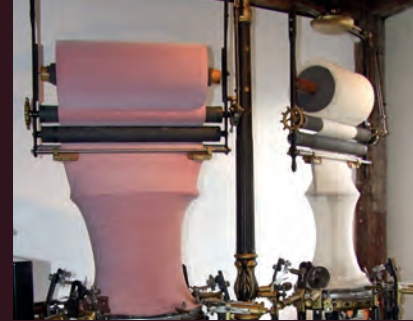
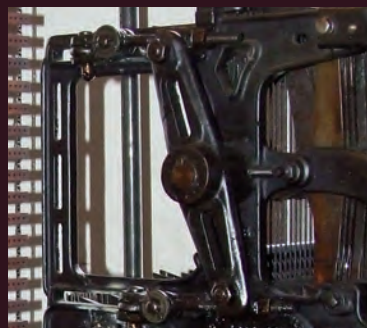
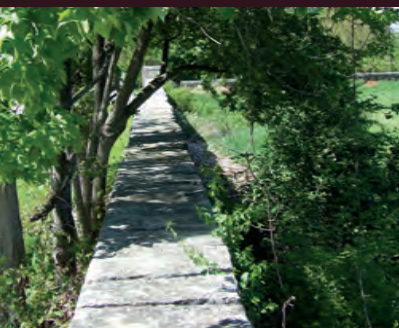


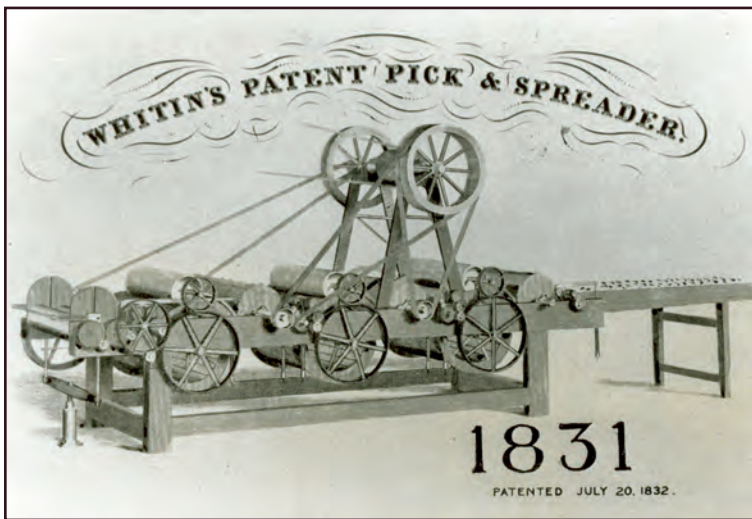
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Blackstone *River Valley*

SPECIAL RESOURCE STUDY
STUDY REPORT 2011





This report has been prepared to provide United States Congress and the public with information about the resources in the study area and how they relate to criteria for feasibility of a National Heritage Area. Publication and transmittal of this report should not be considered an endorsement or a commitment by the National Park Service to seek or to support either specific legislative authorization for the project or appropriation for its implementation. Authorization and funding for any new commitments by the National Park Service will have to be considered in light of competing priorities for existing units of the National Park System and other programs.

This report was prepared by the United States Department of the Interior, National Park Service, Northeast Region. For additional copies or more information contact:

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EXECUTIVE SUMMARY

Project Overview

With the passage of Title VII of Public Law 109-338 (October 12, 2006), the John H. Chafee Blackstone River Valley National Heritage Corridor Reauthorization Act of 2006, Congress directed the Secretary of the Interior to conduct a Special Resource Study (SRS) of sites and associated landscape features within the boundaries of the John H. Chafee Blackstone River Valley National Heritage Corridor (“Corridor”) that contribute to the understanding of the Corridor as the birthplace of the industrial revolution in the United States. The primary purpose of the SRS is to determine whether the resources being evaluated meet the criteria for inclusion as a unit or units of the National Park System.

This legislation also extended the Corridor Commission (“Commission”) an additional five years until 2011 and authorized development funds through 2016. By 2011, the Commission will have been in operation for 25 years. The SRS is being undertaken concurrently with an update to the Corridor’s 1998 management plan, which is also required under this public law.

The study area encompassed the Blackstone River Valley National Heritage Corridor established by Congress in November 1986 for the purpose of “preserving and interpreting for 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 the states of Massachusetts and Rhode Island.”¹ In November 1999, Congress renamed the Corridor the John H. Chafee Blackstone River Valley National Heritage Corridor in honor of the late senator who championed it.² The Corridor encompasses all or part of 24 communities from Worcester, MA to Providence, RI.

The Corridor’s establishing legislation authorized the creation of an operating commission for an initial five years and provided for a possible five-year extension, which the Commission was granted. In 1996, Congress extended the Commission for ten more years, followed in 2006 with a

final five-year extension requiring that the Commission cease operation in October 2011. The Commission would be responsible for the preparation and implementation of a management plan for the Corridor. Major management plans were completed for the Corridor in 1989 and 1998.

The John H. Chafee Blackstone River Valley National Heritage Corridor has served as a catalyst for regional initiatives since its creation in 1986. As a result, the Blackstone River Valley has developed a large regional constituency drawing from environmental, cultural, recreational, and economic interests. A number of bi-state, Valley-wide initiatives are currently underway to protect and preserve the resources associated with the Blackstone River Valley and to improve recreational access and opportunities.

The study team acknowledged the desires of the Commission and the public that the long history of federal activity and investment in the Blackstone River Valley region be recognized in the study process. The following elements were identified to ensure that these previous efforts were given adequate consideration:

- Preserve, protect and interpret resources throughout the John H. Chafee Blackstone River Valley National Heritage Corridor that exemplify the Valley’s nationally significant industrial heritage for the benefit and inspiration of future generations.
- Support the preservation, protection, and interpretation of the region’s landscape features – both urban and rural, including the Blackstone River and Canal – that provide an overarching context for the Valley’s industrial heritage.
- Educate the public about the industrial history of the Valley and its significance to our nation’s past and present.
- Protect the substantial federal investment that has been committed to key resources and facilities Valley-wide.
- Support and enhance the network of partners who will continue to engage in the protection, improvement, management, and operation of key resources and facilities throughout the Valley.

¹ Public Law 99-647 An Act to Establish the Blackstone River Valley National Heritage Corridor in Massachusetts and Rhode Island.

² P.L. 106-113, Approved Nov. 29, 1999, (113 Stat. 1501).

Criteria for New Parklands

By law (Public Law 91-383 §8 as amended by §303 of Public Law 105-391, The National Parks Omnibus Management Act (Public Law 105-391)) and NPS policy, potential new units of the National Park System must 1) possess **nationally significant** resources, 2) be a **suitable** addition to the system, 3) be a **feasible** addition to the system, and 4) **require direct NPS management** or administration instead of alternative protection by other agencies or the private sector.

An area or resource may be considered **nationally significant** if it:

- is an outstanding example of a particular type of resource;
- possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage;
- offers superlative opportunities for public enjoyment or for scientific study; and
- retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

National significance for cultural resources, such as those comprising the Blackstone River Valley, is determined by applying the National Historic Landmarks criteria contained in the Code of Federal Regulations at 36 CFR Part 65.

An area may be considered **suitable** for potential addition to the National Park System if it represents a natural or cultural resource type that is not already adequately represented in the system, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector. The suitability evaluation, therefore, is not limited solely to units of the National Park System, but includes evaluation of all comparable resource types protected by others.

To be **feasible** as a new unit of the National Park System, an area must be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor

enjoyment (taking into account current and potential impacts from sources beyond its boundaries) and be capable of efficient administration by the NPS at a reasonable cost.

There are many excellent examples of the successful management of important natural and cultural resources by other public agencies, private conservation organizations, and individuals. Most notably, state park systems provide for protection of natural and cultural resources throughout the nation and offer outstanding recreational experiences. The NPS applauds these accomplishments and actively encourages the expansion of conservation activities by state, local, and private entities, and by other federal agencies. Unless direct NPS management of a studied area is identified as the clearly superior alternative, the NPS will recommend that one or more of these other entities assume a lead management role and that the area not be considered as a potential unit of the National Park System.

Applying the Criteria – Findings

Based on extensive analysis and with the concurrence of the National Park Service's History Program Office in Washington, the study team concluded that the Blackstone River Valley's industrial heritage resources including the **Blackstone River, the Blackstone Canal, Old Slater Mill National Historic Landmark District**, and the villages of **Slatersville, Ashton, Whitinsville, and Hopedale** met the criteria for national significance.

The region, with its representative resources, remains the best place to interpret the origin and rise of an important type of American industry. These resources form a cohesive industrial district that evolved and defined the principles of the Rhode Island System of manufacture, which became a paradigm for further American industrial development. As the nation's first heavily industrialized region, the valley became the prototype for a sweeping social transformation that included a fundamental shift in the nature of work. The multiplicity of resource types found in the Blackstone Valley reflects the many dimensions of the sweeping social and economic transformation that came in the wake of American industrialization and makes it possible to compellingly depict the lives of the working men and women who participated in this massive change.

No single, uniform process transformed the nation into a major industrial power; the course of industrialization varied by region, time period, and industry. Several distinct pathways to industrialization have been identified and, as a result, no one site can convey the full extent and complexity of American industrialization. The suitability analysis considered comparable resources representing various models of industrialization throughout the United States. These other places were more likely to complement, rather than compete with, the Blackstone River Valley in their capacity to convey the complex story of the nation's industrial development. Based on this analysis the study concludes that the resources of the Blackstone River Valley depict a distinctive and important aspect of American history that is not adequately represented elsewhere and is therefore suitable for inclusion in the National Park System.

The feasibility analysis indicated that the size and configuration of the non-contiguous sites and districts that would compose the proposed park would not be a prohibiting factor for management and is mitigated by existing roads and visitor infrastructure (e.g., visitor facilities, directional signage, and interpretive media). The area enjoys good highway access and is served by two international airports as well as intercity train and bus service. Visitor access has been facilitated by existing directional signage systems, published tour guides, and maps. Much of the primary resource base continues to be under private ownership and that is unlikely to change. Strategic NPS acquisition of key properties (in full or partial fee) for preservation or public access purposes would be one facet of the proposed park's resource management strategy. Partnerships with local communities and property owners to encourage resource protection would also be critical.

Finally, the study concludes that given the appropriate authorities, financial and human resources, the resources under consideration would be best managed with the long-term involvement of the National Park Service.

In summary, the study team finds that, based on the factors cited above and the extensive analyses conducted during the course of this special resource study, the resources associated with the Blackstone River Valley are nationally significant and both suitable and feasible for inclusion in

the National Park System. It further concludes that there is a demonstrated need for NPS management of these resources in partnership with others described in this report.

Management Options

The study team has identified a range of *management options* describing different ways that the resources identified in the Blackstone River Valley could be protected and interpreted for the benefit of the public.

Management Option 1.

John H. Chafee Blackstone River Valley National Heritage Corridor Continues to Operate under Current Authorities

Under this management option, no new unit of the National Park System would be proposed. The John H. Chafee Blackstone River Valley National Heritage Corridor ("Corridor") would continue to be recognized as a federally designated national heritage corridor. In compliance with Public Law 109-338, the John H. Chafee Blackstone River Valley National Heritage Corridor Reauthorization Act of 2006, the Corridor Commission ("Commission") would continue to operate under its present authorities and receive operating funds from the National Park Service through October 2011. The Corridor is authorized to receive development funds through 2016. In the absence of the Commission, there would be no dedicated federal operational funding and no federal staff to operate the Corridor.

Commission staff would continue to provide planning support and technical assistance to state and local partners, and uniformed National Park Service rangers would continue to be available for visitor programming and public outreach as long as the Commission remains in operation. In the absence of the Commission, a cadre of volunteers and docents in combination with the staff of key institutions like the state parks, the Museum of Work and Culture, and Old Slater Mill would continue to offer the same visitor programs and exhibits they do now. Existing visitor facilities would be maintained and made available to the public by their respective owner/operators.

The Commission is currently in the process of developing a strategic plan to address the transition from a commission to a non-federal operating body. This process is being undertaken independent of, but in coordination with, the Special Resource Study.

Management Option 2: Old Slater Mill National Historic Site

This management option proposes that the Old Slater Mill National Historic Landmark District be considered as a potential unit of the National Park System that would be jointly operated, preserved, and maintained by the Old Slater Mill Association (OSMA) and the National Park Service. The site would continue to be owned by OSMA, though the National Park Service would acquire a preservation easement on the property to ensure its preservation for future generations. The National Park Service would enter into a cooperative agreement with OSMA that would define the roles and responsibilities of each party in the operation and management of the site. The proposed boundary would coincide with the boundary of the National Historic Landmark District as depicted in Figure 2 in Chapter Two: Historical Overview and Resource Description.

In order to convey the full influence of Old Slater Mill on the early development of the American textile industry, NPS would be authorized to enter into cooperative agreements with private and public entities to engage in the interpretation of Old Slater Mill National Historic Landmark District and the Rhode Island System of manufacture as it existed in the Blackstone River Valley.

Management Option 3. Blackstone River Valley Industrial Heritage National Historical Park

This management option envisions that a new unit of the National Park System would be created by an act of Congress. The new unit would include specific nationally significant sites and districts located within the Blackstone River Valley that possess high resource integrity and effectively convey the industrial heritage themes of the valley. The park would engage in visitor programs and resource protection primarily for the sites and districts that would be named in potential legislation establishing the park including:

- Old Slater Mill National Historic Landmark District, Pawtucket, RI
- Slatersville Historic District, North Smithfield, RI
- Ashton Historic District, Cumberland, RI
- Whitinsville Historic District, Northbridge, MA
- Hopedale Village Historic District, Hopedale, MA
- Blackstone River and its tributaries
- Blackstone Canal

The non-contiguous historic districts named above and as depicted on maps found in Chapter Two: Historical Overview and Resource Description would form the boundary of the proposed park unit.

These areas of national significance and NPS interest are where potential acquisition could occur in full or partial-fee. Properties in which NPS acquires a partial interest (e.g., a preservation easement) could also be cooperatively managed if appropriate. The following properties are possible candidates for full or partial-fee acquisition by NPS:

- Old Slater Mill National Historic Landmark District, Pawtucket, RI
- Blackstone River State Park, Kelly House/ Old Ashton segment, Lincoln, RI (adjoins Ashton Village Historic District in Cumberland, RI)

- Centennial Memorial Park, Slatersville, North Smithfield, RI
- The Parklands, Hopedale, MA
- Castle Hill Farm, Whitinsville, Northbridge, MA

The NPS may also seek to acquire and develop other locations in the village historic districts for interpretive purposes (e.g., a residence could be acquired and developed to interpret a mill worker's daily life). The NPS may also acquire properties along the Blackstone River and Canal that are historically significant or that provide for continuous linkage, supporting public access, and resource protection. A General Management Plan would be developed for the park that identifies priorities for acquisition (full fee or partial fee), and protection and public use of the resources. Any NPS acquisition would occur on a willing-seller basis, and properties currently in public ownership could be acquired only by donation.

In addition to land acquisition authority, within the park's authorized boundaries NPS would have the authority to enter into cooperative agreements to provide assistance for resource protection and interpretation. The park would also be authorized to provide interpretive assistance to thematically-related resources located throughout the Corridor.

The National Historical Park would be operated by the National Park Service in cooperation with a regional partner that could be specifically identified in the park's enabling legislation and with other local management partners, as appropriate. The NPS would be authorized to enter into a cooperative agreement with the regional partner to undertake activities that support the purposes of the park. The regional partner would assume a lead role in preserving, protecting, and interpreting related industrial heritage resources throughout the Corridor that fall outside of the park's boundary, as well as the region's larger rural and agricultural landscape. The regional partner is likely to be Blackstone River Valley National Heritage Corridor, Inc.

("Blackstone Corridor, Inc."), a newly formed 501(c)3 non-profit organization that will assume responsibility for the Corridor after the Commission expires in October 2011.

Environmentally Preferred Alternative

The NPS is required to identify the environmentally preferred alternative in its NEPA documents for public review and comment. The Environmentally Preferred Alternative is the one identified which best protects, preserves, and enhances historic, cultural, and natural resources.

Management Option 3: Blackstone River Valley Industrial Heritage National Historical Park would be considered the Environmentally Preferred Alternative for the following reasons:

- This management option best supports the project goals articulated in Chapter One of the study. These goals call for a regional approach to protecting and interpreting industrial heritage resources, thus addressing the protection of the natural, cultural, recreational, and scenic values that provide its context and the connections among non-contiguous resources.
- Through the proposed relationship with a regional partner that would be tasked with working beyond the park boundary, this management option offers the greatest opportunity for NPS to support **both** interpretive and protection efforts throughout the Blackstone Valley; and could bring about a greater level of resource protection; and could foster a greater level of public understanding and appreciation of these resources than either Management Options 1 or 2.

Public Comments

This report is available for public review for a period of 30 days. During this review period, the National Park Service is accepting comments from interested parties electronically, at public meetings, and by post. At the end of the public comment period, the National Park Service will review all comments and determine whether any changes would be made to the report. Following the public comment period, the report will be transmitted to the Secretary of the Interior who, in turn, will transmit the report to the United States Congress.

Comments may be made electronically through the NPS Planning, Environment and Public Comment (PEPC) website at:

<http://parkplanning.nps.gov>.

Comments may also be submitted by e-mail to:

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CHAPTER ONE: Study Purpose and Background

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Project Overview

With the passage of Title VII of Public Law 109-338 (October 12, 2006), the John H. Chafee Blackstone River Valley National Heritage Corridor Reauthorization Act of 2006, Congress directed the Secretary of the Interior to conduct a Special Resource Study (SRS) of sites and associated landscape features within the boundaries of the John H. Chafee Blackstone River Valley National Heritage Corridor (“Corridor”) that contribute to the understanding of the Corridor as the birthplace of the industrial revolution in the United States. The primary purpose of the SRS is to determine whether the resources being evaluated meet the criteria for inclusion as a unit or units of the National Park System.

This legislation also extended the Corridor Commission (“Commission”) an additional five years until 2011 and authorized development funds through 2016. By 2011, the Commission will have been in operation for 25 years. The SRS is being undertaken concurrently with an update to the Corridor’s 1998 management plan, which is also required under this public law.

By law (Public Law 91-383 §8 as amended by §303 of the National Parks Omnibus Management Act (Public Law 105-391)) and NPS policy, potential new units of the National Park System must 1) possess nationally significant resources, 2) be a suitable addition to the system, 3) be a feasible addition to the system, and 4) require direct NPS management or administration instead of alternative protection by other agencies or the private sector.

