals joined as part of a grand transportation system that stretched from the Appalachians to the tidewater, they had markedly different effects on their surrounding landscapes. Unlike the Lehigh Navigation, which generated a great deal of industrial development and community-building along its course, the Delaware Canal was more simply a conduit for goods and commerce, an economic and physical linkage. Although it was the "Main Street" for the series of remarkably intact small canal towns that sprang up to serve the canalboat traffic — today, key elements of the cultural landscape — the canal precipitated little industrial development and even less impact on the rural area through which it flowed, much of which had been settled with farms more than a hundred years earlier. Small industrial centers grew here and there — as evidenced by the series of ruins to be found along Ingham Creek in New Hope — but they flourished because of the swifter water power of tributaries rushing off the plateau above the Delaware River, not the canal itself. Farmers likewise



had well-developed alternate outlets for their dairy products, grains, fruits and vegetables, and though they often used the canal, they did not depend upon its link to Philadelphia as farmers farther north did.

Thus, much of peaceful Bucks County was bypassed by the 19th-century urban-industrial boom experienced in the counties to its north. Its sturdy economy was instead sustained by its excellent agricultural soils and nearby markets, until the late 20th century when the land finally became more valuable as country estates, and expensive subdivisions.

Trauger's Farm and Market on River Road next to the canal is one of the many beautiful and historic farms that give the Delaware Canal Reach its rural image.



Joseph E.B. Elliott

The Delaware Canal ceased operation in 1932. Ten years later, the Commonwealth acquired it as a linear park and continued to maintain it. Today, Delaware Canal State Park features the most intact of all towpath canals in the United States, capable of being watered throughout this Reach. The canal is both a National Historic Landmark and a National Recreation Trail, and is visited by more than one million visitors annually. As a further indication of the area's attractiveness, the Delaware River has been considered by the National Park Service for addition to the National Wild and Scenic Rivers System, and it is a proposed state scenic river. Routes 32 and 611, which parallel the river and canal and are known as River Road, are state-designated as Delaware River Scenic Drive.

The eastern boundary of this Reach is the edge provided by the river. It is bounded on the west largely by Route 413, the historic route of the Walking Purchase, an infamous swindle of the Lenni Lenape, who had agreed to sell as much land as a man could walk in a day. English settlers collected on the bargain by sending a team of runners from Wrightstown to a point just south of today's Hickory Run State Park in Carbon County.

Numerous 18th- and 19th-century villages and crossroads occupy the Reach, the largest being the small towns of Yardley and New Hope.

Yardley was a mill village and canal town and grew as the hub of the surrounding area, and is today a quiet bedroom community for commuters.

New Hope began at a ford on the river and grew into a small industrial center as a result of the canal, perhaps the canal's greatest influence in this landscape aside from the canal towns. By the mid-20th-century century New Hope had become a popular resort that began its tourist era as a stop for new plays bound for Broadway and as home to many New York artists, musicians and writers. So many artists have worked in and around New Hope that they are known as the New Hope School. With its playhouse still in operation and numerous art galleries, boutiques and bed-and-breakfasts, New Hope draws one million sightseers and shoppers annually. More than 30,000 ride the canal-boat operated by a concessionaire licensed by the state park, and another 30,000 enjoy the recently refurbished New Hope & Ivyland Railroad running southwest out through the scenic Buckingham Valley. Four miles to the west of New Hope, in Lahaska, is Peddler's Village, a shopper's haven, also drawing more than a million visitors annually.

Six miles south of New Hope on River Road is Washington Crossing State Historic Park, where George Washington made his famous Christmas Day, 1776 crossing of the river to attack the British camped in Trenton, New Jersey — a turning point in the American Revolution. Today, the park is a popular picnic site, and an annual re-enactment of the crossing is held, drawing as many as 100,000 spectators. The small 19th-century village of Taylorsville is clustered around one of the many attractive early metal bridges stretching across the river. Many of the buildings are owned by the Pennsylvania Historical and Museum Commission. PHMC also owns extensive grounds stretching between the river and the canal, plus additional acreage three miles north, called Bowman's Hill. This property includes both a steep hill and wildflower preserve overlooking the Delaware and the early 18th-century Thompson-Neely farmstead.

Rich agricultural landscapes characterize this Reach beyond the Passage, notably the Pennsylvania German farms of the Stouts Valley and Durham Valley in the far north. Isolated until recently from the modern development pressure experienced in middle and lower Bucks County, these valleys are largely unchanged since they were settled in the 18th century. Many more parts of the Reach are also lovely agricultural areas, but are experiencing growth pressures to varying degrees depending on location. Towns further north along the river and canal are also less affected by development, but all offer great visual interest along the entire length of the Passage (see sidebar).

Both the state and counties have numerous parks in both Passage and Reach, including Pennsylvania's Delaware Canal and Ralph Stover, Bucks County's Tinicum, Hal Clark and Prah's Island, and Northampton County's Fry Run and Wy-hit-tuck. Recreational use of parks, the towpath and the river throughout this Reach is quite high, including bicycling that also takes in the New Jersey side of the river,

ACCOMPLISHMENTS

In keeping with a New Hope tradition of wall murals portraying the town's heritage, the Friends of the Delaware Canal have sponsored the painting of a mural that depicts the Delaware Canal. A "blank slate" that still remains is the 200' long wall of the old Union Camp Paper Mill, which is seen by thousands of people each year.

Imageable Villages and Towns in the Delaware Canal Passage

- Raubsville
- Riegelsville
- Kintnersville
- Upper Black Eddy
- Uhlerstown
- Erwinna
- Smithtown
- Mt. Pleasant
- Lumberville
- Center Bridge
- Phillips Mill
- New Hope
- Taylorsville
- Yardley

(Sources: *Inventory and Assessment of Cultural Landscapes* and the Commission)

which is similar in character to this Reach and also has a preserved canal, the Delaware and Raritan. Canoeing and floating in inner tubes on the river, and canoeing on the canal where sufficient depth exists, are popular recreational pastimes, along with fishing — including a growing spring shad run.

This landscape is the destination of considerable tourist traffic, much of it already drawn by the kinds of attractions the Commission is seeking to reinforce: enjoying shopping and staying overnight in small historic towns, driving scenic roads, visiting historic sites, walking the canal, and enjoying the outdoor recreation available on rivers, along trails, and in parks scattered throughout the landscape, including climbing and whitewater racing. New Hope, in particular, enjoys the kind of success to which other towns entering the tourism business can aspire. The Bucks County Tourist Commission has the best-funded program in the Corridor, and recently received county taxing authority to collect two percent on hotel rooms — expected to amount to more than \$250,000 annually.

Challenges, Opportunities and Priorities

◆ IDEAS FROM THE CORRIDOR: *The Delaware Canal at New Hope*

The section of the Delaware Canal within the village of New Hope is the most visited on the canal, attracting more than 100,000 tourists a year. The Bureau of State Parks (BSP), owner of the Delaware Canal State Park, provides a canal boat ride for 30,000 people each year through a concessionaire, and thousands of people stroll on the towpath. Now, for the first time, interpretation about the canal, its history, and its relationship to New Hope will soon be provided at this busy spot.

In 1990, the BSP acquired the historic locktender's house, and has leased it to the non-profit Friends of the Delaware Canal, to be renovated for interpretive purposes. The possibility also exists that the adjacent Lock 11 could be restored to operating condition for interpretation and the canal boat experience of "locking through." BSP is currently developing a master plan for this area to address issues of goals, priorities, and scope, as well as site development and operations.

Rehabilitation covered by this plan might include site work, exterior restoration of the locktender's house, rehabilitation of the lock, reconstruction of the facade of the Mule Barn and use of this building for interpretation, and a new visitor information booth for the mule barge ride.

The challenges in this Reach are considerable:

- protecting overused recreational resources, especially the river, considered by some to be this Reach's most significant resource — and it is overwhelmed;
- protecting key environmental, scenic, cultural, historic and recreational resources threatened by development;
- improving management of tourist activity, including improved access and signage; and
- cultivating greater local appreciation of the canal through local education, increased interpretation, and activities supported by the Friends of the Delaware Canal and the Association for the Restoration and Preservation of the Delaware Canal.

Perhaps surprisingly in view of this Reach's level of tourism and recreation, the canal and towpath are under-utilized. Because it currently lacks the access facilities that could lead to greater use, it represents a major opportunity in its potential to help to spread tourism and recreational use more widely throughout the landscape so that tourism engendered by the Corridor does not simply add to the enormous presence in New Hope. Interpretation provides a similar opportunity, especially to help send visitors out beyond the confines of the Passage, to enjoy the interpretive stories, scenic drives, and recreational opportunities available beyond New Hope and the drive along River Road.

The relation of this Reach to the New Jersey side of the river is also an opportunity for spreading tourism and recreational use beyond this Reach's few "pressure points." In a few places, the views from Pennsyl-

varia are marred by development in New Jersey — most notably in New Hope, where new homes are being built on steep hillsides above New Hope's sister river town of Lambertville. In general, however, the potential relationship of New Jersey to Pennsylvania here is quite positive, spurred by the recent formation of the Delaware River Greenway. This umbrella organization boasts state agency and non-profit members from both states, and promises to improve linkages between the two canal parks, both physical and promotional.

Along with taking advantage of the opportunities to increase canal visitation and interpret Passage and Reach, a priority is spreading the positive economic impacts of tourism to surrounding areas that may desire it. A related issue is addressing safety on River Road, whose heavy use in many places is a source of serious concern. Moreover, because much traffic is concentrated around New Hope, managing the circulation and minimizing the negative impacts of congestion and strained infrastructure is also a related priority.

Another priority in this landscape is to protect its fragile natural lands and historic communities, generally to the north and northwest of New Hope. The threats stem not only from the “killing the golden goose” effects of tourism — which can generate changes, sometimes inappropriate, to buildings and land as private owners seek to capitalize on the new trade — but also from the ever-spreading impacts of inappropriate residential development. Many Bucks County municipalities already are working hard to cope with the changes development poses in their



Joseph E.B. Elliott

The primary challenge facing the Delaware Canal Reach is to protect the exceptional scenic, historic and natural resources for which it is so well known from overuse and inappropriate development. Here, the Delaware Canal passes the Nockamixon Cliffs.

☛ IDEAS FROM THE CORRIDOR:

Hal Clark Park

This 27.5-acre park lies in Solebury Township, Bucks County, between the Delaware Canal and the Delaware River, and has approximately 1100' of water frontage on each. The land was donated to the County as a park, and preliminary development plans have been prepared.

A new canal bridge and parking would provide public access to the water along a section of canal and river which has been difficult to reach. A boat ramp, parking area, picnic grounds and comfort station are planned. The area is close to New Hope, which draws 1,000,000 tourists a year, and it is the upper terminus for the New Hope Mule Barge ride.

Development of the park would bring access and recreational facilities which would allow this section of canal and river to be used for hiking, fishing, picnicking, birding and river boating.

communities, through land use regulatory tools and such techniques as conservation easements. Both the county and the Bucks County Conservancy strongly support their efforts, and a number of citizens' groups are tackling such single projects as greenways along tributaries to the Delaware. The Commission's emphasis on the importance of these efforts beyond the individual borders of municipalities and parklands can lend great weight to existing efforts.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("navigating"), Chapter 5 ("understanding") and Chapter 6 ("conserving and enriching"). In addition, a large number of Corridor-wide actions affecting the Delaware Canal Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for the Delaware Canal Reach's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

Navigating the Reach

Linkages in this Reach exist in considerable variety and include roads, canal and trails. Issues include overuse (resulting in safety concerns in River Road), the need for greater access and new linkages to accommodate demand, and stabilization and improvements to the canal itself. The latter is discussed extensively in Chapter 4 together with a list of needed actions.

Safety improvements on River Road must be accompanied by a particular concern for aesthetics, the dynamics of tourist traffic, and impacts on historic and recreational resources. Attractive guide rails and frequent pull-offs — and re-directing commercial traffic — may make more sense than the usual solution of wide shoulders or added lanes, particularly since little room exists in many places between canal, cliffs, and historic structures to change the width or road alignment.

Linkages within the Reach

River Road and the canal towpath trail provide the two primary linkages for this Reach's long, narrow Passage. Also following this primary route, a private vendor provides canalboat rides from New Hope to the north.

The New Hope & Ivyland Railroad, an excursion line, connects a depot beside the Delaware Canal in the center of New Hope with Lahaska, traversing some prime agricultural landscapes.

Action Provide increased access facilities to the Delaware Canal.

Action Work with PennDOT on a bridge replacement and road improvement policy to protect and improve River Road and the Delaware Canal, including working with the state's designated common carrier regulator to address safety issues associated with truck traffic.

Linkages to Other Reaches and Places outside the Corridor

The continuation of the Delaware Canal and River Road (Routes 32 and 611) provides obvious linkages to the Corridor's southernmost Reach, Canal's End. The same is true northward, where both River Road and the canal provide strong links into Easton, where the Delaware Canal meets the Lehigh Canal at Hugh Moore Park.

In addition to good connections along the axis of the river and canal, several roads provide links to larger communities inland from this Reach and across Delaware bridges into New Jersey and beyond, including Route 202 to Doylestown and Lambertville. Interstates 78 and 95, at the extreme northern and southern ends of this Reach respectively, provide additional access via major highways, along with U.S. 1 in Morrisville.

At an early stage in the Corridor initiative, linkage beyond the Corridor with New Jersey's D&R Canal towpath trail is desirable. Seven smaller bridges and roads provide linkages to riverside communities in New Jersey and added access to major tourist markets to the east; the historic character of several of these bridges should be carefully considered in any improvements. The river itself provides a linkage with New Jersey; this connection is important to consider in addressing both recreation and resource conservation concerns.

Action Promote the loop bicycle and pedestrian trail on both sides of the Delaware from Bull's Island to Lambertville/New Hope that takes advantage of several attractive early bridges up and down the river and the two canals.

Action Support a bi-state study on active river recreation and access including the Delaware River Greenway and both New Jersey and Pennsylvania state parks/administration.

Action Work with the counties, the Bucks County Conservancy and the Delaware River Greenway and others on protecting key environmental, scenic, and recreational resources along the Delaware River.

Understanding the Reach

Visitor Reception

Visitor reception is especially important here to encourage the hundreds of thousands of visitors to this Reach — who are already interested in Corridor values and are likely to return — to visit other sites nearby or elsewhere in the Corridor. New Hope, by virtue of its heavy visitation, is a candidate for the permanent Landing in the Delaware Canal Reach. A temporary Landing will be established at the New Hope Lockett's House, which is being converted to a small visitors center by the Park and the Friends of the Delaware Canal. A permanent Landing could be established at the Union Camp paper mill proposed for redevelopment. Other candidates for a permanent Landing are the Washington Crossing State Historic Park visitor center or on land near the Thompson-Neely farmhouse. Concerns for siting a Landing in the

IDEAS FROM THE CORRIDOR:

Linking up with New Jersey

Hiking and biking loops and connections between the Pennsylvania and the New Jersey side of the Delaware River are known to locals, but are hard for visitors to find. Signage could help users to take advantage of the towpaths of both the Delaware Canal and the Delaware & Raritan Canal, as well as the many historic bridges that connect the two states.

Potential Interpretive Stories

in the Delaware Canal Reach

Connecting and Defining a Region

- Mill villages along the Delaware
- Canal towns
- Operating the canals
- Lives of canal workers and families
- The effect of the lack of modern transport on Bucks County's rural landscape

Coal, Commerce and Industry

- Early iron-making
- Industries: agriculture, quarrying, lumber, 19th-century handicrafts
- Milling

Working with Nature

- Geography and natural resources
- The natural systems illustrated by the county's key natural sites
- The river as a scenic resource and a natural system
- Recreational values
- Bowman's Hill wildflower preserve

Transformations in People and Places

- Lenni Lenape
- Religious history: Quakers
- Walking Purchase
- New Hope's 20th-century art colony
- Early settlement
- Agricultural development
- Pennsylvania Germans
- The Revolution and Washington's Crossing

Delaware Canal Reach include traffic, parking and finding the best location to both capitalize on existing visitation and generate new, Corridor-specific visitation.

Action Work with the Friends of the Delaware Canal, the Bureau of State Parks and other Partners to establish a temporary Landing at the Locktender's House in New Hope.

Action Work with the Pennsylvania Historical and Museum Commission to create additional visitor reception immediately by providing exhibits on the Corridor and its interpretive themes at the Washington's Crossing visitor center.

Action Establish a permanent Landing in the Delaware Canal Reach: study feasibility and location, perform site selection, identify Partner responsibilities and design and develop the Landing.

Potential Interpretive Partners

- Friends of the Delaware Canal
- Bucks County Historical Society/Mercer Museum
- Delaware Canal State Park/Bureau of State Parks
- Washington's Crossing Historic Park/Pennsylvania Historical and Museum Commission
- Bucks County Conservancy
- Bucks County Parks and Recreation
- Bucks County Audubon Society
- The Nature Conservancy
- Honey Hollow Environmental Education Center
- Bowman's Hill Wildflower Preserve

Interpretive Sites and Tours

In cooperation with local partners, a satellite exhibit will be developed in Doylestown at the Mercer Museum and at Washington's Crossing State Historic Park; kiosks will be sited in New Hope, Point Pleasant, Doylestown, and Yardley. Wayside exhibits will be sited at Durham, Upper Black Eddy, Tinicum Park (directing visitors there to the highly sensitive nearby site of Uhlerstown, which should experience no other interpretation) and Lumberville. One or more wayside exhibits will also be created for a tour focussing on agricultural landscapes and protection activities. Although complete restoration of the Delaware Canal is not advocated in this Plan, restoration of the inactive Lock 11 beside the southern entrance to New Hope on Route 32 (and just below the start of the current canalboat trip northward) presents the best interpretive opportunity in the Corridor for literally millions of passersby as well as canalboat riders to observe the operation of this most fundamental aspect of the canals.

Action Restore Lock 11 in New Hope, perhaps by using PennDOT/ISTEA funding.

Lands Already Protected by Conservancy Action in the Delaware Canal Reach:

- Bryn Athyn Conservancy Land
- Hatcher Conservancy Park
- Cabin Run
- Johnston Conservancy Land
- Roberts Conservancy Land
- Trik Conservancy Land
- O'Conner-Cavanaugh Conservancy Land
- Cole Conservancy Land
- Crooks Conservancy Land
- Knudsen Conservancy Land
- Four Winds Hill
- Platt Wildlife Sanctuary
- Sol and Rose Feinstone Conservation Area
- Diabase Farm
- Yardley Hunt Conservancy Land
- Coltsfoot Farm

(Source: *Natural and Recreational Resources Evaluation*)

Conserving the Reach

Protecting Environmental and Scenic Resources

Bucks County is already well aware of its key resources and many municipalities in this Reach are working to protect them. Some municipalities have attempted highly sophisticated combinations of regulatory and conservancy techniques to tackle such issues as protection of historic villages (Bucks is among the first counties in the nation with a systematic effort to address this issue) and small watersheds. The county, the municipalities, and nonprofit groups need far greater financial resources to effectively counteract the tremendous economic pressures for residential growth here, however.

Action Support existing nonprofit and government efforts to protect identified environmental sites including acquisition of easements or property.

Action Support regional greenway efforts along the Delaware River and the Tincum, Tohickon, Neshaminy, and Cooks Creeks.

Action Support viewshed studies for the Delaware Canal, Corridor interpretive tour routes, and other priority recreation locations to target sites for specific protection (including any designations under a state scenic byways program under recent federal legislation).

Action Undertake recommendations in the Technical Appendix, *Natural and Recreational Resources Evaluation*, to protect significant unprotected natural features (see sidebar.)

Protecting Cultural and Historic Resources

Much is known about the historic resources in this Reach — in the most intensively surveyed county in the Corridor — and steps have been taken beyond surveys to protect individual buildings and districts, although much work remains to be done. Less is known about cultural resources — which are just as fragile as other county resources in face of the rapid change this Reach is undergoing. Because this Reach lacks the ethnic flair of Corridor communities settled during the Industrial Revolution of the 19th century, cultural differences here are perhaps not as apparent, but they are equally meaningful.

Action Conduct cultural resources surveys, with an early emphasis obtaining oral histories from those still able to recall the end of the canalboat era.

Action Encourage local historic districts or local protection of historic resources through local environmental impact reviews and comprehensive planning.

Enriching the Reach

Tourism

Interpretation is the key to spreading the benefits of the extensive visitation now concentrated in certain parts of the Passage, to the entire Passage and beyond into the rest of the Reach. Better wayfinding; interpretive tours, kiosks, and wayside exhibits; added interpretive sites; and improved access throughout the Passage along the Canal may help to draw tourists away from the most popular attractions. Designation of scenic byways and development of interpretive tours in the Reach may encourage River Road tourists to try different routes “off the beaten path.” Special efforts to promote and interpret recreational resources away from the river — to encourage repeat visitors to “add a new favorite” — may also be helpful. Promotion and business development of tourist services throughout the Reach — craft shops, restaurants and the like — is also needed, within the limits of the rural nature of much of the area.

Action Work with the Bucks County Tourist Commission on a strategy for developing tourism opportunities and promoting heritage and recreational tourism throughout the Reach.

Lands Already Protected by Government Action in the Delaware Canal Reach

- Fry's Run County Park (Northampton)
- Wy-hit-tuk County Park (Northampton)
- Delaware Canal State Park
- Reigelsville Boro Park
- Tincum County Park (Bucks)
- Stover-Myers Mill Park (Bucks)
- Hal Clark Park (Bucks)
- Prah's Island Park (Bucks)
- Tohickon Valley Park (Bucks)
- Ringing Rocks Park (Bucks)
- Ralph Stover State Park
- Solebury Community Association Field
- Cutalossa Park (Solebury)
- Laurel Run Woodland (Solebury)
- Washington's Crossing State Park
- Mackelsfield Park (L.Makefield)

(Source: *Natural and Recreational Resources Evaluation*)

Significant Unprotected Natural Features in the Delaware Canal Reach

- Cooks Creek Watershed
- Durham Mines/Rattlesnake Hill
- “Queen Esther's Drawing Room” Cave
- Lyrn Island
- Nockamixon Cliffs watershed
- Indian Rock Ravine
- Delaware River Palisades
- Tincum Creek watershed
- Tohickon Creek, south of Tohickon Valley County Park
- Delaware River Creek Section/Stockton Formation
- Hendrick Island
- Phillips Mill Area
- Bowman's Hill Area
- Buckwampun Hill Headwaters (wetlands)
- Buckingham Mountain Wetlands

For many of these sites, the Bucks County Conservancy, the Wildlands Conservancy and The Nature Conservancy have recommended various actions, including management plans, linkages with adjacent protected lands for the enlargement of habitat corridors, interpretive programs, study of specific features, protective zoning or acquisition — or both — and other land protection techniques.

(Sources: *Natural and Recreational Resources Evaluation* and the Commission)

Action Work with New Hope to address parking, traffic and canal access difficulties, especially in the context of deciding where a Landing should be sited in this Reach; avoid exacerbating tourism pressures in New Hope until solutions are implemented.

Economic Development

In general, the rural and residential nature of much of this Reach should be respected. Small scale businesses (in addition to ones oriented to tourism) might be encouraged as a means of adaptively reusing a few hard-to-save structures in canal towns and outlying villages. In New Hope, the Union Camp Mill beside the New Hope and Ivyland Railroad excursion line offers an opportunity for expanded office, retail, lodging, parking and other uses adjacent to the town center.

Action Work with New Hope on redevelopment of the Union Camp complex.

Action Assure that local regulations include carefully formulated special exceptions or other procedures to allow the widest possible number and variety of uses of historic structures consistent with the needs of the structures and their context within the community. (For example, a small-scale craft business could be located in an unused bar; in a residential area, parking and use exemptions may be needed to encourage such a use that would preserve the building.)



Mary Means & Associates, Inc.

The rehabilitated New Hope & Ivyland Railroad is one of many tourism-based businesses in the Reach.

**Delaware & Lehigh Canal National Heritage Corridor and State Heritage Park
MANAGEMENT ACTION PLAN**

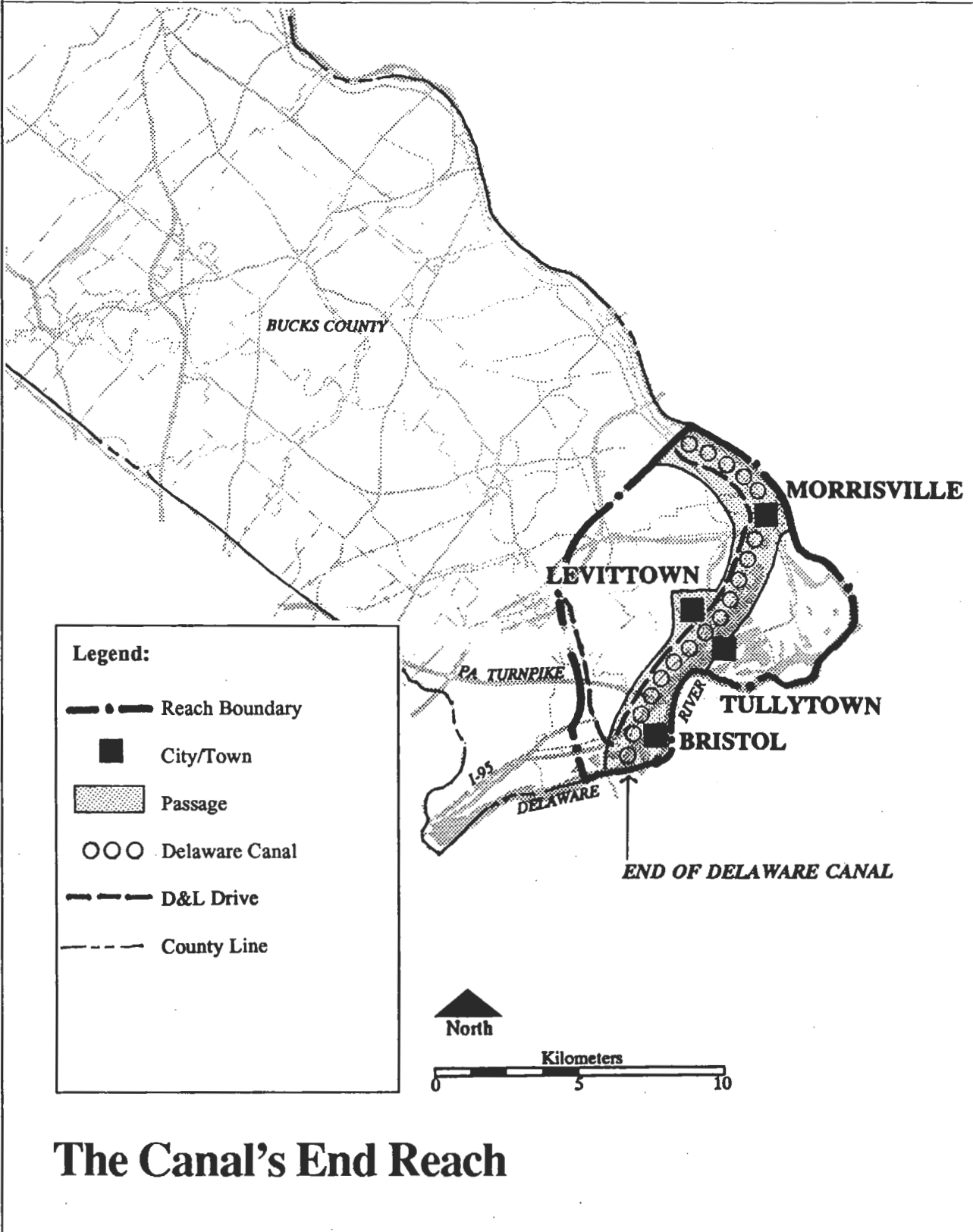
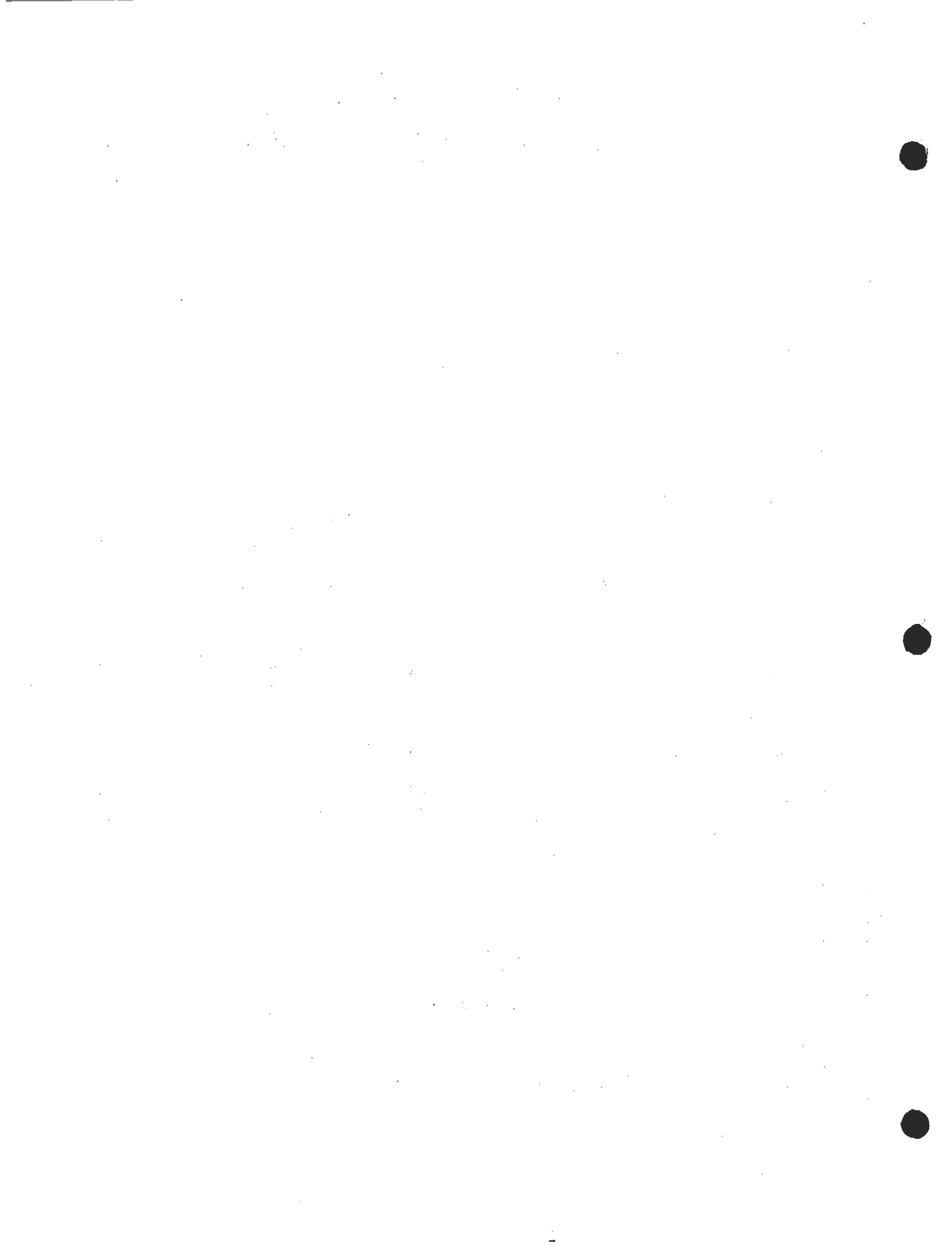


Figure 7.8



The Canal's End Reach

This Reach marks both the historical beginning of the Corridor — its earliest European settlement, and its physical end — the terminus of the Delaware Canal, where coal boats entered the Delaware River, bound for Philadelphia. The land here was long dominated by agriculture, punctuated with the market towns of Morrisville, Bristol and Fallsington. It was wholly reshaped first by the canal, and later by industrial expansion and contraction, the World Wars and the suburban revolution of recent decades.