National Park Service policy requires that a special resource study be accompanied by an Environmental Assessment (EA), prepared in accordance with the requirements of the National Environmental Policy Act of 1969, as amended (NEPA) and its implementing regulations (36 CFR 1500-1508), and Director’s Order #12, *Conservation Planning, Environmental Impact Analysis, and Decision-Making* (2001), and accompanying Handbook. This document also fulfills the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), and has been prepared in accordance with the implementing regulations of the Advisory Council for Historic Preservation (36 CFR Part 800) and NPS Director’s Order #28: *Cultural Resources Management* (DO-28) and accompanying Handbook. Since a study presents management alternatives at a broad level, the EA is similarly broad and the analysis is general in nature. Implementation of any

action alternative would come only after action by Congress, and in the event that Congress authorizes the National Park Service to implement an alternative, the first order of business would be a general management planning process.

The study was conducted by an interdisciplinary team consisting of staff from the Northeast Region of the National Park Service (NPS) and the Commission. The study has been prepared in consultation with members of the Commission and other key stakeholders.

John H. Chafee Blackstone River Valley National Heritage Corridor

History and Background

In September 1983, Congress directed the NPS to assist the states of Massachusetts and Rhode Island in their efforts to develop a linear park system along the Blackstone River. NPS was also asked to assess whether the Blackstone River Valley (“Valley”) might be eligible for inclusion in the National Park System and to explore ideas for cooperative conservation efforts. The study, *Blackstone River Corridor Study: Conservation Options – draft*, was completed through a joint effort of the National Park Service, the Massachusetts Department of Environmental Management, and the Rhode Island Department of Environmental Management in 1984. The assessment found that the Valley’s resources were nationally significant and that its resources and representative themes were underrepresented in the National Park System. Public support was evident for a limited federal role in the Blackstone River Valley that emphasized federal recognition, coordinating interstate efforts, mediating use conflicts in the river valley (e.g. energy and industrial uses versus public use of the river), and studying and interpreting the valley’s historical resources.

The study proposed three long-term conservation options for the Blackstone Valley. One called for continuing and expanding the local efforts underway at the time. A second called for an increased commitment on the part of both states to coordinate their linear park proposals with technical assistance from the National Park Service. Finally, a third proposal called for formal federal recognition and assistance that would not involve federal land acquisition or direct management.

Congress established the Blackstone River Valley National Heritage Corridor in November 1986 for the pur-

pose of “preserving and interpreting for 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 the states of Massachusetts and Rhode Island.”³ The Corridor was to provide “a management framework to assist the states of Massachusetts and Rhode Island and their units of local government in the development and implementation of integrated cultural, historical and land resource management programs in order to retain, enhance and interpret the significant values of the lands, waters and structures of the Corridor.”⁴ In November 1999, Congress renamed the Corridor the John H. Chafee Blackstone River Valley National Heritage Corridor in honor of the late senator who championed it.⁵

Initially encompassing all or part of 19 municipalities in MA and RI, the Corridor was expanded in 1996 and now encompasses all or part of 24 communities from Worcester, MA to Providence, RI. The Corridor contains approximately 400,000 acres of land and is home to nearly 600,000 people.

The Corridor’s establishing legislation authorized the creation of an operating commission for an initial five years and provided for a possible five-year extension, which the Commission was granted. In 1996, Congress extended the Commission for ten more years, followed in 2006 with a final five-year extension requiring that the Commission cease operation in October 2011. The Commission would be responsible for the preparation and implementation of a management plan for the Corridor. Major management plans were completed for the Corridor in 1989 and 1998. Inventories of cultural and natural resources have also been completed.

According to a 2005 analysis prepared by the NPS Conservation Study Institute:⁶

The Commission set an ambitious agenda for the Corridor: heritage education, recreation development, ethnic and cultural conservation, environmental conservation, historic preservation, land use planning, and heritage-based economic development. Its most widely used tools in advancing the regional vision have been (1) public education;

(2) partnerships that pool local, state, and national resources; and (3) targeted investments that focus scarce public and private dollars on highly visible projects that reinforce the valley’s national story and build local pride and enthusiasm.⁷

Since 1987 the Commission has received a total of \$23,638,600 from NPS funding programs to implement its management plan, of which \$20 million required a 1:1 match. Financial and in-kind commitments from the two states, other federal agencies, communities, the private sector, and non-profit organizations have increased the Commission’s funds an estimated 22-fold – a public and private investment exceeding \$500 million that contributes to the Corridor’s goals and is either directly or indirectly attributable to Commission action.

In 2004, the Commission initiated the Blackstone Sustainability Study to evaluate the past 18 years of work in the Corridor and to serve as a foundation for dialogue about its future management. The study was completed by staff from and consultants to the National Park Service’s Conservation Study Institute based in Woodstock, Vermont. The Commission asked the Institute to evaluate four aspects of its work:

1. Commission accomplishments and progress in achieving strategies and goals established by the 1989 *Cultural Heritage and Land Management Plan*
2. National Park Service investment and additional monies leveraged as a result
3. Further actions and commitments that are needed to protect, enhance, and interpret the Corridor
4. The Commission form of management, identifying and evaluating options for a permanent NPS designation and other management alternatives for achieving the national interest in the Blackstone Valley.

At the heart of the Sustainability Study findings and recommendations is this key statement:

At this critical point in the evolution of the Corridor’s partnership system, there is a clear need to sustain an effective coordinating framework for the Corridor that bridges the 2 states and 24 municipalities and supports the partnership system. This includes (1) a strong management entity to carry forward the vision, provide effective collaborative leadership,

3 Public Law 99-647 An Act to Establish the Blackstone River Valley National Heritage Corridor in Massachusetts and Rhode Island.

4 Ibid.

5 P.L. 106-113, Approved Nov. 29, 1999, (113 Stat. 1501).

6 The National Park Service established the Conservation Study Institute to help the agency and its partners stay in touch with the evolving field of conservation, and to develop more sophisticated partnerships, new tools for community engagement, and new strategies for the 21st century.

7 Tuxill, Jacquelyn L., Nora J. Mitchell, Philip B. Huffman, Daniel Laven, Suzanne Copping, and Gayle Gifford. Reflecting on the Past, Looking to the Future: Sustainability Study Report. A Technical Assistance Report to the John H. Chafee Blackstone River Valley National Heritage Corridor Commission. Woodstock, Vermont: Conservation Study Institute. 2005. P. 18.

and serve as the central network hub; (2) an ongoing relationship with the NPS, given the Corridor's well-documented national significance; and (3) secure, sustainable funding from diverse sources.⁸

Special Resource Study Process

Project Scoping

Internal project scoping for the special resource study process was initiated in spring 2007 with a series of staff meetings, site visits, and consultations with the Commission. As outlined below the study team consulted with industrial heritage scholars, staff from the National Park Service's Conservation Study Institute, community leaders, and other stakeholders to better define the scope of the study in terms of both its geography and the key issues to be addressed. Impact topics identified for analysis as a result of project scoping can be found in Chapter Five: Environmental Consequences.

Defining the Study Area

One of the first questions the study team had to consider was the geographic scope of the study. The key question was whether the resource study would examine the Blackstone River Valley as a whole or focus on one or more individual sites within the region. To assist in making this determination, the study team invited a group of six academic scholars to participate in a site visit and workshop in February 2008 that took a fresh look at the industrial heritage of the Blackstone River Valley. (A list of the participating scholars appears in the Appendix of this report.) The study team asked the scholars to be prepared to discuss the following questions:

1. How do historians understand or define the Industrial Revolution in the 21st century?
2. What are the nationally significant stories in the Blackstone Valley?
3. For each story, what is the period of significance? When does it begin and end?
4. Are there places in the Blackstone Valley that the study team should be considering for further evaluation?

The visiting scholars toured sites throughout the Valley, participated in a two-day moderated discussion with NPS staff involvement, and presented their initial findings to the public at the Whitin Mill (Alternatives, Inc.) in North-

bridge, Massachusetts. Approximately 60 members of the community came to participate in the public forum. The scholars also presented their findings in written summaries available on-line at www.nps.gov/blac/parkmgmt/special-resource-study.htm.

Among their findings the scholars noted that the small-scale industrial development of the Blackstone Valley represented a more common pathway to industrial development in the United States than the highly complex, capital-intensive model presented at places like Lowell. They were struck by the endurance of the mill village form and concept in the Valley and believed that the concentration and quality of the mill villages distinguished the Blackstone Valley from other industrial areas in the country. They also observed that the relationship between farm and factory in the Valley was worthy of note. Here, industry did not displace agriculture; they coexisted and supported one another.

The scholars' findings informed the definition of the study area and identification of focus areas within the Valley as well as the preparation of the project's Significance Statement. The participating scholars emphasized that the study team should be considering the Valley in a holistic way and that the entire Blackstone River Valley provided an appropriate boundary for the study area. They also noted that some areas within the Valley possessed greater concentrations of industrial heritage resources and higher levels of integrity than others.

Following the scholars site visit, during the spring and summer of 2008 the study team engaged in a Valley-wide resource evaluation. Given the large number of resources in the Valley, it was important to identify the best possible examples based on the following factors defined by the study team:

1. Areas that appeared to have the highest level of significance and resource integrity and the greatest opportunity to interpret different facets of the industrial history story or stories.
2. Areas that already had an established visitor services component (e.g., the Blackstone Valley Visitor Center or the Museum of Work & Culture).
3. Areas that offered opportunities to link to the Blackstone River and Canal and existing recreational trails (e.g., state park sites).

The study team visited 26 sites throughout the Blackstone River Valley that represent key resource types including agricultural areas, mill villages, and urban centers.

⁸ Tuxill et al. p. 9.

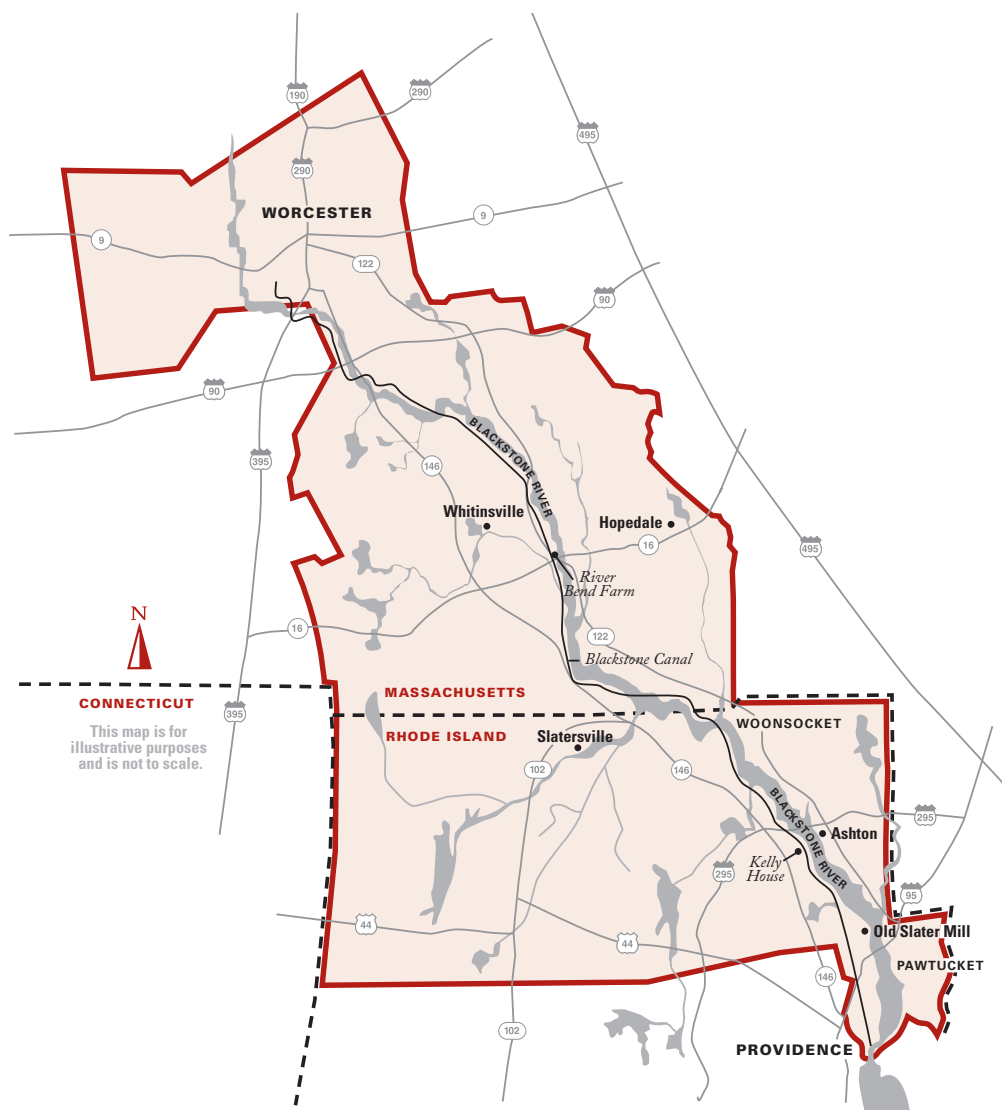


Figure 1: Study Area and Focus Areas.

Based on the factors defined above, the study team identified seven historic resource areas and five visitor service areas as focus areas within the larger study area:

Historic Resource Areas:

- Old Slater Mill National Historic Landmark District, Pawtucket, RI
- Slatersville Historic District, North Smithfield, RI
- Ashton Historic District, Cumberland, RI
- Whitinsville Historic District, Northbridge, MA
- Hopedale Village Historic District, Hopedale, MA
- Blackstone Canal, MA/RI
- Blackstone River and its tributaries, MA/RI

Visitor Service Areas:

- Blackstone Valley Visitor Center, Pawtucket, RI

Blackstone River State Park/ Kelly House, Lincoln, RI

Museum of Work & Culture, Woonsocket, RI

Blackstone River & Canal Heritage State Park/River Bend Farm, Uxbridge, MA

Worcester Visitor Center (proposed), Worcester, MA

Study Criteria

The areas comprising the current 394-unit National Park System are the cumulative expression of a single national heritage. Potential additions to the system should therefore contribute in their own distinctive way to a system that fully represents the broad spectrum of natural and cultural resources that characterize our nation. The NPS is responsible for conducting professional studies of potential additions to the National Park System when specifically authorized by an act of Congress. Several laws outline criteria for poten-

tial units of the National Park System. To be eligible for inclusion in the system, a proposed addition must (1) possess **nationally significant** natural or cultural resources; (2) be a **suitable** addition to the system; (3) be a **feasible** addition to the system; and (4) **require direct NPS management**, instead of alternative protection by other public agencies or the private sector. These criteria are designed to ensure that the National Park System includes only the most outstanding examples of the nation's natural and cultural resources. They also recognize that there are other alternatives, short of designation as a unit of the National Park System, for preserving the nation's outstanding resources.

An area or resource may be considered nationally significant if it:

- is an outstanding example of a particular type of resource;
- possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage;
- offers superlative opportunities for public enjoyment or for scientific study; and
- retains a high degree of integrity as a true, accurate, and relatively unspoiled example of a resource.

National significance for cultural resources, such as those comprising the Blackstone River Valley, is determined by applying the National Historic Landmarks criteria contained in the Code of Federal Regulations at 36 CFR Part 65.

An area may be considered suitable for potential addition to the National Park System if it represents a natural or cultural resource type that is not already adequately represented in the system, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector. The suitability evaluation, therefore, is not limited solely to units of the National Park System, but includes evaluation of all comparable resource types protected by others.

To be feasible as a new unit of the National Park System, an area must be of sufficient size and appropriate configuration to ensure sustainable resource protection and visitor enjoyment (taking into account current and potential impacts from sources beyond its boundaries) and be capable of efficient administration by the NPS at a reasonable cost.

There are many excellent examples of the successful management of important natural and cultural resources by other public agencies, private conservation organizations,

and individuals. Most notably, state park systems provide for protection of natural and cultural resources throughout the nation and offer outstanding recreational experiences. The NPS applauds these accomplishments and actively encourages the expansion of conservation activities by state, local, and private entities, and by other federal agencies. Unless direct NPS management of a studied area is identified as the clearly superior alternative, the NPS will recommend that one or more of these other entities assume a lead management role and that the area not be considered as a potential unit of the National Park System.

Studies evaluate an appropriate range of management alternatives and identify which alternative or combination of alternatives would be most effective and efficient in protecting significant resources and providing opportunities for appropriate public enjoyment. Alternatives to NPS management are not normally developed for study areas that fail to meet the four criteria for potential units, particularly the "national significance" criterion.

If a special resource study finds that a resource meets the standards for potential designation as a unit of the National Park System, Congress may choose to enact federal legislation creating a unit.

Planning Context

The John H. Chafee Blackstone River Valley National Heritage Corridor has served as a catalyst for regional initiatives since its creation in 1986. As a result, the Blackstone River Valley has developed a large regional constituency drawing from environmental, cultural, recreational, and economic interests. A number of bi-state, Valley-wide initiatives are currently underway to protect and preserve the resources associated with the Blackstone River Valley and to improve recreational access and opportunities.

The study team acknowledged the desires of the Commission and the public that the long history of federal activity and investment in the Blackstone River Valley region be recognized in the study process. The following elements were identified to ensure that these previous efforts were given adequate consideration:

- Preserve, protect and interpret resources throughout the John H. Chafee Blackstone River Valley National Heritage Corridor that exemplify the Valley's nationally significant industrial heritage for the benefit and inspiration of future generations.
- Support the preservation, protection, and interpretation of the region's landscape features –

both urban and rural, including the Blackstone River and Canal – that provide an overarching context for the Valley’s industrial heritage.

- Educate the public about the industrial history of the Valley and its significance to our nation’s past and present.
- Protect the substantial federal investment that has been committed to key resources and facilities Valley-wide.
- Support and enhance the network of partners who will continue to engage in the protection, improvement, management, and operation of key resources and facilities throughout the Valley.

Regional Initiatives

Blackstone River Bikeway

Originally envisioned in the mid-1990s, the Blackstone River Bikeway is planned to extend 46 miles from Providence, RI to Worcester, MA. Currently, 14 miles of bike path are open to the public in Central Falls, Lincoln, Cumberland, and Woonsocket, RI. An additional 2.5 miles of bike path are open in Worcester and Millbury, MA. When completed, the bike path project will result in a mostly off-road alternative transportation route through the Corridor linking many of the Valley’s natural and historic features. The bikeway is being developed largely with federal transportation funding. The project is a cooperative effort of the Rhode Island Department of Environmental Management, Massachusetts Department of Conservation and Recreation, Massachusetts Highway Department, and the Rhode Island Department of Transportation, with support from the Commission and Blackstone River Valley communities.

Blackstone Greenway

In 2003, the Commission released a report titled “Trails and Greenways – A Vision for the Blackstone River Valley” that identified priorities for trail development in the region and described the potential for creating greenways. The two top priorities identified in the report were the completion of the Blackstone River Bikeway and the extension of the Southern New England Trunkline Trail (SNETT). The report identified a number of opportunities to link trails to each other and underutilized natural resource areas and to expand opportunities for access to navigable waters (“blueways”). Connecting communities and resources with a regional trail system has been a long-standing initiative of the Commission.