Opportunities and actions in this Reach focus on enhancing Bristol Borough as an attraction, making it more physically accessible and more understandable as a place where canal and industrial heritage has been a defining force of the landscape, past, present and future. Other opportunities include the enhancement of the canal towpath from Morrisville to Bristol, and utilizing the presence of Historic Fallsington, Pennsbury Manor and Levittown to interpret four centuries of humans and nature: from Quaker settlement to modern times.

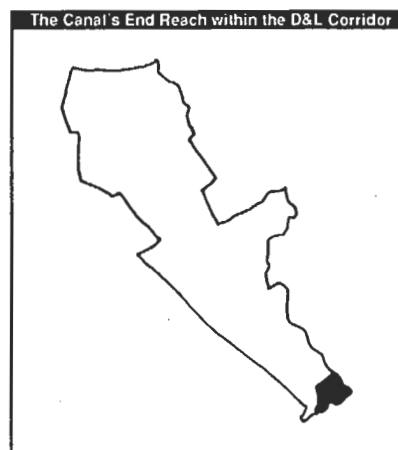
Description

This Reach is bounded by Morrisville on the north, Levittown on the west, Bristol on the south, and the Delaware River on the east, roughly coinciding with Pennsylvania's small segment of the flat Coastal Plain, and also with the area south of U.S. 1.

Morrisville, where the canal departed from its course parallel with the river to make a beeline for Bristol, is the largest town in the Reach. Located at the falls of the Delaware, across from Trenton, Morrisville historically had strong ties across the river as well as downriver to Philadelphia.

Bristol was once a busy river port and industrial town, oriented both to the riverfront and the canalside. Here, cargoes were transferred from canalboats to coastal vessels on the Delaware, bound for Philadelphia and beyond. Coal yards, warehouses and large mills sprang up along the canal, manufacturing carpets, woolens and other textiles. The neighborhoods of modest worker housing today testify to this industrial heyday.

In canal days, this Reach was very much agricultural, except for the "pipeline" of industrial and commercial activities directly on the canal. Since the 1930s, when the canal fell into disuse, the landscape here has changed dramatically. In the years before suburbanization, truck farming and quarrying of sand and gravel were principal occupations, both benefiting from this area's close proximity to Philadelphia yet maintaining the open character of the land. Today, the canal remains in segments, with parts filled in or built over by subsequent development. In an area that not long ago was largely agricultural, suburbanization, highways and industrial development have produced a modern land-



scape. One of the things making this Reach so extraordinary is the contrast between this relatively recent landscape — embodied by housing developments, the tangle of highways and malls and roadside commerce — and the remaining placid, historic landscapes in places like Bristol, the 18th-century Quaker village of Fallsington, and Pennsbury Manor, the state historic site that replicates William Penn's 17th-century riverside estate.

This theme of swift change is explained by understanding the close proximity of this Reach to Philadelphia, Trenton and the entire eastern metropolitan corridor. In this most intensely developed swath of the country, the industrial age brought river transportation, munitions factories, and mills — including the enormous Fairless Works of U.S. Steel. Outside the cities, progress has meant complete transformation of many pastoral lands and pleasant small communities as they are brought in to the orbit of the eastern megalopolis and the convergence of the major rail and road routes of the east coast.

Levittown, the landmark of modern suburban development, is adjacent to the Delaware Canal, but there are few access points and little awareness of the canal as a recreational amenity.



Thanks to land pressure from suburbanization and the highway building and industrial development that fueled it, farms have been replaced by suburban “bedroom” communities, epitomized by Levittown, now a landmark of post-World War II suburban development. The drive into Pennsbury Manor is one of the most arresting in the Corridor, bounded on the south by lakes where gravel once was quarried, and on the north by the severe and geometric hillsides of the Waste Management landfill jutting from the otherwise rigorously flat floodplain.

The Reach is also shaped, like all others, by its physical geography. Unique in Pennsylvania, the Canal's End Reach sits astride the fall line that separates the rolling, hard-rock hills and fertile farmland of the piedmont from the flat, sandy coastal plain. This dividing line accounts for the unique and diverse natural resources that remain in this highly developed landscape, including such places as Silver Lake; Bristol

Marsh, a rare example of an intact tidal wetland; and Delhaas Woods and Five Mile Woods, rare surviving examples of mature Atlantic coastal plain wetland forest.

Close by Pennsbury Manor and its circuitous approach lies the enormous hulk of U.S. Steel's Fairless Works, a steel-making complex built on the river, where water for cooling, wastewater, and shipping was readily available. Now the victim of global economic change, the plant lies virtually dormant. Fairless and Levittown grew up hand in hand, offering jobs and housing to the post-war waves of immigrants to the Corridor and its foothold in the megalopolitan corridor. In an intriguing chapter of Corridor history, some of the new residents migrated here from the declining coal and manufacturing regions of the northern part of the Corridor, adding 20th-century ethnic diversity to a region founded by Quaker settlers in the 17th century.

At the heart of this Reach, the Borough of Bristol has been the subject of much planning, public and private investment, and civic activity: Bristol's downtown retail community has successfully implemented a Main Street program to create an attractive and working center of town extending from the canal to the river. The Grundy Foundation, a private foundation with strong roots in Bristol, has accomplished many projects benefitting the town, including building a low-income apartment building, library and ice-skating rink and renovating the Riverside Theater. A National Park Service plan in the 1980s resulted in the construction of a pleasant walking trail along the right-of-way of a rail spur line, and an improved waterfront. The architectural character of Bristol has been well maintained, from Radcliffe Street, an attractive row of historic homes facing the river, to the more modest neighborhoods spreading out uninterrupted from the center of town. The town also possesses monuments to industrial architecture, most obviously the Grundy Mill, which has been renovated as industrial space by a private developer; also the power house facing the canal and railroad station; and the Leedom Carpet Mill, a very attractive complex of stone buildings. These buildings provide excellent reuse opportunities for future developments benefitting Bristol and the entire Reach.

Challenges, Opportunities and Priorities

Canal's End is especially challenging for the Corridor initiative. This is a landscape of dramatic contrasts between the modern and the old, the natural and the human. It is possible here to experience the physical results of every major historical period of the nation's development, and to visit unique natural sites found nowhere else in Pennsylvania. It may well appeal to travellers seeking "something different." Yet, its variety and contrast make it difficult to understand and travel around this Reach, dominated as it is today by multiple highways that obscure this landscape's early origins and make access and interpretation to the canal and other sites and difficult.

Despite the difficulty in understanding the landscape, there are great opportunities here by virtue of proximity to Philadelphia and nationally

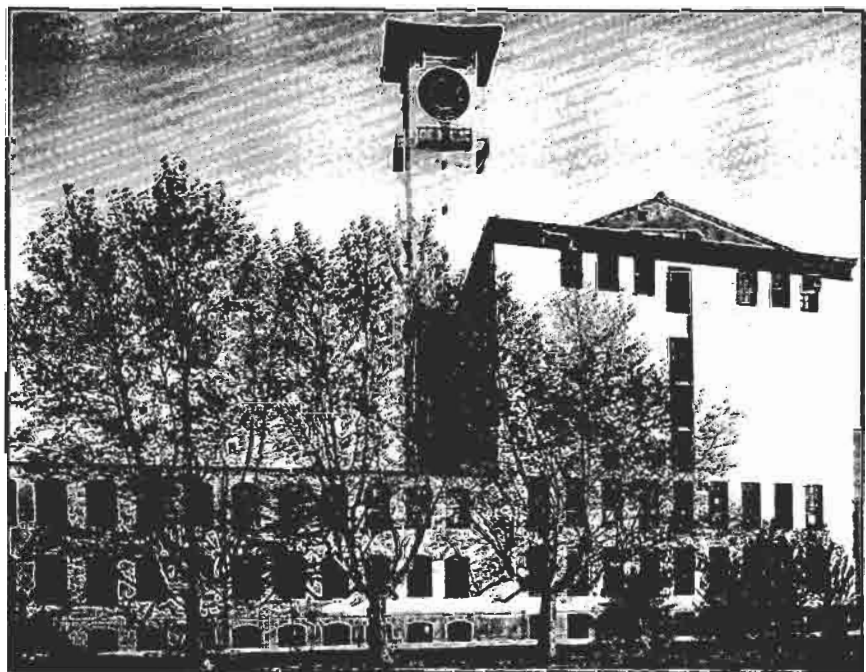
important transportation routes (I-95, the Pennsylvania Turnpike, Amtrak's Northeast Corridor and the Philadelphia airport) and the huge tourism markets these represent. Current problems of areas and interpretive linkages within this Reach can be overcome by:

- first providing a core of solid, varied attractions in the Reach;
- improvements in the circulation and linkages within the Reach and connecting to it; and
- a strong interpretive system that can tackle this Reach's historical complexity and richness.

The physical presence of the canal can be made strong through such measures as reconnecting the missing pieces of towpath, signage, landscaping, interpretation and construction of "ghost" structures. In this way, and it can become a strong organizing factor for experiencing this Reach and for understanding its heritage. This will help residents and visitors look beyond the confusion, find their way more effectively and discover the Reach's heritage amid the tangle of highways, suburban development and industrial areas.

Community pride is considerable in this Reach. And, although it is expressed not so much in the area's physical appearance as by a kind of ferocity that despite all its ills — recently including a severe economic downturn thanks to the steel plant's closing — the people who live here clearly feel that this is a place worth saving and worth visiting. Yet, except for the noteworthy revitalization work at the heart of Bristol, Tullytown, and Historic Fallsington, little of that pride has translated to community or collective action to address the physical sense of place in this Reach.

The Grundy Mill, long a Bristol landmark, has been renovated for use by small industries.



Joseph E.B. Elliott

Moreover, there is not a local umbrella “story-telling” organization that can work with the Commission to convey an understanding of the area’s full heritage. Strong interpreters like Historic Fallsington and Pennsbury Manor have clearly defined agendas that will make it difficult for them to reach beyond their own missions to embrace a larger geographical responsibility. The “gems” — the canal, Bristol, Pennsbury Manor, Delhaas Woods, Historic Fallsington, and Levittown — are thus a scattered set whose sparkle lacks the artistry of a designed setting, separated from their surroundings, seemingly unable to join one another across the tangle of roads and interrupted canal.

The Corridor, with its focus on the canal and the canal story, can provide a larger vision that improves the visitor’s and resident’s understanding of this extraordinary place, enhances the settings of the interesting places to be found here, and enlarges this Reach’s share of the economic benefits of tourism.



Joseph E.B. Elliott

The canal and towpath are frequently broken here by road and railroad crossings that preclude boating and make walking difficult.

The Commission will focus its greatest attention in this Reach on actions that will help create a core of visitor attractions in Bristol and vicinity. Secondary priorities include:

- enhancing the canal and towpath for continuous pedestrian reuse and as a visual presence;
- improving linkages within the area, especially interpretive and directional signage throughout the Reach; and

- roadway enhancements, especially to U.S. 13. Roadway linkages and wayfinding to other parts of the Corridor and regional markets also require improvement in much the same manner, and will be addressed at the same time. Much of this attention will mean not only securing dollars, but also actively coordinating with various governments and agencies able to address linkage problems.

These priorities are reflected in the actions presented in the sections that follow. However, there is an over-riding need in this Reach for one or more appropriate Partners whose mission can encompass the larger vision.

Action Aid the emergence of a community-based heritage development group or partnership that can provide leadership in developing the Lower End's attractions and interpretive system.

NOTE: Discussion of Corridor-wide issues that frame the actions presented in the following sections are to be found in Chapter 4 ("navigating"), Chapter 5 ("understanding") and Chapter 6 ("conserving and enriching"). In addition, a large number of Corridor-wide actions affecting the Canal's End Reach are listed in those chapters. Thus, the actions presented here do not constitute the definitive list for this Reach. Rather, these actions are to be read in combination with the overall Corridor initiative. All are offered as guidance for the Canal's End Reach's civic leaders, public officials, and residents as they review local priorities and initiatives toward supporting the Corridor effort.

■ IDEAS FROM THE CORRIDOR:

A Plan for the Lower End

Since the cessation of navigation in the 1930s, the 13-mile lower end of the Delaware Canal has suffered from neglect and from encroachments by highways, rail lines, industry and suburbia. This is the only section of the Delaware Canal in which pedestrian access and water flow are interrupted.

Now, there is growing interest in the community in rehabilitation of the canal and towpath to allow continuous access, unimpaired water flow, and restoration of deteriorated canal structures. There is not yet agreement, however, about the goals, the approach, and the scale of rehabilitation among the Bureau of State Parks (BSP), which owns and administers the Delaware Canal State Park, Bucks County, the five municipalities (Morrisville, Falls, Tullytown, Bristol Township, and Bristol Borough), the two citizen advocacy groups, and the local foundations who are funding sources.

A comprehensive plan for the lower end can establish an agreed-upon direction and a detailed implementation process for the rehabilitation and interpretation of this 13-mile section of the Delaware Canal. The planning process itself can provide a forum for making decisions about the future of the lower end.

This plan would result in agreements among the interested parties about funding and responsibilities for rehabilitation, access, maintenance and operations, and interpretation of the lower end. Opportunities for connections to adjacent open space, parks, natural areas, and historic sites would be detailed, as well as the steps necessary for implementation of a phased, multi-year implementation plan.

Navigating the Reach

Linkages within the Reach

The primary linkages are the D&L Drive and D&L Trail, but unlike in the other Reaches, both of these are less complete in this Reach. The D&L Trail — the canal towpath — has only limited utility until full pedestrian access and a stronger visual image can be achieved. (See Chapter 4.) The D&L Drive will utilize Bristol Pike, which connects Bristol and Morrisville as well as the canal town of Tullytown, and which is a good driving linkage that avoids the visual disorder of U.S. 13.

Linkages to Other Reaches and Places outside the Corridor

Interstate 95 crosses through this Reach, but the interchanges are convoluted and interpretive sites are not readily accessible. The Pennsylvania Turnpike is also a high-volume linkage to this Reach. A river tour brings boat passengers from Philadelphia to Bristol. When the heavily booked Philadelphia Convention Center opens in 1994, this water link will provide an opportunity for additional waterside interpretation.

Bristol is also uniquely situated on the main Amtrak Northeast Corridor line between Philadelphia and New York, at the least a potentially beneficial site to announce the existence of the Corridor through a sign

visible to rail passengers, and perhaps to be developed as an access point for packaged tours.

Generally, the primary roads require a determined navigator. River Road (Route 32) ceases south of Morrisville, and traffic naturally is siphoned off onto either I-95 at Yardley or U.S. 1 at Morrisville.

Action In the first three years following adoption of this Plan, create a circulation master plan that defines specific actions concerning:

- interpretive and directional signage required;
- the roles of Partners — primarily the Bureau of State Parks, PennDOT and municipalities;
- specific funding sources; and
- timetable for implementation.

Action Create a stronger driving linkage throughout the Reach. Due to the complexity of the urban setting, develop a detailed map of the Canal's End Reach driving route.

Canal and River Protection and Access

The Delaware Canal has suffered more in this Reach than anywhere else. The canal was always more difficult to maintain in the sandy, sieve-like soils of the Atlantic coastal plain below Morrisville, so that without maintenance, it quickly became a muddy, unattractive reminder of a past of which few of the thousands of newcomers to the area were even aware.

Many changes have impinged on the canal in this Reach: culverts instead of bridges for road crossings, burial of the canal instead of draining or rewatering in part of Bristol Borough; paving over the canal for a shopping center's parking lot at the edge of Levittown, a school built over the canal in Bristol, on land leased from the state; and paving the turning basin behind Bristol's Main Street for a parking lot in the 1950s.

Action Reinforce, through towpath trail, signs, landscaping and interpretation, the continuation of the canal from Morrisville to the Bristol turning basin as a visitor experience.

Action In Bristol Borough, mark and commemorate elements of the canal — including its location, shape, and key structures — by such methods as ghost-framing in wood or metal sculpture, landscaping and planting, and partial excavation.

Action Enter into an agreement with the DER/Bureau of State Parks regarding a joint spending strategy to make priority physical improvements to the canal through this Reach.

■ IDEAS FROM THE CORRIDOR:

Recreation in Bristol

The towpath trail and Spurline trail could be reused to create recreational loops throughout Bristol connecting the canal, Bristol Marsh Nature Trail, and the business district. Water-related recreation along the canal could focus on the lagoon behind the Grundy Ice Rink. Paddle boats, canoes and punts could be offered as a recreational attraction.

Understanding the Reach

Potential Interpretive Stories in the Canal's End Reach

Coal, Transport and Industry

- Industries: textiles, later steel, agricultural, ship building, chemicals, quarrying

Working with Nature

- Geography and natural resources: unique biota; fall line, Atlantic coastal plain, agricultural heritage, unique natural sites

Transformation of People and Places

- Philosophical and religious history: Quakers
- 19th century European immigration to Bristol
- 20th century migration within the Corridor
- William Penn
- William Grundy
- Workers
- Settlement: 17th to the 20th century
- Suburban and highway development; the suburban story of Levittown
- Effects of urban growth on the environment

Connecting and Defining a Region

- Delaware Canal:
its southern terminus, shipping

Potential Interpretive Partners in the Canal's End Reach:

- Delaware Canal State Park/Bureau of State Parks
- Friends of the Delaware Canal
- Historic Fallsington, Inc.
- Pennsbury Manor/Pennsylvania Historical and Museum Commission
- Bucks County Historical Society/Mercer Museum
- Silver Lake Nature Center
- Bucks County Parks and Recreation
- Association for the Restoration & Preservation of the Delaware Canal
- The Nature Conservancy
- Bucks County Conservancy
- Bucks County Audubon Society

Significant Unprotected Natural Features in the Canal's End Reach

- Delaware River Islands
- Biles Island and Creek/tidal wetlands
- Five Mile Woods and environs
- Bristol Marsh
- Pennsylvania Turnpike Bridge Area
- Andalusia and Pen Ryn Area
- Tullytown Cove
- Penn Warner Club
- Maple Beach

For many of these sites, the Bucks County Conservancy, the Wildlands Conservancy and The Nature Conservancy have recommended various actions, including management plans, linkages with adjacent protected lands for the enlargement of habitat corridors, interpretive programs, study of specific features, protective zoning or acquisition — or both — and other land protection techniques.

(Source: *Natural and Recreational Resources Evaluation* and the Commission)

Visitor Reception

Bristol is to be the location of the Corridor Landing serving this Reach. Although there are several potential sites for this facility, the leading candidate is the Power House, on the Canal just south of the Grundy Mill. This prominent structure is well-located to be both an effective southern gateway for the Corridor and catalyst for creating tourism development spinoff for Bristol and the Reach. Until the Landing is finally sited and developed, the Commission will work with Bristol's Riverside Theater to create a small exhibit and orientation facility in the lobby there.

Action Establish a temporary Landing at the Riverside Theater in Bristol.

Action Establish a permanent Landing in the Canal's End Reach: study feasibility, perform site selection, determine Partner responsibilities, and design and develop the Landing.

Interpretive Sites and Tours

The complexity of the urbanized landscape of this Reach presents both a richness for interpretation and a challenge to successfully accomplish it. Great care will be needed in providing visitor orientation and in the structuring of interpretive maps, exhibits and tours in such a manner as to simplify the messages.

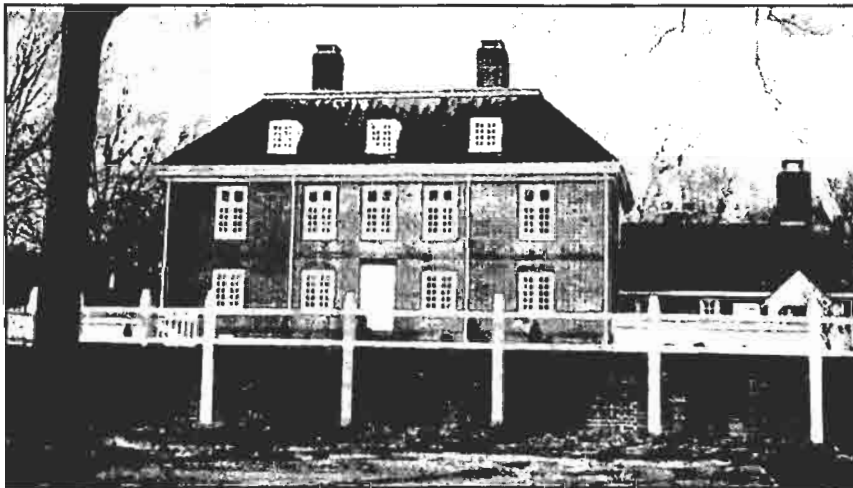
In cooperation with local partners, satellite sites will be developed with Historic Fallsington and at Pennsbury Manor; kiosks will be sited in Bristol (perhaps at the river terminus of the canal and Mill Street), Morrisville and Levittown. One or more wayside exhibits in Historic Fallsington, Morrisville, Bristol, Levittown, and near Pennsbury Manor will be developed to accompany a driving tour focussing on settlement from the 17th century to the 20th century. A pedestrian-oriented wayside exhibit will also be sited at Lock 1 or 2 in Bristol.

Canal's End Reach contains four natural sites especially suited to wayside exhibits or more extended natural resource interpretation: Bristol Marsh, Silver Lake, Delhaas Woods and Five Mile Woods. Bristol Marsh is to undergo restoration through an early implementation grant from the Pennsylvania Department of Community Affairs through the Corridor Commission. Interpretation of natural and cultural themes is also planned as a part of this project.

Action In cooperation with Partners, create interpretive tours of the Reach, with first priority on "settlement from the 17th- to the 20th-century."

Conserving the Reach

Throughout the Canal's End Reach, remnants of natural areas and areas of attractive 18th- and 19th-century buildings are threatened by development, and in some cases, by a lack of appreciation on the part of their owners or the surrounding communities or forces from outside the region. Protecting the resources that are the basis for heritage development and for enhanced quality-of-life is a Corridor-wide issue, though it has special relevance in this Reach. The Delaware Canal itself once suffered from this lack of appreciation — being destroyed in parts and elsewhere falling into disrepair — but now it excites increasing interest. Though making the Canal more accessible remains a daunting task, the hope exists that through its influence and the exciting interpretation possible in this Reach, interest that has started with the Canal will ultimately affect all resources here.



Mary Means & Associates, Inc.

A number of strong partners provide interpretation here which can be interwoven to tell the full story of the Reach. Pictured is the Pennsylvania Historical and Museum Commission's Pennsbury Manor.

Protecting Environmental and Scenic Resources

Natural sites in a heavily built-up landscape are often isolated. This is true of the Canal's End Reach, where natural sites now are very rare, and all the more valuable for their rarity. They are also highly vulnerable, however, as development pressure continues to threaten their long-term future. Moreover, activities on surrounding sites can affect habitat quality in the short term. It is very important that remaining open spaces and threatened/rare natural communities are protected and conserved in this Reach. Attention will be focussed on sites identified as priorities in Corridor inventories (see sidebar) and will also extend to those sites that are not completely "natural," such as the lakes that have formed in former gravel quarries, which attract considerable waterfowl to the area.

The roadside environment in this Reach is a strong negative aspect. This will long remain an intractable problem, so efforts will be modest, lest considerable money be spent with little visible effect.

Action Use natural resources as the basis for an environmental education curriculum in local school districts.

Lands Already Protected in the Canal's End Reach

- Oxford Valley Park
- Queen Anne Park
- Bolton Mansion
- Pennsbury Manor
- Bristol Marsh
- Playwicky Park
- Delhaas Woods
- Falls Township Water Front Park
- Black Ditch Park
- Silver Lake Park and Nature Center
- Core Creek Park
- Delaware Canal and right-of-way
- Andalusia

(Source: *Natural and Recreational Resources Evaluation* and the Commission)

ACCOMPLISHMENTS

The Borough of Bristol has acquired a 1.5 acre parcel which will allow a direct connection from the downtown to the Delaware Canal, and which will provide a quiet recreational facilities adjacent to the town's housing for the elderly. Matching funds were provided by a state RIRA grant, and the Commission is providing development funds through a Pennsylvania State Heritage Park Implementation Grant.

IDEAS FROM THE CORRIDOR:

Growing Old Gracefully

Levittown is 40 years old. These affordable, adaptable houses, built by the thousands on curving tree-lined streets, were extremely influential in the design and development of suburbs throughout the country. There is growing interest in interpreting the story of Levittown and the lives of the people who came here. As a start, the original model of the development, as well as original maps and promotional materials could be located and displayed. Oral histories from original homeowners could be gathered, as well as photos, home movies and other mementos. An ultimate goal might be a travelling or permanent exhibition by a local interpretive partner.

Action Work with Bucks County, municipalities, and Bucks County Conservancy and others to assure that priority natural sites are protected through zoning, local and state permitting, and storm water management planning

Action Advocate use of ISTEA funds for very selective highway beautification and landscaping projects, especially as they emerge from urban design/gateway strategy presented in the action below under "Economic Development."