Blackstone Canal Preservation Study

In September 2005, a Preservation Study was completed for the 28-mile Massachusetts portion of the Blackstone Canal by Vanasse, Hangen & Brustlin, Inc., through a partnership between the Worcester Historical Museum and the Commission. This study identified and mapped Canal-related resources in eight communities. In addition, the Study included recommendations for the protection, stabilization, rehabilitation and interpretation of particularly significant and intact segments of the Canal. A similar survey of the canal in Rhode Island was completed in June 2010 by the same firm.

Campaign for a Fishable Swimmable Blackstone River by 2015

Spearheaded by the Blackstone River Coalition, the “Campaign for a Fishable/Swimmable Blackstone River by 2015” was launched in 2003 to assemble the appropriate agencies, organizations, and individual actors needed to clean up the Blackstone River. It has worked collaboratively with federal, state, and local agencies, as well as non-profit organizations, academic institutions, and businesses to create a bi-state watershed action plan that focuses on storm water management, wastewater treatment, land use and development, stream flow, recreational opportunities, and education and outreach.

The coalition consists of the Blackstone Headwaters Coalition, the Blackstone River Watershed Association, the Blackstone River Watershed Council/ Friends of the Blackstone, College of the Holy Cross, Lake Singletary Watershed Association, Massachusetts Audubon/ Broad Meadow Brook, Audubon Society of Rhode Island, Rhode Island Conservation Law Foundation, Northern Rhode Island Trout Unlimited, and Save the Bay. While not a member of the coalition, the Corridor is among the partners who support this initiative.

Update of Corridor Management Plan/ Transition to new Management

Commission staff is in the process of updating the Corridor Management Plan which will address the management transition from the Commission to the recently created non-profit, Blackstone River Valley National Heritage Corridor, Inc. The plan is being developed consistent with direction in the Commission’s 2006 reauthorization act and with the work being completed for the Special Resource Study.



CHAPTER TWO: Historical Overview and Resource Description

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Historical Overview of the Blackstone River Valley's Industrial Development

In the early 17th century, the Blackstone River Valley was claimed by Native Americans of three principal tribal groups: the Narragansett, the Wampanoag, and the Nipmuc. They lived in semi-permanent villages, moving periodically in search of more fertile soil. The Native Americans developed a major trail along the Blackstone River's length and a number of minor trails throughout the valley, which were used and developed into roads by later settlers. The arrival of early explorers, fishermen, and fur traders severely disrupted this pattern of life, and infectious diseases carried by the Europeans virtually wiped out much of the Native American population by the 1630s.

Attracted by religious freedom and rich and abundant resources, Europeans settled the region beginning in the mid to late 17th century. In 1675 local Native Americans, roused to desperation by repeated incursions into their ancestral territories by European settlers, rose in concert under the Wampanoag leader, Metacomet (also known as King Philip) to defend their lands and way of life. During the conflict, nearly every European settlement in the valley was destroyed, but the war was equally devastating to the Native American communities. The war ended in 1677 and reconstruction of colonial villages commenced first in the southern portion on the Valley and later in the north. The region remained largely agricultural through the 18th century, though urban centers like Worcester and Providence began to emerge as market and financial centers.

During the 19th century the United States underwent fundamental changes that transformed the country from a predominantly agrarian society in which manufacturing (where it existed at all) had scarcely progressed beyond the handicraft level, into the world's leading industrial power. Industrialization took place first and primarily in the textile industry and this sector remained in the forefront of industrialization into the mid-20th century.⁹ The profound transformation that industrialization brought first emerged and succeeded in the Blackstone River Valley of Rhode Island and Massachusetts, where its effects were long-lasting and its physical evidence remains clearly visible today. The success of Samuel Slater (1768-1835) as an American pioneer, applying new industrial technologies in Pawtucket, RI,

was monitored by Alexander Hamilton, then the nation's newly appointed first Secretary of the Treasury. As Slater's early operation evolved, Hamilton explored the potential of bringing the private and public sectors together to advance the nation's industrial development through the creation of the Society for Establishing Useful Manufactures (S.U.M.). In 1792, S.U.M. acquired 700 acres of land on the Great Falls in Paterson, New Jersey and with significant capital sought to undertake the development of a major planned industrial center, where the first water-powered mill came on line in 1794. While Paterson's industrial development lagged in those early years, the Rhode Island System of manufacture pioneered by Slater continued to grow and thrive.

A number of serendipitous geographical factors converged to make the compact region of the Blackstone River Valley into America's first center of industrialization. Wealthy merchant families in Providence, Rhode Island, had accumulated surplus capital from the transatlantic trade and were looking for opportunities to invest. Taking advantage of the city's excellent port, they had developed a network of profitable commercial connections. The hinterland was largely agricultural and generated a surplus of labor, primarily women and children who possessed domestic handicraft skills but had not previously been part of the labor market. Many men were skilled tinkerers, familiar with mechanical processes and receptive to labor-saving methods. Perhaps most important, the Blackstone River and its tributaries offered many sites that were suitable for water-powered mills.

Although the core technologies of this transformation were imported (some would say stolen) from Britain, their applications in the Blackstone Valley were distinctly American. The Blackstone Valley continued to be a significant center of manufacturing throughout America's industrial age, and features that made it distinctive remain visible in its buildings, communities, and landscapes.

Capital, labor, and energy were already in place in the Blackstone Valley when Samuel Slater introduced the technological and organizational components that had been missing in earlier unsuccessful attempts to mechanize textile production in the U.S. By 1790, English inventors had developed a wide range of machines and processes that gave their country an enormous competitive advantage. Slater, arriving in the U.S. in 1789, brought working knowledge of

9 "For all intents and purposes the so-called 'industrial revolution' of the late 18th and early 19th centuries was a revolution in textile production." (Walter Licht, *Industrializing America: the 19th Century* [Johns Hopkins Univ. Press, 1995], 25.)

Richard Arkwright's machinery for spinning cotton yarn¹⁰ and in doing so circumvented British laws against taking technology out of the country. Soon he connected with Moses Brown, a civic-minded and intellectual merchant of Providence, whose previous efforts to launch cotton manufacture had enjoyed only limited success. Over the next two or three years, assisted by skilled local mechanics, Slater perfected the manufacturing process. These advances were embodied in a new mill in Pawtucket, Rhode Island, whose construction he supervised in 1792-93.

Together, these elements reached critical mass generating an outburst of industrial growth that seems revolutionary because of its speed. Textile manufacturing grew slowly in the early 1790s, even after Slater's successful demonstrations, but took off in the new century. Nascent American industry took advantage of turmoil in Europe, especially after Jefferson's embargo of 1807 blocked textile imports from Britain. Treasury Secretary Albert Gallatin's census of manufactures found 40 cotton mills operating within 30 miles of Providence in 1809, and these accounted for about two-thirds of the active spindles in New England. After a period of explosive growth, another report by the Secretary of the Treasury counted 119 mills in Rhode Island alone in 1832.¹¹ By then, the Blackstone had earned a reputation as America's "hardest-working river."¹²

Samuel Slater found conditions in the Blackstone Valley congenial and was able to transplant not only the Arkwright process but much of the physical and social organization of the English factory villages he remembered. New mill villages, many started by Slater, his associates, or men he trained, sprouted up at sites that were previously unsettled, or at most contained proto-industrial grist or saw mills. These "mills in the countryside" were a defining feature of the Slater System (also referred to as the Rhode Island System of manufacture) and made it appear less threatening to Americans who had heard enough of English industrialization to dread the smoky, congested horrors of Manchester's "Satanic Mills."

In the early Republic, many Americans believed that the nation's future should be agrarian and feared that English-style industry would create hellish living conditions, destroy individual independence, and threaten the democratic

ideal of relative social equality. The mill villages and their small factories, employing familiar vernacular architecture, blended into their surroundings in a way that soothed such societal fears.

The manufacturing operations of the United States [in 1832] are carried on in little villages or hamlets, which often appear to spring up as if by magic in the bosom of some forest, around the water-fall which serves to turn the mill wheel... God forbid... that there ever may arise a counterpart of Manchester in the New World.¹³

Another factor that made industrialization acceptable was that the first generation of textile mills used power only for spinning. Weaving was not easily mechanized and remained a handcraft "putting out" operation, in which households near a mill could be profitably engaged without excessive disruption of their lifestyles. This assured a continuation of established practice, in which rural families were accustomed to using carding, fulling, and finishing mills in conjunction with home looms. Power loom weaving, introduced in the 1820s, was for many years confined to simple, sturdy fabrics. Handloom weaving of fine and specialized fabrics thrived in home outwork and small shops through the first half of the 19th century. In that sense, mechanization of textile production was a step-wise change, not a wholesale disruption of traditional arrangements.

Although individually owned and operated, the mill villages formed a dense network, linked by physical resemblances, similarities of process, and a multitude of close alliances among the owners. The result was the formation of a sprawling but cohesive industrial district that covered the watershed of the Blackstone River and soon extended beyond it. Money and technical expertise permeated political boundaries and expanded the district's physical and economic features into the nearby Woonasquatucket and Pawtuxet River Valleys of Rhode Island and the Quinebaug River Valley of eastern Connecticut and adjoining Massachusetts. So attractive was this "colony" that more textile mills were built in eastern Connecticut in the 1820s than in Rhode Island, though suitable sites were still available in the Blackstone Valley. In the opposite direction, the textile industry organized on the Rhode Island System spread into southeastern Massachusetts to Taunton and beyond. Before long, this form of industrial organization was transferred to

10 Cotton was amenable to handling by machine. Irregular wool, worsted, and linen fibers were far more resistant to mechanization, and industrialization of those segments of the textile trade lagged by one or two decades.

11 Caroline F. Ware, *The Early New England Cotton Manufacture* (Houghton Mifflin, 1931), 24, 35, 155.

12 Winthrop Packard, "America's Hardest Working River," *Technical World Magazine*. Vol. 12, Number 2, October 1909.

13 Zachariah Allen, *The Practical Tourist* (1832), as quoted in Gary Kulik, Roger Parks, and Theodore Z. Penn, eds., *The New England Mill Village, 1790-1860*. (Massachusetts Institute of Technology, 1982), 7.

“outliers” much farther afield. In his study on industrialization, historian Walter Licht summarizes the trend: “Numerous circumstances could force the disintegration of the incorporated mill village, yet the form prevailed, spread, and persisted. From the northern wilderness of Maine to the hamlet of Rockdale in southeastern Pennsylvania, along creeks and narrow rivers, sprang up hundreds of mill communities during the first half of the nineteenth century.”¹⁴

In essence, the mill villages were planned communities, since they were initially constructed in a short span of time where there had been little or no previous settlement. This meant that in most cases the mill owners had to provide housing and community buildings in addition to their factories. The resulting assemblage of structures reflected their ideas of thrift, order, and social hierarchy. Slatersville, Rhode Island, developed at Samuel Slater’s behest largely by his brother John in 1807, is a prototype not only of the planned mill village but the “company town” as well. Most of the features that defined the later company towns were already in place, with the possible exception that it and other Rhode Island examples were not set off into separate political entities.¹⁵ However, even this qualification is far from absolute: sometimes industrial villages split off to form new municipalities, and in many cases the power of the mill owners was sufficient to direct the political process of existing towns.¹⁶

Samuel Slater remained a traditionalist in social matters. Thus, the industrial labor system he introduced, commonly termed “full-family employment” and largely replicated from his English experience, was essentially paternalistic.¹⁷ In dealing with the family as a unit, Slater consciously reinforced firm paternal rule within the nuclear family, which he considered to be the natural order. Under this system, mill owners not only felt some degree of responsibility for their employees but were also able to exercise broad control over the lives of their workers. In implementing this system of management, Slater and his followers frequently provided schools, churches, and stores in their villages. Company stores both filled a need in isolated villages and provided another avenue of control. Having little negotiating lever-

age, employees who were unhappy with any aspect of life in the mill village had little choice but to leave the community. Paternalistic attitudes endured and became broader in scope at Hopedale and Whitinsville, Massachusetts.

Slater seldom allowed the benign features of paternalism to interfere with profit. Although he had been an apprentice, he adopted a system of wages rather than apprenticeship. The rise of the mill village and its labor system redefined the role of women and children by involving them in the wage economy, but it also had a broad impact on the position of men. The mills offered men employment compatible with their self-esteem as mechanics, supervisors or farmers and thereby strengthened their position of authority within the family. This may well have been a consideration in Slater’s practice of establishing farms in association with his mill villages and allowing private gardens to flourish. Slater-style villages were configured to allow space for family gardens and livestock.

The popular construct of farm *to* factory is oversimplified and misleading. More accurately, the process was farm *and* factory. Industrialization displaced agriculture only in relative terms, as a sector of the overall economy.¹⁸ In absolute terms, agriculture expanded to feed the growing populations of mill villages. Thus, the farms and factories were interdependent and mutually supportive. This is one of the factors that caused the mills to be welcomed as a positive economic benefit by the rural population. People who had been deeply shaken by the outflow of New England’s sons and daughters welcomed the employment provided by the factories and the reinvigoration of the farms. In response to the changing economic climate, many farms made the move from subsistence to market farming, producing dairy products, fruits, and vegetables for local sale.

In its initial decades, industrialization was largely synonymous with the cotton textile industry. This business was important not only for its direct impacts, but for its role in stimulating other forms of industrial activity. Among these is the chemical industry, through its role in furnishing dyes for cotton fabrics. More significant was the machine tool industry, which expanded rapidly to fill the needs of the textile factories. The Blackstone Valley emerged as a critical node for developing and disseminating advances in the manufacture of machine tools and machinery, and this expanding capability had widespread consequences in all as-

14 Industrializing America, 24.

15 “I think the Blackstone’s communities fit into most definitions of company towns. John Garner, for instance, defined a company town as one constructed, supervised, and owned by a single business enterprise. But ‘mill village’ is the term preferred locally and it also characterizes these communities adequately.” (Alison Kim Hoagland, “Report on Site Visit, Blackstone River Valley Special Resource Study, Feb. 14-16, 2008,” www.nps.gov/blac/parkmgmt/special-resource-study.htm, 3.

16 The traditional New England town is the functional equivalent of townships in other parts of the country.

17 This is discussed more fully by Barbara M. Tucker, Samuel Slater and the Origins of the American Textile Industry, 1790-1860 (Cornell Univ., 1984).

18 David R. Meyer, “Report: Blackstone River Valley Special Resource Study,” www.nps.gov/blac/parkmgmt/special-resource-study.htm, 2008, p.2; Claire W. Dempsey and Myron O. Stachiw, “The Late Industrial Period in the Blackstone Valley: Industry, Agriculture and a Changing Population,” (report for Blackstone Valley National Heritage Corridor, n.d.)

pects of life. A busy network of inventive mechanics gathered, exchanged news of new machines and techniques, and spread them to outlying areas where the textile industry had taken hold. The Wilkinson family, related to Samuel Slater by marriage, provides a conspicuous example of those who engaged in this network. David Meyer, author of a recent study of the subject, concludes that the Blackstone Valley “constituted one of the leading machine shop, machinery and machine tool complexes in the nation.”¹⁹ Worcester and Providence remained centers of machine and precision tool manufacturing through World War II. In many ways, their tool builders reflected the flexibility and adaptability of the region’s textile manufacturers.

The influence of the textile mills and the wealth they generated was felt in other ways, particularly by the transportation infrastructure. Mill owners in Rhode Island promoted turnpikes such as the one connecting Providence and Pawtucket. More importantly, they constructed the Blackstone Canal, a transportation artery extending from the port of Providence nearly the entire length of the Blackstone River to the inland town of Worcester, thereby shaping the Valley into a cohesive entity and stimulating the development of Worcester as an important urban manufacturing center.²⁰ As their wealth increased, mill owners gave architectural expression to their power and prestige in the magnificent homes, libraries, municipal buildings, churches and parks that still embellish the region and bear their names.

Slater’s achievements in the Blackstone Valley demonstrated that textile manufacture could be successful and profitable in the U.S., at least under a favorable tariff regime. Once this critical point had been confirmed, others began to experiment with alternative models. The transformation that made the U.S. into a mighty industrial power was so sweeping and dramatic that it was popularly enshrined as the “Industrial Revolution.” American scholars have abandoned this term as too restrictive in both time and process, replacing it with the more comprehensive con-

struct “industrialization.”²¹ The richer understanding of the industrial phenomenon that has emerged since the initial surge in scholarly interest in the 1970s shows that it occurred over an extended period, at several locations, and in a variety of forms.

Although industrialization reshaped all aspects of American life, it did not follow a uniform process. The Blackstone Valley exemplifies one of several main paths to industrialization. This distinctive form was so closely associated with the area where it originated that it became known as the Rhode Island System of manufacture. In general, the Rhode Island System was characterized by its relatively small-scale mills, ownership by individuals or partnerships rather than corporations, use of families as the labor force, location in multiple detached villages in a rural setting, and a symbiotic relationship with agriculture. It represents the first successful application of the factory system of manufacturing in the U.S., employing machines driven by a central power source and tended by semi-skilled workers.

The major alternative system in textile manufacture was pioneered at Waltham, Massachusetts, but it reached its mature form in the mid-1820s at the planned industrial complex at Lowell, Massachusetts. Various known as the Waltham, Lowell, or Northern New England system, it was characterized by large-scale integrated factories where raw cotton was converted into finished fabric (from “bale to bolt”) in a single establishment. From the outset, Lowell mills produced vast quantities of fairly standardized cotton fabric. They required more power, more workers, and vastly more capitalization than Blackstone Valley textile operations. This model became feasible only after some two decades of experience in the Blackstone Valley had proven the potential of American textile manufacturing. By the time the massive mills at Lowell came on line, more than 400 textile mill villages of the Rhode Island style flourished in the U.S., predominantly in southern New England.²²

The Waltham and Lowell mills and their successors operated on a much larger scale than their Rhode Island counterparts and were designed to be more vertically integrated.

19 “Report: Blackstone River Valley Special Resource Study,” www.nps.gov/blac/parkmgmt/special-resource-study.htm, 2008, p.6. For a fuller development, see Meyer’s *Networked Machinists: High-Technology Industries in Antebellum America* (Johns Hopkins Univ. Press, 2006).

20 The Middlesex Canal linked the area that became Lowell with the port of Boston before Lowell was developed, but Lowell is best known for its system of power canals. Nothing as elaborate as these power canals existed in the Blackstone Valley, nor was necessary due to the region’s geography; and this is one of the vital differences between the two manufacturing systems.

21 A consensus on this point was achieved by the scholars who participated in the Blackstone River Valley Special Resource Study site visit, Feb. 14–16, 2008. See reports by Gary Kulik, Walter Licht, David Meyer, et al., www.nps.gov/blac/parkmgmt/special-resource-study.htm. Licht summarized “That term Industrial Revolution has been discarded, utterly discarded into the dust bin by scholars for at least 30 years.” (Remarks at public meeting, Whitinsville, MA, Feb. 16, 2008, transcribed by Alice Darling Secretarial Services, available from Blackstone River Valley National Heritage Corridor, NPS).