Protecting Cultural and Historic Resources

Distinctive cultural communities have long been endangered by the quick pace of change in this Reach. Selected communities should be documented, including ethnic communities of historic and recent vintage, including descendants of freed slaves, and work-based communities centered on the canal, steelmaking and agriculture. This documentation should form the basis for conservation and support of still viable communities, as well as the incorporation of cultural resources into the interpretive system.

The preservation tools and policies existing in Bucks County are among the best in the state. Local and county-wide organizations act as effective advocates. A wider range of historic resource require the recognition and protection provided by local and national designations.

Action Interpret ethnic communities in the Canal's End Reach. Special focus needs to be given to documenting the first-generation settlers of Levittown.

Action In cooperation with Preservation Pennsylvania, the National Trust for Historic Preservation, the Pennsylvania Historical and Museum Commission and other appropriate Partners, sponsor a conference to be held in the Canal's End Reach on the preservation of 20th century resources.

Action Encourage the designation of historic districts in Morrisville, Levittown and areas of historic worker housing in Bristol.

Enriching the Reach

Tourism

This area already benefits from high visitation, but few travellers are aware of the richness of the area's heritage. Sesame Place, the theme park aimed at families with small children, is a popular destination just off U.S. 1 and U.S. 13 outside Morrisville. Several regional shopping malls provide a strong commercial draw. Tantalizingly close by, to the north, is the romantic River Road (Route 32), drawing thousands of weekend motorists annually. Philadelphia annually draws millions to its heritage and other attractions and is just a short distance away. This strength of the Philadelphia tourism market will only grow in coming years, with the recent opening of the aquarium in Camden, N.J., and the future Philadelphia Convention Center. And perhaps most signifi-

cantly, Interstate 95, Interstate 276 (the Pennsylvania Turnpike) and Amtrak's most travelled line also serve this Reach. Thus, there is considerable potential to attract travellers already passing through or visiting nearby places.

Making Bristol an attractive gateway to the Corridor is a priority if this Reach is to capitalize on these opportunities.

Action Develop a marketing plan designed to capture spinoff visitors from Sesame Place and Philadelphia heritage attractions and conventions.

Action Develop and conduct a familiarization tour of the Reach's diverse heritage attractions for feature writers from Philadelphia and New Jersey newspapers.

Action Install a sign along the Amtrak station in Bristol visible to train riders announcing they are in the National Heritage Corridor; in the longer term, explore cooperative programs and tours with Amtrak.

Economic Development

Clearly, there is potential to increase tourism here as a major component of economic development. This Reach has seen difficult economic times due to the loss of the U.S. Steel Fairless Works. There is a need to upgrade the area's image in the minds of corporate and government decisionmakers through concentrated Corridor-related action and positive results.

There is significant potential for redevelopment and reuse of historic buildings. The leading candidate is mixed-use development of the Bristol's Leedom Carpet Mills. Reuse of this complex certainly is consistent with overall Corridor goals, and the bottom line will work if the right package of tenants and financing can be assembled.

Action In partnership with the Grundy Foundation, the American Institute of Architects, Bucks County, municipalities, chamber of commerce and major corporate leaders, sponsor a R/UDAT — Regional/Urban Design Action Team — to produce a practical strategy of short-term (three to five year) improvements to enhance Bristol as a gateway to the Corridor. In the planning of this action, enlist the participation of all potential implementation Partners — PennDOT, Conrail, etc.— from the outset.

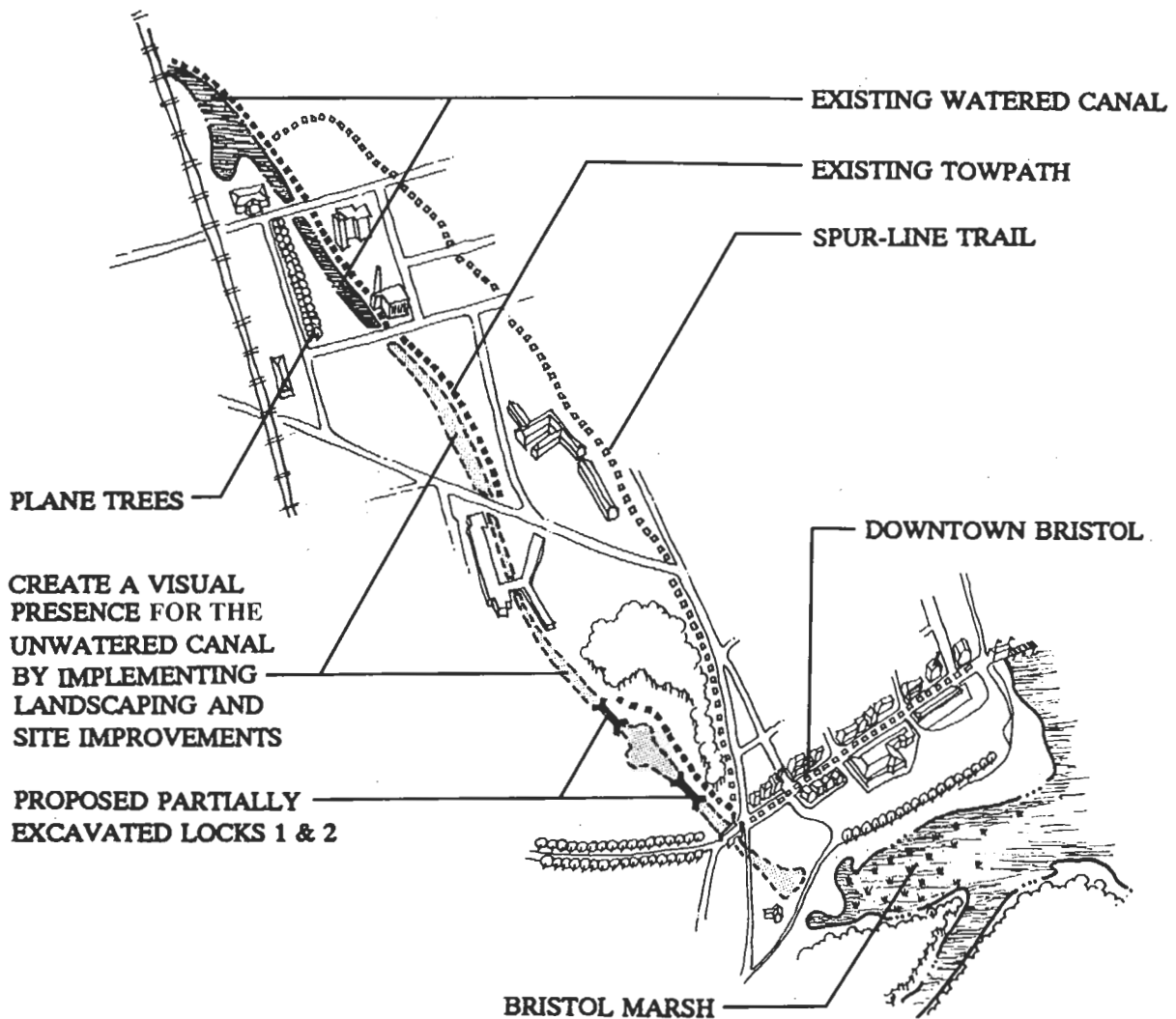
Action Support the development of an appropriate mixed-use project in the Leedom Carpet Mill.

IDEAS FROM THE CORRIDOR:

Canal Parks in Falls Township

In places throughout this Reach, Amtrak's main line was constructed close to the Delaware Canal, leaving long, landlocked strips that are difficult to use for most purposes. However, these strips are just right as greenways, and in Falls Township, proposals have been made to reuse them for needed access and parking for the canal, as a site for outdoor education for local schools, and as a green buffer that will enhance the experience of people enjoying the canal and towpath.

IDEAS FROM THE CORRIDOR: Re-establishing the Canal's Path



One of the top priorities of the Corridor is to re-establish and visually improve the Delaware Canal's pathway from Morrisville to Bristol. Encroachments and road crossings have destroyed parts of the canal, disrupting visual continuity. In addition to added towpath trail development in the entire Reach, one way to make the canal read as a continuous trail from Bristol north is through an enhanced landscaping program. In this concept, vegetative landscape would be used as a binding factor, visually holding together the canal's immediate path as well as sites beyond:

- Interpretation of missing segments of the canal might include partial excavations of locks,

plantings of blue wildflowers in the original waterway, and other landscape improvements.

- Buffer standards developed for canalside or neighboring sites should list preferred vegetative plant material or desirable and undesirable views from the canal that should be screened or maintained.

- The allee of London Plane Trees near Grundy Mill is distinctive and could be repeated throughout the Borough, along the canal, and at gateways to Bristol to visually relate separated, canalside sites.

Building the Corridor: Partnerships and Actions for Implementation

Introduction: The Vital Corridor Partnership

The Commission cannot achieve the Corridor Vision alone. It must work to persuade literally hundreds of entities in this Corridor to incorporate into their agendas the ideas and the work set forth in this Plan. It must, in short, convert these entities into "Corridor Partners." Partners are those local, state, and federal agencies, nonprofit organizations or other private groups who are willing to join forces with each other and with the Commission, committing their own resources and programs in a shared effort to achieve the Vision. This chapter on implementation lays out the roles the Commission envisions for its Partners and itself; and summarizes the actions and programs discussed in the chapters on "navigating," "understanding" and "conserving and enriching" the Corridor (Chapters 4, 5 and 6).

The support of Partners is vital to achieving the Corridor Vision. A firm foundation exists for building partnerships throughout the Corridor, to address the wide variety of ideas, projects and actions captured in this Plan. Overall, the Commission will build on three significant, existing patterns in the Corridor that will enable the Corridor Vision to emerge:

- *participation of a wide variety of Partners*, at the local, state and federal levels, all of which will enable leveraging of its resources and moving forward on many fronts;
- *nonprofit and private leadership*, which enlist nongovernmental means of attracting leaders and funding, channelling the efforts of Corridor volunteers and enrolling the widest possible resident constituency; and

- *state and federal commitment*, which recognize the Corridor's value to the state and the nation as a whole, and which will augment local resources through additional sources outside the Corridor.

The Commission's every action will be taken with an eye toward reinforcing these patterns, in order to enlist, harness and empower Partners as leaders and collaborators. All actions in this Plan have been developed on the basis of this policy.

Moreover, the Commission expects individual Partners formally to accept this Plan if they are to experience the benefits of Commission programs and funding, a policy termed "cross-acceptance." The following sections expand on the importance of each kind of Partner needed in the Corridor initiative, and explains what "acceptance" means on the part of these Partners.

Nonprofit Organizational Leadership and the Private Sector

ACCOMPLISHMENTS

The Commission and Muhlenberg College jointly funded Professor Joseph Elliott's photographic survey of the historic industrial resources of the Corridor. Some of the photographs have been used to illustrate this Plan. More importantly, they are the subject of an exhibit that will travel throughout the Corridor.

Private efforts to support the Corridor Vision have already been highly effective. Because of their motivated commitment, greater flexibility, in-depth knowledge of local issues and ability to generate volunteer services, private efforts can significantly complement or reinforce public action. This is equally true of all private efforts, organized in a variety of ways: informal civic groups, foundations, private corporations, nonprofit organizations and quasi-public agencies. Also involved is the academic sector — public and private colleges and universities or individual departments that can both support and take advantage of Corridor programs.

The Commission will devote significant effort to reinforcing the current pattern of a wide variety of groups organized around particular sites, issues or regions, and enlarging corporate and foundation support for the Corridor.

In general, the Commission's support for such Partners will take the form of information-sharing, technical assistance, a modest level of grant-making and contracting for specific services in the pursuit of Corridor actions. Experience in the Corridor with such groups has been highly positive. For example, were it not for the hard work over the years of the Friends of the Delaware Canal, the Lehigh Canal Recreation Commission and others, the Commission could not expect completion of the D&L Trail to take place in just five years. The following points describe the wide variety of these Partners and their potential support of the Corridor:

- Existing interpretive organizations — historical, cultural, or environmental — are asked to aid in the formation and enhancement of the Corridor's interpretive system as described in Chapter 5, by joining the Interpretive Compact, described below.

ACCOMPLISHMENTS

With matching funds from the Ashley Breaker Preservation Society, the Commission funded the Historic American Engineering Record's documentation of the Huber Breaker in Ashley, an important community symbol of anthracite mining and the way of life of miners and their families.

- Community development corporations and tourism promotion agencies (TPAs) are asked to undertake or help to implement actions for economic and tourism development as discussed in Chapter 6.
- Organizations seeking to protect various kinds of Corridor resources and community groups are asked to help implement ideas and actions to be found in Chapters 4, 5 and 6 and to join the Stewardship Compact, described below. Recreational clubs might, for example, help to build or maintain segments of the D&L Trail, conservancies might seek donations of land and easements along the Trail, and civic clubs or fraternal organizations might help erect way-finding signs and maintain parking facilities for Landings.
- Higher education institutions are asked to contribute their time and talents to research, and to design student programs that contribute to the Corridor.

The Commission recognizes four special needs for increased nonprofit presence in the Corridor, and asks for support from existing organizations in supplying information and assistance to interested individuals, private nonprofit organizations and government agencies that are in a position to address these needs:

- Establishment or extension of a private nonprofit foundation — the Delaware & Lehigh Foundation — to cover the entire Corridor;
- Greater conservancy action in Luzerne and Carbon counties to protect key natural, scenic, recreational, historic and cultural resources in the Corridor;
- Greater historic preservation and cultural conservation action on the part of existing and new organizations devoted to individual communities; and
- More Main Street programs in all communities with downtown retail functions, large and small.

Foundations and businesses can also support implementation, by adopting particular projects and by providing leadership, volunteers and funding to projects spearheaded by others. They are often especially interested in their own communities, and so like local government, must understand this Plan as a first step in searching for specific ways to direct their own activities and resources to support the Corridor. The Lehigh River Foundation, for example, is a nonprofit organization supported by the personal participation of business leaders and funds raised from their own and other corporations.

Acceptance For all of these Partners, acceptance of this Plan comes through their adoption of the goals of the Corridor as part of their missions, and their active participation in implementation. In addition, it is hoped that many will join the Stewardship Compact, the Interpretive Compact or both.

ACCOMPLISHMENTS

The Lehigh River Foundation, Corridor businesses and individuals funded the creation of a film "We Will Stand" about the Corridor and its resources, which is now used to introduce the Corridor initiative to the region's residents and leaders and to generate their interest and contributions.

ACCOMPLISHMENTS

Leadership Lehigh Valley (a joint venture of the Allentown-Lehigh County, Two Rivers Area and Bethlehem Area Chambers of Commerce) is a program to develop community leadership qualities in young adults. For their class project, the 1990 program participants chose to document the historic industrial resources of the Lehigh Valley and the development of the Lehigh Canal. The class of 1991 prepared a feasibility study on establishing a Corridor Ranger Corps to provide interpretive and management services to local museums and parks.

ACCOMPLISHMENTS

In order to introduce the Corridor to residents and visitors, the Commission worked with the Bucks County Tourist Commission, the Lehigh Valley Convention & Visitors Bureau and the Pocono Mountains Vacation Bureau to produce a colorful visitors' brochure, as part of the National Park System series of park brochures.

ACCOMPLISHMENTS

Carbon County, the townships of East Penn, Franklin, Mahoning, the boroughs of Lehighton, Parryville and Weissport — which constitute the Lehigh Canal Recreation Commission, and the Borough of Jim Thorpe are working together on canal-bed clearing, and dredging and towpath restoration along seven miles of the Lehigh Canal. Matching funds have come from the Commission's TRAIL program, the Horsehead Foundation, and the Pennsylvania Department of Labor and Industry.

ACCOMPLISHMENTS

The City of Bethlehem has begun a stabilization and interpretive use program in preparation for the restoration of the old ice house, an original canal-related structure on Sand Island, using the Commission's Pennsylvania Heritage Parks Program. Early Implementation funding and craftsmen-in-training from the Private Industry Council.

Local Government Leadership

An area requiring special focus in the development of Partners is local government, both county and municipal. The five Corridor counties will be powerful Partners, because a number of their responsibilities are important to the Corridor, including county parks systems and a wide variety of technical assistance and collaboration with municipalities on land management, which can affect key Corridor resources. They can also receive assistance and funding from state and federal agencies for a wide variety of programs, and act as conduits and advisers to municipalities for such support.

Municipalities have an opportunity through the Corridor to reach beyond their borders to achieve greater harmony in providing services and amenities to their residents and in attracting visitors to contribute to their economies. They are directly responsible for most land management activities, and are responsible for local roads and parks. Especially important to the Corridor is their in-depth local knowledge and awareness of residents' needs, which will be expressed in the years ahead as the Corridor is shaped through the Stewardship Compact described below.

In general, the Commission's support for local government Partners will take the form of information-sharing, technical assistance, a modest level of grant-making, contracting for specific services in the pursuit of Corridor actions and collaboration in policy requiring regional action.

The Commission encourages each municipality to set up a committee to work with the Commission to implement this Plan. These committees should include key players: planning commission members, elected officials, knowledgeable residents, and representatives of local conservancies and the chamber of commerce. These committees should provide the added energy required for municipalities to undertake tasks outlined in Figure 8.1.

Acceptance For counties and municipalities, acceptance of this Plan first comes through adopting it by resolution, and then, on a continuing basis, actively participating in implementing its ideas. In addition, it is hoped that all of the counties and Passage and Reach municipalities will eventually join the Stewardship Compact.

State Leadership

State Heritage Parks are places with significant natural, recreational, cultural and historical resources, and which are dedicated to improving their economies and the lives of their residents through investment in and interpretation of their heritage. This new state program, led by the Department of Community Affairs and the State Heritage Parks Interagency Task Force, is developing a state-wide system of these parks (see inside front cover). The program targets funding and other agency support to special regions and landscapes around the state, and

has been an equal Partner with the federal government in developing this Plan. In addition to being a management action plan for the Delaware & Lehigh Canal National Heritage Corridor under federal legislation, this Plan constitutes the formal proposal for designation of the Corridor as a State Heritage Park. The promise of this young program is considerable, and if the Corridor is designated as a State Heritage Park, the Commission will work both to support the State Heritage Parks Program and to take advantage of its many benefits.

With the Corridor designated, the State Heritage Parks Interagency Task Force will play a continuing role in working with the Commission and local Partners toward fulfilling the broad goals of the State Heritage Parks Program. The Interagency Task Force will provide financial and other assistance to undertake implementation projects under this plan.

In addition, individual state agencies can contribute greatly to the Corridor effort, in terms of funding, policies and resource management decisions to reinforce the Corridor. Appropriate agencies can provide leadership and technical assistance to both the Stewardship and the Interpretive Compacts. Specific tasks for state agencies are listed in Figure 8.1.

In addition to state agency action, the Commission requests that the Corridor's legislators form a D&L Caucus in order to assure the continued interest and support on the part of state leaders. The Commission will arrange for periodic briefings for the Caucus and other state officials.

Acceptance For the Commonwealth of Pennsylvania, acceptance of this Plan will be indicated through designation of the Corridor as a State Heritage Park, as well as the recommendation by the Governor to the Secretary of the Interior that this Plan is acceptable and feasible.

The Federal Partnership

The federal status of the National Heritage Corridor and the federal Commission created to manage it means that a special aspect of Corridor partnerships is the relationship of the Corridor and the Commission to Congress, to the Department of the Interior and to the National Park Service. While other federal agencies have a role to play — the Environmental Protection Agency, the Department of Transportation, the Department of Commerce, among others — the National Park Service is key in terms both of provision of direct services and technical assistance. In its turn, the Commission helps the NPS to fulfill its vision of conserving the nation's finest natural and cultural resources.

The Commission will seek Congressional authorization for a permanent National Park Service presence to interpret the Passage's nationally significant resources, and to provide technical assistance and training to Partner interpreters in the Reaches on a reimbursable basis. The continued active participation of the National Park Service as a mem-

ACCOMPLISHMENTS

As part of its responsibility to review and guide federally funded projects, the Commission has been working with PennDOT on the proposed Route 33 crossing of the Lehigh River and Canal to ensure a bridge design that complements the historic resource and causes the least impact on the river and canal themselves.

ACCOMPLISHMENTS

The Commission funded the Historic American Engineering Record's documentation of Bethlehem Steel's historic BethForge — the first and sole remaining super heavy forging plant in the nation.

Implementation and Management Responsibilities of Partners

MUNICIPALITIES

- Adopt the M.A.P and its concepts through resolution.
 - Work with the Commission to understand the municipality's role in the Corridor and to identify specific actions to be undertaken.
 - Designate a primary contact person for communications on implementation.
 - Serve as a Partner in the Stewardship Compact.
 - Provide advice to other municipalities on appropriate aspects of implementation.
 - Amend comprehensive plans, recreation plans, subdivision ordinances, Act 537 water-quality plans, and zoning to reflect Corridor goals and guidelines.
- (Note: these actions range from a minimum to a maximum level of participation, varying through time and according to the level of benefits to be returned to the municipality.)

SCHOOL DISTRICTS

- Emphasize Corridor interpretive themes and resources as opportunities arise in current curricula.
- Develop or participate in developing a special Corridor educational curriculum for all grade levels.
- Visit Corridor sites.

THE FIVE COUNTIES

Luzerne
Carbon
Lehigh
Northampton
Bucks

- Adopt the M.A.P and its concepts through resolution.
- Work with the Commission to understand the county's role in the Corridor and to identify the specifics which apply to each county.
- Designate a primary contact person for communications on implementation.
- Serve as Partner in the Stewardship Compact.
- Include county parks in the Corridor Interpretive Plan; participate in the Interpretive Compact.
- Provide advice to other counties or municipalities on appropriate aspects of implementation.
- Amend comprehensive plans, recreation plans, Act 167 storm water management plans, and other county plans to reflect Corridor goals and guidelines.
- Continue or initiate county historic resources surveys targeted to the Passage and Reaches.
- Target county funds for acquisition and/or development of key sites in the Passage.
- Enable county planning commissions to provide technical assistance in planning to all municipalities.
- Provide matching funds for mutual county/Corridor projects.
- Contribute to the Stewardship Compact through in-kind services and/or funding.

PRIVATE-SECTOR AND NONPROFIT ORGANIZATIONS

- All: adopt Corridor goals as a part of their missions.
- Existing interpretive organizations (historical, cultural, or environmental): serve as Partners in the Interpretive Compact; aid in the formation of the Corridor-wide interpretive system.
- Community development corporations, tourism promotion agencies (TPAs): market economic development and tourism opportunities in the Corridor; support tourism business development and Main Street programs; participate in the Commission's Committee on Tourism and Economic Development.
- Organizations oriented to the protection of Corridor resources and recreation: serve as Partners in the Stewardship Compact; help to promote more conservancy and historic preservation action.
- Civic, community groups: sponsor educational events and programs; sponsor local and Corridor-wide festivities; help to maintain access and interpretive facilities; erect Commission-sanctioned way-finding and interpretive signs; support Main Street programs; become involved in cultural conservation programs.
- Foundations and businesses: "adopt" interpretive facilities (museums, historic or natural sites, Landings, kiosks, wayside exhibits); join or provide funds to nonprofit organizations; become sponsors of civic activities; provide volunteer management advice to nonprofit organizations and civic groups.

PENNSYLVANIA DEPARTMENT OF COMMUNITY AFFAIRS (DCA)

- Designate the Passage and Reaches as a State Heritage Park.
- Provide implementation funds through the State Heritage Parks Program.
- Target RIRA, Land and Water Conservation Fund, Main Street, enterprise zone, housing and other programs to Corridor communities.
- Provide technical assistance to local jurisdictions to help them to identify local roles in implementing Corridor goals and for land use planning.
- Provide training to local jurisdictions in conservation of key Corridor resources.
- Provide leadership and coordination in the development of the Corridor.
- Serve as Partner in Stewardship Compact.

PENNSYLVANIA DEPARTMENT OF ENVIRONMENTAL RESOURCES, BUREAU OF STATE PARKS (DER/BSF)

- Provide funds and planning services and oversee construction of a joint State Parks visitor center/Corridor Landing for Lehigh Gorge State Park at White Haven; fund and staff operations at this site.
- Work with the Commission and the Pennsylvania Historical and Museum Commission to establish a Corridor Landing in the Delaware Canal Reach.
- Continue to implement improvements to both Delaware Canal State Park and Lehigh Gorge State Park.
- Serve as a Partner in the Stewardship Compact for mutual management of the Passage.
- Serve as a Partner in the Interpretive Compact.
- Participate in a special Partners coalition to create an open space and recreation master plan for lands in Luzerne and Carbon counties, addressing improved access, acquisition needs, staffing, collaboration on maintenance needs, and visitor services and promotion.

Figure 8.1

Implementation and Management Responsibilities of Partners, *cont.*

PENNSYLVANIA HISTORICAL AND MUSEUM COMMISSION (PHMC)

- Work with the Commission to establish a Corridor Landing at Eckley Miners' Village
- Provide increased technical assistance for National Register of Historic Places and local historic district designation programs in the Corridor.
- Provide technical assistance to Corridor interpretive and educational institutions.
- Continue to target existing museum and preservation grants to Corridor organizations and municipalities.
- Broaden the interpretation of state-owned historic sites in the Corridor to include related Corridor themes.
- Provide matching funds and technical assistance in the development of the National Canal Museum.
- Work with Commission to establish a Corridor Landing at Eckley Miners' Village.
- Serve as Partner in Interpretive Compact.
- Work with the Commission and the BSP to establish a Corridor Landing in the Delaware Canal Reach.

PENNSYLVANIA HERITAGE AFFAIRS COMMISSION (PHAC)

- Provide technical assistance in development of interpretive programs at Corridor Landings and other interpretive facilities.
- Target existing cultural conservation grants to Corridor organizations and municipalities.
- Provide technical assistance to municipalities and local organizations for documentation and interpretation.
- Work with the Commission on the development and implementation of documentation and interpretation programs.
- Serve as Partner on Interpretive Compact.

PENNSYLVANIA DEPT. OF COMMERCE/ECONOMIC DEVELOPMENT PARTNERSHIP (Commerce/EDP)

- Promote the State Heritage Parks system.
- Feature the Corridor in state tourism promotion efforts.
- Target existing tourism grants to cooperative projects of Corridor tourism promotion agencies.
- Target existing economic development grants to Corridor agencies for projects meeting Corridor goals.

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION (PennDOT)

- Adopt a scenic roads/byways program with a component designed for use in state heritage parks.
- Target Intermodal Surface Transportation Efficiency Act (ISTEA) programs and funds to support Corridor actions.
- Provide funds for Corridor signage program; endorse and sponsor its implementation.
- Show the Corridor on state maps as a "greenline park."
- Work with the Commission to design new and remediate old roads and bridge crossings so as to minimize detrimental scenic, environmental, and historic impacts; provide mitigation where impacts cannot be avoided; maximize recreational improvements.

PENNSYLVANIA DEPT OF EDUCATION (PDE)

- Provide technical assistance and funding to develop Corridor curricula for primary and secondary schools.
- Support use of Corridor sites for field trips.

PENNSYLVANIA DEPT OF LABOR AND INDUSTRY (L&I)

- Continue the Pennsylvania Youth Corps and training grants within the Corridor.
- Target economic development training programs to rehabilitate historic buildings.
- Continue support of Pennsylvania Conservation Corps in the Corridor.

NATIONAL PARK SERVICE (NPS)

- Coordinate interpretive services provided by Partners in the Passage; give technical assistance and training to Partner interpreters in the Passage as part of the Interpretive Compact.
- Develop the common interpretive message of the Corridor through an interpretive plan.
- Establish interpretive programs and provide interpretive services within the Passage.
- Give museum and interpretive planning services for development of the National Canal Museum.
- Give architectural programming services and interpretive planning services to the Commission and Partners planning the Landings.
- Cooperate with National Canal Museum Partners to operate interpretive programs.
- Provide technical assistance and training to Partner interpreters in the Reaches on a reimbursable basis.
- Continue to provide technical assistance for conservation, preservation and trail initiatives of the Commission and its Partners.