22 Licht, *Industrializing America*, 24, and “Report of the Organization of American Historians and the National Park Service on the Blackstone River Valley Industrial Heritage Corridor,” www.nps.gov/blac/parkmgmt/special-resource-study.htm p.2.

They relied on the corporate form of organization, and at the outset employed young, single women. Especially in the initial stages, the scales of the two systems differed vastly. Around 1840 Lowell had a population in excess of 20,000, of whom perhaps one-third worked in the factories. There were 26 separate cotton mills with a capacity of 166,000 spindles. By contrast, the typical Blackstone mill village employed perhaps 100 workers in one or possibly two mills with a total capacity of 1,000 spindles.²³ The amount of capital employed reflects the same wide divergence: whereas the Lowell corporation was capitalized at \$400,000 or more, a village mill could be bought for as little as \$10,000. By concentrating on large-scale, vertically integrated production of a single type of fabric, Lowell-style mills sometimes suffered the vicissitudes of market saturation or changing fashion. Smaller Rhode Island-style mills sometimes weathered these changes more nimbly. If demand for their product fell in one sector, they often found markets in another.

The impacts on the physical and social landscape were in roughly the same proportion. While both systems were segments of the textile industry, and their products were sometimes similar, they were grounded in fundamentally different concepts of organization, and these differences had profound effects on the social and built environment. This is evident not only in the scale of the factories, but in the residential architecture. Whereas the boarding house is the characteristic expression of the Waltham System, the single or two-family house is a defining feature of the Rhode Island construct. In the Rhode Island System, in its initial form, members of the owner's family might work in the mills, at least in a technical or supervisory capacity. There were examples of former workers rising to become mill owners, which was almost unimaginable under the Waltham model.

It is misleading to conceive of American industrial history as an inevitable progression from small to giant scale. Lowell and "smokestack industries" such as steel mills and the massive vertically integrated automobile factories that expanded on its model captured the public imagination by their overwhelming size and thereby have concealed the parallel survival of family-sized manufacturing throughout the course of American industry.²⁴ Lowell and its successors were conspicuous for obvious reasons, but remained

atypical within the context of American industrial production. In 1878 in Massachusetts, only 520 of 11,000 manufacturing companies were organized as corporations.²⁵ Places like Lowell attracted visiting delegations and writers looking for stories about the impact of industry, while mill communities of the Rhode Island type were so ubiquitous that they often escaped notice. Nevertheless, they persisted and were more likely to be the source of technological innovation than the vast industrial complexes.

With rival systems coexisting, some convergence became inevitable, making it more difficult to find "pure" examples of each type. Moreover, the far-reaching success of the Rhode Island model entailed the modification of some of its defining characteristics, diminishing the disproportionate early influence of the Blackstone Valley. Several aspects of this process of dilution can be traced. First and most obvious was geographical expansion, as this system of industrial organization spread throughout New England and beyond. Into the 20th century a Rhode Island influence was discernible in the Southern Piedmont (an area that extends through central North Carolina, South Carolina, and Georgia, into eastern Alabama), as a member of the Draper family who owned the Hopedale plant transferred elements of mill village design to the American South. In her study of company housing, Margaret Crawford observes "Like the New England textile towns a century earlier, the [southern] mill village embodied a social order directly reflecting the economic logic of the textile industry," and adds that "Southern mills repeated the archetypal experience of modernization pioneered in the New England textile mills..."²⁶

Another aspect of diffusion was the diversification of industrial production. First, the textile industry became more varied as the weaving process was mechanized and the industry offered a wider range of products. The industries that arose to support textile manufacturing, notably the manufacture of machinery, built on their advancing capabilities to serve many other users. A node of technological expertise formed in the Blackstone Valley at firms like Brown & Sharpe, Crompton & Knowles, Draper, and Whitin Machine Works, where skilled machinists steadily improved machines and manufacturing techniques. The Valley became an incubator for and disseminator of this

23 Kulik, Parks and Penn, *New England Mill Village*, xxvii-xxviii.

24 "In fact, as of the late nineteenth century all of these manufacturing approaches continued to operate, and the large-scale, mass production factories existed in only a few industries." David Meyer, "Report: Blackstone River Valley Special Resource Study," www.nps.gov/blac/parkmgmt/special-resource-study.htm, 2008, p.2.

25 Robert L. Heilbroner and Aaron Singer, *The Economic Transformation of America*, 2nd ed. (Harcourt, Brace, Jovanovich, 1984), 189.

26 *Building the Workingman's Paradise: The Design of American Company Towns* (Verso, 1995), 174, 175.

technology throughout the nation.²⁷ Meanwhile, the textile industry remained important in the U.S. into the 20th century, but with diminishing influence. The industry continued to flourish in its natal region, with production increasing in absolute terms, although the lopsided early dominance did not continue. In response to competition from larger entities, factories in the Blackstone Valley adapted by turning to more specialized products and those requiring more skill.

In the late 19th and early 20th centuries, new factories in the Blackstone Valley were built on a larger scale and some expanded into vertically integrated production. This trend seemed to represent the blending of some of the defining characteristics of the Rhode Island and Waltham systems. This physical similarity may be more superficial than substantial, although the boundaries between the two classic systems undoubtedly blurred. Company housing and related facilities increased in proportion, and it is noteworthy that in most cases the mill villages retained their characteristic forms of ownership, management, and operation. The nature of the workforce changed and, except for some of the skilled occupations, mills employed largely immigrants or the children of immigrants. This represents a degree of convergence with the Lowell model, where the initial reliance on young single women of largely rural origins was substantially modified beginning as early as the 1840s. In sum, although neither system maintained its original “pure” form, recognizable distinctions between them persisted. Factory workers in the Blackstone Valley continued to live within the familiar social construct of the mill village: family-owned, stratified, discrete, and self-contained in important respects.

Another noticeable shift in the Blackstone Valley was the greater urbanization of industry. In part this was caused by the expansion of mill villages. Since these villages were close to each other to take advantage of water power, clusters of formerly separate villages sometimes coalesced into a larger unit. This was especially notable at Woonsocket, in the middle of the valley, where continued growth created the need for a local business center between the major anchor cities at each end. In other cases, industries simply located in existing urban centers such as Providence and Worcester, where they could enjoy the advantages of bet-

ter transportation, a varied work force, and the presence of banks and other support facilities. This phenomenon was more characteristic of the machine-making industry and its allies, which gathered in the two anchor cities and transformed them into industrial centers noted for producing an amazing diversity of manufactured goods. Over the course of time, the evolution of urban centers in the Valley became one of the defining characteristics of the overall region.

Nevertheless, Whitinsville, a significant producer of machinery, continued to flourish as a detached village. Despite changes in detail, the mill villages of the Blackstone River Valley retained their continuity of character into the mid-20th century.²⁸

Beginning as early as the closing decades of the 19th century, the textile industry began to shift out of New England, first to the South, and ultimately offshore. The one-time industrial dominance of the Valley—and New England in general—faded dramatically. However, many Blackstone Valley firms were able to adapt for a time by concentrating on specialized niches in the textile industry, or by diversifying into other industries. The interest and involvement of the established proprietary families often persisted. As late as the 1920s, the owners of Slatersville updated their village by introducing elements of the prevailing Colonial Revival movement. In doing so, they invoked a shared past that, while not literally accurate, demonstrated both their commitment to historical continuity and their confidence in the viability of manufacturing.

In the Blackstone Valley, 20th-century deindustrialization followed a pervasive and harsh course and resulted in a period of demoralization. Subsequently, however, the establishment of the Blackstone River Valley National Heritage Corridor in 1986 both exemplified and contributed to renewal. Although industrial production in the Blackstone Valley is now greatly diminished, the industrial character of the region remains overwhelmingly evident. It has shaped the spatial arrangement and the physical appearance of the Valley, and perhaps also the attitudes of its inhabitants. The ongoing adaptive reuse of former mills and mill village housing, as well as efforts to preserve the context of open land in which the mill villages thrived, confirm that the distinctive and deeply embedded character of the region can provide the basis for a successful future.

27 Speaking of the Blackstone Valley, Gary Kulik concludes, “It is not totally present-minded to say this was the Silicon Valley of the 19th century.” (Remarks at public meeting, Whitinsville, MA, Feb. 16, 2008, transcribed by Alice Darling Secretarial Services, (available from Blackstone River Valley National Heritage Corridor, NPS). A similar statement is contained in his “Notes on the Historical Significance of the Blackstone Valley,” www.nps.gov/blac/parkmgmt/special-resource-study.htm, 4.

28 “The mill villages of the Blackstone River Valley contained small and large-scale renowned enterprises—they belie quaintness—and they endured into the twentieth century (not ephemeral contributors to American industrial history).” Walter Licht, “Report of the Organization of American Historians and the National Park Service on the Blackstone River Valley Industrial Heritage Corridor,” www.nps.gov/blac/parkmgmt/special-resource-study.htm, p.2-3.

Cultural Resource Areas

Introduction

The Blackstone River Valley of Rhode Island and Massachusetts presents an industrialized landscape developed over a period of more than 100 years, beginning with Old Slater Mill in the early 1790s. In subsequent decades, industrialization spread along the Blackstone River and its main tributaries, overlaying or filling in the existing agrarian landscape. This industrial development employed a distinctive form of organization which, because of its origins and prevalence in this region, became known as the Rhode Island System of manufacture. It is characterized by production in discrete villages centered around mills that drew power at suitable sites along the Blackstone River and its tributaries. By 1850, dozens of such villages flourished in the Blackstone Valley, and the river had been intensively engineered to provide controlled power for the mills. These mills were massively constructed for reasons of safety and stability, and to convey a feeling of permanence.

The manufacturing facilities were almost entirely devoted to textile production and allied industries, notably machinery and tools. This industrial monoculture guided by a unifying concept of organization and manifested in similar forms and structures, formed a dense and cohesive industrial district along the waterways of the Blackstone Valley. The industrial development of this district was so pervasive and deeply rooted that decades of deindustrialization, extending through much of the 20th century, has not erased its imprint. Throughout the valley, evidence of the industrial past is inescapable and continues to define the region's character. It is visible in the numerous mill villages in various states of completeness, with their defining mills, similar but stratified housing, public buildings, and water control facilities, all strung along the Blackstone or any tributary capable of being harnessed, and often set off against an agrarian backdrop whose architecture maintains some of the traditional character of New England.

The cumulative nature and significance of the Valley's industrial resources has been recognized since at least 1986, when the Blackstone River Valley National Heritage Corridor was established by Congress. Through this Special Resource Study, the National Park Service continues to examine the industrial heritage resources of the Valley in depth. After evaluating numerous resources Valley-wide, including over 20 mill village locations, a group of seven outstanding resources has been selected because they best

illustrate the region's nationally significant themes and possess the greatest levels of completeness and integrity:

- The Blackstone River & Its Tributaries
- The Blackstone Canal Historic Districts
- Old Slater Mill National Historic Landmark District
- Mill Villages
 - Slatersville Historic District
 - Ashton Historic District
 - Whitinsville Historic District
 - Hopedale Village Historic District

The Valley Landscape

Stretching from Providence, Rhode Island, north to Worcester, Massachusetts, the 46-mile long Blackstone River forms the Valley's "spine" and supported the majority of the region's water-powered mills, while its many tributaries – including the Branch, Mumford, and Mill rivers – enabled industrialization to spread throughout the watershed. The decline of the region's industry in the early 20th century led to disinvestment and economic stagnation, while in recent years suburbanization has taken hold, with residential development consuming open space and, in some cases, blurring the once-clear boundaries of the self-contained mill villages. The Blackstone Valley continues to be a working landscape characterized by a number of resource types, including: mill villages, urban centers, rural agricultural land and open space, and at its core, the Blackstone River itself. The interrelationships among these resource types contribute to a distinct sense of place that pervades the Valley and provides the essential context for the resources under consideration in this analysis.

Mill Villages

Mill villages in the Blackstone Valley represent the characteristic physical expression of rural industrialization known as the Rhode Island System of manufacture. Initially modeled on English precedents, the mill villages were centered on a mill and its infrastructure with family worker housing, commercial enterprises, and community amenities provided by the mill's owners. In her Blackstone Valley Site Visit report, Alison K. Hoagland offers the following characterization of the Valley's mill villages:

The mill villages are an engineered landscape, just as the mills and their power systems are. These villages did not spring up organically. They are manifestations of the companies, particularly in their intentions and attitudes toward their workers. In the housing,

the hierarchy of a village is often apparent, both in the size of the dwellings (management receiving larger houses) and in their location (management housing located on high ground, farther from the mill). These corporate communities often demonstrated a paternalistic interest in the morality of their employees, complemented by a rigid sense of social hierarchy. This early 19th century attitude continued in some of these villages long after other industrialists took a more businesslike and detached attitude toward their employees.²⁹

The mill villages described subsequently were highlighted in the Special Resource Study process because of their particularly high level of physical integrity and completeness and for the outstanding visitor experience potential that they offer in terms of opportunities for education, interpretation, and further study.

Urban Centers

The historic industrial development of the Blackstone Valley is also reflected in its urban centers. By the late 18th century, Providence, a port city, had a well-developed maritime trade and an established merchant class, whose wealth fueled industrial innovation and development throughout the Valley. The College Hill Historic District, a National Historic Landmark District in Providence, includes the mansions of many of the financiers of the industrial revolution. Home to Slater Mill (1793), discussed in greater detail below, Pawtucket made the transition from a small mill village to an industrial city over the course of a century. The city of Woonsocket was formed when six industrial villages merged and were incorporated in 1888. Remnants of the former industrial villages are evident in the city's neighborhoods. Finally, the City of Worcester evolved as a regional market center for central Massachusetts in the late 18th century. Its major development as an industrial center occurred after the opening of the Blackstone Canal in 1828 and was greatly accelerated by the coming of the railroad in the 1830s.

Agricultural Land and Open Space

Industrialization in the Blackstone Valley was overlaid on an agrarian landscape that had developed over more than 150 years. Though diminished by late 20th-century suburbanization, areas characterized by agriculture, open space, and woodland remain and evoke the region's historic

landscape. Surviving elements of this landscape contribute to our understanding of the context and important characteristics of the industrial mill villages as they developed. This rural landscape is especially evident within the Great Road Historic District in Lincoln, Rhode Island, and at River Bend Farm in Uxbridge, Massachusetts. Traditional upland rural town centers that co-existed with the mill villages are visible in places such as Grafton and Sutton, MA. The Southwick-Daniels Farm in Blackstone, MA, predates industrialization and remained an active family farm into the mid-20th century. At Whitinsville, the Whitin family set up Castle Hill Farm, a model farm that provided milk for Whitin employees and also provided work when times were slow at the mills.

Blackstone River and its Tributaries

The Blackstone River forms the natural spine of the Blackstone Valley and is the source of the region's physical and historical identity. In its 46-mile journey from its headwaters in Worcester to Narragansett Bay in Providence, the river meanders past quiet, wooded landscapes, courses through once-bustling mill villages, and is channeled through intensely developed urban centers. The Blackstone River is joined by four major tributaries (the Branch, Mumford, Quinsigamond, and West) along with many smaller branches, to form a watershed that encompasses 500 square miles and supports over 1,300 acres of ponds, lakes, and reservoirs.

The Blackstone River drops a total of 438 feet along its route. Beginning in the late 18th century, this water power was exploited with the construction of dams to support manufacturing. By the time of its peak industrial use in the early 20th century, there were 34 dams along the Blackstone River, 11 of them in Rhode Island. Scores of mills and mill villages sprang up along the river's banks, forever altering the Valley's landscape and giving rise to the Blackstone's reputation as the "hardest working river in America." The effects of industrialization were obvious: a 1990 report sponsored by the Environmental Protection Agency called the Blackstone "the most polluted river in the country with respect to toxic sediments." While water quality remains an issue, considerable progress has been made since the passage of the Clean Water Act in 1972 and through the efforts of public agencies, as well as concerned citizens who, beginning in the 1970s, have organized clean-up efforts and water quality monitoring programs. In 1998, the Blackstone River was designated an American Heritage

²⁹ Margaret Crawford, *Building the Workingman's Paradise: The Design of American Company Towns* (London: Verso, 1995), 33, mentions Whitinsville and Hopedale in this regard, as quoted by Alison Kim Hoagland, "Report on Site Visit, Blackstone River Valley Special Resource Study, Feb. 14-16, 2008.

River to acknowledge both its special importance in American industrial history and the sustained efforts to restore it.

The harnessing of the Blackstone River and its tributaries is still evident throughout the Valley. Historic dams and their resulting impoundments continue to be managed and used for a variety of purposes, including a number of small-scale hydropower projects, flood control, and recreation. Seventeen of the original 34 dams on the Blackstone River remain intact. Likewise, numerous historic dams and impoundments on its tributaries survive including sites in Slatersville, RI, Whitinsville, MA, and Hopedale, MA.

Blackstone Canal

National Register of Historic Places – MA segment 1995; RI from Providence to Ashton 1971; RI from Ashton to MA state line 1991.

First proposed in the 1790s and constructed between 1824 and 1828, the Blackstone Canal connected the port of Providence to the inland town of Worcester, paralleling the Blackstone River along its approximately 46-mile route. Tow paths ran the length of the canal to accommodate the draft animals used to move the canal boats. Granite markers, set upright in the towpath, denoted each mile. The Blackstone Canal, with 48 locks that enabled boats to negotiate elevation changes, was constructed largely by hand and followed the contours of the river as much as possible. A system of dams and reservoirs – most created from natural water bodies – helped regulate the water level in the canal and, in some cases, also served local manufacturers' power needs.

Though sometimes used as a means of transportation for people, the canal was primarily a way to ship goods; raw materials were brought to industrial centers, while finished goods were shipped to urban markets. A variety of factors, including financial difficulties, disputes over water rights, difficulty maintaining consistent water levels, and the impossibility of using the canal in the winter, led to the closing of the Blackstone Canal in the 1840s. The final blow was the opening of the Providence & Worcester (P&W) Railroad in 1847, which provided a faster and less expensive means of transportation in the Blackstone River Valley. All operations of the Blackstone River Canal Corporation ceased in 1848. The P&W purchased much of the canal property, and its route generally followed that of the canal; in some sections, the railroad tracks were laid on the towpath. In many locations, the canal trench was converted to power canals to serve existing and new mills.

The full length of the Blackstone Canal, from Providence to Worcester, is listed in the National Register of Historic Places as two separate districts – one in Massachusetts, one in Rhode Island. Segments of the canal trench and towpath, along with other canal features – some remarkably intact – survive in both states. The best-preserved section of canal in Rhode Island is located in the town of Lincoln, within the Blackstone River State Park. Owned and operated by the Rhode Island Department of Environmental Management (RI DEM), the park consists of a 3-mile-long segment of the canal, located to the west of the river, and approximately 150 acres of land on either side of the canal trench.

In Massachusetts, the most intact section of canal and towpath is located within the Blackstone River & Canal Heritage State Park, which encompasses about 1,000 acres in the towns of Uxbridge and Northbridge and is owned and operated by the Massachusetts Department of Conservation and Recreation (MA DCR). The park property conveys a strong rural character with its rolling hills, wooded areas, and former agricultural fields. At the southern end of the towpath trail is the Stanley Woolen Mill, an 1852, 4-story, wood-frame textile mill in private ownership. Rice City Pond, a holding pond created by the construction of a dam in 1865-69, is located at the northern end of the towpath trail. Three sets of water-control structures that supported the operation of the canal were recently restored.

A trail leads to Goat Hill Lock in Northbridge, where one can see the components of a relatively intact canal lock. At Plummer's Landing in Northbridge, the archaeological remains of a landing basin and trading house are visible, along with portions of a canal lock. The best-preserved lock on the Blackstone Canal is located in the town of Millville and is owned by the MA DCR. The approximately 12-foot-tall, cut granite walls are intact and structurally sound. The sockets necessary to accommodate the now-missing canal gates are still visible.

Old Slater Mill National Historic Landmark District, Pawtucket, Rhode Island

National Historic Landmark, 1966. Amended 1975.

Industrialization in America traces its origins to the banks of the Blackstone River in Pawtucket. It was here in 1790 that Samuel Slater, recently arrived from England, worked with local machinists and investors to transplant the Arkwright system from England, establishing America's first successful water-powered cotton spinning mill. Slater began his operation in an old fulling mill, where it remained for three years; in 1793, he constructed a new mill

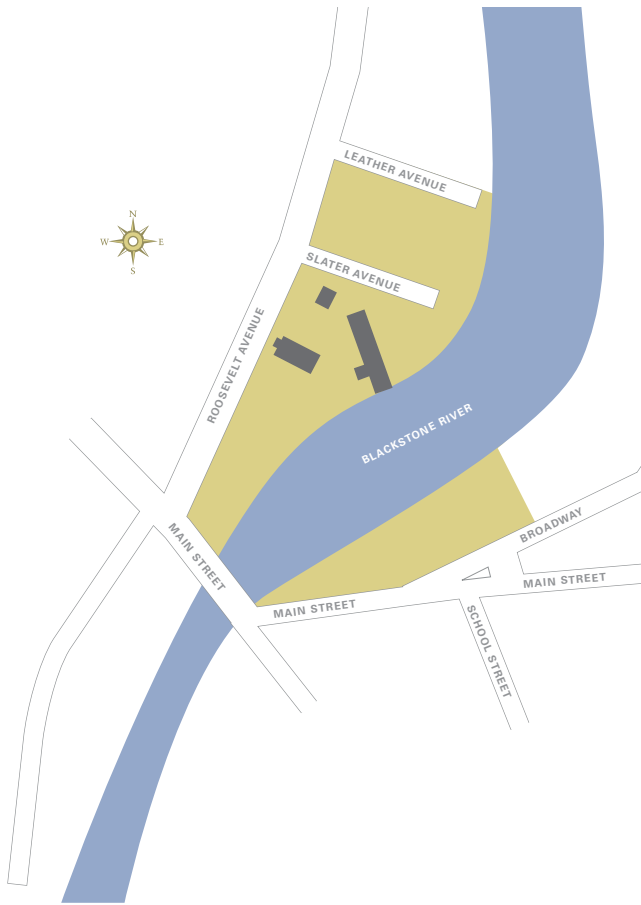


Figure 2: Old Slater Mill National Historic Landmark District – Not to Scale.

built specifically for spinning cotton thread. Now known as Old Slater Mill, the building is considered America's earliest factory.³⁰ The site was declared a National Historic Landmark (NHL) in 1966.

The Slater Mill Historic Site NHL includes three buildings on the west bank of the Blackstone River in downtown Pawtucket: Old Slater Mill (1793 et seq.), Wilkinson Mill (ca. 1810 et seq.), and the Sylvanus Brown House (ca. 1758; moved to the site in 1962). The approximately 4.2-acre site also encompasses an open parcel on the opposite side of the river, two dams, and a parking area. The NHL district is managed by the Old Slater Mill Association (OSMA) as the Old Slater Mill Historic Site and Museum.

The centerpiece of the Slater Mill Historic Site is **Old Slater Mill**, sited at the edge of the Blackstone River, a 2½-story, wood-frame building with a trapdoor monitor and a prominent bell tower. The oldest part of the mill was constructed in 1793, with additions around 1817 and 1835.



A tailrace stone arch, believed to date to 1793, marks the location of the power canal that ran under the south end of the building. Typical of mills of this period, Slater Mill differed “very little from the simpler building types of the day. The end seen alone might be taken for a large eighteenth century farmhouse...; the projecting wing with its belfry might well be the front of a country meeting house”.³¹ Despite their vernacular appearance, early mills represented a new regional building type, and their form reflected their purpose. The large, open interior spaces and elongated floor plans were designed to accommodate rows of machinery running off a system of drive belts and overhead shafts, while the need for natural light called for large windows and skylights.³²

The ca. 1810 **Wilkinson Mill** is a large, 3½-story, rubblestone building located immediately to the southwest of Old Slater Mill. A brick stair tower and belfry was added around 1840. Important textile machinery was designed and manufactured by David Wilkinson in this building. Today, a reproduction waterwheel provides power to the extensive machine collection housed on the building's first floor.

In 1962, the Old Slater Mill Association moved the **Sylvanus Brown House**, threatened with demolition, to the



30 Richard E. Greenwood, “Industrial Architecture of the Blackstone Valley.” In Claire W. Dempsey, Richard E. Greenwood, and William McKenzie Woodward, *The Early Architecture and Landscapes of the Narragansett Basin, Volume II: Blackstone River Valley and Providence*. (The Vernacular Architecture Forum, 2001.), 21.

31 Henry-Russell Hitchcock, *Rhode Island Architecture*. (New York: Da Capo Press, 1968.), 39.

32 Richard E. Greenwood, “Industrial Architecture of the Blackstone Valley.” 21-22.

site. Constructed around 1758, the wood-frame, 1½-story dwelling once served as a multi-family residence and boardinghouse. Tradition holds that Samuel Slater spent his first night in Pawtucket in this house, whose owner, Sylvanus Brown, made patterns and wood parts for Slater's machines.

Old Slater Mill Historic Site and Museum is owned and operated by the Old Slater Mill Association (OSMA), which offers regularly scheduled tours and programs to the general public. OSMA has been preserving and maintaining the site since 1921. Staff members from the Commission currently provide operational and programmatic support to the museum.

Mill Villages

*Slatersville Historic District,
North Smithfield, Rhode Island
National Register of Historic Places, 1973*

Following the success of his Pawtucket enterprise, Samuel Slater, his protégés and others established mills up and down the Blackstone River and its tributaries, transforming the region's economy and its landscape. As one of "the generative centers of the American Industrial Revolution," the Blackstone Valley became the source of "new technology, new building types, and new community forms."³³ The first of this new type of community was called Slatersville and was established in 1806-1807 by Samuel Slater and his brother, John (with financial backing from Almy & Brown), on the Branch River, about 10 miles northwest of Slater Mill. Slatersville was located far from a population center, and the Slaters attracted workers by providing family housing as well as civic and social amenities. A self-contained community centered around the mills, Slatersville is considered "the first successful industrial landscape in America, a reproducible type of company town," which was duplicated hundreds of times over, throughout the Blackstone Valley, across New England, and up and down the east coast.³⁴ In addition to being an extremely important prototype, Slatersville was one of the longest-surviving company towns in the country; the town remained under ownership of the Slater family until ca. 1900, when it was sold to James R. Hooper, who converted the mills into a bleaching and dyeing operation. The company and village

were purchased in 1915 by Henry Kendall, a textile manufacturer, who retained ownership until 1954.³⁵

The village of Slatersville, which still looks much as it did in the 19th century, was organized along two axes, with the mills occupying a site on low ground on the north bank of the Branch River. A reservoir system provided the power needed to support the operation and included two large ponds, dams (ca. 1849 and ca. 1876), canal trenches (ca. 1806-1807, ca. 1821, and ca. 1876) and spillways (1849 and 1876). Most of the power canal system survives today, a reminder of the extent to which the Slaters and their successors manipulated water resources to provide the power needed to run the mills.



The earliest mill in Slatersville was constructed ca. 1806-1807 and was likely wood-frame; it burned in the 1820s. One factory building from that period survives and was used at the end of the 1800s as an office; it may originally have been a bobbin mill.³⁶ In 1826, the Slaters replaced the mill that had been destroyed by fire with the Center Mill, also known as Mill #1, a massive, 4-story, ashlar masonry building with a clerestory monitor and a full-height stair tower capped with a belfry. The building was raised to five stories and its monitor removed sometime before 1894. The four-story Mill #3 – similar in appearance to Mill #1 – was built nearby in 1843. Both have recently been rehabilitated as apartments with the help of historic rehabilitation tax credits and according to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Housing was located on higher ground, and included numerous wood-frame, 1½- and 2½-story workers' dwellings which, although designed to resemble traditional single-

33 Richard E. Greenwood, "Industrial Architecture of the Blackstone Valley," 21.

34 Margaret Crawford, *Building the Workingman's Paradise: The Design of American Company Towns*. (London: Verso, 1995), 19.

35 Richard E. Greenwood, "Slatersville, North Smithfield, RI" In Claire W. Dempsey, Richard E. Greenwood, and William McKenzie Woodward, *The Early Architecture and Landscapes of the Narragansett Basin, Volume II: Blackstone River Valley and Providence*. (The Vernacular Architecture Forum, 2001.), 49-51.

36 Richard E. Greenwood, "Slatersville, North Smithfield, RI." 49-50.

family homes, were divided into multiple units. The earliest of these houses were built between ca. 1806 and ca. 1840, and many survive along the village's main axis. Additional workers' housing – more modest than the original – was constructed in the second half of the 19th century, and numerous examples remain. Dozens of supervisors' houses were built between 1850 and the late 1920s. Two structures, John Slater's residence (ca. 1806; moved 1844), a 2½-story, wood-frame dwelling, and the Elisha Bartlett House (ca. 1844), a Greek Revival-style residence built by Slater's son-in-law, provide examples of the homes occupied by mill owners.

Public amenities in Slatersville include a meeting house (1808; moved in 1816 and again in 1887), used for religious purposes as well as for public meetings and as a school, and two 3½-story, masonry commercial blocks (1850 and 1870), which housed stores, the post office, a bank, and a social hall. Three churches were constructed



in the 1800s: the Congregational Church in 1838, fronting onto a newly created “village green”; the Roman Catholic Church in 1872; and the Episcopal Church in 1897. Even in the 20th century, when the town was owned and operated by the Kendall Company, civic buildings continued to be constructed, including the town hall (1921) and the WPA-era Kendall Dean School (early 1930s) reflecting the later industrial period.



Figure 3: Slatersville Historic District – Not to Scale.

Ashton Historic District, Cumberland, Rhode Island
National Register of Historic Places, 1984

The village of Ashton was developed beginning in the mid-1800s by the Lonsdale Company, one of the most prosperous and productive of Rhode Island's textile manufacturing firms. The company eventually owned and operated three distinct mill villages along the Blackstone River: Lonsdale (est. 1830s), Ashton (acquired 1840s; expanded 1860s), and Berkeley (est. 1870s). All three villages are listed in the National Register of Historic Places. Ashton retains a particularly high level of integrity, both in terms of its overall layout and its individual buildings.

Industrial development in the area of present-day Ashton began in the 1810s, when the Smithfield Cotton & Woolen Company built a small mill (no longer extant) and some workers' housing on the west side of the Blackstone River, in the town of Lincoln. The Lonsdale Company acquired the struggling mill in the 1840s and, spurred by the opening of the Providence & Worcester Railroad on the Cumberland side of the river in 1848, created a successful enterprise. The company acquired additional land in Cumberland in 1863 and soon began building the village of Ashton, a premier example of a planned mill village, which survives largely intact to this day.

Like Slatersville, Ashton was conceived as a self-contained village, and it reflected many of the characteristics of the Rhode Island System of manufacture. Mendon Road (Rte. 122) runs north-south through the village along a ridge, effectively dividing Ashton into two sections: the lower village, consisting of the mill and numerous workers' dwellings hugging the east bank of the Blackstone River, and the upper village, with houses and civic amenities along Mendon and Scott Roads. The focal point of the village is the Ashton Mill, a large brick building constructed in 1867. Ancillary mill structures include a 1½-story brick building with a mansard roof, originally the mill office,



Photo Credit: Bill Murphy.



Figure 4: Ashton Historic District – Draft – Not to Scale.

and a largely unadorned power house that sits on the river bank. One of the earliest high-speed spindles developed in America, the Sawyer spindle, was first tested on a large scale at the Ashton Mill. The Lonsdale Company continued to produce textiles here until closing the operation in 1935. The main mill building, mill office, and power house have recently been adaptively reused as rental apartments, with assistance from historic rehabilitation tax credits and according to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*.

Near the mill complex, just across the railroad tracks, the Lonsdale Company built a tight cluster of simple housing for its employees in 1867. Nineteen brick, multi-family workers' dwellings remain; eleven of these are simple, 1½-story houses, and the remaining eight are similar in

style and materials, though somewhat larger at 2½-stories. The company also built a 1½-story, brick row house and a 2½-story brick tenement building, identical to the multi-family housing in style and materials but significantly larger. All of these dwellings survive and remain in residential use. According to the National Register nomination for Ashton Village, “the rows of brick dwellings near the mill are...noteworthy for the strong visual impact created by the grouping of a few standard building types similar in form and identical in scale, materials, and detailing.”³⁷



The upper village at Ashton, though separated by topography from the mill and brick housing described above, has strong visual and functional connections to the rest of the village. Three 2½-story brick, multi-family houses are located on Mendon Road, overlooking the cluster of housing below. Built in 1867 and similar in style and materials to the housing in the lower village, these properties exhibit a slightly higher level of architectural detail – for example, they feature granite sills and lintels – and were probably built for supervisory staff. The Lonsdale Company built some notable civic amenities around the same time. A 2½-story, brick schoolhouse was constructed on Mendon Road ca. 1868 to serve the mill village’s residents; like the housing, the presence of a schoolhouse reflects the employment of whole families at the mill. The paternalism of the Lonsdale Company is evident in the construction of a small, wood-frame Episcopal chapel ca. 1860 (enlarged in 1907 and converted to a Parish House) and, in 1868, the large, wood-frame, Carpenter Gothic-style St. John’s Episcopal Church.

Whitinsville Historic District, Northbridge, Massachusetts
National Register of Historic Places, 1983

The village of Whitinsville is the largest and most intensely developed of the Blackstone Valley mill villages, with a historic district that encompasses about 250 acres

and approximately 350 structures built over the course of a century. Organized around three factory complexes along the Mumford River, Whitinsville provides “an unusually complete record of the phased expansion of an industrial community” with “remarkably full-blown and intact examples of the economic and social institutions of mill village life.”³⁸ In addition to the mills, Whitinsville contains hundreds of dwellings – built for mill owners as well as mill workers – and a distinctive assemblage of company-sponsored civic facilities. The Whitinsville Historic District was placed on the National Register of Historic Places in 1983.

Whitinsville is named for the Whitin family, who were prominent in textile production and textile machinery manufacturing. However, the industrialization of the area preceded the Whitins. A textile mill (no longer extant) was founded in the village in 1809, and an iron forge was established in the 18th century, near the present-day village center. The original building no longer stands, though portions may survive within the 1879-1886 forge that replaced it. The earliest industrial building associated with the Whitin family is the 1826 Old Brick Mill, a cotton factory built by Colonel Paul Whitin and Sons. It is representative of a period of expansion in textile mills and is considered “one of the most significant examples of its type and period of factory construction still standing in New England.”³⁹ The Whitinsville Spinning Ring Company, which dates from 1873, began in the Old Brick Mill and the Forge and gradually expanded, creating a large industrial complex. The entire complex was recently rehabilitated and now houses offices, apartments, a theater, and commercial space.

The Whitinsville Cotton Mills complex is located immediately on the north bank of the Mumford River. Built by Paul Whitin and Sons in 1845, the large factory has exterior walls of ashlar, a clerestory monitor roof and a belfry. It is an excellent example of an 1840s mill, its large size reflecting a scale of production made possible by advances in water-power technology and the introduction of turbines and belt-drives. Its rear addition, constructed in 1864, housed a steam-power plant. The building was converted into apartments in the 1980s.

The last of the three industrial complexes located in Whitinsville is the Whitin Machine Works, a sprawling factory developed by John C. Whitin to produce textile machinery. This ancillary industry was a critical component

37 Robert O. Jones, National Register of Historic Places Inventory – Nomination Form, Ashton Historic District. 1982.

38 Wendy Frontiero with Michael B. Zuckerman and Kenneth Warchol. National Register of Historic Places Inventory – Nomination Form, Whitinsville Historic District. 1983.

39 Wendy Frontiero. Whitinsville Historic District. 1983.

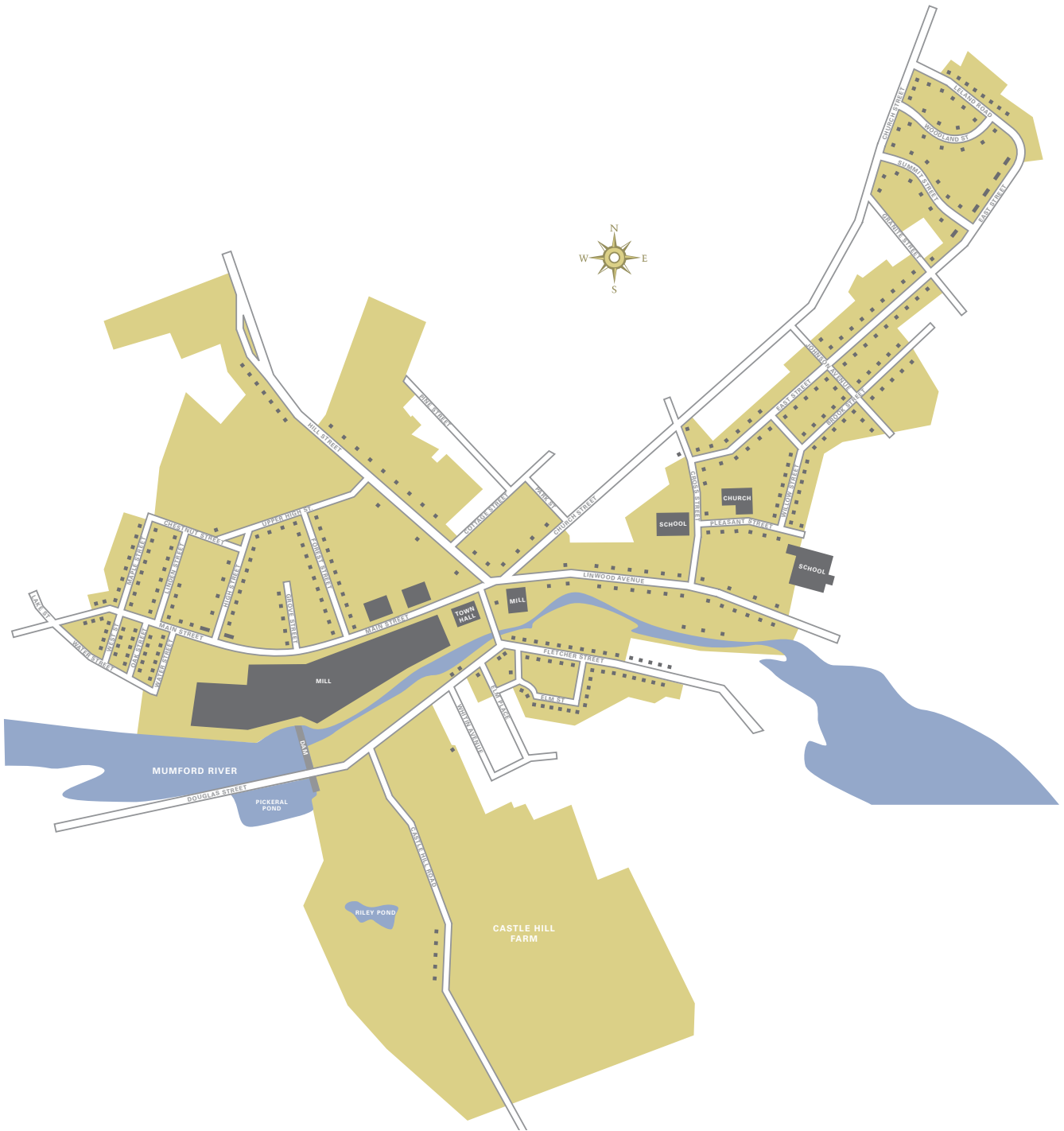


Figure 5: Whitinsville Historic District – Draft – Not to Scale.

of the Blackstone Valley economy and a key element in the Whitin family's success. John C. Whitin patented a cotton picker in 1831, which was followed by other inventions, all of which contributed to the family's dominance in picking, carding, and spinning machinery production. Whitin began the construction of the Machine Works in 1847, and the complex was expanded every ten years or so through the 1920s, ultimately including buildings on both sides of the

Mumford River and encompassing 1.75 million square feet of floor space. The complex is partially occupied and is being rehabilitated in stages.