D&L COMMISSION

- Work with Partners to undertake all actions in this Plan.
- Continue public involvement and other activities to communicate the Corridor Vision and share information about the Corridor and Partner programs.
- Convene Partners to help focus their collective programs, financial resources, and public outreach in the shaping of the Corridor.
- Fund specific, highly visible projects, especially those related to interpretive initiatives.
- Provide matching grants and technical assistance to its Partners.
- Encourage widespread collaboration and communication among its Partners, with or without its direct participation in their activities.
- Support the development of networks among Partners.

Figure 8.1 *cont.*

ber of the Commission is critical to the success of the federal partnership. Tasks for the National Park Service are listed in Figure 8.1.

In addition, the National Park Service can provide technical and financial assistance from existing programs and authorities to accomplish key conservation actions throughout the Corridor. The Commission will request technical assistance to recognize the Corridor's many resources through the National Register of Historic Places and the National Recreation and Historic Trails programs; document critical resources through the HABS/HAER program; plan for the development of nationally significant resources, for interpretive programs and venues, and for river conservation and trail building; and determine the eligibility of the region's resources for inclusion in the federal Wild and Scenic River System and the National Natural Landmark and National Historic Landmark programs.

Acceptance For the primary federal agencies, acceptance comes through the Secretary of the Interior's formal approval of the Plan.

The Role of the Commission

ACCOMPLISHMENTS

With a grant from the National Endowment for the Arts, and matching funds from the State Heritage Parks program and the Friends of the Delaware Canal, the Commission and Hugh Moore Historical Park and Museums are developing a graphic identity for the Corridor to be used on signs, brochures and exhibits.

The Commission's principal function is to communicate the Corridor Vision and spur action on the part of all of its Partners to make that Vision become reality. Depending on what any given entity or issue requires, the Commission will function as leader, convener, coordinator, liaison, advocate, interpreter, educator and provider of technical support and funding. In addition, the Commission as a whole and individual Commissioners will be leaders in federal, state and regional fund-raising campaigns.

The Commission will convene and coordinate Partners to help focus their collective programs, financial resources and public outreach in the shaping of the Corridor. The Commission may fund specific, highly visible projects, especially those related to interpretive initiatives, and provide matching grants and technical assistance to its Partners. The Commission will also encourage widespread collaboration and communication among its Partners, with or without its direct participation in their activities. The Commission will provide such encouragement by sharing information, supporting the development of networks among Partners with similar interests — foremost, through the Stewardship and Interpretive Compacts — and giving high priority to joint-venture projects.

Commission Representation and Continuity

In the process of preparing this Plan and looking ahead to implementation, the Commission has considered several distinct issues concerning the longevity, membership and nomination process of the Commission. These issues are discussed below, together with an outline of the proposed changes.

Longevity and Continuity

The Commission is a federal entity initially established for a span of five years, from 1988 to 1993, with a provision for a five-year extension to 1998. Because of the basic need for coordination in implementing the Corridor, and because relationships with Partners from the beginning must be perceived as long-term, the Commission's status should be extended for at least 15 years, to 2008, with provision for review and continuation as appropriate.

The current means of filling Commission vacancies should be adjusted to build a greater local and state stake in the Commission. Moreover, seats on the Commission currently fall vacant in the same year; the Commission needs rotating vacancies to promote stability and institutional memory.

Regional Representation

A relatively small number of Commission members must serve a very large region with many Partners. It is important that representation be both expanded and spread equitably along the length of the Corridor.

Currently, eight Commissioners are named to represent "local governments," four from the Lehigh Navigation Canal region and four from the Delaware Canal region. Another eight are "individuals from the general public" with "knowledge and experience in appropriate fields of interest relating to the preservation, use and interpretation of the Corridor," again with a four-and-four split between the Lehigh and Delaware. This split fails to recognize the way the Corridor divides more naturally into three northern, middle, and southern regions, each with a distinctive set of landscapes, resources, Partners and issues.

Changes to the Commission

The Commission recommends that Congress amend Public Law 100-692 to modify the Commission's temporary status, representation and nomination process in the following manner (see Figure 8.2):

- Extend the life of the Commission until 2008, with provision for additional extension if justified.
- Increase membership on the Commission from the current 21 to 31 seats.
- Extend nominating power to a wider spectrum of Corridor powers.

Proposed Commission Representation and Continuity

Length of Terms in 1st Year of New Appointments

Representation	#	Nominated by	Year 1	Year 2	Year 3
The National Park Service: The Director <i>ex officio</i> , or his designee	1	The Secretary of the Interior	NA*		
The Regional Director of the National Park Service <i>ex officio</i> , or his designee	1	The Secretary of the Interior	NA*		
The four state agencies (DCA, PHMC, DER, Pa. Commerce): the directors <i>ex officio</i> , or their designees	4	The Governor	NA*		
The State Legislature: two senators	2	Senate leadership	NA**		
The State Legislature: two representatives	2	House leadership	NA**		
The Five Counties: one representative of each county	5	The commission- ers or executive of each county	1	2	2
Local Governments: one representative each of a borough, a township, a city and one from any size municipality	4†	The Governor	1	1	2
The northern region (4): four citizens, including three offering substantial knowledge of key Corridor concerns	4†	D&L Commission	1	2	1
The middle region (4): four citizens, including three offering substantial knowledge of key Corridor concerns	4†	D&L Commission	2	1	1
The southern region (4): four citizens, including three offering substantial knowledge of key Corridor concerns	4†	D&L Commission	1	1	2
Total Number of Seats	31				

* *ex officio*

** Terms determined by legislative session. Members will be reappointed at beginning of each new session.

† These members may serve a maximum of six years (two terms), plus any mid-term or rotational start-up service.

Figure 8.2

Representation

Approximately one-third of Commission seats (10) are to be filled with federal- and state-level representatives:

- two federal seats, *ex officio* — the Director of the National Park Service or designee; and the Regional Director of the National Park Service or designee;
- four state agency seats, *ex officio* — Secretary of Commerce/Economic Development Partnership, Secretary of Community Affairs, Secretary of Environmental Resources, and Executive Director of the Pennsylvania Historical and Museum Commission; and
- four state legislature seats — two state senators nominated by the Senate President Pro Tem and Minority Leader of the Senate; and two state representatives nominated by the Speaker and Minority Leader of the House. Legislative districts of the nominees will be within the Corridor.

Approximately one-third of Commission seats (9) are to be filled with representatives of local government:

- five seats are to be filled with citizen or official representatives of each of the five counties comprising the Corridor (one per county), and nominated by the respective county commissioners or executive; and
- four local government officials or their representatives nominated by the Governor, chosen from communities without the Corridor with a mind toward balanced geographic representation; one is to be a borough official, one a township official, one a city official and one from any size community.

Approximately one-third of Commission seats (12) are to be filled with citizen members residing in the Corridor and nominated by the Commission, four from each of the three regions of the Corridor. At least nine of these members will offer substantial knowledge in at least one of the following topics identified as especially important to the Commission: economic development, tourism, environmental resources, recreation, land conservation, historic preservation, education, interpretation, cultural conservation and nonprofit management.

Rotation

In the first year of the new Commission structure, rotation will be established among each of these three groups (see Figure 8.2):

- Federal and state appointed officials serving *ex officio* will have no term limits.

- For state legislative seats, appointments will correspond to legislative sessions.
- For county seats, one county government representative will be appointed for one year, two county government representatives will be appointed for two years, and two county government representatives will be appointed for three years.
- For local seats, one local government representative will be appointed for one year, one local government representative will be appointed for two years, and two local government representative will be appointed for three years.
- For citizen seats, four will serve one year, four for two years, and four for three years.

Vacancies

As local government and citizen vacancies occur, they will thereafter be filled for three years. A Commission vacancy occurring in mid-term will be filled to the end of the term only. The 16 local government and citizen commissioners may serve no longer than six years (two terms), plus any mid-term or rotational start-up service.

The Commission's Nominating Committee will nominate prospective citizen members on behalf of the Commission and work with other nominating officials (the Governor, the state legislative leadership and county commissioners or executive) to assure smooth and timely appointments by the Secretary of the Interior.

Commission Management

The following section described Commission staff and standing committees, formal concordances among Commission Partners to be known as "Compacts," concerning the Corridor's interpretation and stewardship, and advisory committees. The structure of the Commission is illustrated in Figure 8.3.

Commission Staff

To enable this Plan to work, the Commission must have an increased ability to coordinate the efforts of hundreds of Partners to create the D&L Trail, improve the canals, provide recreational access and planning for greater recreational opportunities, create the interpretive system, protect key resources and engage in economic development and tourism activities. It is easiest to think of the Commission operating four programs to do all of these things:

- *providing physical linkages* (Chapter 4);
- *creating an interpretive system* (Chapter 5);

The Structure of the Delaware & Lehigh Canal Commission and Corridor Compacts

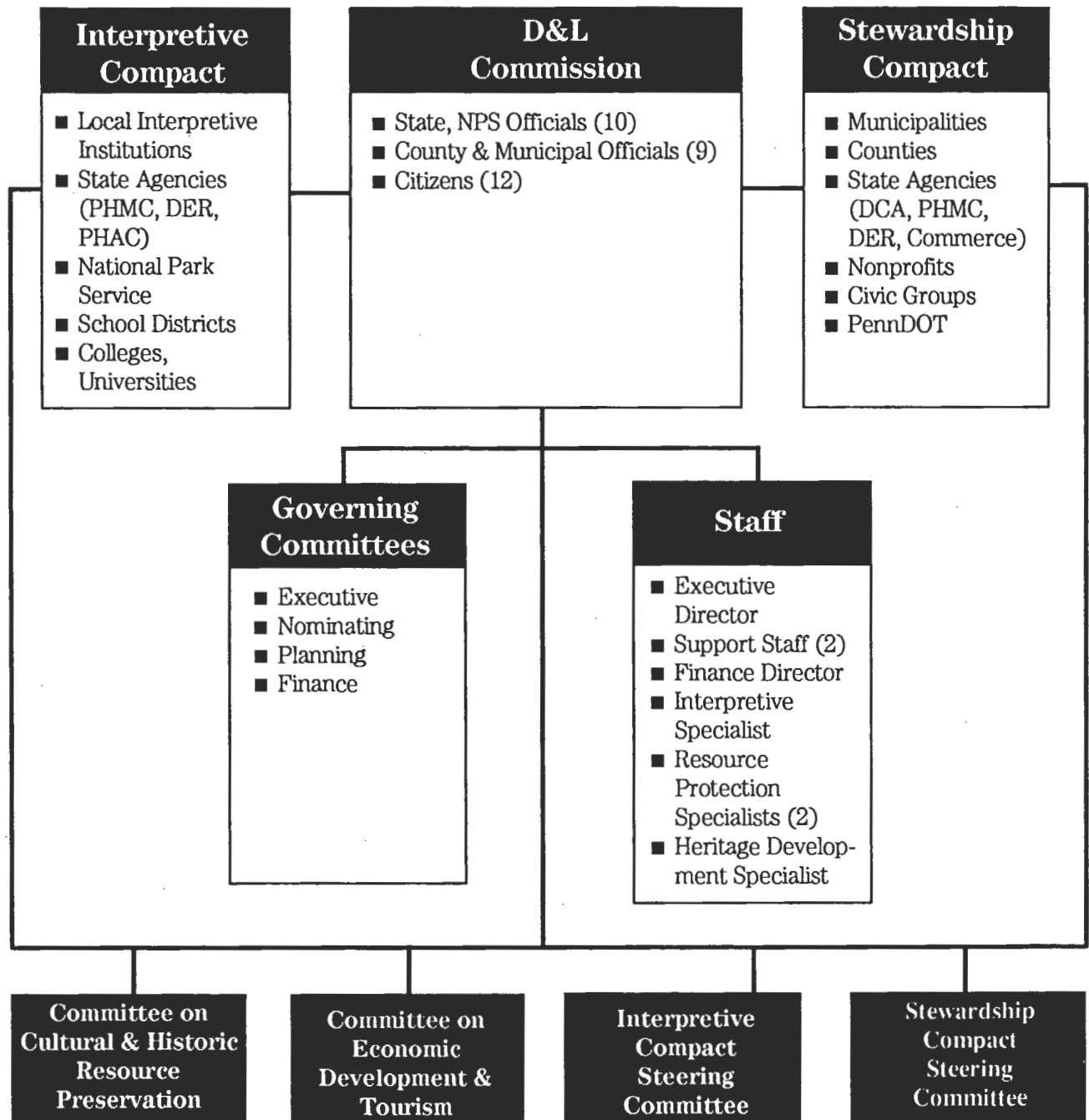


Figure 8.3

- *protecting key resources* (Chapter 6); and
- *enhancing economic development and tourism opportunities* (Chapter 6).

Implementation of these programs is described below.

In each of these programs, the Commission will track the efforts of Partners, coordinate technical assistance, run grants programs, contract for special services, collaborate on special events ranging from festivals to seminars, and reach out to the public for support. The work involved in each activity in each program is considerable, even accounting for a major proportion of these efforts resting with Corridor Partners. In addition, taking advantage of the potential synergy among programs requires a significant effort simply to maintain collaboration from one "discipline" to another. The magnitude of the Corridor effort is great: it takes more than half a day simply to drive from one end of the Corridor to the other; there are more than 60 municipalities in the Passage alone who are candidates for the Stewardship Compact; and there are more than 50 potential interpretive Partners to be enlisted in the Interpretive Compact and the associated effort with the National Park Service.

The Commission currently has three staff members: an executive director; a secretary; and an interpretive specialist who will begin work with the National Park Service and the Interpretive Compact on the interpretive system described in Chapter 5 (this includes serving as the link between agencies hiring interpreters and other interpretive Partners).

To accomplish this Plan in collaboration with Partners, the Commission must hire a minimum of five additional staff (for a total of eight):

- a resource protection specialist to work with the Stewardship Compact as described below, helping to create the physical linkages described in Chapter 4;
- a second resource protection specialist to work with the Stewardship Compact, helping to implement protection of key resources described in Chapter 6;
- a heritage development specialist to implement economic development and tourism efforts described in Chapter 6;
- an administrator/finance director/fundraiser to (1) raise funds for Commission and Partner projects; (2) monitor all grants programs; and (3) offer advice and coordination to all Partners to enhance their organizational capabilities, especially in management, fundraising and working with volunteers; and

- a support staff person to (1) help with the large number of mailings and public inquiries; (2) increase the efficiency of the specialists on staff; and (3) to provide general support to the large committees and Commission.

The Commission will seek funding from the State Heritage Parks Program to support one State Heritage Park Manager position, who will serve as liaison to the state program among other duties. The Commission will also explore ways to supply or supplement its core staff through the use of federal "IPA" (Intergovernmental Personnel Act) employees, other executive exchange programs available through corporations and intern programs from Corridor academic institutions. Such added staff can provide support for the primary Corridor programs — especially as the Commission begins its efforts to increase its staff — or undertake discrete, special projects under the direction of core staff. With the second administrator in place, who is expected to have direct experience in working with volunteers, it will also be possible to enlist and properly supervise ongoing volunteer support for the Commission.

In addition, if outside funding becomes available, the Commission will also hire one additional staff member for cultural conservation and interpretation, or jointly sponsor such a staff position, in a Partner institution (a museum, academic institution or other cultural-conservation entity). This staff member would provide (1) outreach, technical assistance and supervision of matching grants to cultural resource Partners; (2) continued fundraising; (3) specialized expertise in cultural resource interpretation to supplement the work of the interpretive staff; and (4) supervision of grants and contracts to conduct cultural resource surveys.

Fully staffed with a minimum of eight full-time administrators, specialists, and support staff, the Commission's annual core budget is estimated to be \$500,000.

Standing Committees

The Commission has established four standing committees whose functions are reflected in their titles: an Executive Committee, a Finance Committee, a Nominating Committee and a Planning Committee. The Planning Committee is charged with assuring that this Plan is implemented. Other standing committees are listed under the section below on advisory committees.

The Stewardship Compact

A special concern of the Commission is stewardship of the key resources of the Corridor, especially those associated with the D&L Trail and the Passage. "Stewardship" in this context means not only working to protect resources and to assure quality in the surroundings of these resources — itself a large job — but also meeting the more

ACCOMPLISHMENTS

The Nature Conservancy and the Borough of Bristol have joined together to restore and interpret Bristol Marsh, one of the few freshwater marshes left on the Delaware River, using matching funds from the Pennsylvania Heritage Parks Program grant to the Commission for early implementation projects.

Potential Co-Equal Signatories to the Stewardship Compact are:

- D&L Commission
- Bureau of State Parks, Department of Environmental Resources
- Bureau of Recreation and Conservation, Department of Community Affairs
- Pennsylvania Historical and Museum Commission
- Eckley Miners' Village Historic Site
- Pennsbury Manor
- Washington Crossing State Historic Park
- The counties: Luzerne, Carbon, Lehigh, Northampton, Bucks
- The municipalities in the Passage
- The municipalities in the Reaches
- Private organizations that can lend support to development of the D&L Trail, the preservation of the canals and the conservation of all other key resources in the Passage and Reaches
- Pennsylvania Fish and Boat Commission
- Pennsylvania Game Commission

specific and immediate needs associated with establishing the D&L Trail over the next five years. The Commission sees this as an area in which intergovernmental cooperation can be highly effective and which can bring enormous benefits to the Partners, helping each to achieve results not possible alone.

To achieve this synergy, the Commission will initiate a Stewardship Compact to address: (1) development and maintenance of the D&L Trail; and (2) resource management in general in the Passage and Reaches, focusing first on the D&L Trail and working first with Passage municipalities. Potential members are listed in the sidebar.

Compact Partners will take on specific responsibilities and make specific commitments in exchange for assistance from others and extension of special resources from the Commission and the Commonwealth. The Stewardship Compact is designed not to change what municipalities and counties and other members are now doing, but to augment it, and assure a local focus on Corridor needs and goals. Each member should join with the understanding that it is to contribute what it can in support of the goals of the Compact, to take specific actions as required to meet those goals, and to share in the responsibility for the resulting effects on the Passage. As an equal partner in the Compact, the Commission will share with other members of the Compact both its power to affect the Passage and its accountability to the public.

Acceptance Voluntary membership in the Stewardship Compact is to be accomplished first by resolution (in the case of voting bodies) or other declaration (in the case of the state agencies), and second by the signing of a Compact Statement by a representative of the member organization.

The act of joining the Compact by any given member should signal to its constituents or supporters a commitment to support Corridor goals. In the early years of the Compact, when financial resources and resolutions to support it will be modest, the Compact will serve principally as a forum for the exchange of ideas and concerns among members. Existing resources and added volunteer help will be directed by the Compact in support of the common good. In general, the Compact's members will work at creating bonds among themselves and with outside agencies whose ties to the Compact can further its goals.

In subsequent years, the Compact should strive to increase financial resources available to members to maintain and enhance the D&L Trail and the canals. Moreover, the Compact's membership should agree on and seek specific benefits that might be extended exclusively to Compact members — perhaps technical assistance, a conservation easement purchase program with dedicated state funding, or shared review power for state or Commission decisions on funding or permit programs that especially affect the Passage. Beyond this, the Stewardship Compact might evolve into a regional review body for consultation on municipal actions affecting key Corridor resources. The terms of such review would be set by Compact Partners.

ACCOMPLISHMENTS

Lehigh and Northampton Counties, with the cities of Allentown, Bethlehem and Easton, and Bethlehem Township and Catasauqua Borough, have come together to cooperate on re-establishing and enhancing full public use on their 19-mile section of Lehigh canal towpath. Matching funds have come from the Commission's TRAIL program, the municipalities, and the Private Industry Council of the Lehigh Valley.

Over time, the Compact is expected to evolve to a still broader program of resource management for all municipalities in the Corridor. This will happen as the benefits of membership become apparent, and as Passage communities make the case for support from their neighboring municipalities in the Reaches.

Responsibilities of the Stewardship Compact

The Stewardship Compact's responsibilities fall within three broad areas: work on the historic transportation routes — the D&L Trail and the canals — and their recreational use; stewardship of key Corridor resources; and participation in other corridor initiatives of benefit to the Compact's efforts. General responsibilities under each of these areas are set forth below. (General benefits are listed in the sidebar.)

D&L Trail and Canals:

- Work with state and local owners to complete D&L Trail, enhance access and parking for Trail, canals and rivers;
- Advise Commission on canals' investment strategies;
- Sponsor D&L Trail maintenance through volunteer and municipal groups: cleanup/trash pickup along trails and parking areas; increasing or installing visitor services (e.g., water fountains and toilets); brush clearing and trail surface upkeep; and spotting vandalism and other problems in need of design attention or enforcement by police or state park rangers;
- Promote a local model park ordinance recommended to be adopted by Passage municipalities; and
- Monitor recreational use on the D&L Trail.

Key Environmental, Scenic, Cultural, Historic, and Recreational Resources:

- Create stronger commitments for municipal stewardship in Passage and Reaches;
- Serve as a forum for information exchange on resource identification, management and protection, and promotes protection of key resources through governmental and private action;
- Advise on the development of Commission's general resource protection programming to address common problems in protecting key environmental, scenic, cultural, historic and recreational resources. A sample of the many actions listed elsewhere in this Plan that might be addressed by the Compact follows: a coordinated approach to gaining more state assistance for storm water management under Act 167; working with selected Corridor communities on grooming local roads that are part of designated tour routes and protecting their scenic context; encouraging more local historic district designations; and protecting views from the D&L Trail;

Benefits of Stewardship Compact Membership

- The county or municipality will receive assistance in meeting local conservation, preservation and economic development needs that enhance the quality of life and make the municipality more attractive as a place in which to live and do business.
- The county or municipality will move up in the priority list for technical and financial assistance for local projects that help to implement the goals of the Plan.
- The county or municipality will move up in the priority list for targeted funding from state programs.
- State agencies will gain a coordinated, local constituency oriented to the needs of state-managed resources.
- The county, municipality or state site will benefit from the commitments of others beyond its borders to maintain similar standards for resource management and development, improving the region as a whole.
- Nonprofit organizations will move up in the priority list for technical and financial assistance for local projects that help to implement the goals of the Plan.
- Nonprofit organizations and other supporters will enlarge their network in support of their individual missions to protect resources and improve their communities.

- Promote a regional trails network: convene Partners to develop a strategy, receive progress reports on independent efforts and identify strategic funding, technical assistance needs and early acquisition. The Compact is to enable this strategy to develop to a point that in the second phase of this Plan, the Compact can focus on expanding the broader trail network beyond the D&L Trail;
- Promote greenways: convene Partners to develop a strategy, receive progress reports on independent efforts and identify strategic funding, technical assistance needs and early acquisition. The Compact is to enable this strategy to develop to a point that in the second phase of this Plan the Compact can focus on expanding the broader greenway systems beyond the D&L Trail, the canals and the Delaware and Lehigh rivers;
- Convene a special Partners coalition (including state agencies and organizations in the northern region) to create a public lands open space and recreation master plan, addressing improved access, acquisition needs, staffing, collaboration on maintenance needs, visitor services and promotion; and
- Serve as Corridor advocate with key state and federal agencies whose resource-management programs can assist Corridor goals.

Corridor and Compact General Program Development:

- Help to raise funds and advise on Commission grant policies and decisions;
- Support the Interpretive Compact;
- Work with the Commission's committees on cultural and historic resource conservation and on economic development and tourism (see sections below);
- Advise the Commission on developing the formal description of the cross-acceptance process in which Corridor communities take certain steps in order to receive grants and other Commission-provided benefits;
- Advise the Commission on the design of a regional Compact review process to assess the economic and environmental effects of developments of regional impact; and
- Target state programs to provide additional incentives for municipalities to join the Corridor Compact.

Organization of the Stewardship Compact Steering Committee

The Commission will appoint an organizing committee consisting of Commission members who represent local governments in the Corridor, county representatives, representatives of Passage municipalities and representatives of state agencies. This committee will help the

Commission to begin early actions and consult with prospective members to develop an official Compact Statement. It will evolve into a formal steering committee by agreement of Compact members, consisting of a cross-section of its membership. All Commissioners representing Compact members will serve, along with an equal number — plus two — of representatives of other Compact members.

The Interpretive Compact

One of the most important challenges for the Commission is the creation of a Corridor-wide interpretive framework that will coordinate interpretive services and stories that will make clear the regional and historic context of individual interpretive sites, and the nationally significant innovations, events and developments that shaped not only the Corridor, but the nation, as described in Chapter 5.

Creating this overall framework will require an active partnership among the Commission, the Corridor's many interpreting organizations, and the National Park Service (see sidebar). The vehicle for this partnership will be an Interpretive Compact, crafted jointly by the Commission and its Partners. The Compact will spell out the overall agreement among the various interpretive Partners regarding each member's commitments for implementation and ultimate benefits.

Acceptance Voluntary membership in the Interpretive Compact is to be accomplished first by declaration of the Partner, and second by the signing of a Compact Statement by a representative of the member organization.

The Compact's purpose is to provide a broad forum for coordinating presentation of the Corridor's central themes and stories, promote inter-institutional cooperation and increase the capacities of individual interpreting organizations. It is designed not to replace or substitute for existing programming, but rather to add focus on the Corridor story and enhance the Partners' existing interpretation.

Working with interpretive Partners, the National Park Service will develop an interpretive plan for the Passage. Through the Compact, one of the Commission's first actions will be to develop a detailed interpretive plan for the Reaches. The Commission and the National Park Service will help Interpretive Compact Partners to carry out Corridor-advancing interpretive goals by providing financial support and technical assistance to help them present exhibits and programs integral to the Interpretive Plan. This technical assistance will include training Partners' staff.

Responsibilities of the Interpretive Compact

Responsibilities of the Interpretive Compact fall within two broad areas: development of interpretation in both the Passage and the Reaches and participation in other Corridor initiatives of benefit to the Compact's efforts. General responsibilities under each of these efforts are set forth below. (General benefits are listed in the sidebar on page 254.)

ACCOMPLISHMENTS

An early result of workshops the Commission held with historians throughout the Corridor was the establishment of the Anthracite Region Historians in the Wyoming Valley. The group is developing a symposium on anthracite history, to be held in the fall of 1993, and has begun work on a book entitled "Wyoming Valley Anthracite."

Potential Co-Equal Signatories to the Interpretive Compact are:

- D&L Commission
- National Park Service
- Pennsylvania Heritage Affairs Commission
- Pennsylvania Historical and Museum Commission
- Bureau of State Parks, Department of Environmental Resources
- Pennsylvania Department of Education
- Corridor interpreting institutions, including: museums, historical societies, county park systems, environmental education sites, and many others
- Other private and public entities that can lend support to the development of the Corridor's interpretive system

ACCOMPLISHMENTS

Hugh Moore Historical Park and Museums is using matching funds from the Commission's State Heritage Park Program early implementation grant toward construction of a new mule-drawn canalboat, for use in the park's popular interpreted canal rides.

Benefits of Interpretive Compact Membership

- The resources of the state and local Partners will be part of a greater whole, allowing each to achieve results not possible alone.
- The state and local Partners' sites will receive more visibility and visitation as a part of a larger interpretive system, educational curriculum development program, and tourism promotion effort.
- The local Partners will move up in the Commission's priority list for technical assistance and funding in meeting their interpretive needs (e.g., staff training, facilities, exhibits). Above all, they will have access to the National Park Service for aid.
- The local Partners will move up in the priority list for targeted funding from state programs.
- The local Partners will enlarge their network in support of their individual interpretive missions.
- State agencies will gain a coordinated, local constituency.

Develop an Interpretive System:

- Work with the National Park Service to produce an interpretive plan for the Passage. This process will include setting policies and funding priorities for interpretation and obtaining specific commitments from Compact Partners;
- Work with the Commission to develop an interpretive plan for the Reaches;
- Develop kiosks, wayside exhibits and signs at key outdoor locations in the Corridor. For visibility and the sake of momentum this work will begin in advance of completing the interpretive plans;
- Develop tours of all kinds — driving, bicycling, hiking, canoeing — to link scattered sites into an effective interpretive system and to foster understanding of the linkages among the resources;
- Develop comprehensive Corridor exhibits for Landings;
- Develop context-setting exhibits at major Partner sites, in cooperation with Partner institutions;
- Guide and participate in the development of cultural, natural and historical programs for incorporation into an educational curriculum for the Corridor, for primary, middle and senior grade levels; and
- Promote interpretation and any necessary development of key uninterpreted sites.