All three factory complexes in Whitinsville were powered by the Mumford River, which was dammed in multiple locations. All told, about a dozen reservoirs were created by the Whitin Machine Works to provide power for the mills, as well as storing water for drinking and fire protection.

The reservoirs that powered the Machine Works were the largest in the system and were located on the main stem of the Mumford River.



The Whitins and their successors constructed rental housing for those who worked in their mills. Due to Whitinsville's large scale and its long period of development – ranging from the 1820s through the 1920s – it has an unusually extensive and stylistically varied collection of housing. In Whitinsville, one sees the “complete social spectrum of the factory village, from the mansions of the owners and top officials of the mills, to the commodious residences of mid-level managers, to the cottages of foremen, to the duplexes of skilled and clerical workers, to the multi-family tenements of unskilled laborers.”⁴⁰ Numerous houses were built from the 1830s through the 1860s, coinciding with the establishment and subsequent expansion of both the Whitinsville Cotton Mills and Whitin Machine Works. Over 60 Greek Revival-style residences survive, including the ca. 1840 John C. Whitin mansion, as well as a range of dwellings for mill workers. These include 1½-story single-family residences; clusters of 1½-story duplexes with paired central doorways; and 2½-story multi-family tenements. The next great housing boom in Whitinsville occurred in the last quarter of the 19th century, when the Whitin Machine Works expanded significantly. Almost 100 houses date from this period, reflecting the popular Queen Anne style and including mill owners' mansions; middle-class dwellings; and scores of duplexes built as workers' houses. Residential construction continued in the 20th century, though at a somewhat slower pace. A group of Colonial Revival-style duplexes were built around 1900, while the years following World War I saw the construction of about 50 houses by Whitin Machine Works, mostly for upper-level workers.

In addition to its extensive housing stock, Whitinsville is notable for the many high-quality, architect-designed civic buildings constructed by the Whitin family and its successors between 1870 and 1920. Most are located at the village center, near Memorial Square, creating a civic core that speaks to the Whitins' deep paternalism. The oldest of these buildings is the 1872 Town Hall, a 2-story, brick, Italianate-style building. The Neo-Classical-style, 2-story, brick and cast stone Whitinsville Savings Bank / Post Office was erected in 1905, and the Whitinsville Social Library, a Neo-Classical-style, 1-story, granite building with a pedimented portico followed in 1913. George M. Whitin's daughters commissioned the Whitin Gymnasium, a 1-story, brick and cast stone building with Neo-Federal details, in 1923. Three schools were built with funding from the mill owners (Clarke School, 1878, Aldrich School, 1890, and Whitin-Lasell High School, 1906), as well as three churches (Village Congregational, 1898, St. Patrick's Roman Catholic Church, 1898, and the United Methodist Church, 1911).

Finally, the mill owners built several company stores where mill workers could purchase dry goods and basic food, and established a farm that provided produce and dairy products. Castle Hill Farm, located on a hilltop to the south of the village center, was originally a 200-acre “hobby farm” owned by John C. Whitin. During the economic depression of 1874-1879, Whitin put many of his employees to work clearing the land and building a series of magnificent stone walls at the farm. A large, 19th-century stone-and-shingle barn burned in the 1950s, though the foundation and first-story stone walls remain. Castle Hill Farm's 200 acres are currently split between Whitinsville and the neighboring town of Uxbridge. Though no longer an operating farm, Castle Hill is the one of the only company-owned farms that has escaped development in the Blackstone River Valley.



*Hopedale Village Historic District,
Hopedale, Massachusetts
National Register of Historic Places, 2002*

Hopedale Village is the civic, residential, and industrial center of the town of Hopedale, which was settled as a utopian community in the 1840s but soon transformed into a model company town under the management of the Draper family. The Hopedale Village Historic District, added to the National Register of Historic Places in 2002, encompasses about 800 acres and includes almost 800 resources – buildings as well as designed landscapes, structures, and objects. Significant for its association with the Draper Company, which was the largest manufacturer of cotton textile machinery in the nation in the late 19th and early 20th centuries, it is an excellent (if somewhat unusual) example of a Blackstone Valley mill village. It includes truly exceptional examples of architect-designed residences and civic amenities and was recognized as the state of the art in the design of workers' housing at the turn of the 20th century.

The most important industrial venture in the community was the textile machinery factory operated by Ebenezer Draper, an early member of the utopian community, who was joined by his brother, George, in 1853. The Drapers' ca. 1843 factory building, now commonly known as the Little Red Shop, survives, though not in its original location. The simple, 1-story, wood-frame building was donated to the town by the Draper family in the 1970s and currently houses a collection of Draper textile machinery. In addition, a number of residences from the utopian period remain. They are typically front-gable, wood-frame dwellings, 1½ to 2½-stories tall and with Greek Revival-style detailing. Of particular note is the 1843 Greek Revival-style home of Adin Ballou, the community's founder and spiritual leader.

The utopian experiment at Hopedale failed in 1856, and the Draper brothers took over most of the community's assets, expanded their business, and ushered in a new era of secular paternalism. Ebenezer and George improved on their father's patented self-moving loom temple, developed new textile machinery, and acquired innovative small businesses that produced advances in relevant technologies.

The Draper Plant complex currently occupies about 27 acres and consists of a sprawling complex of massive inter-connected 3- to 4-story brick buildings that, with their similar height and massing, dominate the village center. Extant individual buildings include the ca. 1892 Machine Shop, Wooden Temple Shop, Blacksmith Shop, North Con-

necting Shop and Center Connecting Shop; the ca. 1900 Power Plant, with its tall brick chimney, and No. 1 and No. 2 Hose Houses, which provided on-site firefighting capacity; the ca. 1901 Carpenter Shop; the ca. 1903 Oil House; the ca. 1930 Dry Storage and Roughing Room; and several buildings dating from the mid-20th century. In addition, elements of the historic water power system are evident: Hopedale Pond, the Hopedale Pond Dam, and the Raceway (which directed water under the factory through a series of brick arches and piers) all date to ca. 1875, and an open-air, stone-lined tailrace (ca. 1895) cuts across the southern part of the site. The Company's Main Office Building (1910-1911), designed in the Renaissance Revival style by Robert Allen Cook, a local architect, is a 2-story building constructed of brick with red terracotta trim, parapet, and cornice. The Main Office Building was adaptively re-used as an assisted living facility in 1998. The Draper Plant complex is privately owned.



Hopedale includes a range of housing, from company-built workers' dwellings to mill owners' mansions. The high quality of the housing – and the fact that much of it was architect-designed – is unusual and contributed to the village's reputation as a “model company town” at the turn of the 20th century. By the late 1880s, the Company had established three types of housing for its staff: single-family houses, boardinghouses, and double-houses for workers with families. The most common form of company-built housing in Hopedale Village was the double-house – there are scores of them throughout the village. Those constructed between the 1860s and 1910s were generally based on a handful of standard plans that could be modified in their exterior appearance and detailing. The earliest of these were built immediately adjacent to the Draper Plant.

From the late 1890s through the 1910s, the Company hired prominent landscape architects Warren Manning and



Arthur Shurtleff to lay out new subdivisions, integrating the houses into the natural topography. Most were executed in the Colonial Revival or Tudor Revival styles, while some were influenced by the Queen Anne. The Draper Company won a series of awards for its model housing, including a gold medal at the 1904 St. Louis Exposition and at international housing congresses in 1905 and 1906. In addition to the company-built dwellings for Draper Plant staff, Hopedale Village includes several mansions constructed by members of the Draper family and others associated with the business, which, in combination with the workers' housing, convey the social and economic stratification of the Village. These include the Joseph Bancroft House (ca. 1870, remodeled 1910); Warren W. Dutcher House (ca. 1868); the William Lapworth House (ca. 1875, remodeled 1890s); the Charles Roper House (ca. 1890); and the Eben S. Draper II House (ca. 1925).

Around 1887, Warren Manning was hired to redesign the Hopedale Village Cemetery, which had been established in 1845 as part of the utopian settlement. Manning also designed the Parklands, an extensive park that surrounds the Hopedale Pond. Its naturalistic landscape includes native and specimen trees, a rustic trail system, a bathing beach, and bathhouse. It encompasses 273 acres, including the Pond, and is not only a significant village amenity but also a testament to the Drapers' unusually sophisticated approach to the design of their mill village. Other public grounds include the Town Park, which was established by the Drapers around 1890 to accommodate active recreation, and the Adin Ballou Memorial Park (ca. 1900), which occupies the ½-acre former site of the spiritual leader's house.

In addition, the Drapers and others associated with the Company funded the construction of numerous high-quality, architect-designed civic buildings. These include the Richardsonian Romanesque-style Town Hall (1886-87), which originally housed municipal offices, a library, meeting halls and commercial space. The Romanesque Revival-style Bancroft Memorial

Figure 6: Hopedale Village Historic District – Draft – Not to Scale.

Library and the Draper Memorial Church / Hopedale Unitarian Church were constructed in 1898. The Drapers were also responsible for the construction of three schools; the Renaissance Revival-style Central Fire Station (1915-16); the Colonial Revival-style Hopedale Community House (1923), intended to be a social and civic center for the town; and the Harrison Block (1889), a 3-story commercial building.



Like the villages of Slatersville and Whitinsville, Hopedale remained a “company town” well into the 20th century. The Draper Corporation remained in business until 1967, when it was purchased by Rockwell International, which continued to manufacture textile equipment until the plant was closed in 1980.

Other Mill Villages

Remnant mill villages continue to dot the Blackstone River Valley landscape. Interwoven among the agricultural hill towns, they are not as intact or complete as the mill villages highlighted above. However, these remnant industrial nodes contribute to our understanding of the true scale and scope of industrialization in the Blackstone River Valley. In Massachusetts, these villages are found at Blackstone, Fisherville, Manchaug, New England Village, Quinsigamond Village, Rockdale, and Rogerson’s Village, among other locations. Among these villages in Rhode Island are Berkeley, Lonsdale, and Harrisville.

Visitor Resource Areas

The visitor resource areas described in this section were strategically developed or refined to complement the efforts of the Corridor. In that context, each of these facilities interprets a different facet of the Blackstone River Valley’s history and functions as a gateway to a particular resource or geographic area within the valley. The Com-

mission provided support and assistance to all of these sites and facilities in the form of coordination, funding, and the development of interpretive programs and exhibits. In addition to continuing its support and assistance, staff from the Commission offer guided walks and other interpretive programs from these locations.

Blackstone Valley Visitor Center, Pawtucket, RI

Located immediately across Roosevelt Avenue from Old Slater Mill Historic Site and Museum, the Blackstone Valley Visitor Center is the southernmost visitor services facility in the valley and augments the current visitor experience at Old Slater Mill by providing a regional context. The first-floor visitor center includes a small theater space, open exhibit/ program space (including a large floor map depicting the Blackstone River Valley), public restrooms, and an information desk. A small café/ shop on the first floor adjoining the exhibit/ program space is operated by the Old Slater Mill Association. The visitor center building is owned by the City of Pawtucket, and the visitor center itself is maintained and operated by the Blackstone Valley Tourism Council. This building also houses a bus station, private offices, city department offices (Planning and Redevelopment), and classroom and administrative space leased by Salve Regina University.

Blackstone River State Park including Kelly House, Lincoln, RI

Owned and operated by the Rhode Island Department of Environmental Management, Blackstone River State Park encompasses 150 acres including segments of the Blackstone River Bikeway, walking trails, and a canoe portage. The park also contains historic resources including a well-preserved three-mile segment of the 1828 Blackstone Canal and tow path, the Captain Wilbur Kelly House, and archeological features associated with Old Ashton village. The park is located immediately across the river from the Ashton Historic District and is linked by a bridge. The Captain Wilbur Kelly House is operated as a museum featuring exhibits on the region’s transportation history including the canal, railroad and highways. Visitor information is available on all Blackstone Valley historical sites and attractions. The Blackstone River State Park is one of the key sites along the Blackstone River Bikeway, with a visitor center and bikeway trailhead co-located at a highway rest area along U.S. Route I-295. The Commission has provided funding and technical assistance in preserving the Blackstone Canal segment and in developing the Blackstone

River Bikeway and provides operational and programmatic support at the Kelly House.

Museum of Work & Culture, Woonsocket, RI

The Museum of Work & Culture is housed in a rehabilitated textile mill building located in Woonsocket's Market Square Historic District. The building is owned by the city of Woonsocket. The museum, which is operated by the Rhode Island Historical Society, interprets the story of French Canadian immigrants who left Quebec to work in Woonsocket's mills and factories. The museum offers interactive exhibits, films, lectures, and other programs and provides brochures, guidebooks, and other information for visitors to the Corridor. The Commission has provided funding and technical assistance in developing the museum and its exhibits and provides operational and programmatic support.

Blackstone River & Canal Heritage State Park and River Bend Farm, Uxbridge, MA

Blackstone River & Canal Heritage State Park encompasses about 1,000 acres in the towns of Uxbridge and Northbridge and is owned and operated by the MA DCR. The park property conveys a strong rural character with its rolling hills, wooded areas, and former agricultural fields. At the southern end of the one-mile towpath trail is the 1852 Stanley Woolen Mill, a 5-story, wood-frame textile mill in private ownership. Rice City Pond, a holding pond created with the construction of a dam in 1865-69, is located at the northern end of the towpath trail. Three sets of water-control structures that supported the operation of the canal were recently restored.

A trail leads to Goat Hill Lock in Northbridge, where one can see the components of a relatively intact canal lock. At Plummer's Landing in Northbridge, the archaeological remains of a landing basin and trading house are visible, along with portions of a canal lock. The best-preserved lock on the Blackstone Canal is located in the town of Millville and is owned by the MA DCR.

The River Bend Farm Visitor Center is located within the heritage state park in a rehabilitated barn at the former Voss Farm and is the southernmost visitor facility in the Massachusetts portion of the Corridor. The visitor center houses an exhibit on early settlement and agriculture and provides information about trails, picnic areas, canoe launches and other programs available at the park and throughout the Blackstone Valley. The Commission provided funding and

technical assistance in the development of the visitor center and continues to offer visitor programs.

Worcester Blackstone Visitor Center, Worcester, MA

Originally intended to be located in part of the former Washburn-Moen wire factory in the Quinsigamond section of Worcester, the Worcester Blackstone Visitor Center was under development when the effort was interrupted by a catastrophic fire in March 2010 that destroyed the most historic portion of the building. It was being developed in partnership with the Worcester Historical Museum (which planned to move its offices and exhibits there), the Worcester County Convention and Visitors Bureau, and the City of Worcester. The site is located near Route 146, Interstate 290, and the Massachusetts Turnpike, as well as the Blackstone River Bikeway. The facility would have served as the northern gateway to the Corridor. The building has been condemned and will be razed. Planning continues for a Worcester visitor center, either at the original site or in another location.

Natural Resources

Much of the biological information cited below was developed by others for the Blackstone River watershed or basin, which does not precisely correspond with the boundaries of the study area. The resource base of the watershed provides an adequate overview of what one may expect to find within the Corridor boundary for the purpose of this evaluation.

Geological resources

Topography

The Blackstone River Basin is located within two major physiographic regions, the New England Upland Region and the Narragansett Basin. Topography ranges from the low hills and plains of less than 200 feet above sea level in the Narragansett Basin (located in the southern portion of the Blackstone River Basin) to elevations ranging from 300 to over 1,000 feet above sea level in the New England Region (located in the northern portion of the Blackstone River Basin).

Soils

The soil profile in the Blackstone Valley is typically fine deposits (flood plains only) underlain by glacial outwash or till, and bedrock. The fine deposits are a loose mixture

of clay, silt, and sand that may or may not be sorted. The outwash and till are dense heterogeneous mixtures of clay, silt, sand, gravel, cobbles, and boulders.

Prime farmland

Prime farmland is determined by soils that have the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops, and are also available for these uses.⁴¹ According to the USDA Natural Resource Conservation Service (NRCS), there are approximately 51,000 acres of prime farmland within the Corridor boundary – 36,000 acres in Massachusetts and 15,000 acres in Rhode Island. Nearly 30,000 additional acres within the corridor are identified as Farmland of State-wide Importance, defined as lands that fail to meet one or more of the requirements of prime farmland, but are important for the production of food, feed, fiber, or forage crops.⁴²

Water resources

The hydrological source of the Blackstone River is located at an elevation of 1,300 feet on the slopes of Asnebumskit Hill near Holden, Massachusetts, from which it travels south into Rhode Island and eventually empties into Narragansett Bay. The headwaters of the river – wetlands and brooks feeding into the river stream – are found throughout the city of Worcester and beyond, many of them now buried into culverts. The Blackstone River is joined by four major rivers, in addition to many smaller tributaries. Along its way the river drops a total of 430 vertical feet and passes through the second and third largest population centers in New England – Worcester, Massachusetts and Providence, Rhode Island, respectively. The Blackstone River drainage system is one of the seven major river systems in the Northeast. The watershed supports over 1,300 acres of ponds, lakes, and reservoirs.

A number of large wetlands areas are present in the Blackstone River Basin. Most consist of forested wetland and scrub-shrub wetlands systems dominated by red maple. Wetlands with extensive emergent marsh or wet meadow are rare. The most extensive emergent marsh system is the Valley Falls (Lonsdale) Marshes on the Blackstone River in Lincoln and Central Falls, Rhode Island. Diverse emergent marsh/ wet meadow systems have also developed on the Blackstone at the Rice City, Fisherville, and Manville Dam

impoundments, and at the Lackey Dam impoundment on the Mumford River.

Biological resources

Vegetation

In forested areas, commonly occurring species include red maple and white pine; white cedar and black spruce are also evident. Common understory species include high bush blueberry, arrowwood, common elder, swamp azalea, skunk cabbage, and cinnamon fern. In scrub/ shrub areas, common species include speckled alder, willows, sweet pepperbush, high bush blueberry, dogwoods, arrowwood, skunk cabbage, and cinnamon fern. In emergent wetland areas, common species include cattail, purple loosestrife, woolgrass, soft rush, pickerelweed, smartweeds (*Polygonum* spp.), reed canary grass, phragmites, other aquatic grasses, sedges, rushes, bulrush, spikerush, and burreed. In open water, pondweeds (*Potamogeton* spp.), water-shield, water lilies, and wild celery are common native species. The aquatic weed Eurasian water milfoil is common in eutrophic ponds, lakes, and impoundments.

Riparian habitat in the Blackstone River basin is primarily wooded. Forested riparian areas are typically dominated by red maple. White pine and oak are common in drier locations. Common species in scrub-shrub riparian habitat include alder, dogwoods, willows, and buttonbush.

Undeveloped upland (non-wetland) habitat in the Blackstone River basin is primarily forested. The basin lies in the Central Hardwoods-Hemlock-White Pine forest region. This region is a mixture of species common to more northerly or southerly areas. Until it was wiped out by the Chestnut blight late in the 19th century, American chestnut was the dominant tree. Currently the major species include red, black and white oaks; hickories; gray, yellow, and black birches; and maple, with red maple occurring at wetter sites. White pine and hemlock are the dominant evergreens.

Old fields and other open land are typically colonized by shrub species such as staghorn sumac, gray birch, and white pine saplings. Although some pasture is present, grassland habitat that is not grazed or regularly mowed is very rare.

Wildlife

The Blackstone watershed provides habitat for hundreds of wildlife species. A few such as striped skunk, coyote,

41 United States Department of Agriculture, Natural Resources Conservation Service.

42 Ibid.

cowbird, and blue jay, have thrived under human occupation. Many of the remaining species, however, have undoubtedly declined in population and range. Some species such as the spotted turtle and eastern box turtle may be in serious decline and in danger of being extirpated from their remaining habitat in the basin.

Many of the basin's mammals, amphibians, reptiles, and birds strongly depend on wetland or riparian habitat. Among the more common large mammals in the basin are white-tailed deer, raccoon, striped skunk, Virginia opossum, eastern cottontail, gray squirrel, red fox, coyote, and woodchuck. Species with an even greater territory occasionally noted in the basin include fisher, moose, and black bear.

Common amphibians include redback salamander, red-backed newt, eastern American toad, gray treefrog, northern spring peeper, green frog, and wood frog. Populations of many amphibians are in decline in the United States, but their status in the Blackstone Valley is unknown. Common reptiles include snapping turtle, painted turtle, and eastern garter snakes.

Waterfowl habitat provided by the Blackstone basin is nationally significant, since the area has been identified as an important flyway for migratory waterfowl by the North American Waterfowl Management Plan, overseen by U.S. Fish & Wildlife Service (USFWS). The principal nesting species are mallard, wood duck, and Canada goose. Black duck also breeds in the basin, but nesting populations have declined significantly during the last several decades, as is the case elsewhere in the northeast. Migrants include mallard, wood duck, Canada goose, black duck, mallard and black duck hybrids, green-winged teal, blue-winged teal, pintail, American widgeon, common and hooded mergansers, bufflehead, scaup, common goldeneye, grebes, ring-necked duck, and American coot.

The mainstem Blackstone and its major tributaries presently support an improving recreational warm-water fishery throughout the basin and a put-and-take stocked trout fishery in selected portions, e.g., the lower Blackstone River. Wild brook and brown trout exist only in the upper reaches of the basin, where suitable coldwater fish habitat and high dissolved oxygen levels persist.

The dominance of the current fish population by more pollution-tolerant species (e.g., white sucker, golden shiner, and carp) indicates that the Blackstone River system is still somewhat degraded by a combination of water and/or sediment quality. However, the presence in good numbers

of less tolerant species (largemouth bass, yellow perch, and blue gill) demonstrates strong potential for the development of a more balanced fish community as habitat continues to improve.

Special Status Species

The Massachusetts and Rhode Island Natural Heritage programs have identified numerous sites in the Blackstone River basin that are known or thought to provide habitat for rare or protected plants and animals. With the exception of transient peregrine falcons, no federally listed species occur in the study area.

Socioeconomic Environment

Land Area

The study area coincides with the existing boundary of the John H. Chafee Blackstone River Valley National Heritage Corridor and encompasses 550 square miles (approximately 400,000 acres) in all or part of 24 communities located in south-central Massachusetts and northern Rhode Island.

Land Use Types and Trends

Cities such as Worcester, Massachusetts and Providence, Woonsocket, Cumberland, Lincoln, Central Falls, and Pawtucket, Rhode Island are primarily urban in nature, containing high levels of dense development. Many of the towns along the river are more suburban in nature, with relatively sparse residential development and areas of open space. Many have small town centers or villages characteristic of the mill villages established during the early industrial period.

In Massachusetts, the Central Massachusetts Regional Planning Commission (CMRPC) has developed a 2020 Smart Growth Strategy for Central Massachusetts. Its analysis defines the Massachusetts portion of the Blackstone Valley as encompassing the central (Worcester) and southeast subregions (Blackstone Valley) of its central Massachusetts planning region. Based on CMRPC's analysis of land use change, the southeast subregion lost roughly 2,500 acres (21 percent) of its farmland between 1985 and 1999. The area also lost approximately 7.3 percent of its forested lands. During this same period in central Massachusetts, the communities in the Blackstone Valley saw the largest increase of land used for new residential development in its history, with a nearly 44-percent increase in land devoted to

this use and a nearly 19-percent increase in land converted to commercial development. CMRPC has identified this area as focal point of significant growth and development in central Massachusetts.

In Worcester, what little farmland remained in 1985 had declined by 50 percent by 1999; forested areas declined by just under 12 percent. During the same period, commercial, residential, and industrial land use expanded by approximately 6, 7, and 10 percent, respectively.

As of 1999, about 19,200 acres of land were permanently protected from development in the Massachusetts communities within the Blackstone Valley (Source: CMRPC). According to a recent analysis completed by Massachusetts Audubon in its “Losing Ground” series, nearly 1,700 additional acres of land were protected between 1999 and 2005. In contrast, during the same time period, Massachusetts communities within the Blackstone Valley lost over 2,800 acres of open space to development. As of the end of 2010, about 22,600 acres of land were permanently protected from development in the Corridor’s Rhode Island communities (Source: RI DEM).

Population & Trends

Based on projections made by the U.S. Census for 2009, the overall population of the Corridor is roughly 590,000. Because only a portion of the cities of East Providence and Providence are included within the Corridor boundary, their population figures were adjusted accordingly.⁴³ Given this adjustment, the distribution of population between the Massachusetts and Rhode Island segments of the Corridor is roughly even. If the total populations of East Providence and Providence are factored in, significantly more people reside in the Rhode Island segment of the Corridor.

According to the U.S. Census projection for 2009, Worcester, Massachusetts is the largest city in the region (estimated population of 182,000), followed closely by the city of Providence in Rhode Island.

The fastest-growing communities within the Corridor boundary are Douglas, Upton, and Mendon in Massachusetts, and Lincoln and Cumberland in Rhode Island. The population of these Massachusetts communities has grown by over 40 percent between 1990 and 2009, while Cumberland and Lincoln grew by about 20 percent during the same period. The cities of East Providence, Pawtucket, and

Woonsocket were estimated to experience modest declines in population between 1990 and 2009 (less than 1 percent to just over 3.5 percent).

According to demographic projections prepared by the CMRPC, the Blackstone Valley is expected to be the fastest-growing area in central Massachusetts in terms of population over the next several decades.

The 1999 median household income in the Blackstone River Valley as calculated by town ranged from a low of approximately \$23,000 to a high of \$78,000. During the same period, per capita income ranged from \$11,000 to \$35,000. Valley-wide the average median household income was \$55,000, and the average per capita income was \$23,000.

The percentage of families in each town living below the poverty line ranged from a low of 1.8 percent to a high of nearly 26 percent. The high concentrations of families living under these economic conditions occur in the region’s cities, predominantly located in the southern portion of the Corridor.

Based on the findings of the 2000 U.S. Census, there are approximately 284,000 housing units in the Blackstone River Valley. At that time the average median house value on a per-community basis was estimated at \$145,000. About half the housing units were owner-occupied with the remaining half being rental units. The average contract rent at the time was about \$560. Median housing values and contract rents fluctuated a great deal among individual communities, from a low of \$ 88,000 to a high of \$240,000 and a contract rent range of \$460 - \$700.

Statistics related to median housing values for 2008 in Rhode Island and for 2009 in Massachusetts reveal a significant rise in housing values. In Rhode Island communities, median housing values for 2008 ranged from \$142,000 to \$290,000. In Massachusetts communities, the 2009 median housing values ranged from \$294,000 to \$395,000.

Unemployment Rate

According to the U.S. Bureau of Labor Statistics – August 2010, the unemployment rate hovered around 8.8 percent of the civilian labor force in Massachusetts and around 11.8 percent in Rhode Island. The unemployment rates for Worcester and Providence counties were slightly higher than their respective state rates during the same period. At that time, the unemployment for Worcester County in Massachusetts was 9.4 percent and in Providence County, Rhode Island it was 12.8 percent.

⁴³ For purposes of calculating the population within the BRVNH, it was assumed that 10 percent of East Providence’s population and 20 percent of Providence’s population would be accounted for in this analysis.

Economic Sectors

The nature of the economies and employment in the different cities and towns along the Blackstone River varies. Providence and Worcester are large cities and have major employment bases. Many of the small towns in the Corridor serve as suburbs of Worcester and Providence, and to a lesser extent, distant suburbs of Boston. Worcester is by far the most intensively urbanized and developed area on the Massachusetts end of the Corridor. Providence, like the smaller Rhode Island cities of Woonsocket, Central Falls, and Pawtucket, possesses areas of both urban and suburban development, and a significant number and variety of employers.

Valley-wide, the actual number of jobs remained relatively stable between 2002 and 2007, but began to show signs of decline due to the recession in 2008. In Rhode Island, outside of Providence, the principle employment sectors included manufacturing, health care, and retail. The manufacturing sector showed a marked decline between 2002 and 2008 with a loss of approximately 11,000 jobs. As manufacturing declined, other sectors outside Providence made modest gains, including construction, finance and insurance, health care, and food and lodging. In Providence, the dominant employment sectors are health care, public administration, and education.

In Massachusetts, outside of Worcester, the principal employment sectors included manufacturing, retail, health care, and construction. As was the case in Rhode Island, manufacturing in the Corridor's Massachusetts communities declined between 2002 and 2008, though not as steeply, losing about 150 jobs. The manufacturing sector in the Blackstone River Valley in Massachusetts is considerably smaller than that sector in northern Rhode Island. Sectors making modest gains during this time included retail, health care, educational services, arts, entertainment and recreation, and food and lodging. In Worcester, the primary employment sectors were health care and education, followed by manufacturing and retail trade.



CHAPTER THREE: Findings of National Significance, Suitability, Feasibility, and Need for NPS Management

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Evaluation of National Significance

In accordance with NPS Management Policies 2006 Section 1.3.1, cultural resources being considered for possible inclusion in the National Park System are evaluated by applying the National Historic Landmark (NHL) criteria contained in 36 CFR Part 65.

According to those criteria, national significance may be ascribed to various types of cultural resources, including districts, sites, buildings, structures and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States in history, architecture, archeology, engineering, and culture, and that possess a high degree of integrity.

NHL standards require that the resources meet at least one of the following criteria in order to be considered nationally significant:

1. are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained; or
2. are associated importantly with the lives of persons nationally significant in the history of the United States; or
3. represent some great idea or ideal of the American people; or
4. embody the distinguishing characteristics of an architectural type specimen exceptionally valuable for the study of a period, style or method of construction, or that represent a significant, distinctive and exceptional entity whose components may lack individual distinction; or
5. are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historical or artistic significance, or outstandingly commemorate or illustrate a way of life or culture; or
6. have yielded or may be likely to yield information of major scientific importance by revealing new cultures, or by shedding light upon periods of occupation over large areas of the United States. Such sites are those which have yielded, or which may reasonably be expected to yield, data affecting theories, concepts, and ideas to a major degree.

Resource Evaluation

Overview

The Blackstone River Valley is significant as the first industrial region in the United States. Extant resources within the valley convey this significance as they relate to criteria 1 and 5. These resources form a cohesive industrial district that evolved and defined the principles of the Rhode Island System of manufacture, which became a paradigm for further American industrial development. As the nation's first heavily industrialized region, the valley became the prototype for a sweeping social transformation that included a fundamental shift in the nature of work. Here, as Gary Kulik phrased it, "the cotton mills themselves became the incubators of a new discipline of work, driven by clock-time and the pace of modernity."⁴⁴ Collectively, the resources evaluated here convey the full scope of this pattern of industrialization and its consequences more fully than any individual site can and make it possible to understand the magnitude of industrialization and its effects on the physical and social landscape.

After evaluating a broad range of industrial sites in the Valley, seven outstanding resources have been identified because they best illustrate these nationally significant themes and possess a high level of integrity. The aggregation of these sites and districts forms a well-defined though non-contiguous industrial district. As the point of origin of the Rhode Island System of manufacture, these resources are the original and most highly developed expression of this industrial system. This is in part the result of the Blackstone River's natural drop – 430 feet over only 46 miles – which led to virtually the entire waterpower potential of the river being exploited. The Blackstone River became America's first "managed river," with 34 dams at its peak of development. Water power systems, including dams, reservoirs, and power canals developed along the Blackstone River and its tributaries, are particularly prominent at Slatersville and Whitinsville. The Blackstone Canal, which closely parallels the main stem of the river, represents a further manipulation of the natural water system. Conceived and supported largely by families prominent in the textile industry, the canal helped unify the Valley. Well-preserved segments of the canal are present in state parks in both Massachusetts and Rhode Island.⁴⁵

44 "Notes on the Historical Significance of the Blackstone Valley," (www.nps.gov/blac/parkmgmt/special-resource-study.htm, 1).

45 The Blackstone River and Canal State Heritage Park operated by the Massachusetts Department of Conservation and Recreation (MA DCR) in Uxbridge, MA and the Blackstone River State Park operated by the Rhode Island Department of Environmental Management (RI DEM) in Lincoln, RI.

The Blackstone River Valley retains an exceptional concentration of mill villages, collectively forming a cohesive and highly developed industrial landscape that illustrates this chapter in American industrial history.⁴⁶ In particular, the mill villages of Slatersville, Ashton, Whitinsville, and Hopedale contain the manufacturing, residential, and civic infrastructure of sufficiently high quality and integrity to depict this pattern. Being among the earliest industrial centers developed in the Blackstone Valley, Old Slater Mill, Slatersville, and Ashton were linked by a tight network of financial and family connections. The mill villages of Whitinsville and Hopedale involved a different group of financial and familial interests representing the later development of the system. They illustrate how this economic model was adopted and adapted to other places within the Blackstone Valley and beyond.

One resource, Old Slater Mill, was designated a National Historic Landmark in 1966 and has therefore already been determined to be nationally significant. It will not be analyzed as fully in this study except in highlighting its relationship to other resources under consideration. Several resources including the Slatersville, Ashton, Whitinsville, and Hopedale Historic Districts, possess historical significance and integrity and are listed on the National Register of Historic Places. Slatersville was found to be significant at the national level by the Rhode Island State Historic Preservation Office. However, as an example of the situation recognized by NHL Criterion 5, the aggregate importance of these resources within a larger industrial district exceeds and enhances their individual value.

The Blackstone River Valley industrial heritage resources collectively meet NHL Criteria 1 and 5. This is because of their significant contribution to and outstanding representation of broad national patterns in U.S. economic and industrial history and their potential to provide an understanding and appreciation of those patterns. Collectively, they compose an entity of exceptional historical significance that illustrates the influence of Samuel Slater and the rise and evolution of the Rhode Island System of

manufacture, a dynamic force in American industrial history from 1790 to 1950.

Analysis

Advances in historical understanding clearly show that there was no single, uniform Industrial Revolution. Industrialization followed several distinct paths; at least four in the U.S. alone.⁴⁷ One of the principal paths to the emergence of industry in the United States was distinguished by small-scale textile mills, operating on the factory system and forming detached mill villages located at previously isolated waterpower sites within a rural setting. In the early 19th century, this pattern of industrialization was represented throughout the Northeast. The textile industry was the first to which the factory system was applied in the United States. The textile mills were owned by individuals or partnerships and generally employed families initially drawn from the countryside. These distinctive features have commonly been used to define the Rhode Island System of manufacture.

Old Slater Mill (1793) in Pawtucket was the first successful water-powered cotton spinning mill in the United States. Coming on line a year before the first water-powered textile mill at Paterson, New Jersey, Old Slater Mill illustrates the birth of industrialization in America and the personal contribution of Samuel Slater who, having brought essential technology from his native England to America, is considered the father of American industrialization.

47 Walter Licht, Report of the Organization of American Historians and the National Park Service on the Blackstone River Valley Industrial Heritage Corridor," www.nps.gov/blac/parkmgmt/special-resource-study.htm, 2; discussed in greater detail in his *Industrializing America: The Nineteenth Century* (Johns Hopkins Univ. Press, 1995). At least four paths toward industrialization in the United States are now evident.

1. The diversified manufacturing center: marked by small-to-medium size, family (or partnership) owned and managed enterprises, diverse product lines and work settings, specialization in processes and/or products, profiting in niche markets, reliance on skilled labor, and flexible, small-batch operations. Philadelphia is a quintessential example, but the same characteristics mark New York City (with less specialized products) and Newark and Trenton, New Jersey and smaller cities such as Albany, New York, Zanesville, Ohio, and Grand Rapids, Michigan.

2. The one-or-two industry city: marked by large-scale, corporately owned, bureaucratically managed, fully mechanized, standardized goods producing companies. This represents the big, smoke-stack industries, but concentrating on Lowell, Pittsburgh, Chicago, and Detroit misses the amount and quality of production and the technological innovations that occurred in less attention-grabbing instances and sites.