Promote Corridor and Compact Program Development:

- Identify staff training needs and advise on developing training opportunities. This is to address not only interpretive skills, but organizational management skills to enhance Partners' capacity to administer their programs and sites;
- Serve as a forum for information exchange;
- Serve as Corridor advocate and liaison with key state and federal agencies whose programs can assist in Corridor interpretation and development of heritage attractions;
- Help to raise funds and advise on Commission grants policies and decisions;
- Support the Stewardship Compact; and
- Work with the Commission's committee on cultural and historic resource conservation and economic development and tourism (see sections below).

Organization of the Interpretive Compact Steering Committee

The Commission will appoint an organizing committee of consisting of knowledgeable Commission members and representatives of Corridor interpretive institutions. This committee will work with the National Park Service and Commission staff, help the Commission to begin early actions and consult with prospective members to develop an official Compact Statement. It will evolve into a formal steering committee by agreement of Compact members.

Advisory Committees

The Commission will make liberal use of advisory committees comprised of Commissioners and Partner representatives to help in developing programs, information-sharing, networking, public outreach, establishing criteria for the application to policies and programs, reviewing grants and working with state and federal agencies providing technical assistance. The Committees will serve these purposes:

- to make available to the Commission and its staff the assistance of professionals and lay experts and others knowledgeable about local issues throughout the Corridor;
- to provide expert and broad-based advice to the Commission;
- to broaden and intensify Commission communication with key Partners and individuals in the Corridor; and
- to enhance the stake in the Corridor felt by those who are not members of the Commission itself.

The Commission will appoint *ad hoc* committees on various topics as the need arises, and will support four standing committees. The standing committees are:

- Stewardship Compact Steering Committee
- Interpretive Compact Steering Committee
- Committee on Cultural and Historic Resource Preservation
- Committee on Economic Development and Tourism

The responsibilities of the Compacts are discussed in sections above; the responsibilities of the latter two committees are listed below. Membership on the latter two committees will include Commissioners, representatives of Partners and other interested individuals and knowledgeable residents. Members will be recruited from the northern, middle and southern regions to enable formation of regional advisory sub-committees, if they are deemed necessary. Sub-committees would have additional, region-only members, as appropriate.

The Commission provides overall direction and resolves conflicting committee priorities in accordance with this Plan. It is responsible for final decisions and budgetary decisions.

As the work of the Commission expands and committees and staff come on line to help handle the workload, it is expected that formal meetings of the Commission will decrease to four times per year, with Commissioners participating in the work of the committees in between Commission meetings. Committees will meet at least four times per year, in advance of Commission meetings. Committees will form regional advisory councils as needed, to be convened at least annually to review the progress and next plans of the committee and related programs of the Commission.

Responsibilities of the Committee on Cultural and Historic Resource Preservation

- Promote establishment of county historic preservation offices and local historic preservation committees;
- Work with urban task forces;
- Work with cultural conservation experts and cultural groups to promote documentation, interpretation and cultural activities;
- Coordinate with the Pennsylvania Historical and Museum Commission on Section 106 review (see Chapter 6);
- Identify volunteer and staff training needs of cultural conservation and historic preservation organizations, and advise on developing training opportunities on organizational management skills;
- Serve as a forum for information exchange;
- Serve as Corridor advocate and liaison with key state and federal agencies;
- Help to raise funds and advise on Commission grant policies and decisions;
- Support the Interpretive Compact;
- Support the Stewardship Compact; and
- Work with the Committee on Economic Development and Tourism to help to promote development of heritage tourism attractions and contribute to Main Street assistance programs.

Responsibilities of the Committee on Economic Development and Tourism

- Promote heritage tourism;
- Promote development of heritage tourism attractions and services;
- Serve as a forum for cooperative marketing, information exchange and other capacity-building for Corridor Partners involved in economic development and tourism;

- Advise on grant-making, programming and networking with the Corridor's business community;
- Serve as Corridor advocate with key state and federal agencies whose economic programs can assist Corridor goals;
- Support the Main Street assistance program;
- Support enterprise zone programs and other forms of targeted assistance in the Corridor;
- Work with urban task forces;
- Help to raise funds and advise on Commission grant policies and decisions;
- Promote opportunities to create affordable housing in the Corridor;
- Support the Stewardship Compact;
- Support the Interpretive Compact;
- Work with the Committee on Cultural and Historic Resource Preservation; and
- Encourage the formation of private nonprofit funding and administrative entities, such as the proposed Delaware & Lehigh Foundation.

Guide to Implementation: Programs and Actions

The programs and actions developed in this Plan have thus far been presented by topic (navigating, understanding, conserving and enriching the Corridor), with additional actions developed for the eight Reaches. In this section, the programs and actions discussed in Chapters 4, 5 and 6 are set forth in terms of implementation: what priorities are assigned to all actions, which Partners are to be involved, what the timing will be and what their costs are. Staffing needed to accomplish these programs and actions is discussed above in the section on Commission management. This section is a catalogue of the programs and actions the Commission proposes to undertake in cooperation with its many Partners.

Programs

Programs are ongoing, systematic applications of overall direction to be implemented by the Commission and its staff with the strong assistance of Partners. The intent of the programs is to implement the Corridor Vision in many places over a relatively long period of time.

The programs described below are listed in the same order as the categories provided in Chapter 9 ("Implementing the Actions: a Matrix of Partners and Estimates). Specific actions for each program are listed in the Matrix.

Navigating the Corridor: Providing Physical Linkages

Overview: Principal achievements in the Corridor after ten years are to be the completion of the continuous, 150-mile D&L Trail, stabilization and greater public access to the canals, increased recreational access and water-based recreation involving the Delaware and Lehigh rivers and tributaries, designation of the D&L Drive, and an increased number of secondary trails tied into the D&L Trail and rivers. Chapter 4 describes these efforts in detail, with additional discussion of recreation in Chapter 6.

The basic strategy to implement these actions includes reliance on increased state investment in state-owned portions of the system; capital funding through matching grants; events to increase public use and raise awareness; and a Stewardship Compact to enhance both the D&L Trail and the canals, including promotion of a model park ordinance for municipalities and organization of volunteer maintenance. One Commission staff member, a resource protection specialist, will act on and supervise steps required to implement these actions successfully.

General Criteria for Commission

Grants and Technical Assistance

Grants for programs and projects will be provided to Partners who can meet the following general tests:

1. Is the project proposal well-developed?
2. Does it reinforce the Corridor Vision?
3. Is it located in the Passage? (In later phasing, is it located in the Passage or a Reach? Note that education and tourism promotion activities are not affected by this geographic restriction.)
4. Does it propose substantially to match Commission funding?
5. Is the Partner proposing the project capable of administering it?
6. Is this a joint venture? (The Commission will encourage joint ventures among Partners, by awarding either higher priority or added resources to such ventures.)
7. Has the Partner who is proposing the project accepted this Plan? (See discussion of "acceptance" in sections on Partner roles above.)
8. Is it necessary to act now to avoid foreclosing later options to accomplish a desired outcome (e.g., stabilizing a building) to enable its later reuse?
9. Will the proposal enable the Commission to fulfill its intention to devote equal resources up and down the Corridor?
10. For programs, is it requested in one of the following areas?
 - increasing the management capacity of nonprofit Partners, especially emerging and all-volunteer organizations;
 - enhancing a municipal or nonprofit entity's particular area of expertise or service delivery; and/or
 - creating opportunities for public outreach (with or without Commission participation).

Program and Criteria: The actions to be accomplished through the Commission's program for enhancing physical linkages throughout the Corridor are listed in the Matrix. Day-to-day Commission programming to implement these actions will largely be conducted by staff. In addition to working with the Compact, staff will conduct public outreach. Principal Stewardship Compact actions that not only have direct costs assigned to them in the Matrix, but will also drive the program, are the following:

- Convene, initiate and administer a Corridor Stewardship Compact; undertake responsibilities of the Compact as described above in the section on Stewardship Compact responsibilities (subsections on the D&L Trail and canals and on general program development);
- Develop a ten-year public investment strategy for the Delaware Canal;
- Develop a ten-year public investment strategy for the Lehigh Navigation; and
- Evaluate the potential for secondary trails along railroad rights-of-way, tributaries and other corridors, and establish regional plans or a Corridor-wide plan as appropriate.

The level of priorities for these actions and activities is implied in the expected phasing of the funding in the Matrix. In general, phasing and budget are based on the principal achievements planned for this

Corridor program described in the overview above, with further criteria drawn from the Commission's list of general criteria to be applied in providing grants and technical assistance (see sidebar on page 258).

Understanding the Corridor: Creating an Interpretive System

Overview: Principal achievements in the Corridor to be achieved after ten years include an integrated interpretive system of visitor services, Partner sites and exhibits, tours, kiosks, wayside exhibits, wayfinding signage and publications; development of ten Corridor Landings, or visitor orientation centers, tailored to buildings, sites, communities and Reaches in which they will be located; currently uninterpreted sites incorporated into the system through Partner action; interpretive staffing by a variety of Partners, trained and coordinated by the National Park Service; establishment of a National Canal Museum; and other major heritage attractions. These activities are further described in Chapter 5.

The basic strategy to accomplish these achievements is, first, to implement a Corridor Interpretive Compact to achieve synergy among local and state interpretive Partners, the Commission and the National Park Service and to coordinate interpretation in and beyond the Passage; gain a permanent National Park Service interpretive presence for the Passage; develop and implement an interpretive plan for the Passage according to National Park Service standards; develop and implement an interpretive plan for the Reaches with the assistance of the National Park Service; and provide matching grants and technical assistance to support development of the interpretive system and Partner capabilities. Two Commission staff members will carry out these responsibilities: an interpretive specialist to work with Interpretive Compact members and the National Park Service; and an administrator/finance director/fundraiser who can offer advice and coordination to Partners.

Program and Criteria: The actions to be accomplished through the Commission's program for creating the interpretive system throughout the Corridor are listed in the Matrix. Day-to-day Commission programming to implement these actions will largely be conducted by staff working with the National Park Service and the Interpretive Compact. Initiating and administering the Interpretive Compact, including aiding Compact members in meeting the responsibilities listed in the section above discussing the Compact, and implementing the interpretive plans will drive the program, but all activities will include some public outreach to build support for the integrated interpretive system.

The level of priorities for these actions and activities is implied in the Matrix by the expected phasing of the funding, and the budget assigned to them in the case of matching grants and technical assistance unrelated to capital projects (such as development of the Landings). In general, phasing and budget are based on the principal achievements planned for this Corridor program described in the overview above, with further criteria drawn from the Commission's list of general criteria to be applied in providing grants and technical assistance (see sidebar, page 258, and two further criteria listed in the sidebar here).

Criteria for Interpretive Projects

In addition to the general criteria stated in the sidebar on the opposite page, the Commission will apply the following criteria to interpretive projects:

1. For interpretive projects, does the proposal enable the Commission to fulfill its intention to make a reasonable attempt to spread investment among different Corridor themes?
2. For interpretive projects, does it increase the Partner's capacity to enhance or undertake development and operation of a key interpreted or uninterpreted site?

Conserving the Corridor: Protecting Key Resources

Overview: "Key resources" are those environmental, scenic, cultural, historic and recreational resources of greatest importance to the character and functioning of the Corridor. The Commission will focus on protecting critical and sensitive natural sites; protecting the scenic context (that is, the "viewshed" or what can be seen) of the D&L Trail; conservation of selected cultural resources and landscapes that give meaning to the Corridor, located both in and beyond the Passage, which support the Corridor's interpretive themes; protecting urban and rural historic resources in and adjacent to the Landing communities and others in the Passage; and promoting greater recreational access to both the D&L Trail and the Corridor's waterways. Initially, the focus for these actions in general will be on the Passage, with the exception of the development of regional trail and greenway strategies. These efforts are further described in Chapter 6.

Achieving actual protection calls for Commission staff to work with the Stewardship Compact, the Interpretive Compact, the Committee on Cultural and Historic Resource Preservation and local committees formed to encourage municipal implementation of this Plan. Public education, information exchange and technical assistance via counties, state agencies and nonprofit organizations will be the primary means of encouraging greater resource conservation. Many of the organizations, agencies, and techniques involved in resource conservation fall under the rubric of "land management." To the extent that it can be said that the Commission will be involved in land management, it will be results-oriented, advocating the strategic use of land management tools specifically to achieve the Corridor Vision and goals for resource protection.

Criteria for Acquisition

1. Has the site been identified in an adopted municipal, county or conservancy plan as a key Corridor resource?
2. If it is not in an existing plan, has the site been identified among the key Corridor resources identified during the process leading up to this Plan?
3. Is the site in the Passage? (In later phasing, located in the Passage or a Reach?)
4. Is the threat to the site imminent and can no other purchaser be found (e.g., acquiring a parcel for later development as trail access)?
5. Can funds be specifically provided by donors for this purchase?
(The greater the donor funding, the more likely the Commission's purchase.)
6. If dedicated donations are not available, are funds available for the purchase through the Commission's endowment fund?
7. Will the purchase improve physical public use and access to a Corridor river or trail?
8. Has a long-term owner and manager for the property or interest been identified?
9. Will the site be available for permanent public use?

The Commission will also exercise its power of environmental review as described in Chapter 6; encourage special local, state and national designations of various kinds of resources; and create a fund to enable strategic acquisition of critical properties or the acquisition of rights in these properties that help to achieve the Corridor Vision (see sidebar for criteria). Initially, one Commission staff member, a resource conservation specialist, will pursue this strategy. An administrator/finance director/fundraiser will assist as necessary in providing management advice to Partners.

Program and Criteria: The actions to be accomplished through the Commission's program for creating the interpretive system throughout the Corridor are listed in the Matrix. Day-to-day Commission programming to implement these actions will largely be conducted by staff working with the Compacts and committees. Public outreach is to be a constant component of all activities.

The Commission's program on protecting key resources is both broad — in the geographic scope of the Corridor and in terms of the wide variety of resources identified for protection — and nonspecific, in terms of the limits of the Commission's power directly to affect the

results envisioned. This power is confined to its environmental review power and power to acquire real property and interests in real property (see sidebar on page 108), but an added and highly important power is also cross-acceptance, as described above in this chapter.

With the Commission's great responsibility involved in creating the interpretive system and enhancing physical linkages, and with the responsibility for protecting key resources already clearly lying with the Corridor's municipalities, counties and property owners (including local and state public agencies), the Commission will rely on its Partners to achieve the protection of key resources. It will provide encouragement through matching grants, technical assistance and investment in economic development projects, all involving cross-acceptance, and motivation through the investment and education involved in creating the interpretive system, the D&L Trail and other physical and intellectual Corridor linkages.

Specific approaches and actions for each of the categories of key environmental, scenic, cultural, historic and recreational Corridor resources are described in Chapter 6. Sections on environmental, scenic and recreational resources in Chapter 6 explain development of guidelines for exercise of the Commission's environmental review power and making explicit its interest in reviewing impacts on scenic and recreation resources. The Stewardship Compact and its responsibilities are described earlier in this chapter. Finally, liaison with state agency advisory bodies on trails, state parks, transportation, and other groups potentially affecting key Corridor resources is amplified in the sidebar on page 107.

The level of priority for the actions listed in the Matrix is implied in the expected phasing of the funding and the budget assigned to them in the case of grants and technical assistance. In general, phasing and budget are based on the principal achievements planned for this Corridor program described in the overview above, with further criteria drawn from the Commission's list of general criteria to be applied in providing grants and technical assistance (see sidebar on page 258). Additional criteria to be applied when Commission involvement is needed in the acquisition of real property or interests in real property are listed in the sidebar on page 260.

Enriching the Corridor: Increasing Tourism and Economic Development

Overview: The principal economic achievements of enhancing the Corridor will stem from concerted development of heritage tourism, protection and enhancement of recreational opportunities and resources, and support of economic development projects and programs that advance Corridor goals while bolstering the economic health of Corridor communities. Corridor actions will develop and directly support the attractions, activities and infrastructure needed to establish the Corridor as a leading heritage attraction — including its interpretation system, but also including such actions as technical assis-

Criteria for Economic Development Projects

In addition to the general criteria stated in the sidebar on page 258, the Commission will apply the following criteria to economic development projects:

1. How well are Commission resources leveraged?
2. Is the Commission's participation needed to assure that the project reinforces the Corridor Vision (e.g., by allowing increased investment in design or restoration or enhancing public access)?
3. What is the likelihood of visible results?
4. What is the likelihood that the project will lead to other resource protection or development, by demonstration of successful methods to other Partners or communities or by a ripple effect in the neighborhood?
5. What is the length of time required for a visible and successful outcome? (Rapid results are desirable when heavy investment is required.)
6. Does the project enable the Commission to fulfill its intent to spread its investment among different places and types of resources?

tance for communities and businesses, improving regional and Corridor promotion, and involvement in developing selected projects. These efforts are further described in Chapter 6.

The Commission will rely on the Committee on Economic Development and Tourism to provide a cooperative forum that will lead to Commission partnerships to jointly develop and market the Corridor for heritage and recreational tourism. Augmenting this, the Commission will work to address key areas and issues in rounding out the existing tourism and economic development base — encouraging, for example, the development of small businesses that provide added tourist services — and will assist in the development of some key projects. A Heritage Development Grant and Loan Fund will be established to serve a wide range of Corridor-related economic and tourism development needs, customarily involving redevelopment of historic structures. An important activity to aid the Commission in demonstrating the long-term benefits of its work is to track key economic indicators in the Corridor, to be initiated immediately in cooperation with institutions already tracking these indicators for various other purposes. One Commission staff member, a heritage development specialist, will support this program.

Program and Criteria: The actions to be accomplished through the Commission's program for economic development and tourism throughout the Corridor are listed in the Matrix. Day-to-day Commission programming to implement these actions will be conducted largely by staff working with Tourism Promotion Agencies to develop cooperative approaches to marketing and promoting the Corridor; developing and administering (through others) the Heritage Development Grant and Loan Fund; and working with the Department of Community Affairs and others to extend Main Street assistance to Landing and Passage communities. The Commission will seek the regular advice of the business and tourism communities through the Committee on Economic Development and Tourism.

The level of priorities for these actions and activities is implied in the Matrix by the expected phasing of the funding and the budget assigned to them in the case of actions outside the grant and loan fund. In general, phasing and budget are based on the principal achievements planned for this Corridor program described in the overview above, with further criteria drawn from the Commission's list of general criteria to be applied in providing grants and technical assistance (see sidebar, page 258) and criteria to be applied to economic development projects (see sidebar).

The First-Year Plan

During the first year of implementation, the major focus will be on reaching out to Partners and the public to "sell" the Corridor Vision and create visibility for this Plan. An early, high level of energy and enthusiasm generated in this first year is needed to create the partnerships

and momentum critical to achieving the Corridor Vision and the ambitious actions this Plan sets forth. The Commission's priorities for this initial year fall into three categories: early actions, public outreach, and partnership-building. Early or "initiating" actions are identified in the Matrix where funding is provided in the column for year one. This section addresses two other important areas that connect and support the initiating actions, public outreach and partnership building.

Communication and Public Information

The Commission will undertake an aggressive program of communication to present the Corridor Plan and the benefit it holds for the communities and constituencies that have helped to shape it. This will be accomplished via presentations by Commissioners and Commission staff, who will seek many speaking opportunities; the production and distribution of publications, including a concise public summary of the plan and a regular newsletter; making information on the Corridor available to local libraries and newspapers; and the development of a travelling exhibit on this Plan that can reach the public at strategic locations throughout the Corridor, including such major public events as MusikFest and county fairs.

Commissioners and Commission staff will seek out public opportunities to recognize under the "Corridor umbrella" those local accomplishments that advance the Vision, whether directly sponsored by the Commission or not. Such occasions as the opening of exhibits related to Corridor themes provide the opportunity for special celebration and media coverage. Every effort will be made to celebrate and gain media coverage of all examples — large and small — of visible progress. Completion of the early action projects sponsored this year by the Commission and funded by the State Heritage Parks Program will be special moments for celebration (e.g., opening new D&L Trail segments, restoring and replanting the Bristol Marsh, initiating restoration of the Bethlehem Ice House and building Easton's new canalboat).

Commissioners and Commission staff will also engage in outreach to the Corridor's key elected officials, and civic and business leaders, based on the Commission's Public Involvement Strategy prepared in 1991.

Building Partnerships

The focus in the first year will be on forging the Stewardship Compact and the Interpretive Compact, both of which represent significant outreach to and involvement of potential local, county, nonprofit and civic Partners. The Commission will also focus on obtaining acceptance of the plan from Partners, as described above, and encourage the early organization of *ad hoc* municipal committees to review this Plan and design specific steps to implement it locally. This idea is generally described in Chapter 6, concerning resource protection, but it applies equally well in all program areas and to all types of Partners. Partners are advised to name a committee or an individual to work directly with the Commission.

ACCOMPLISHMENTS

In April, 1993, the 2nd Annual State Heritage Parks Conference and the 15th Annual Preservation Pennsylvania Conference will be held in the Corridor, in Allentown. This is the first time the two have been held together, and it will be an ideal opportunity for bringing attention to the Corridor and to the heritage concept in general.

Commission Matching Grant and Technical Assistance Programs

The following examples of proposed matching grant and technical assistance programs are related to issues and actions discussed in Chapters 4, 5 and 6:

- Continue the Commission's TRAIL Program.
- Contract with Partners to visit summer children's programs and present Corridor themes.
- Provide technical assistance and small matching grants to existing interpretive organizations to strengthen their programming and coordinate their interpretive themes with the Corridor themes.
- Provide matching grants and technical assistance for exhibits and visitor services at Partner sites.
- Fund Intermediate Units to enable classroom teachers to work with interpreting institutions to develop cultural, natural, historical programs for incorporation into an educational curriculum for the Corridor, for primary, middle and senior grade levels.
- Provide matching grants or contracts to interpreting institutions specifically to assist educational outreach.
- Sponsor training sessions for staff of local interpretive Partners.
- Provide matching grants for school visits to Corridor heritage sites.
- Provide matching grants to existing and new interpretive organizations to encourage them to address key uninterpreted sites.
- Work with colleges so that specific Corridor research needs can be met through faculty and student work.
- Provide matching grants to create simple travelling exhibits on cultural, natural and historic resources and themes.
- Support existing conservation organizations to conserve environmental, scenic and recreational resources.
- Support existing conservation, preservation and interpreting organizations to conserve historic resources and cultural-resource sites.
- Provide technical assistance and matching grants to municipalities to assure conservation of environmental, scenic, cultural, historic and recreational resources.
- Support cultural resource studies that support the interpretive themes and enhance knowledge or resource protection in the Passage and related areas of the Reaches.
- Create a Heritage Development Grant and Loan Fund to seed and package outstanding catalytic projects, developed either by Partners or by the Commission.
- Provide technical assistance for Main Street revitalization efforts in selected Corridor communities.

There are two special needs in the Corridor where the Commission will encourage early formation of regional committees of all categories of Partners to explore ways to meet these needs:

- greater conservancy action in the northern Reaches to protect key environmental, scenic, cultural, historic and recreational Corridor resources; and
- reinforcing the path of the Delaware Canal through the Canal's End Reach.

The Commission will also form its two standing advisory committees and ask each to explore three other special needs identified in this Plan:

- Committee on Cultural and Historic Resource Preservation: greater historic preservation and cultural conservation action on the part of existing and new organizations devoted to individual communities; and
- Committee on Economic Development and Tourism: coordinated tourism promotion by the Corridor's final Tourism Promotion Agencies; and more Main Street programs in all communities with downtown retail sales functions, large and small.

The Commission itself will also undertake an initiative to create a Delaware & Lehigh Foundation, working with a wide variety of Corridor Partners.

Implementing the Actions: A Matrix of Partners and Estimates

Following is a Matrix that lists all actions presented in the order in which they are found in Chapters 4, 5 and 6, together with possible Partners, estimated costs and phasing of expenditures. These actions are organized under the headings “navigating,” “understanding,” “conserving” and “enriching,” and include selected actions identified in Chapter 7 for various Reaches. Actions in the Reaches that are not listed in this summary may or may not be undertaken in the years ahead by the Commission; they are meant as indications of direction the Commission hopes to see taken largely without the Commission’s involvement.

The “bottom line” of this table is presented in Figures 9.1 and 9.2 on page 306. It should be borne in mind that these numbers are based on rough estimates in terms of both total costs and phasing. They are estimates on the low side, and should be regarded largely as an indication of the level of effort and emphasis the Commission expects to give to these actions over the ten years of this Plan in comparison to the level of investment it is anticipated that Partners will contribute. In many cases, Partners’ investment will involve the expenditure of planned funds or redirection of planned funds; in other cases, Partners will be seeking additional funds to contribute to the Corridor initiative. No Partner — nor has the Commission — committed to actual dollar expenditures based on this estimate. Actions where the Commission’s costs are expected exclusively to involve staff time are noted by an asterisk beside the figure in the column headed “Commission Investment,” and may be covered under the Commission’s operating budget. Where Commission investment is expected to be staff time only, Partner investment is also assumed to be largely staff time.

The column labelled “Year 1” indicates those actions to be addressed in the first year of this Plan; the remaining columns indicate of the weight of the effort to be applied over the remaining nine years.

(NOTE: Acronyms are listed in Glossary on page 331.)

Navigating the Corridor: *Providing Physical Connections*

Action	Partners
Finalize the ten-year stabilization, rehabilitation and enhancement strategy for the Lower Division of the Lehigh Canal. (page 49)	Stwrdshp. Compact DER/BSP Counties Municipalities HMHPM PennDOT/ISTEA Other Partners
Implement the ten-year stabilization, rehabilitation and enhancement strategy for the Lower Division of the Lehigh Canal. (page 50)	See above
Develop a bridge replacement and road improvement strategy to protect and improve the Lehigh Canal. (page 50)	PennDOT Counties Municipalities
Urge counties and municipalities to specifically address drainage and wash-out concerns affecting the Lehigh Canal in their storm water management planning, road construction or other county and municipal activities that might be brought to bear on concerns as identified by the Commission or municipalities. (page 50)	Counties Municipalities PennDOT
Document the Lehigh Gorge ruins and identify what stabilization measures would best protect them. (page 50)	DER/BSP PHMC NPS/HAER
Implement needed stabilization measures based on Lehigh Gorge State Park goals and policies for public access to the ruins, including issues of public safety, interpretation and the best interests of the historic resources themselves. (page 50)	DER/BSP
Finalize a ten-year public investment strategy for the Delaware Canal. (page 53)	Stwrdshp. Compact DER/BSP State Park Advisory Committee PHMC Bucks County Municipalities FODC ARPDC PennDOT/ISTEA Other Partners
Implement the ten-year public investment strategy for the Delaware Canal, seeking various alternative and supplemental sources of funding. (page 53)	See above
Develop a bridge replacement and road improvement strategy to protect and improve the Delaware Canal. (page 53)	PennDOT Bucks County Municipalities

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
20,000	10,000*	10,000	20,000			
21,000,000	4,000,000	17,000,000		7,000,000	7,000,000	7,000,000
5,000	2,500*	2,500		5,000		
75,000	25,000*	50,000; capital costs as individually I.D.'d	7,500	22,500	22,500	22,500
75,000	7,500	67,500		75,000		
200,000	25,000	175,000			200,000	
20,000	10,000*	10,000	20,000			
35,000,000	5,000,000	30,000,000		12,000,000	12,000,000	11,000,000
5,000	2,500*	2,500		5,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Navigating the Corridor: *Providing Physical Connections, cont.*

Action	Partners
Limit or eliminate truck traffic on Route 32. (page 54)	PennDOT Bucks County Municipalities Pa. Common Carrier Regulator
Urge counties and municipalities to specifically address drainage and washout concerns affecting the Delaware Canal in their storm water management planning, road construction or other county and municipal activities that might be brought to bear on concerns as identified by the Commission or municipalities. (page 54)	Bucks County Municipalities PennDOT
Support river and canal access improvement projects. (page 56) <ul style="list-style-type: none"> ■ Plan for and place trail access points at an approximate frequency of ten mile intervals from Bristol to Jim Thorpe and approximately every ten to fifteen miles in Lehigh Gorge and along the Lehigh to Susquehanna Trail. (page 64) ■ Develop public access points to the Lehigh Gorge trail, including parking facilities at Tannery and Rockport. Establish at least one scenic overlook accessible to the trail between Penn Haven and Jim Thorpe. (page 67) 	PFBC DER/BSP Counties Municipalities Other Partners PennDOT/ISTEA PGC
Urge early studies for additional scenic river designations in the Corridor. (page 57)	DER State Scenic Rivers Adv. Comm. NPS Counties Municipalities Conservancies Other Partners
Cooperate in the federal Wild and Scenic River Study of the Delaware River. (page 57)	NPS DER Bucks County Municipalities Conservancies Other Partners
Assess the status of water quality in the Delaware and Lehigh watersheds, including status of acid mine drainage, storm water drainage and water quality investments as these issues affect the canals, sedimentation behind river dams and the rivers in general. (page 57) <ul style="list-style-type: none"> ■ Assign high priority to allocating the state share of storm water funding for basin planning within the Corridor. (page 57) 	DER PFBC Counties Municipalities Conservancies Environ. groups Other Partners

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
5,000	2,500*	2,500		5,000		
75,000	25,000*	50,000; capital costs as individually I.D.'d	7,500	22,500	22,500	22,500
2,000,000; see also canal investment strategies	500,000	1,500,000			1,000,000	1,000,000
100,000	10,000*	90,000		100,000		
15,000	5,000*	10,000	5,000	10,000		
60,000	10,000*	50,000		60,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Navigating the Corridor: *Providing Physical Connections, cont.*

Action	Partners
<p>Secure public access to the privately owned segments of canal and towpath trail right-of-way by easement or other agreement or, if necessary, by acquisition. (page 62)</p> <p>■ Because the Commission is prohibited by law from long-term ownership of land, determine ultimate public owner of any resources which are acquired. (page 62)</p>	<p>Counties Municipalities Conservancies Private owners PennDOT/ISTEA</p>
<p>At seven specified areas, determine the feasibility of completing physical trail linkages and/or resolve any outstanding physical obstacles. (pages 62, 67)</p>	<p>Carbon County Palmerton Bowmanstown Morrisville Bristol Borough Bucks County Conrail PennDOT DER/BSP</p>
<p>Obtain National Historic Trail status for the entire D&L Trail when completed. (page 63)</p>	<p>NPS</p>
<p>Work with those who produce maps and guides to include the D&L Trail and D&L drive. (pages 63, 70)</p>	<p>PennDOT DER/BSP Commerce/EDP NPS Others</p>
<p>Assist in the organization of a Corridor-wide trail volunteer network and advocacy group as a project of the Stewardship Compact. (page 64)</p> <p>■ Coordinate technical outreach in support of the Stewardship Compact and other efforts of individuals, groups and municipalities to foster increased recreation along the D&L Trail. (page 64)</p> <p>■ Promote better trail security through citizen awareness, encouraging an increased level of local police patrolling, greater levels of DER/BSP patrolling in state parks, and cooperative agreements between state park law enforcement rangers and local police jurisdictions. (page 64)</p>	<p>Stwdshp. Compact DCA/BRC DER/BSP Counties Municipalities Other Partners</p>
<p>Evaluate the potential for secondary trails and establish regional plans or a Corridor-wide plan as appropriate. (page 65)</p> <p>■ Determine the extent and status of all abandoned or disused rail lines in the Corridor, and the opportunities to convert them to trails as part of the D&L Trail system. (page 68)</p>	<p>NPS DER PennDOT DCA/BRC</p>
<p>Implement regional trail development plans or a Corridor-wide trail plan as appropriate. (pages 65, 68)</p>	<p>See above</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
See canal investment strategies						
See canal investment strategies						
20,000		20,000				20,000
30,000	15,000	15,000		10,000	10,000	10,000
250,000	125,000	125,000	20,000	60,000	80,000	90,000
100,000	25,000*	75,000			50,000	50,000
1,000,000	500,000	500,000				1,000,000

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Navigating the Corridor: *Providing Physical Connections, cont.*

Action	Partners
Acquire L&S right-of-way and develop it into a non-vehicular trail as part of the D&L Trail. Ensure clear trial linkages between the L&S and specific visitor sites in Wilkes-Barre, Ashley and White Haven. (page 66)	Luzerne County Municipalities DCA/BRC PennDOT/ISTEA
As necessary, facilitate acquisition of the west side railroad right-of-way north of Allentown to Jim Thorpe. Assist in developing the right-of-way into a trail as part of the D&L Trail. (page 68)	Carbon County Lehigh County Northampton County Stwdship. Compact Municipalities DCA/BRC PennDOT/ISTEA
Install a modest number of directional signs at turning points along the D&L Drive. (page 70)	PennDOT Counties Municipalities Interpretive Compact
Actions in the Reaches	
Identify, designate and mark bicycle routes along lesser roads for interpretive and recreational purposes that can loop with both the west side rail-trail and the Lehigh Canal Park (Canal Towns Reach). (page 192)	PennDOT Carbon County Lehigh County Northampton County Municipalities Other Partners
Create a regional event or celebration to draw attention to the continuous trail and series of towns and landscapes in the Canal Towns Reach, perhaps a "tour de D&L" bicycle or running event that might be expanded to other Reaches both north and south. (page 195)	Counties Municipalities Other Partners
Promote the loop bicycle and pedestrian trail on both sides of the Delaware from Bull's Island to Lambertville/New Hope that takes advantage of several attractive early bridges up and down the river and the two canals (Delaware Canal Reach). (page 217)	New Jersey Commerce/EDP PennDOT DCA/BRC DER/BSP Bucks County Del. River Greenway
Support a bi-state study on active river recreation and access in the Delaware Canal Reach. (page 217)	New Jersey DER/BSP DCA/BRC PFBC Bucks County Del. River Greenway

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
1,000,000	250,000	750,000		500,000	500,000	
1,000,000	250,000	750,000	500,000	500,000		
600,000	300,000	300,000		600,000		
200,000	50,000	150,000		200,000		
50,000	40,000	10,000	50,000			
150,000	50,000	100,000		150,000		
50,000	10,000	40,000		50,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Navigating the Corridor: *Providing Physical Connections, cont.*

Action	Partners
<p>■ Initiate a study of the Passage from Morrisville to Bristol, to determine costs and specifics for reviving this canal segment and integrating it with other resources. (pages 54 and 229)</p>	<p>Stwdship.Compact DER/BSP State Park Advisory Committee Bucks County Municipalities FODC ARPDC PennDOT/ISTEA Other Partners Grundy Fdn.</p>
<p>Create a circulation master plan for the Canal's End Reach that defines specific actions concerning interpretive and directional signage required; the roles of Partners; specific funding sources; and timetable for implementation. (page 229)</p>	<p>PennDOT DER/BSP Bucks County Municipalities Interpretive Compact</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
100,000	25,000	75,000		100,000		
100,000	20,000	80,000		100,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Understanding the Corridor: *Creating an Interpretive System*

Action	Partners
Establish and facilitate operation of an Interpretive Compact. (page 80)	All Interpretive Partners] ▶
Produce an interpretive plan for the Passage. (pages 80 and 81)	NPS] ▶ Interpretive Compact] ▶
Implement the Passage interpretive plan. (pages 80 and 81)	NPS] ▶ Interpretive Compact] ▶
Produce an interpretive plan for the Corridor beyond the Passage. (pages 80 and 81)	NPS] ▶ Interpretive Compact] ▶
Implement the Corridor-wide interpretive plan. (page 80)	NPS] ▶ Interpretive Compact] ▶
<p>Work with Partners to develop ten Landings (listed below in north-to-south order; timing of expenditures will depend on readiness of Partners; see pages 84–87 and 88–92)</p>	
<p><i>Wyoming Valley Landing:</i></p> <ul style="list-style-type: none"> ■ Study feasibility, location, site selection and Partner responsibilities for a Landing in the Wyoming Valley Reach. Candidates include the Stegmaier Brewery, the Huber Breaker in Ashley and Kirby Park. ■ Work with Partners to design and develop a Wyoming Valley Landing. 	<p>Luzerne County] ▶ Other Partners] ▶</p>
<p><i>Eastern Middle Anthracite Fields Landing:</i></p> <ul style="list-style-type: none"> ■ Establish the Eckley Miners' Village Visitor Center as an immediate and permanent Landing. 	<p>PHMC] ▶</p>
<p><i>Audubon's Lehigh Landing:</i></p> <ul style="list-style-type: none"> ■ Design a joint BSP visitor center/Landing facility in White Haven. ■ Work with Partners to develop the facility. 	<p>DER/BSP] ▶ EPA] ▶ National Audubon Society] ▶</p>
<p><i>Jim Thorpe and Panther Valley Landing:</i></p> <ul style="list-style-type: none"> ■ Establish a temporary Landing at the Jim Thorpe Visitor Center. ■ Study feasibility, site selection and Partner responsibilities for a Landing in Jim Thorpe. ■ Work with Partners to design and develop a Jim Thorpe Landing. 	<p>Carbon County] ▶ Jim Thorpe] ▶ TPA] ▶ Other Partners] ▶</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
50,000	25,000*	25,000	20,000	10,000	10,000	10,000
200,000	50,000	150,000	200,000			
See other actions below						
200,000	100,000	100,000	50,000	150,000		
See other actions below						
6,000,000	3,000,000	3,000,000	1,000,000	2,500,000	2,500,000	
1,000,000	500,000	500,000	200,000	800,000		
1,000,000	250,000	750,000	200,000	800,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Understanding the Corridor: *Creating an Interpretive System, cont.*

Action	Partners
<p><i>Canal Towns Landing:</i></p> <ul style="list-style-type: none"> ■ Study feasibility, location, site selection and Partner responsibilities for a Landing in the Canal Towns Reach. ■ Work with Partners to design and develop a Canal Towns Reach Landing. 	<ul style="list-style-type: none"> Walnutport Canal Association Boroughs of Walnutport and Palmerton Other Partners
<p><i>Lower Lehigh Valley, Allentown Landing:</i></p> <ul style="list-style-type: none"> ■ Establish a temporary Landing at the Art Museum or City Hall. ■ Study feasibility, site selection and Partner responsibilities for a Landing in Allentown. Top candidate is the A&B Packing Co. headquarters building in the Transportation Museum/Lehigh Landing mixed-use development. ■ Work with Partners to design and develop an Allentown Landing. 	<ul style="list-style-type: none"> City of Allentown Other Partners
<p><i>Lower Lehigh Valley, Bethlehem Landing:</i></p> <ul style="list-style-type: none"> ■ Establish a temporary Landing at the exhibit space at 509 Main Street. ■ Study feasibility, site selection and Partner responsibilities for a Landing in Bethlehem. Candidates include 509 Main Street, the Ice House on Sand Island and historic, industrial structures of Bethlehem Steel. ■ Work with Partners to design and develop a Bethlehem Landing. 	<ul style="list-style-type: none"> City of Bethlehem Historic Bethlehem, Inc. Bethlehem Collegium Other Partners
<p><i>Lower Lehigh Valley, Easton Landing:</i></p> <ul style="list-style-type: none"> ■ Establish a temporary Landing at the Hugh Moore Canal Museum. ■ Study feasibility, site selection and Partner responsibilities for a Landing in Easton in relation to the proposed National Canal Museum. ■ Work with Partners to design and develop an Easton Landing. 	<ul style="list-style-type: none"> City of Easton HMHPM Forks of Delaware Task Force Other Partners
<p><i>Delaware Canal Landing:</i></p> <ul style="list-style-type: none"> ■ Establish a temporary Landing at the Locktender's House in New Hope. ■ Establish a temporary exhibit at the Washington's Crossing Historic Park Visitor Center. ■ Study feasibility, location, site selection and Partner responsibilities for a Landing in the vicinity of New Hope. Candidates include the Thompson-Neely site, Union Camp complex and Washington's Crossing State Historic Park Visitor Center. ■ Work with Partners to design and develop a Delaware Canal Landing. 	<ul style="list-style-type: none"> PHMC DER/BSP Borough of New Hope FODC Other Partners

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
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Total for
all ten
Landings is
\$8,000,000.
See page
277.

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Understanding the Corridor: *Creating an Interpretive System, cont.*

Action	Partners
<p><i>Canal's End Landing:</i></p> <ul style="list-style-type: none"> ■ Establish a temporary Landing in Bristol at the Riverside Theater. ■ Study feasibility, site selection and Partner responsibilities for a Landing in Bristol. ■ Work with Partners to design and develop a Bristol Landing. 	<p>Borough of Bristol Grundy Fdn. DER/BSP Other Partners</p>
<p>Show locations of Landings, as well as the boundary of the Corridor, on state maps and guides. (page 87)</p>	<p>PennDOT Pa. Commerce/EDP</p>
<p>Create an exhibit presenting the Corridor-wide story, for installation at all Landings and interested Partner sites. (page 88)</p>	<p>Interpretive Partners NPS PHMC DER/BSP PHAC LRF FODC</p>
<p>Sponsor or provide technical assistance, training and matching grants to existing interpretive organizations to enhance their programming, coordinate their interpretive themes with the Corridor themes and improve staff capabilities. (pages 88 and 96)</p>	<p>Pa. Fed'n. of Museums NPS PHMC PHAC DER/BSP Interpretive Partners</p>
<p>Provide matching grants and technical assistance for exhibits and visitor services at Partner sites. (page 88)</p>	<p>NPS PHMC PHAC DER/BSP Interpretive Partners</p>
<p>Provide matching grants to existing and new interpretive organizations to encourage them to address key uninterpreted sites according to the Corridor and Passage interpretive plans. (page 88)</p>	<p>Interpretive Partners</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
10,000		10,000	10,000			
100,000	100,000	Duplication & installation costs	100,000			
350,000	150,000	200,000	20,000	130,000	100,000	100,000
400,000	200,000	200,000	50,000	100,000	100,000	150,000
200,000	150,000	50,000	50,000	50,000	50,000	50,000

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Understanding the Corridor: *Creating an Interpretive System, cont.*

Action	Partners
<p>Support development of major heritage attractions through matching grants; ensure coordination of interpretive services and of promotion of new attractions and existing interpretive sites. (page 92)</p> <ul style="list-style-type: none"> ■ White Haven ■ Eckley ■ Lehigh Landing/Transportation Museum ■ National Canal Museum ■ Industrial Heritage Museum ■ Produce a Special Resource Study on siting the National Canal Museum. 	<ul style="list-style-type: none"> DER/BSP White Haven EPA NAS Allentown City of Easton HMHPM Pa. Commerce/EDP DCA Bethlehem U.S. Commerce/EDA NPS PHMC FDTF Others
<p>Develop and install interpretive kiosks and/or wayside exhibits at a minimum of ten sites in the Corridor during the first three years. Additional installations for later years may be identified in the Corridor and Passage interpretive plans. (page 93)</p>	<ul style="list-style-type: none"> NPS DER/BSP PHMC Interpretive Partners
<p>Work with interpretive Partners to develop and implement topical driving, walking and other tours. These tours may extend beyond a single Reach (see sidebar). (page 94)</p> <ul style="list-style-type: none"> ■ Work with Partners in one Reach to identify, develop and implement interpretive tours. (page 94) ■ Staff and train interpretive rangers on canal rides, train excursions, canal walks and other walking tours and hikes. (page 94) 	<ul style="list-style-type: none"> Interpretive Partners NPS DER/BSP PHMC Other Interpreters TPA
<p>Develop a signage system and install directional signage at key locations. Design/install as much of the signage as possible in the first year; complete the system by year two; add or alter signs as driving tours, Landings and access points are developed or changed. (page 94)</p> <ul style="list-style-type: none"> ■ Sponsor an environmental graphics demonstration project in Delaware Canal State Park, incorporating signs, wayside exhibits and other components of the signage system. Design and install as much of this system as possible in the first year; complete it in the second year. (page 94) ■ Install low-frequency radio travellers' information systems at five to seven locations in the first three years. Additional installations for later years may be identified in the Corridor and Passage interpretive plans. (page 94) 	<ul style="list-style-type: none"> HMHPM PHMC DER/BSP FODC PennDOT Counties Municipalities LRF

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
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See "Enriching" matrix, Heritage Grant & Loan Fund

See Landing estimate

See Landing estimate

24,000,000	2,000,000	22,000,000		24,000,000		
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7,000,000	2,000,000	5,000,000		7,000,000		
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6,000,000	2,000,000	4,000,000		6,000,000		
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75,000	25,000	50,000	75,000			
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100,000	50,000	50,000	25,000	75,000		
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200,000	100,000	100,000	50,000	150,000		
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20,000	10,000	10,000	20,000			
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100,000	30,000	70,000	20,000	40,000	40,000	
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300,000	200,000	100,000	150,000	150,000		
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300,000	75,000	225,000	200,000	100,000		
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100,000	100,000		70,000	10,000	10,000	10,000
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NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

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Understanding the Corridor: *Creating an Interpretive System, cont.*

Action	Partners
<p>Develop and distribute interpretive publications and audio-visuals through matching grants to Partners and direct Commission action. (page 95)</p> <ul style="list-style-type: none"> ■ Revise the Corridor visitor map developed by the National Park Service to reflect the proposed interpretive framework and facilities. (page 95) ■ Produce a pocket "citizen's guide" to the Corridor. (page 95) ■ Select two highly visited sites or events to jointly develop a site/event/Corridor brochure as a demonstration project in the first year. Use the experience to inform planning and implementation of more publications under the Corridor and Passage interpretive plans. (page 95) ■ Create or provide matching grants to create simple travelling exhibits on cultural, natural and historic resources and themes. (page 95) 	<p>PHAC PHMC DER/BSP NPS Interpretive Partners Pa. Commerce/EDP TPA DCA LRF FODC</p>
<p>Facilitate establishment of a corps of volunteers under the National Park Service's Volunteer-in-the-Parks Program. (page 96)</p>	<p>NPS Interpretive Compact</p>
<p>Fund Intermediate Units to enable classroom teachers to cooperate with interpretive Partners to develop cultural, natural and historical programs for incorporation into an educational curriculum for the Corridor, for primary, middle and senior grade levels. (page 98)</p> <ul style="list-style-type: none"> ■ Develop cultural, natural and historical educational curricula for all educational levels. (page 98) 	<p>Dept. of Education Interpretive Partners Intermediate Units</p>
<p>Provide matching grants or contracts to interpreting institutions to enhance their educational outreach to classrooms and summer children's programs. (page 98)</p> <ul style="list-style-type: none"> ■ Provide matching grants for school visits to Corridor heritage sites. (page 98) 	<p>Interpretive Partners Intermediate Units Schools DER/BSP PHMC HMHPM Roving Nature Center Honey Hollow Environmental Education Center</p>
<p>Work with colleges so that specific Corridor research needs can be met through faculty and student work. (page 99)</p>	<p>Colleges</p>
<p>Work with interpretive, cultural, conservation and historical preservation Partners to create community heritage and public outreach programs for individual communities with and without Partner sites. (page 99)</p>	<p>Interpretive Partners Communities PHAC PHMC</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
150,000	75,000	75,000	10,000	50,000	50,000	40,000
50,000	25,000	25,000		50,000		
35,000	25,000	10,000		35,000		
20,000	10,000	10,000	20,000			
100,000	25,000	75,000		25,000	50,000	25,000
500,000	250,000	250,000	50,000	150,000	150,000	150,000
200,000	150,000	50,000		50,000	50,000	100,000
300,000	150,000	150,000	30,000	110,000	90,000	70,000
10,000	10,000*		1,000	3,000	3,000	3,000
100,000	35,000	65,000	10,000	30,000	30,000	30,000

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Understanding the Corridor: *Creating an Interpretive System, cont.*

Action	Partners
Actions in the Reaches	
Establish and mark "Coal Road" links between Pittston, Wilkes-Barre, Ashley and Nanticoke and between White Haven, Eckley, Weatherly and Hazleton (Wyoming Valley and Anthracite Fields Reaches). (pages 154 and 163)	Interpretive Partners Municipalities PennDOT
Create interpretive installations geared toward both D&L Trail and river users in Lehigh Gorge State Park (Audubon's Lehigh Reach). (page 173)	DER/BSP Audubon's America Program NAS
Establish and mark an "Industry Road" as a strong internal circulation route in the Lower Lehigh Valley Reach; use the D&L Drive as a "spine." (page 204)	Interpretive Partners Municipalities PennDOT
Develop the mule barn in Freemansburg for interpretive and visitor services (Lower Lehigh Valley Reach). (page 205)	Old Freemansburg Association
Develop wayside exhibits and other natural-resource interpretation at Island Park/Hugh Moore Park, Bertsch Creek, South Mountain, Little Lehigh Parkway and at the fish passageways in Easton and Allentown (Lower Lehigh Valley Reach). (page 205)	Interpretive Partners Municipalities
Create an interpretive tour in the Canal's End Reach for "four centuries of settlement." (page 230)	PHMC Historic Fallsington, Inc. Bristol Borough Other Partners
Interpret ethnic communities in the Canal's End Reach. Special focus needs to be given to documenting the first-generation settlers of Levittown. (page 232)	PHAC Other Partners Historic Fallsington
Develop Lehigh Canal Nature Trail, Allentown (Lower Lehigh Valley Reach). (page 205)	Allentown Dept. Rec. & Parks
Conduct the needed research and develop interpretive exhibits and tours of Bethlehem's South Side ethnic neighborhoods (Lower Lehigh Valley Reach.) (page 205)	Interpretive Partners South Bethlehem Historical Society PHAC

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
50,000	25,000	25,000		50,000		
100,000	40,000	60,000		100,000		
50,000	25,000	25,000		50,000		
50,000	25,000	25,000	50,000			
50,000	15,000	35,000			50,000	
40,000	10,000	30,000			40,000	
30,000	10,000	20,000			30,000	
30,000	10,000	20,000		30,000		
50,000	15,000	35,000			50,000	

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

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Conserving the Corridor: *Protecting Key Resources*

Action	Partners
Convene, initiate and administer a Corridor Stewardship Compact. (page 105)	DER/BSF PHMC DCA/BRC Counties Municipalities Conservancies Civic & Volunteer groups
Seek official approval of this Plan by the governing bodies of the Corridor's counties and municipalities and incorporation of the Plan actions into their comprehensive (and other) plans. (pages 106 and 107)	Counties Municipalities DCA
Encourage counties and municipalities to assist in implementing this Plan by developing protection plans for environmental, scenic, historic and recreational resources with the help of <i>ad hoc</i> Corridor Plan committees. Urge each to recommend ways and means to implement the plans. To the extent possible, municipal plans should be developed with county and conservancy assistance and consultation with adjoining municipalities. (pages 113, 117, 128 and 131)	Counties Municipalities DCA Conservancies
Provide each municipality with mapped and narrative survey information pertaining to the municipality's environmental and recreational resources and issues affecting them, derived from the Technical Appendix, <i>Natural and Recreational Resources Evaluation</i> . (pages 113 and 131)	Counties Municipalities
<ul style="list-style-type: none"> ■ Provide each municipality with mapped and narrative survey information pertaining to the municipality's environmental resources and issues affecting them, derived from the Technical Appendix, <i>Inventory and Assessment of Cultural Landscapes</i>. (pages 117 and 120) 	
<ul style="list-style-type: none"> ■ Provide each municipality with mapped and narrative survey information pertaining to the municipality's historic resources and issues affecting them, derived from the Technical Appendix, <i>Historic Resources Study</i>. In addition, encourage municipalities to map historic resources based on county survey information. (page 128) 	
Support existing conservation organizations to conserve environmental, scenic and recreational resources. (pages 113, 117 and 132)	Conservancies Environ. groups DCA/BRC
Increase land conservancy services in Luzerne and Carbon counties. (pages 113, 117 and 132)	Conservancies Counties Nonprofit Partners Individ. corporations Foundations
Convene a special Partners coalition to create a public lands open space and recreation master plan for Anthracite Fields, Audubon's Lehigh, and Jim Thorpe and Panther Valley Reaches. (pages 113 and 132)	Stwdship. Compact Land-owning agencies

	Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
●	200,000	100,000*	100,000	10,000	50,000	70,000	70,000
	40,000	10,000*	30,000	20,000	20,000		
	100,000	50,000*	50,000		50,000	50,000	
	75,000	50,000	25,000		75,000		
●							
	2,000,000	200,000	1,800,000		500,000	500,000	1,000,000
	200,000	100,000	100,000	20,000	60,000	60,000	60,000
●	100,000	20,000	80,000		100,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.
 * Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Conserving the Corridor: *Protecting Key Resources, cont.*

Action	Partners
<p>Provide technical assistance and matching grants to municipalities to assure conservation of environmental, scenic, cultural-resource, historic and recreational resources. (pages 113, 117, 120, 128 and 131)</p>	<p>Counties DCA/BRC</p> <p style="text-align: right;">] ▶ ●</p>
<p>Design regional or Reach-specific greenway strategies. These strategies should incorporate both existing greenway projects in the Corridor and Linkages recognized in the boundary map. (page 113)</p>	<p>Stwdship. Compact Conservancies County Planning Depts. DCA/BRC</p> <p style="text-align: right;">] ▶</p>
<p>Assess the status of water quality in the Delaware and Lehigh watersheds, including the status of acid mine drainage, storm water drainage and water quality investment. (page 113)</p> <p>■ Assign high priority for the state share of storm water funding for basin planning within the Corridor. (page 113)</p>	<p>See “Navigating” matrix</p>
<p>Protect the river islands of the Delaware River as special habitat. Support study of Lehigh River islands. (page 114)</p>	<p>Del. River Greenway NPS DCA/BRC PFBC</p> <p style="text-align: right;">] ▶</p>
<p>Support The Nature Conservancy in its Delaware River Campaign. (page 114)</p>	<p>The Nature Conservancy Del. River Greenway</p> <p style="text-align: right;">] ▶ ●</p>
<p>Assist in acquisition of identified critical lands with immediate threats for which no other protection method is viable. (page 114)</p>	<p>Foundations Corporations Conservancies Counties Municipalities DCA/BRC</p> <p style="text-align: right;">] ▶</p>
<p>Develop and promulgate guidelines for Commission review and comment to federal and state agencies on federal activities affecting key environmental resources; include staff guidance for processing. (page 114)</p> <p>■ Develop and promulgate guidelines for Commission review and comment to federal and state agencies on federal activities that explicitly state that the visual quality and recreational resources of the Corridor are values to be protected. (pages 118 and 132)</p> <p>■ Over the long term, establish the same obligations of Commission review and consultation on state and actions. (pages 114, 118 and 132)</p> <p>■ Assure that federal actions reviewed under the National Environmental Policy Act incorporate review of their impacts on the Corridor. (page 114)</p>	<p>Stwdship. Compact</p> <p style="text-align: right;">] ▶</p> <p style="text-align: right;">●</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
2,000,000	200,000	1,800,000		700,000	700,000	600,000
50,000	25,000	25,000		50,000		
75,000	35,000	40,000		75,000		
3,000,000	15,000	2,985,000	300,000	900,000	900,000	900,000
3,000,000	1,000,000	2,000,000		1,000,000	1,000,000	1,000,000
30,000	30,000		10,000	20,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Conserving the Corridor: *Protecting Key Resources, cont.*

Action	Partners
<p>Assist in designating sites identified as potential National Natural Landmarks, in part by helping to obtain owner consent. (page 114)</p> <p>■ Identify other potential National Natural Landmarks and obtain owner consent for their designation. (page 115)</p>	<p>NPS Conservancies</p>
<p>Advocate establishment of a state scenic roads program with a component designed for use in state heritage parks. (page 118)</p>	<p>PennDOT SHPITF DCA/BRC</p>
<p>Advocate and seek use of PennDOT/ISTEA funds for selective highway beautification and landscaping projects. (page 118)</p>	<p>PennDOT/ISTEA Counties Municipalities</p>
<p>Encourage municipalities to identify and, where appropriate, map cultural resources as location information becomes available from surveys that document cultural heritage, in order to identify opportunities for applying land management techniques for cultural resource protection. (page 120)</p>	<p>Municipalities Counties PHAC</p>
<p>Provide technical assistance and small matching grants to existing conservation, preservation and interpreting organizations to conserve cultural-resource sites. (page 120)</p>	<p>Interpretive Compact Stwdshp. Compact PHAC PHMC DCA/BRC</p>
<p>Support cultural resource studies proposed by Partners that support the interpretive themes and enhance knowledge or resource protection in the Passage and related areas of the Reaches. (page 121)</p>	<p>PHAC Interpretive Compact PHMC Counties Municipalities</p>
<p>Develop interpretive programs for use in primary and secondary schools and in libraries. These can include slide-tape programs on cultural resources and the Corridor-wide theme of "transformations of people and places"; and photographic essays that include historical and contemporary images taken both by ethnographers and area residents. (page 121)</p>	<p>PHAC Interpretive Compact PHMC PDE Intermediate Units School districts Other Partners</p>
<p>Develop traveling photo exhibits that illustrate Corridor cultural resources. The exhibits can rotate among museums, libraries, schools and events in the Corridor. (page 121)</p>	<p>PHAC Interpretive Compact Other Partners</p>
<p>Develop a Corridor folklife display-demonstration-performance program to travel to existing local festivals and events. (page 121)</p>	<p>PHAC Interpretive Compact Pa. Arts Council</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
25,000	15,000*	10,000		25,000		
10,000	10,000*		3,000	7,000		
1,000,000	100,000	900,000		200,000	400,000	400,000
100,000	50,000*	50,000		30,000	30,000	40,000
300,000	30,000	270,000		100,000	100,000	100,000
500,000	50,000	450,000		100,000	200,000	200,000
400,000	100,000	300,000		130,000	130,000	140,000
100,000	25,000	75,000			50,000	50,000
150,000	75,000	75,000		150,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Conserving the Corridor: *Protecting Key Resources, cont.*

Action	Partners
Organize a Corridor conference (using outside funding) on 1) the heritage and folklife of the Corridor, and 2) the current field of cultural heritage programs as it is developing in National Heritage Corridors and similar entities throughout the United States. (page 121)	PHAC Interpretive Compact DCA/BRC
Offer technical assistance to community cultural resource groups in such areas as event planning and facilitation, project design (for exhibits and preservation activities), fundraising and resource management. (page 122)	PHAC TPAs PHMC Interpretive Compact Other Partners
Develop a calendar of events and a series of cultural tour guides that provide illustrated interpretation of Corridor history, heritage and folklife. The guides could encourage and enable visitors to visit significant sites and to participate in activities and events. Examples of potential tour topics include vernacular architecture, neighborhoods, ethnic foods, ethnic and regional festivals, industry and workplace, and farm and rural landscapes. (page 122)	TPAs Interpretive Compact Other Partners
Complete the listing of the Lehigh Navigation as a National Historic Landmark; study the system upstream of the current study area for potential amendment to the designation. (page 126) ■ Identify other potential National Historic Landmarks according to established National and Corridor themes, and to bring them to the attention of the National Park Service. (page 126)	PHMC NPS Historic pres. groups
Encourage the National Park Service to review the Corridor for other potential HABS or HAER recording projects and draw up a plan for undertaking them in priority order. (page 126)	NPS PHMC
Negotiate a memorandum of understanding with the Pennsylvania Historical and Museum Commission concerning coordination of the Commission's environmental reviews and the PHMC's responsibilities under Section 106 of the National Historic Preservation Act. (page 124)	PHMC
Encourage local and National Register historic district designations to follow county historic resource surveys. (page 125)	Municipalities Counties PHMC
Encourage the formation of a historic preservation office in Carbon County. (page 126)	PHMC Carbon County
Provide small matching grants and coordinate technical assistance from the PHMC and other sources for all county historic preservation offices, to aid the development and progress of county-wide surveys throughout the Corridor. (page 127)	PHMC Counties DCA/BRC Municipalities Historic pres. groups

	Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
	50,000		50,000		50,000		
	200,000	50,000	150,000	20,000	60,000	60,000	60,000
	65,000	20,000*	45,000	20,000	15,000	15,000	15,000
	40,000	20,000	20,000	20,000	20,000		
	50,000	5,000	45,000		50,000		
	5,000	2,500	2,500		5,000		
	500,000	125,000	375,000		200,000	150,000	150,000
	150,000	50,000	100,000		75,000	75,000	
	200,000	50,000	150,000		65,000	65,000	70,000

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Conserving the Corridor: *Protecting Key Resources, cont.*

Action	Partners
Provide small matching grants for existing or new local historic preservation organizations or municipal historic preservation committees, to aid them in 1) publicizing county survey finds and 2) determining and supporting next steps based on their county survey, including National Register listings and local ordinances. (page 126)	PHMC Counties Municipalities Hist. pres. groups
Encourage county surveys to include archeological information, both from early records and fieldwork. (Knowledge of site locations should be shared only with the PHMC, to discourage looting.) (page 127)	PHMC Counties
Encourage municipalities to use incentives in zoning ordinances that encourage historic preservation. (page 128)	PHMC DCA Counties Municipalities
Support existing historic preservation organizations to conserve historic and cultural resources. (page 129)	PHMC PHAC
Encourage historic preservation organizations, municipalities and others to establish modest grants programs or design assistance, or both, for maintenance and restoration of buildings located in National Register and locally designated districts, including Main Street areas. (page 129)	PHMC Counties Municipalities Hist. Pres. Orgs. Individuals
Encourage coordinated use of RIRA and LWCF programs to support key Corridor conservation goals. (page 133)	DER DCA SHPITF
Actions in the Reaches	
Participate in the Audubon's America program of the U.S. Environmental Protection Agency and the National Audubon Society (Audubon's Lehigh Reach). (page 174)	Counties Municipalities EPA NAS
Through grants and technical assistance, support combined documentation and reuse studies through the Historic American Engineering Record and others for such significant historic industrial sites as the Thomas Iron Works in Hokendauqua, portions of Bethlehem Steel, and several of the Lower Lehigh Valley Reach's silk mills and other factory structures. (page 206)	PHMC NPS/HAER Counties Municipalities Owners Interpretive Compact
Sponsor an annual historic preservation conference for the Lehigh Valley in the years following the 1993 State Heritage Parks Program/Preservation Pennsylvania joint conference. (page 207)	PHMC Pres. Pennsylvania Local Pres. Groups PHAC DCA Counties Municipalities

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
200,000	40,000	160,000	20,000	55,000	55,000	70,000
250,000	25,000*	225,000		80,000	80,000	90,000
30,000	15,000*	15,000		30,000		
2,000,000	200,000	1,800,000		500,000	500,000	1,000,000
450,000	150,000	300,000		150,000	150,000	150,000
20,000		20,000	20,000			
100,000	25,000	75,000	10,000	40,000	50,000	
100,000	40,000	60,000	20,000	80,000		
180,000	45,000	135,000		60,000	60,000	60,000

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Conserving the Corridor: *Protecting Key Resources, cont.*

Action	Partners
Assure that priority natural sites are protected through zoning, local and state permitting, and storm water management permitting in the Canal's End Reach. (page 232)	<ul style="list-style-type: none"> Bucks County Bucks County Conservancy Municipalities DCA DER
Sponsor a conference on the preservation of 20th century resources (Canal's End Reach). (page 232)	<ul style="list-style-type: none"> PHMC PHAC PPa. NTHP

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
90,000	20,000	70,000		30,000	30,000	30,000
20,000	5,000	15,000		20,000	20,000	

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Enriching the Corridor: *Capitalizing on Heritage Development*

Action	Partners
<p>Create a Heritage Development Grant and Loan Fund to seed and package outstanding catalytic project, developed either by Partners or by the Commission. (pages 144)</p> <p>■ In later years of the Plan, expand the mission of the Heritage Development Grant and Loan fund to target small business development related to heritage tourism. (page 144)</p>	<p>Commonwealth of Pa. Foundations Other Partners</p>
<p>Convene representatives of the Corridor's economic development and tourism promotion agencies and major heritage attractions in working sessions to focus on incorporating elements of the Corridor initiative into their own agendas and foster interagency communications and programming. (page 142)</p>	<p>TPAs Interpretive Partners Chambers of Commerce Community Dev. Corps. Pa. Commerce/EDP U.S. Commerce/EDA</p>
<p>Strengthen the TPAs to enable them to become the Commission's marketing Partners by contracting with them to provide specific marketing services. (page 142)</p>	<p>TPAs Pa. Commerce/EDP Interpretive Compact</p>
<p>Work with interpretive sites and major regional attractions on cooperative marketing to extend visitor stays and encourage visitor return. (page 143)</p>	<p>TPAs Interpretive Compact Pa. Commerce/EDP Other Attractions</p>
<p>Encourage the creation of affordable housing in historic structures. (page 144)</p>	<p>DCA PHFA PHMC Corridor's Housing Agencies</p>
<p>Provide technical assistance for Main Street revitalization efforts in selected Corridor communities. (page 144)</p> <p>■ Provide circuit-riding technical assistance to fledgling Main Street efforts and other interested Corridor towns. (page 145)</p>	<p>Chambers of Commerce Municipalities DCA PDC PHMC</p>
<p>Compile and maintain key economic indicators: centralized documentation of increased visitation, economic investment, job creation, etc. — the economic performance of the growing web of heritage development and tourism linkages in the Corridor over the years. (page 145)</p>	<p>Counties Pa. Commerce/EDP</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
15,000,000	5,000,000	10,000,000	500,000	4,500,000	4,500,000	5,500,000
100,000	50,000*	50,000	10,000	30,000	30,000	30,000
2,000,000	500,000	1,500,000	200,000	600,000	600,000	600,000
200,000	50,000	150,000	20,000	60,000	60,000	60,000
1,000,000	100,000	900,000	100,000	300,000	300,000	300,000
600,000	200,000	400,000	50,000	150,000	200,000	200,000
100,000	50,000	50,000	10,000	20,000	35,000	35,000

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Enriching the Corridor: *Capitalizing on Heritage Development, cont.*

Action	Partners
Actions in the Reaches	
Develop a Corridor message and promotion strategy highlighting “natural plus cultural” heritage in the Wyoming Valley, Anthracite Fields and Audubon’s Lehigh Reaches. (pages 156, 165 and 173)	TPAs Pa. Commerce/EDP Audubon's America
Encourage exploration of adaptive reuse options for the Stegmaier Brewery (Wyoming Valley Reach). (page 156)	City of Wilkes-Barre Interpretive Compact PHMC NPS Other Partners
Through White Haven and Catasauqua Main Street projects, restore the historic appearance of these small towns and develop tourism retail, restaurants and lodging to capture spending from visitors (Audubon’s Lehigh Reach and Lower Lehigh Valley Reach). (pages 175 and 209)	Luzerne County & TPA Lehigh County & TPA PDC DCA PPa. NTHP
Create a three-town anthracite heritage/gravity railroad event for Summit Hill, Nesquehoning and Lansford during spring or summer when visitation to Jim Thorpe is lower (Jim Thorpe and Panther Valley Reach). (page 183)	Carbon County TPA Municipalities PHAC Interpretive Compact Other Partners
Develop a special Corridor message about Jim Thorpe “at the center of it all” (Jim Thorpe and Panther Valley Reach). (page 185)	Pocono Mts. Vacation Bureau Carbon County TPA
Through planning grants, support the efforts of the Easton Economic Development Corporation to revitalize the city’s center (Lower Lehigh Valley Reach). (page 209)	Easton PHMC County Forks of Del. Task Force
Work with the city of Bethlehem to attract a developer and convert the Saquoit silk mill for housing and commercial uses (Lower Lehigh Valley Reach). (page 209)	City Property owners Interpretive Compact
Create a strategy for developing tourism opportunities and promoting heritage and recreational tourism throughout the Delaware Canal Reach. (page 219)	Bucks County Tourist Comm’n. Chambers of Commerce Interpretive Compact

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
150,000	20,000	130,000	20,000	130,000		
75,000	25,000	50,000		75,000		
60,000	20,000	40,000	20,000	40,000		
30,000	15,000	15,000	15,000	15,000		
15,000	5,000	10,000		15,000		
100,000	10,000	90,000		50,000	50,000	
1,000,000	10,000	990,000	50,000	950,000		
25,000	5,000	20,000		25,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Enriching the Corridor: Capitalizing on Heritage Development, cont.

Action	Partners
<p>Develop and conduct a familiarization tour of the Canal's End Reach's diverse heritage attraction for feature writers from Philadelphia and New Jersey newspapers. (page 233)</p>	<p>Interpretive Compact Bucks County Tourist Comm'n. Municipalities</p>
<p>Install a sign along the Amtrak station in Bristol visible to train riders announcing they are in the National Heritage Corridor, in the longer run, explore cooperative programs and tours with Amtrak (Canal's End Reach). (page 233)</p>	<p>Conrail Borough of Bristol</p>
<p>Sponsor a R/UDAT — Regional/Urban Design Action Team — to produce a practical strategy of short-term (three to five year) improvements to enhance Bristol as a gateway to the Corridor (Canal's End Reach). (page 233)</p>	<p>Grundy Fdn. AIA Bucks County Municipalities Chambers of Commerce Corporations PennDOT Conrail</p>
<p>Support the development of an appropriate mixed-use project in the Leedom Carpet Mill (Canal's End Reach). (page 233)</p>	<p>Borough of Bristol Property owner Interpretive Compact Grundy Fdn.</p>

Est. Total \$	Commiss'n. Investmt.	Partner Investmt.	Year 1	Years 2-4	Years 5-7	Years 8-10
15,000	5,000	10,000	10,000	5,000		
10,000	5,000	5,000	10,000			
40,000	10,000	30,000	40,000			
1,000,000	10,000	990,000	50,000	950,000		

NOTE: Totals for all columns are reflected in Figures 9.1 and 9.2.

* Indicates Commission staff time only, included in Commission's annual operating budget (see Figure 9.1, page 306).

Phasing of Corridor Investment over Ten Years (in Thousands)

Cost of Actions	Year 1	Years 2 - 4	Years 5 - 7	Years 8 - 10	Total
Physical Linkages	\$ 630	\$21,575	\$20,885	\$20,215	\$63,305
Interpretive System	2,681	42,798	3,403	738	49,620
Resource Conservation	493	5,907	5,500	6,255	18,155
Economic Development & Tourism	1,105	7,915	5,775	6,725	21,520
Commission Annual Operating Costs	<u>500</u>	<u>1,500</u>	<u>1,500</u>	<u>1,500</u>	<u>5,000</u>
Total	\$ 5,409	\$79,695	\$37,063	\$35,433	\$157,600

Figure 9.1

Commission and Partner Investment over Ten Years (in Thousands)

Cost of Actions	Commission Investment	Partner Investment	Total
Physical Linkages	\$ 11,295	\$52,010	\$63,305
Interpretive System	12,045	37,575	49,620
Resource Conservation	3,177.5	14,977.5	18,155
Economic Development & Tourism	6,090	15,430	21,520
Commission Operating Costs	<u>5,000</u>	<u>0</u>	<u>5,000</u>
Total	\$37,607.5	\$119,992.5	\$157,600

Figure 9.2

Federal and State Statements of Purpose and Commission Enabling Legislation: Public Law 100-692, *Delaware and Lehigh Navigation Canal National Heritage Corridor Act of 1988*

The purpose described by the federal legislation is *"to provide a management framework to assist the Commonwealth and its political subdivisions in developing and implementing integrated cultural, historical and natural resource policies and programs that will preserve and interpret for the educational and inspirational benefit of present and future generations the unique and significant contributions to our national heritage of certain historic and cultural lands, waterways and structures within and surrounding the Delaware and Lehigh Canals in the Commonwealth."*

The State Heritage Parks Program manual describes the following purpose: *"With intergovernmental cooperation and regional planning strategies, [the region's cultural, historic and recreational] resources will be developed to enhance regional economies through the attraction of visiting tourists, creation of new jobs and promotion of public and private partnerships for new investment opportunities. The [plan] for a Heritage Park will ensure that the cultural, historic and natural resources of a region are protected to perpetuate their legacy for future generations, and to enhance opportunities for recreation and education."*

The federal legislation and the State Heritage Parks Program manual describe similar categories for implementation projects. These include, but are not limited to:

Federal Legislation

1. Assisting the Commonwealth in preserving the canals;
2. Assisting the Commonwealth and local governments in designing, establishing and maintaining visitor centers and other interpretive exhibits in the Corridor;

- 3.* Assisting in increasing public awareness of and appreciation for the historical, architectural and geological resources and sites in the Corridor;
- 4.* Assisting the Commonwealth, local governments and nonprofit organizations in the restoration of any historic building in the Corridor;
- 5.* Encouraging by appropriate means enhance economic and industrial development in the Corridor consistent with the goals of the Plan;
6. Encouraging local governments to adopt land use policies consistent with the management of the Corridor and the goals of the Plan, and to take actions to implement these policies; and
7. Ensuring that clear, consistent signs identifying access points and sites of interest are put in place throughout the Corridor.

State Heritage Parks Program Manual

8. Foster awareness and pride in ethnic and workplace heritage through documentation, interpretive programs, events and educational materials;
9. Establish recreation corridors, including greenways, to link the significant resources of the Corridor and to provide access; and
10. Conserve natural and scenic resources, especially those of significant environmental or ecological value.

* Denotes project category shared by the federal legislation and the State Heritage Parks Program.

Public Law 100-692
100th Congress

An Act

Nov. 18, 1988
[H.R. 3957]

To establish the Delaware and Lehigh Navigation Canal National Heritage Corridor in the Commonwealth of Pennsylvania.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled,

Delaware and
Lehigh
Navigation
Canal National
Heritage
Corridor Act of
1988.
Conservation.
Cultural
programs.
Historic
preservation.

SECTION 1. SHORT TITLE.

This Act may be cited as the "Delaware and Lehigh Navigation Canal National Heritage Corridor Act of 1988".

SEC. 2. FINDINGS.

Congress finds the following:

(1) The Delaware Canal, which opened for regular commercial navigation in 1834, provided an early and essential link in a 4,000 mile national transportation route and helped to transform Pennsylvania from an agrarian region to the center of an industrialized society.

(2) The Canal served as the primary means for transporting coal and other bulk goods from the "Anthracite Region" of Pennsylvania to New York, New Jersey, Philadelphia, and other industrial centers as far away as Europe.

(3) As part of an elaborate national transportation system, the Delaware Canal and Lehigh Navigation Canal played a critical role in supplying our developing Nation with the coal that fueled its factories and heated its homes.

(4) The route of the Delaware Canal parallels stagecoach routes and the trails of the Leni-Lenape Indians, and passes numerous 18th, 19th, and 20th century sites of national and State historical significance.

(5) In 1978, the Delaware Canal was declared a National Historic Landmark, and portions of the Lehigh Navigation Canal were placed on the National Register of Historic Places and designated a National Recreation Trail.

16 USC 461 note.

SEC. 3. ESTABLISHMENT OF NATIONAL HERITAGE CORRIDOR; PURPOSE.

(a) **ESTABLISHMENT.**—There is hereby established in the Commonwealth of Pennsylvania the Delaware and Lehigh Navigation Canal National Heritage Corridor (hereinafter in this Act referred to as the "Corridor").

(b) **PURPOSE.**—It is the purpose of this Act to provide a management framework to assist the Commonwealth and its political subdivisions in developing and implementing integrated cultural, historical, and natural resource policies and programs that will preserve and interpret for the educational and inspirational benefit of present and future generations the unique and significant contributions to our national heritage of certain historic and cultural lands, waterways, and structures within and surrounding the Delaware and Lehigh Navigation Canal in the Commonwealth.

SEC. 4. BOUNDARIES AND ADMINISTRATION.

(a) **BOUNDARIES.**—The boundaries of the Corridor shall include those lands generally depicted on the map entitled "Delaware and Lehigh Navigation Canal National Heritage Corridor" numbered DELE-90,000 and dated August, 1988. The map shall be on file and available for public inspection in the offices of the Department of the Interior in Washington, District of Columbia, and the Pennsylvania Department of Environmental Resources. As soon as practical after the date of enactment of this Act, the Secretary of the Interior shall publish in the Federal Register a detailed description and map of the boundaries established under this subsection.

Public
information.Federal
Register,
publication.

(b) **ADMINISTRATION.**—The Corridor shall be administered in accordance with the provisions of this Act.

SEC. 5. DELAWARE AND LEHIGH NAVIGATION CANAL NATIONAL HERITAGE CORRIDOR COMMISSION.

(a) **ESTABLISHMENT.**—There is hereby established the Delaware and Lehigh Navigation Canal National Heritage Corridor Commission (hereinafter in this Act referred to as the "Commission"). The Commission shall assist appropriate Federal, State, and local authorities in the development and implementation of an integrated resource management plan for the Corridor.

(b) **MEMBERSHIP.**—The Commission shall be composed of 21 members appointed not later than 6 months after the date of enactment of this Act as follows:

(1) The Director of the National Park Service ex officio (or his delegate).

(2) 4 individuals appointed by the Secretary, after receiving recommendations from the Governor who shall represent the Pennsylvania Department of Environmental Resources, the Pennsylvania Historical and Museum Commission, the Pennsylvania Department of Commerce/Economic Development Partnership, and the Pennsylvania Department of Community Affairs.

(3) 8 representatives of local governments from the Commonwealth appointed by the Secretary, after receiving recommendations from the Governor, of whom 4 shall be representatives from the Lehigh Navigation Canal region and 4 shall be representatives from the Delaware Canal region.

(4) 8 individuals from the general public who are citizens of the Commonwealth appointed by the Secretary, after receiving recommendations from the Governor, who shall have knowledge and experience in appropriate fields of interest, relating to the preservation, use, and interpretation of the Corridor of whom 4 shall be residents of the Lehigh Navigation Canal region and 4 shall be residents of the Delaware Canal region. A vacancy in the Commission shall be filled in the manner in which the original appointment was made.

(c) **TERMS.**—Members of the Commission shall be appointed for terms of 3 years and may be reappointed.

(2) Any member appointed to fill a vacancy occurring before the expiration of the term for which his predecessor was appointed shall be appointed only for the remainder of such term. Any member of the Commission appointed for a definite term may serve after the expiration of his term until his successor has taken office.

(d) **COMPENSATION.**—Members of the Commission shall receive no pay on account of their service on the Commission, but while away

from their homes or regular places of business in the performance of services for the Commission, members of the Commission shall be allowed travel expenses, including per diem in lieu of subsistence, in the same manner as persons employed intermittently in the Government service are allowed expenses under section 5703 of title 5, United States Code.

(e) **CHAIRPERSON.**—The chairperson of the Commission shall be elected by the members of the Commission. The term of the chairperson shall be 2 years.

(f) **QUORUM.**—(1) 11 members of the Commission shall constitute a quorum, but a lesser number may hold hearings.

(2) The affirmative vote of not less than 6 members of the Commission shall be required to approve the budget of the Commission.

(g) **MEETINGS.**—The Commission shall hold its first meeting not later than 90 days after the date on which its members are appointed, and shall meet at least quarterly at the call of the chairperson or 6 of its members. Meetings of the Commission shall be subject to section 552b of title 5, United States Code (relating to open meetings).

SEC. 6. STAFF OF THE COMMISSION.

(a) **IN GENERAL.**—(1) The Commission shall have the power to appoint and fix the compensation of such staff as may be necessary to carry out its duties.

(2) Staff appointed by the Commission—

(A) shall be appointed subject to the provisions of title 5, United States Code, governing appointments in the competitive service; and

(B) shall be paid in accordance with the provisions of chapter 51 and subchapter III of chapter 53 of such title relating to classification and General Schedule pay rates.

(b) **EXPERTS AND CONSULTANTS.**—Subject to such rules as may be adopted by the Commission, the Commission may procure temporary and intermittent services to the same extent as is authorized by section 3109(b) of title 5, United States Code, but at rates determined by the Commission to be reasonable.

(c) **STAFF OF OTHER AGENCIES.**—(1) Upon request of the Commission, the head of any Federal agency may detail, on a reimbursable basis, any of the personnel of such agency to the Commission to assist the Commission in carrying out the Commission's duties.

(2) The Commission may accept the services of personnel detailed from the Commonwealth and any political subdivision thereof, and may reimburse the Commonwealth or such political subdivision for those services.

SEC. 7. POWERS OF COMMISSION.

(a) **HEARINGS.**—(1) The Commission may hold such hearings, sit and act at such times and places, take such testimony, and receive such evidence, as the Commission considers appropriate.

(2) The Commission may not issue subpoenas or exercise any subpoena authority.

(b) **POWERS OF MEMBERS AND AGENTS.**—Any member or agent of the Commission, if so authorized by the Commission, may take any action which the Commission is authorized to take by this Act.

(c) **ADMINISTRATIVE SUPPORT SERVICES.**—The Administrator of the General Services Administration shall provide to the Commission,

on a reimbursable basis, such administrative support services as the Commission may request.

(d) **MAILS.**—The Commission may use the United States mails in the same manner and under the same conditions as other departments and agencies of the United States.

(e) **USE OF FUNDS TO OBTAIN MONEY.**—The Commission may use its funds to obtain money from any source under any program or law requiring the recipient of such money to make a contribution in order to receive such money.

(f) **GIFTS.**—(1) Except as provided in subsection (g)(2)(B), the Commission may, for purposes of carrying out its duties, seek, accept, and dispose of gifts, bequests, or donations of money, personal property, or services, received from any source.

(2) For purposes of section 170(c) of the Internal Revenue Code of 1986, any gift to the Commission shall be deemed to be a gift to the United States.

(g) **ACQUISITION OF REAL PROPERTY.**—(1) Except as provided in paragraph (2) and except with respect to any leasing of facilities under subsection (c), the Commission may not acquire any real property or interest in real property.

(2) Subject to paragraph (3), the Commission may acquire real property, or interests in real property, in the Corridor—

(A) by gift or devise; or

(B) by purchase from a willing seller with money which was given or bequeathed to the Commission on the condition that such money would be used to purchase real property, or interests in real property, in the Corridor.

(3) Any real property or interest in real property acquired by the Commission under paragraph (2) shall be conveyed by the Commission to an appropriate public agency, as determined by the Commission. Any such conveyance shall be made—

(A) as soon as practicable after such acquisition;

(B) without consideration; and

(C) on the condition that the real property or interest in real property so conveyed is used for public purposes.

(h) **COOPERATIVE AGREEMENTS.**—For purposes of carrying out the plan, the Commission may enter into cooperative agreements with the Commonwealth, with any political subdivision of the Commonwealth, or with any person. Any such cooperative agreement shall, at a minimum, establish procedures for providing notice to the Commission of any action proposed by the Commonwealth, such political subdivision, or such person which may affect the implementation of the Plan.

(i) **ADVISORY GROUPS.**—The Commission may establish such advisory groups as it deems necessary to ensure open communication with, and assistance from, the Commonwealth, political subdivisions of the Commonwealth, and interested persons.

SEC. 8. DUTIES OF THE COMMISSION.

(a) **PREPARATION OF PLAN.**—Within 2 years after the Commission conducts its first meeting, it shall submit to the Secretary of the Interior a Cultural Heritage and Corridor Management Plan. The Plan shall be based on existing Federal, Commonwealth, and local plans, but shall coordinate those plans and present a unified historic preservation and interpretation plan for the Corridor. The Plan shall—

(1) provide an inventory which includes any property in the Corridor which should be preserved, restored, managed, developed, maintained, or acquired because of its national historic or cultural significance;

(2) develop an historic interpretation plan to interpret the history of the Canal and its surrounding area;

(3) recommend policies for resource management which consider and detail the application of appropriate land and water management techniques, including the development of intergovernmental cooperative agreements, that will protect the Corridor's historical, cultural, scenic, and natural resources in a manner consistent with supporting appropriate and compatible economic revitalization efforts;

(4) detail the ways in which local, Commonwealth, and Federal programs may best be coordinated to promote the purposes of this Act; and

(5) contain a program for implementation of the Plan by the Commonwealth and its political subdivisions.

(b) **IMPLEMENTATION OF PLAN.**—After review and approval of the Plan by the Secretary of the Interior as provided in section 10(a), the Commission shall implement the Plan by taking appropriate steps to preserve and interpret the historic resources of the Canal and its surrounding area, and to support public and private efforts in economic revitalization consistent with the goals of the Plan. These steps may include, but need not be limited to—

(1) assisting the Commonwealth in preserving the Canal;

(2) assisting the Commonwealth and local governments in designing, establishing, and maintaining visitor centers and other interpretive exhibits in the Corridor;

(3) assisting in increasing public awareness of and appreciation for the historical, architectural, and geological resources and sites in the Corridor;

(4) assisting the Commonwealth, local governments, and non-profit organizations in the restoration of any historic building in the Corridor;

(5) encouraging by appropriate means enhanced economic and industrial development in the Corridor consistent with the goals of the Plan;

(6) encouraging local governments to adopt land use policies consistent with the management of the Corridor and the goals of the Plan, and to take actions to implement those policies; and

(7) ensuring that clear, consistent signs identifying access points and sites of interest are put in place throughout the Corridor.

SEC. 9. TERMINATION OF COMMISSION.

(a) **TERMINATION.**—Except as provided in subsection (b), the Commission shall terminate on the day occurring 5 years after the date of the enactment of this Act.

(b) **EXTENSIONS.**—The Commission may be extended for a period of not more than 5 years beginning on the day of termination referred to in subsection (a) if, not later than 180 days before such day—

(1) the Commission determines such extension is necessary in order to carry out the purpose of this Act;

(2) the Commission submits such proposed extension to the Committee on Interior and Insular Affairs of the United States

House of Representatives and to the Committee on Energy and Natural Resources of the United States Senate; and

(3) the Secretary approves such extension.

SEC. 10. DUTIES OF THE SECRETARY.

(a) **APPROVAL OF PLAN.**—The Secretary of the Interior shall approve or disapprove a Plan submitted to him under this Act by the Commission not later than 60 days after he receives such Plan. The Secretary shall approve a Plan submitted to him if—

(1) he finds that the Plan, if implemented, would adequately protect the significant historical and cultural resources of the Corridor while providing adequate and appropriate outdoor recreational opportunities and economic activities within the Corridor;

(2) he determines that the Commission held public hearings and provided adequate opportunity for public and governmental involvement in the preparation of the Plan; and

(3) he receives adequate assurances from appropriate Commonwealth officials that the recommended implementation program identified in the Plan will be initiated within a reasonable time after the date of approval of the Plan, and that such implementation program will ensure effective implementation of the State and local aspects of the Plan.

(b) **DISAPPROVAL OF PLAN.**—If the Secretary disapproves a Plan submitted to him by the Commission, he shall advise the Commission in writing of the reasons therefore and shall make recommendations for revisions in the Plan. The Commission shall within 90 days of receipt of such notice of disapproval revise and resubmit the plan to the Secretary who shall approve or disapprove a proposed revision within 60 days after the date it is submitted to him.

(c) **INTERPRETIVE MATERIALS.**—Following approval of the Plan as provided under subsection (a), the Secretary shall assist the Commission in designing and producing interpretive materials based on the Plan. Such materials may include—

(1) guide brochures for exploring the Corridor by automobile, train, bicycle, boat, or foot;

(2) indoor and outdoor visitor displays, which may include video presentations, at several locations along the Corridor; and

(3) a mobile display describing the history of the Corridor, to be used in the Corridor, public buildings, libraries, and schools.

(d) **TECHNICAL ASSISTANCE.**—The Secretary of the Interior shall, upon the request of the Commission, provide technical assistance to the Commission in the preparation and implementation of the Plan.

SEC. 11. DUTIES OF OTHER FEDERAL ENTITIES.

Any Federal entity conducting or supporting activities directly affecting the flow of the Canal or the natural resources of the Corridor shall—

(1) consult with the Secretary and the Commission with respect to such activities;

(2) cooperate with the Secretary and the Commission in carrying out their duties under this Act and, to the maximum extent practicable, coordinate such activities with the carrying out of such duties; and

(3) to the maximum extent practicable, conduct or support such activities in a manner consistent with the Plan and the provisions of this Act.

SEC. 12. AUTHORIZATION OF APPROPRIATIONS.

(a) **COMMISSION.**—There is authorized to be appropriated annually to the Commission to carry out its duties under this Act \$350,000, except that the Federal contribution to the Commission shall not exceed 50 percent of the annual costs to the Commission in carrying out those duties.

(b) **SECRETARY.**—There are authorized to be appropriated annually to the Secretary such sums as may be necessary to carry out his duties under this Act.

SEC. 13. DEFINITIONS.

For purposes of this Act—

(1) the term "Canal" means the Delaware and Lehigh Navigation Canal;

(2) the term "Commission" means the Delaware and Lehigh Navigation Canal National Heritage Corridor Commission established under section 5(a);

(3) the term "Commonwealth" means the Commonwealth of Pennsylvania;

(4) the term "Corridor" means the Delaware and Lehigh Navigation Canal National Heritage Corridor established under section 3(a);

(5) the term "Plan" means the Cultural Heritage and Corridor Management Plan to be prepared by the Commission pursuant to section 8(a); and

(6) the term "Secretary" means the Secretary of the Interior.

Approved November 18, 1988.

LEGISLATIVE HISTORY—H.R. 3957:

HOUSE REPORTS: No. 100-906 (Comm. on Interior and Insular Affairs).

CONGRESSIONAL RECORD, Vol. 134 (1988):

Sept. 13, considered and passed House.

Oct. 14, considered and passed Senate, amended.

Oct. 19, House concurred in certain Senate amendments and disagreed to another.

Oct. 20, Senate receded from its amendment.



Excerpt from the Technical Memorandum on Alternatives

Note: The following material has been excerpted directly from documentation that accompanied the development of alternative ideas for approaching the various management needs of the Corridor. The process by which these alternatives were developed and reviewed by the public is described in Chapter 3 of the Plan. The Corridor Vision is also included in Chapter 3. The primary interpretive themes to which this document refers are explained in Chapter 5.

A. Introduction

Following is a description of three **Alternative Implementation Strategies** for the Corridor: two **Action** Alternatives as well as the required **No-action** Alternative.

The backdrop for the creation of these Alternatives is the Corridor Vision statement that has been agreed upon by all partners involved in the planning process. This Corridor Vision serves as the broadly conceived statement of goals for this project; therefore the Alternatives described here have been specifically designed to meet these goals. The goals address everything from physical treatment of historic canal structures, recreational development and the establishment of physical linkages between resources, to economic development and cooperation among diverse groups and government agencies.

An additional source of guidance for developing these Alternatives comes from our survey of interpretive resources, and our recommended organization of the stories these resources can be used to relate. Briefly, there are four primary interpretive themes: coal, transportation and industry; natural resources and the environment; people, from prehistory to the present; and cities and their consequences. (In addition, surveys and reports on economic, interpretive, natural, historic, and cultural resources, along with land use planning tech-

niques, have aided the formulation of these Alternatives. Technical reports on these subjects are available at the Commission offices in Bethlehem.)

Because they were designed to meet the same extensive set of Vision goals, it is not surprising that the two action Alternatives are similar sets of implementation actions. A ten-year implementation timeframe has been presupposed, and the Action Alternatives are organized into a set of initial actions for the first phase, five years, and a second set of actions for the second phase, years six through ten. They differ in that they emphasize the interpretive themes in different ways and create (reinforce, really) different corridor patterns by arranging similar projects in different combinations and phasing order.

Alternative One begins by immediately forging a Corridor-long framework to bind and overarch the distinct regions, emphasizing the interpretive story of "coal, transportation and industry." Alternative Two begins by reinforcing the distinctive qualities of what have been recognized as the Corridor's three component regions¹ emphasizing the interpretive story of "natural resources and the environment" along with "coal, transportation and industry." At the second implementation stage, the priorities of the two Alternatives are reversed: in Alternative One, regionally specific actions are developed based on the Corridor-spanning framework created initially; in Alternative Two, Corridor-long linkages are created by joining the more region-specific developments of the initial phase. Both Alternatives attain the ultimate goals of reinforcing the historic Corridor-long framework while enhancing the sense of place and quality of life in the Corridor's varied communities, landscapes and regions. The question between the Alternatives becomes a question of which geography to reinforce first as the initial framework of the National Heritage Corridor.

B. Abstracts

Following are brief explanations of three alternative implementation strategies:

Alternative One: Corridor Reinforcement

In the initial five years of implementation, the strategy for this Alternative is focusing on Corridor-long structures, linkages and programs in order to re-establish the historical linkages that are the basis for the D&L's heritage: the historic transportation resources comprised of the Delaware Canal, the Lehigh Navigation, and the railways linking coal fields to water routes. These structures, linkages and programs would include: developing a continuous trail; comprehensive interpretation of the Corridor-wide story of "coal, transportation and industry" (includ-

¹ Northern region: Luzerne County, southeast of the Susquehanna River, and Carbon County; Middle Region: Lehigh and Northampton Counties; Southern Region: Bucks County.

ing interpretive districts that relate directly to this theme); and a set of economic development projects designed to spread tourism and economic benefits throughout the Corridor. Resource protection efforts — grants, technical assistance — would be focused on structures, communities, natural lands, and landscapes most closely associated with the historic transportation routes. Devoting early resources to creation of this overarching Corridor framework will build momentum and create a strong image for the National Heritage Corridor, paving the way for later projects and initiatives that respond specifically to needs in each of the three regions that are less strongly associated with the historic transportation routes.

Alternative Two: Regional Reinforcement

Each of the three Corridor regions has a distinctive image and heritage; each also has particular strengths, needs and priorities. In the first five years, the strategy here is reinforcing and building upon the unique qualities distinguishing the three regions. Actions in each of the regions will generally strengthen existing resources, programs and partnerships before moving to create Corridor-wide initiatives. Even though emphasis is on region-specific actions, it will be important to secure the Corridor-long right-of-way along the historic transportation routes, otherwise a crucial opportunity for linkages may be lost. Investment in developing the continuous trail and parking/access along that right-of-way is deferred to the second phase because other, more regional investments take precedence.

This Alternative emphasizes two interpretive themes, “coal, transportation and industry,” and “natural resources and the environment.” In general, the logic for selecting these themes is that as the canals and railroads penetrated the region, improved transportation enabled exploitation of other resources besides coal — slate and cement among others. Moreover, while the transportation resources may be the principal way of distinguishing this Corridor from regions elsewhere in the nation, canals and railroads are but one example of how humans have related to their environment in the Corridor, from prehistory to modern times. Thus, while the lands and communities well beyond the specific routes have been affected by changes in transportation, the influence of natural resources — from farmland to water power, from coal to sand — and geography (for example, the diverse terrain and distance from urban markets) is quite evident as well, and contributes to the unique sense of place in the Corridor.

Today, the identity of each region can be summarized as:

- Northern: outdoor recreation; legacy of the anthracite industry;
- Middle: industrial cradle; predominantly urban settlement patterns; continual growth;
- Southern: visual appeal of the rural landscape; history of early settlement; expanding megalopolis.

Actions undertaken or sponsored by the Commission and its partners — economic development projects, technical assistance for resource conservation, or promotion of tourism might be such actions — will respond to both opportunities and problems inherent in these regional identities.²

Regional resources and patterns thus strengthened, and problems thus addressed, would provide a basis for development, in the second five years, of Corridor-long projects and programs, such as rehabilitated canals, a continuous trail along the historic transportation routes and more in-depth interpretation of the Corridor-wide story.

Alternative Three: No-Action Alternative

The third Alternative in the Corridor Plan is the “No-Action” Alternative. This scenario assumes a continuation of current trends without the action or intervention of the Commission or any other Corridor advocate. Individual organizations and agencies would continue their work independently in trying to protect and interpret significant Corridor resources (historic, natural, recreational, cultural, economic), largely without a Corridor-wide point of view. The added value to be gained from joint cooperative action on issues and opportunities of Corridor-wide concern, and the pooling of limited resources, would be lost in the absence of conscious regional-planning and regional-development action.

C. Core Elements

Both action Alternatives address a set of Core Elements that encompass the kinds of actions necessary to establish a viable National Heritage Corridor. The Core Elements are analogous to the many resource categories the D&L project seeks to address in one comprehensive plan — e.g., interpretation, economic/tourism development, education, recreation, cultural conservation — and outline the issues and subject areas that must be addressed in any plan for the Corridor. The Core Elements are listed here to serve as a touchstone in weighing the merits, outcomes and completeness of the two Action Alternatives, as well as the consequences of inaction in the third Alternative:

² In the Middle Region, for example, continued urbanization creates a need for an aggressive greenway strategy to preserve remaining key natural resources; recreational development would then be possible on some properties reserved for greenways at some later point (in the first or second phase). The older urban areas of the same region, while displaying notable architectural resources, also have sites suitable for redevelopment, though many of them have environmental problems created decades ago when the environmental threats of industry were less apparent, less heeded, or both. In the Northern Region, the legacy of the anthracite industry has created both environmental problems (acid mine drainage, a scarred landscape) and interpretive opportunities — the patch towns and cultural legacy of mining, as well as the ability to see extant coal mining which, though extensively modernized, still uses some technology (coal breakers) developed in the 19th century. In the Southern Region, the landscape displays varied responses to the natural environment, from early agricultural settlements attracted by superb soils and climate to modern suburban and “country estate” development attracted by the county’s rural beauty and proximity to cities of the Atlantic Seaboard.

- The physical condition of the canals
- A continuous bike/hike trail following the Corridor historic transportation system of canals and railroads
- Vigilance in identifying and preserving endangered resources of significance to the Corridor's natural, historical and cultural qualities:
 - ▷ Greenway and natural resource conservation;
 - ▷ Protection of historic structures, communities, and landscapes; and
 - ▷ Protection of both tangible and intangible cultural resources.
- Three visitor centers located centrally in the Northern, Middle, and Southern regions
- Historical interpretation throughout the Corridor
- Support for tourism development and management
- Use of heritage resources as the foundation of all economic development promoted through the Corridor effort
- Educational programs and public outreach



Environmental Assessment

The preparation of the Management Action Plan for the Delaware & Lehigh Canal National Heritage Corridor is legislatively mandated under Public Law 100-692 (see Appendix A). Actions of the Delaware & Lehigh Canal National Heritage Corridor Commission, a federal agency reporting to the Secretary of the Interior, are subject to compliance requirements under both the National Environmental Policy Act of 1969 (NEPA) and Section 106 of the National Historic Preservation Act of 1966 (NHPA), as amended. Section 106 of the NHPA and regulations promulgated by the Advisory Council on Historic Preservation require federal agencies to avoid or mitigate any possible adverse impacts on cultural resources listed or eligible for listing in the National Register of Historic Places. NEPA, as well as regulations and procedures issued by the Council on Environmental Quality, directs federal agencies to consider alternatives when developing a proposal for federal action and to assess the environmental effects of those alternatives.

The alternatives for this Corridor were thoroughly considered during one phase of the planning process. Extensive consultation with the public and with public agencies was an integral part of all phases of the process. For a further description of the planning process, please see Chapter 3. For a list naming agencies, organizations and individuals consulted, please see credits on the inside front cover, the last page and the inside back cover.

Due to the very large scale of the Delaware & Lehigh Corridor, the environmental impacts described below stem from broader policies and programs, not from individual projects, and are therefore more strategic than specific. It is assumed that the individual projects that eventually will comprise the Corridor (at least those with federal involvement) will require their own, more detailed environmental assessments.

Environmental Assessment

	Alternative A	Alternative B	Alternative C
CONCEPT	Development of Corridor-long linkages and programs. Focusing on the historic transportation route, comprehensive interpretation, and Corridor-wide economic development projects.	Emphasis will be on strengthening and distinguishing region-specific resources, programs, and partnerships, before moving on to create Corridor-wide initiatives.	Assumes a continuation of organizations and agencies working independently. No intervention from the Commission or any other Corridor-wide advocate.
CULTURAL RESOURCE IMPACTS	Interpretive and recreation sites would be enhanced and established along the historic transportation route and might include the purchase of historical sites or historic easements. Preservation of main streets, neighborhoods, and communities closely associated with the historic transportation route, along with the historic settings of all resources, would result. Protection of privately owned sites and archeological sites of Corridor-wide significance to receive benefits of preservation programs. Any alteration to historic sites would be coordinated with the Pennsylvania Historical and Museum Commission in compliance with Section 106 of the National Historic Preservation Act.	Interpretive and recreation sites would be enhanced and established at discrete locations according to the interpretive and recreational needs of given regions. Preservation programs to enhance main streets and communities, individually owned sites and archeological sites to be spread widely throughout the Corridor, spreading administrative and financial resources more thinly but possibly in the longer term, achieving more voluntary protection without direct investment as a result of widespread visibility and encouragement. Any alteration to historic sites would be coordinated with the Pennsylvania Historical and Museum Commission in compliance with Section 106 of the National Historic Preservation Act.	The protection and interpretation of cultural resources would be limited to initiatives by state and local governments and private interests. Access to historic sites would be limited. Many resources may continue to deteriorate.

Environmental Assessment, *cont.*

	Alternative A	Alternative B	Alternative C
FLOODPLAINS	<p>Interpretive signs, roadside pull-outs, and recreation access sites may be constructed in the floodplains of the Delaware and Lehigh rivers and their tributaries. Such development would have little or no impact. Floodplains within and beyond the historic transportation area would otherwise be protected by local regulation and, where appropriate, the actions of the Commission. (Floodplains beyond the historic transportation route would receive less attention from the Commission in early years and may therefore be affected adversely.)</p>	<p>In addition to floodplains affected or protected in Alternative A, floodplains throughout the Corridor would be candidates for protection and possible minor improvements for access and interpretation.</p>	<p>State and local governments or private interests may develop interpretive, recreation and other sites in the floodplain of the Delaware and Lehigh rivers and their tributaries.</p>
WETLANDS	<p>All trails and recreational access to rivers in the historic transportation Corridor will avoid wetlands; the trail along the historic transportation route will rely on existing tow-paths and rail right-of-way. Additional wetlands may be protected along the Delaware and Lehigh rivers. (Wetlands beyond the historic transportation route would receive less attention from the Commission in the early years and may therefore be affected adversely.)</p>	<p>Same as in Alternative A, except that protection may be more widespread along tributaries via added greenway initiatives and some recreational trails in upper watersheds may be designed to interpret wetlands. Dredging or filling in a wetland for trail construction requires compliance with Section 401 and 404 of Clean Water Act.</p>	<p>State and federal regulations will regulate development of wetland areas. However, development of smaller wetland areas may escape such regulation allowing the continued conversion, destruction and loss of wetland areas.</p>

Environmental Assessment, *cont.*

	Alternative A	Alternative B	Alternative C
PRIME AGRICULTURAL LANDS	<p>Interpretive signs, roadside pull-outs, and recreation sites may require the conversion of farmland to non-agricultural uses. Little prime farmland exists in the areas closest to the historic transportation route, however, and any conversion would be coordinated with the U.S.D.A. Soil Conservation Service in compliance with the Farmland Protection Policy Act.</p>	<p>Some possibility exists that minor amounts of farmland would be affected as in Alternative A, but, in general, the Corridor initiative's emphasis on "quality assurance" would encourage greater action to protect the extensive prime farmlands that exist in some parts of the Corridor.</p>	<p>Protection of farmland would be dependent upon state and local governments and private interest. Sprawl residential development would continue at the current pace throughout the Corridor.</p>
HYDROLOGIC, WASTE AND POLLUTION CONDITIONS	<p>Short term unavoidable impacts would occur during any construction phase, for such development as visitor centers. Increases in noise and air pollution and soil erosion will occur; during these times measure will be taken to minimize these problems. The initiative will generally support local and state efforts for storm water management; reduction of acid mine drainage through reclamation of abandoned mine lands; and water quality investments. As a result of coordinated Corridor efforts, more environmental benefits may result.</p>	<p>Same as Alternative A.</p>	<p>All actions to address these conditions would be dependent upon the action of federal, state and local governments and private interests, independent of the Corridor initiative.</p>

Environmental Assessment, *cont.*

	Alternative A	Alternative B	Alternative C
ENDANGERED/ THREATENED SPECIES	Several endangered or threatened species exist in the Corridor. All sites within the historic transportation corridor will be targeted for protection plans and public acquisition where appropriate. All Corridor development will explicitly avoid any impacts on critical habitat.	Same as Alternative A, but with more widespread attention to critical habitat, and consequently fewer resources to devote to each individual site.	Endangered or threatened species would be subject to local, state and federal action independent of the Corridor initiative.
NATURAL RESOURCE IMPACTS	Priority natural areas, wetlands and biological communities identified by the Commission will not be adversely affected by Corridor implementation and development. Creation of a greenway and tow-path trail will preserve important open space and sensitive areas along the historic transportation route. Recreation development along the spine and railroad right-of-way will improve the quality of the canals and allow user impact to be monitored and managed appropriately. Advocating future development to occur in built-up areas will spare outlying areas of the Corridor from excessive greenfield development.	Overall measures will be the same as Alternative A, however, decisions on exactly which resources to act upon will be based not on proximity to the spine or relationship to the industrial theme, but rather will be initiated by communities and local advocacy groups. The Commission will provide grants and technical assistance according to an established set of criteria.	Priority natural areas, wetlands and biological communities will continue to be endangered by unplanned development and industrial pollution. Without coordinated planning, existing public lands will continue to operate with stretched resources and the Corridor's important links between the natural environment and human endeavors will go uninterpreted.

Environmental Assessment, *cont.*

	Alternative A	Alternative B	Alternative C
SOCIO-ECONOMIC IMPACTS	Maximize returns on existing tourism while also creating new attractions. All to be linked and interpreted as a comprehensive whole. Priority placed on increasing capacity for visitation without endangering heritage or natural resources.	Overall impacts same as Alternative A.	Economic development and tourism efforts would not benefit from the comprehensive interpretation and coordination of a Corridor-wide collaboration. Agencies and groups would continue to work independently and compete for limited resources and markets.

List of Technical Appendices

Cultural Resources Survey, by ETHNOLOGICA (LeeEllen Friedland and Associates)

Economic Resources Inventory and Analysis, by Hammer, Siler, George Associates with Mary Means & Associates, Inc.

Historic Resource and Programs Analysis, by Mary Means & Associates, Inc.

Historic Resources Study, by Hugh Moore Historical Park and Museums

Inventory and Assessment of Cultural Landscapes, by the Penn State University Department of Landscape Architecture

Interpretive Resources Inventory and Analysis, by The Right Word with Mary Means & Associates, Inc.

Land and Scenic Resources, by Carter van Dyke Associates with Mary Means & Associates, Inc.

Natural and Recreational Resources Evaluation, by the Bucks County Conservancy and the Wildlands Conservancy

A Natural Areas Inventory of Delaware and Lehigh Navigation Canal National Heritage Corridor, Pennsylvania Science Office of The Nature Conservancy

Public Involvement Strategy, by Mary Means & Associates, Inc.

Copies of these reports are available at cost from the Delaware & Lehigh Commission, located at 10 East Church Street, Bethlehem, Pennsylvania 18018.



Glossary

Acronym	Description/Organization Name
AIA	American Institute of Architects
ARPDC	Association for Restoration and Preservation of the Delaware Canal
BSP	Bureau of State Parks, Pennsylvania Department of Environmental Resources
BRC	Bureau of Recreation and Conservation, Pennsylvania Department of Community Affairs
DCA	Pennsylvania Department of Community Affairs
DER	Pennsylvania Department of Environmental Resource
EPA	U. S. Environmental Protection Agency
FODC	Friends of the Delaware Canal
HABS	Historic American Buildings Survey
HAER	Historic American Engineering Record
HMHPM	Hugh Moore Historical Park and Museums
ISTEA	Intermodal Surface Transportation Efficiency Act
LRF	Lehigh River Foundation
LWCF	Land and Water Conservation Fund
NAS	National Audubon Society
NPS	National Park Service
NTHP	National Trust for Historic Preservation
Pa. Commerce/EDP	Pennsylvania Department of Commerce/Economic Development Partnership
PDC	Pennsylvania Downtown Center
PDE	Pennsylvania Department of Education
PennDOT	Pennsylvania Department of Transportation
PFBC	Pennsylvania Fish and Boat Commission
PGC	Pennsylvania Game Commission
PHAC	Pennsylvania Heritage Affairs Commission
PHFA	Pennsylvania Housing Finance Agency
PHMC	Pennsylvania Historical and Museum Commission
PPa.	Preservation Pennsylvania
RIRA	Recreational and Improvement Rehabilitation Act (funding program of DCA)
SHPITF	State Heritage Parks Interagency Task Force*
TPA	Tourist Promotion Agency
U.S. Commerce/EDA	Economic Development Administration, U.S. Department of Commerce

*State Heritage Parks Interagency Task Force members and a description of the State Heritage Parks program are provided on the inside front cover.



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Borough of Morrisville
Borough of White Haven
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Lafayette College
Liberty High School, Bethlehem
New Hope/Solebury High School
Lehigh University
Luzerne County Community College
Muhlenberg College
Northampton County
Pennsylvania State University, Hazleton
Wilkes University
Bucks County Conservancy
Carbon County
Eckley Miners' Village
Washington Crossing Historic Park

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United Labor Council of Lower Luzerne County/AFL-CIO
University of Pennsylvania, Morris Arboretum
Walnutport Canal Association
Washington Crossing State Park
Wilkes College
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Our special thanks to the federal and state leaders who have sponsored the Corridor and generously supported the creation of this Plan:

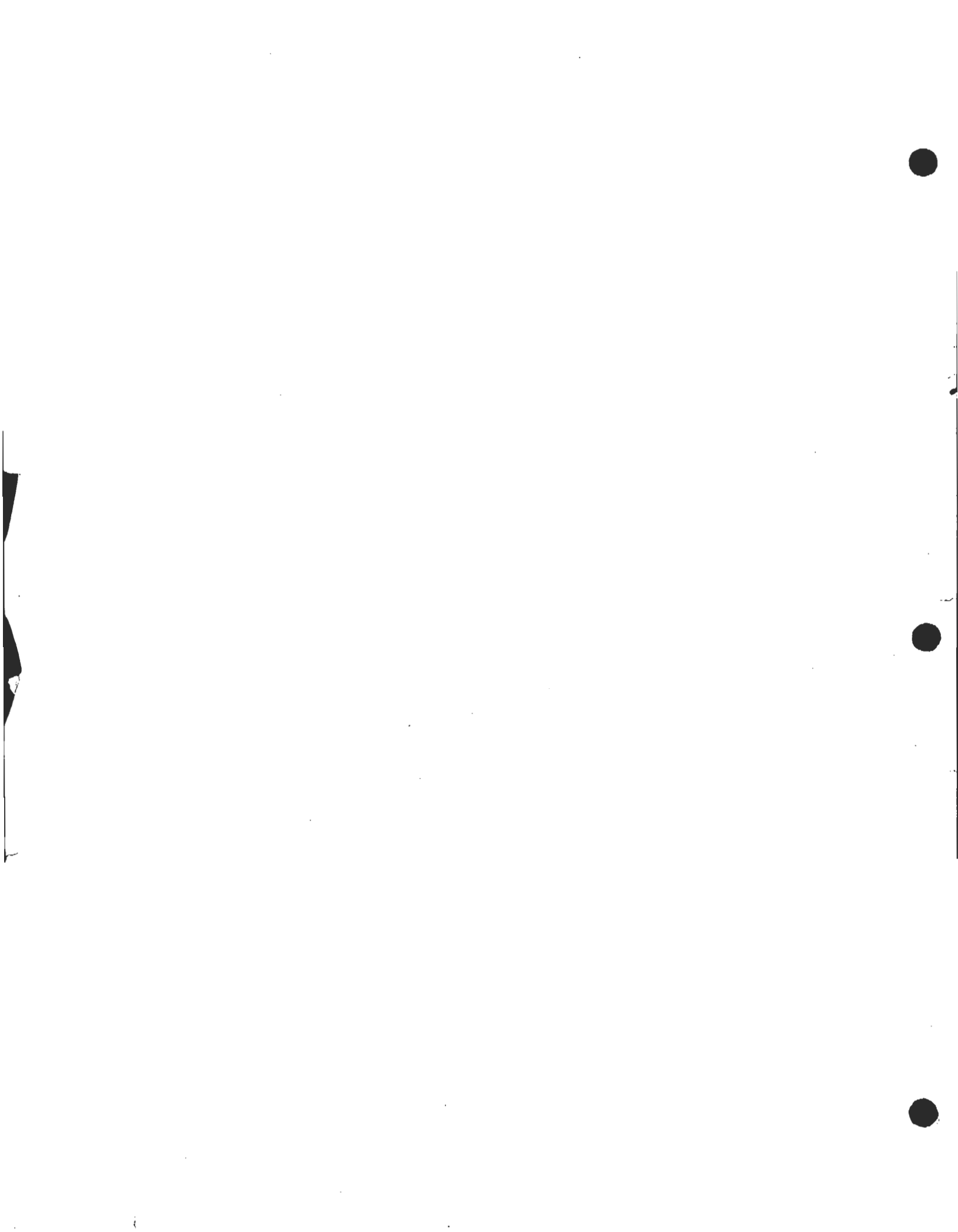
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