3. Industrial slavery: industrialization unfolded in the antebellum period in the South with the slave system in place, adding to the complexity of the greater story

4. The mill village: along the creeks and rivers of New England, the Middle Atlantic states and the South emerged countless mill village communities, starting with Samuel Slater's Pawtucket, Rhode Island mill in 1793. Their prevalence is notable. By the time Lowell, Massachusetts had been established in the late 1820s, more than 400 mill village communities had been created in the United States, marked by the employment of families and the clear imprint of their founders on their physical, cultural and social landscapes. The mill villages of the U.S. were not quaint, ephemeral entities. They served as sites of extraordinary technological innovation and substantial production and they endured, in some instances, far into the twentieth century to the very moment that the U.S. glaringly lost its smokestack industries.

46 The density of industrial development is one of the strongest impressions conveyed by the scholars who visited the area in February 2008 on behalf of the Organization of American Historians and the National Park Service: Alison Kim Hoagland: "No other place has such a concentration of surviving mills and villages that can so eloquently illustrate this chapter of American history;" Gary Kulik: "No other mill valley has the density of mills and mill villages, many of which remain in their original condition, others altered in ways that are themselves historically significant;" David Meyer: "The immense richness and density of sites within a distance of 45 miles between Providence and Worcester is not equaled anywhere else in the United States" (all www.nps.gov/blac/parkmgmt/special-resource-study.htm); Walter Licht: "What is remarkable to me about the corridor is the density of these villages, their interaction." (remarks at public meeting, Whitinsville, MA, Feb. 16, 2008, transcribed by Alice Darling Secretarial Services, available from Blackstone River Valley National Heritage Corridor).

The village of Slatersville, Rhode Island (1807), founded by Samuel Slater and his brother John, is widely considered to be the first planned industrial textile community in America. It represents the stage of industrial development that would succeed the one reflected in Old Slater Mill. Slatersville's component parts and spatial organization – with housing, civic amenities, and commercial resources clustered around a factory and its intact power canal system – were duplicated throughout the Blackstone Valley and beyond. Indeed, the entire region exhibits an exceptional collection of mill villages based on the Slatersville model.

Industrialization is one of the paramount forces shaping American history. Since the early 19th century, every aspect of life has been dominated by this mighty process. The Blackstone Valley was where this vast transformation first gained a major and permanent foothold in the U.S., and the Valley contains an exceptional concentration of nationally significant historic resources. The region and its representative resources remains the best place to interpret the origin and rise of an important type of American industry.

Relationship to the NPS Thematic Framework

The Thematic Framework was adopted by the NPS in 1994 for evaluating and interpreting the role of historic sites in American history (<http://www.cr.nps.gov/history/thematic>). The Framework identifies eight major historic themes that encompass the full span of our nation's history. It is used in the identification of cultural resources that embody America's past and to describe and analyze the multiple layers of history encapsulated in each resource. With their aggregation of inter-related resources, the Blackstone Valley's sites and districts form a non-contiguous district composed of industrial history resources that strongly express three of the themes described in the NPS Thematic Framework: Developing the American Economy, Transforming the Environment, and Expressing Cultural Values.

Developing the American Economy

"This theme reflects the ways Americans have worked [and]...the ways they have materially sustained themselves by the processes of extraction, agriculture, production, distribution, and consumption of goods and services. ...this theme encompasses the activities of farmers, workers, entrepreneurs, and managers, as well as the technology around them."

The Blackstone Valley is the birthplace of American industrialization, with the first successful water-powered textile mill in America established at Old Slater Mill in Paw-

tucket, Rhode Island, in 1790. The NHL district includes Slater Mill, the Wilkinson Mill, and the Sylvanus Brown House, which together tell the story of Samuel Slater and the beginnings of water-powered cotton spinning in America, the lives of the mill workers and their adaptation from farm to factory life, and to a lesser degree, early labor protests.

Industrial development in the Blackstone Valley operated within larger contexts, and the resources there offer compelling opportunities to interpret these contexts. One is the "cotton economy," in which the Valley obviously occupied a vital position. This overarching construct—"the major expansive force" in the economy between 1800 and 1850 in the words of historian Douglass C. North—was one of the few factors that held the North and South uneasily together. The Old Slater Mill Historic Site demonstrated the potential of this approach with its 2008 exhibit, "The Cotton Economy." The Valley's resources provide a basis for comparison and study of the textile industry's evolution, including its later migration to the American South, and serves as a starting point for the exploration of larger themes in American history. Examining this topic opens up the contentious issue of slavery and the North's role in perpetuating it. While the mill owners benefited from slavery as both consumers and suppliers, some idealistic manufacturers such as the Drapers of Hopedale strongly opposed the institution. Financial and trade issues can also be addressed, on both a national and international levels. The emergence of a vital hub of innovation in the Blackstone Valley, which helped spread technology to other industrial centers, is a topic with acute present-day relevance.

Following Slater Mill, dozens of mills were established across the Blackstone Valley, manufacturing textiles, machinery, and other products. Outstanding extant mill buildings that help tell this story are found at Slatersville, Ashton, Whitinsville, and Hopedale. These factories and the housing and communal facilities associated with them illustrate the social and economic conditions in which the workers existed. The Blackstone Canal, carrying goods and materials in support of local industries from 1828-1848, was later adapted for industrial use, providing water power for mills.

These Blackstone Valley resources are well suited to convey the wide range of ideas that scholars of industrialization now address. In the initial phase of interest in industrialization, scholars emphasized technology and its physical manifestations, as well as traditional categories such as capital and labor. More recently, these fields of in-

quiry have expanded to embrace everything from the role of a vital commodity (the cotton economy) to the efforts of individual workers or families to make the most of their environment, even while living in standardized company housing.⁴⁸ The multiplicity of resource types reflects the many dimensions of the sweeping social and economic transformation in the wake of American industrialization and makes it possible to depict compellingly the lives of the working men and women who participated in this massive change.

Transforming the Environment

This theme “examines the variable and changing relationships between people and their environment, which continuously interact. . . . The American environment today is largely a human artifact, so thoroughly has human occupation affected all its features. . . . While conservation represents a portion of this theme, the focus here is on recognizing the interplay between human activity and the environment as reflected in particular places.”

The landscape of the Blackstone Valley was transformed by industrialization, as natural resources were manipulated to provide water power and mill villages were established throughout the countryside. The Blackstone River became an engineered resource that, along with the mill ponds, reservoirs, and canal, formed a system upon which industrial activity in the Valley depended. The exploitation of the river and harnessing of water power is interpreted at Old Slater Mill Historic Site, which includes a working waterwheel. The extant sections of the Blackstone Canal also speak to this theme, as do the many ponds, reservoirs, and dams that survive in the Valley’s distinctive mill villages and which are particularly evident in Slatersville, Ashton, Whitinsville, and Hopedale.

The Rhode Island System of manufacture involved the recruitment of entire families to work in the mills and the construction of housing, stores, schools, churches and other amenities to support these families. The first planned industrial textile village in America was established by John and Samuel Slater at Slatersville in 1807, and its principal characteristics were replicated in planned villages throughout the Valley. The Slater brothers and their partners transformed the Branch River, a tributary of the Blackstone River, from a free-flowing stream into an engineered power system, with dams, reservoirs, gates and raceways, and

built housing and services for their workers. This theme is illustrated by other excellent examples of mill villages—including mills, housing, and water systems—at Hopedale, Whitinsville, and Ashton.

The 19th-century landscape was shaped by pockets of industrial settlement in an agricultural region. The early industrial entrepreneurs of the Valley looked for places that possessed the resources that would support the development of a mill and its infrastructure and would allow them to secure the water rights that would enable them to impound and channel water resources for their textile operations. Many of the mill villages characteristic of the Blackstone Valley survived in their original form with little sprawl or expansion into the surrounding rural, agricultural landscape. Other villages expanded beyond their original boundaries and grew into larger urban centers such as Pawtucket and Woonsocket in Rhode Island.

Expressing Cultural Values

This theme encompasses “expressions of culture—people’s beliefs about themselves and the world they inhabit,” as well as “the ways that people communicate their moral and aesthetic values.”

The mill buildings and mill villages, as well as the hill-top towns and farms of the Blackstone Valley, express the cultural and aesthetic values of their time through their architecture and landscapes. A variety of mill architecture survives in the Blackstone Valley, from the Old Slater Mill (1793 et seq.) to late 19th-century brick mills like that at Ashton. Of particular significance among the mill villages are Slatersville (described above), notable for being the first planned industrial textile village in America, and Hopedale. Settled in the 1840s as a religious commune, Hopedale grew into a major manufacturing center under the Draper family and was nationally recognized as a model company town. The street grid in the village center, with the large mill complex located at its core, architect-designed homes, and a large park designed by Warren Manning, all of which survive today, reflect both the social hierarchies and the planned, paternalistic nature of the community. The workers’ housing, mill owners’ mansions, civic amenities, and well-developed commercial center in Whitinsville are also illustrative of this theme.

The organization and design of the mill villages, and more specifically the mill housing, is a defining characteristic of the Rhode Island System of manufacture. Because Blackstone Valley mill owners sought to attract entire families to work in the mills and support the operation of the

48 See Gabrielle M. Lanier, “Blackstone River Valley National Heritage Corridor Assessment,” www.nps.gov/blackstone/parkmgmt/special-resource-study.htm, 2.

mill villages, they created housing and community amenities that would be attractive to this workforce. The characteristic use of vernacular form for both mills and residential structures illustrates the attempt to make industrialization appear less threatening to traditional values. In their basic layout, the mill villages of the Rhode Island System display the paternalistic and hierarchical values that defined the system; worker housing typically consisted of small, multifamily dwellings as opposed to the large tenements and boarding houses found in industrial cities like Lowell. Corporate farms, like Castle Hill in Whitinsville, were also served by this family-based workforce and provided dairy products to the village.

Integrity

National Historic Landmark criteria specify that a resource must retain the essential physical features that enable it to convey its historical significance. The essential physical features are those elements that define both why a resource is significant (NHL criteria and themes) and when it was significant (periods of significance). They include:

Location is the place where the historic property was constructed or the place where the historic event occurred. The actual location of a historic property, complemented by its setting, is particularly important in recapturing the sense of historic events and persons.

Design is the combination of elements that create the historic form, plan, space, structure, and style of a property. This includes such elements as organization of space, proportion, scale, technology, ornamentation, and materials. Design can also apply to districts and to the historic way in which the buildings, sites, or structures are related. Examples include spatial relationships between major features; visual rhythms in a streetscape or landscape plantings; the layout and materials of walkways and roads; and the relationship of other features, such as statues, water fountains, and archeological sites.

Setting is the physical environment of a historic property. It refers to the historic character of the place in which the property played its historical role. It involves how, not just where, the property is situated and its historical relationship to surrounding features and open space. The physical features that constitute the historic setting of a historic property can be either natural or manmade and include such elements as topographic features, vegetation, simple manmade paths or fences, and the relationships between buildings and other features or open spaces.

Materials are the physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property. If the property has been rehabilitated, the historic materials and significant features must have been preserved. The property must also be an actual historic resource, not a re-creation.

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period in history. It is the evidence of artisans' labor and skill in constructing or altering a building, structure, object, or site. It may be expressed in vernacular methods of construction and plain finishes or in highly sophisticated configurations and ornamental detailing. Examples of workmanship in historic buildings include tooling, carving, painting, graining, turning, and joinery.

Feeling is a property's expression of the aesthetic or historic sense of a particular period of time. It results from the presence of physical features that, taken together, convey the property's historic character. For example, a rural historic district that retains its original design, materials, workmanship, and setting will relate the feeling of agricultural life in an earlier period.

Association is the direct link between an important historic event or person and a historic property. A property retains association if it is the place where the event or activity occurred and is sufficiently intact to convey that relationship to an observer. Therefore, a property where a nationally significant person carried out the action or work for which they are nationally significant is preferable to the place where they returned to only sleep, eat, or spend their leisure time. Like feeling, association requires the presence of physical features that convey a property's historic character.

Any productive or extractive industrial facility or transportation system, if successful, changes over time to meet new needs or employ advancing technology. The Blackstone River Valley was an active industrial region for approximately 150 years, and during much of that time it was being expanded and improved. The Blackstone River Valley resources under consideration in this evaluation display the cumulative evidence of its manufacturing history, with structures of various periods co-existing – from the earliest days of industry to late-period resources. Of over 20 mill villages evaluated in the Blackstone Valley, four retain the most completeness in terms of overall physical features

to convey their significance. The mill villages of Slatersville, Ashton, Whitinsville, and Hopedale all show this incremental, fundamentally conservative layering, often set against a backdrop of an enduring rural landscape. Even at Old Slater Mill, the birthplace of American industry, the earliest structure is embedded within later additions. The Blackstone Canal is an example of a resource that has retained much of the physical evidence of its period of operation, but its short lifespan is not typical of the industries that defined the region's character.

These representative Blackstone River Valley resources have overall integrity as a highly developed industrial district. A visitor readily comprehends the industrial character that defined the Blackstone Valley for almost 150 years. These villages contain a great diversity of factory and residential buildings that illustrate the development and impact of the Rhode Island System of manufacture, as described in the Historical Overview.

The mill village communities that defined the Blackstone River Valley and gave physical expression to the Rhode Island System survive to a remarkable degree and generally display their original spatial arrangement and inherent social stratification. In terms of *integrity of location*, the villages of Slatersville, Ashton, Whitinsville, and Hopedale remain in their original locations with little disruption of historic points of access, internal circulation, or the spatial relationship among contributing features within each village. The historic relationship between the Blackstone River and its tributaries, the Blackstone Canal, and the Blackstone River Valley's primary industrial sites is readily visible in many locations. Integrity of location is further supported by the fact that, with a few distinct exceptions, the majority of physical resources remain in their original location. Notable exceptions include the John Slater House in Slatersville, moved to its present location in 1844, and the Mechanics Shop (also referred to as the "Little Red Shop"), which was relocated by the Draper Corporation to town parkland in Hopedale in 1950.

The element of *design integrity* is particularly well addressed in the mill villages of Slatersville, Ashton, Whitinsville, and Hopedale. As described above, they remain remarkably intact compared to other village sites throughout the region. The relationship between the early reliance on water power and the design and location of industrial buildings is particularly evident at sites like Old Slater Mill and in the villages of Slatersville, Whitinsville, and Hopedale, where the early mill buildings are situated immediately adjacent to the river. Regardless of when each of these com-

munities emerged as a fully developed mill village, they all display their fundamental organizing principles. At the core of each of these villages is the mill complex, which is centrally located and dominates the landscape. Each village also includes a cluster of commercial buildings (primarily banks and shops) and civic buildings (schools, libraries, gymnasiums, etc.), most of which were constructed and maintained by the mill corporation. In Whitinsville, the town hall was constructed by the Whitin family. Less evident is local infrastructure like water and power, which also was often developed and provided by a community's industrial benefactors. This was particularly the case in Whitinsville and Hopedale. Finally, the variety of the design and location of housing in each village reflects the hierarchy of housing, the design and location of which is reflective of the employment status among the inhabitants.

Overall the *setting* of many of the mill villages has experienced only a modest degree of change. Though there have been some modern intrusions on the outskirts of these villages, by and large, they would still be recognized by their 19th-century residents. The presence of the reservoir and power canal systems in each of these villages offers a powerful illustration of the integrity of their setting. In general, the reservoirs and dams have changed little over time and continue to serve the community as recreational amenities. The Blackstone River and its tributaries and Blackstone Canal continue to form the spine of the Valley and provide an important organizing element for the distribution of these industrial heritage resources. Old Slater Mill and Ashton are immediately associated with the river, canal, or a combination of the two. Slatersville, Whitinsville, and Hopedale are each located on Blackstone tributaries – the Branch, Mumford, and Mill Rivers, respectively. While the agricultural land and open spaces that once dominated the larger landscape have been diminished by suburban development, the industrial landscape across the Blackstone Valley remains evident. The villages under consideration in this analysis are the best, though not the only, remaining examples of this once-robust industrial landscape. The remnant mill villages that dot the valley contribute to the larger setting of the subject villages.

In each of the mill villages under consideration, original *materials* continue to be evident and are a dominant feature of each site (e.g., the clapboard housing and stone mills at Slatersville or the bricks of Ashton). With rare exceptions, few structures have been affected by the application of asbestos or vinyl siding or the addition of modern commercial facades. Many of the structures and landscape

features under consideration here possess great integrity of workmanship. Much of the simply constructed industrial, residential, and commercial architecture in each of these villages demonstrates the skills of area craftspeople at the time of construction and the building technologies of the period. Several intact sections of the Blackstone Canal in both Massachusetts and Rhode Island, and its remaining locks, highlight the work of the laborers and engineers responsible for its construction. In Hopedale and Whitinsville, examples of more elaborate workmanship are evident in the many architect-designed civic structures, parks, mill owner housing, and late-period housing developed to attract and retain skilled laborers. The design and construction of numerous dams and raceways, particularly evident in Slatersville and Hopedale, also provide evidence of integrity of workmanship.

In many locations the sense or *feeling* of the industrial village as an isolated, self-contained place is retained. Although some previously open space has given way to development, the preponderance of resources continue to retain their integrity in terms of design, materials, and workmanship in the mill villages of Slatersville, Ashton, Whitinsville, and Hopedale and permit an observer to understand and appreciate the historic character and value of these resources. Segments of the Blackstone River also possess values that conjure up this historic sense of a particular time, especially at points where it has been dammed, passes through existing developed areas such as Old Slater Mill in Pawtucket and Ashton, or through urban centers like Pawtucket and Woonsocket. Likewise, the Blackstone Canal offers similar opportunities, particularly where restoration efforts have already been underway and/or the tow path has been well preserved.

Figures 7 through 12 illustrate the historic integrity of these mill villages. Figures 7 and 8 depict Slatersville. Likewise in comparing Figures 9 and 10 of Ashton and Figures 11 and 12 of Whitinsville, the relationships among and the overall character of the built environment including the various types of structures, roads and waterways, parks and other landscape features remain remarkably intact.

Conclusion – Finding of National Significance

Industrialization is one of the paramount forces shaping American history. Since the early 19th century, every aspect of life has been dominated by this mighty process. The Blackstone River Valley was where this vast transformation first gained a major and permanent foothold in the U.S., and the Valley contains an exceptional concentration

of historic resources that convey this national significance as they relate to criteria 1 and 5.

The region, with its representative resources, remains the best place to interpret the origin and rise of an important type of American industry. These resources form a cohesive industrial district that evolved and defined the principles of the Rhode Island System of manufacture, which became a paradigm for further American industrial development. As the nation's first heavily industrialized region, the valley became the prototype for a sweeping social transformation that included a fundamental shift in the nature of work. The multiplicity of resource types found in the Blackstone Valley reflects the many dimensions of the sweeping social and economic transformation that came in the wake of American industrialization and makes it possible to compellingly depict the lives of the working men and women who participated in this massive change.

Collectively, the Blackstone River and its tributaries, the Blackstone Canal, Old Slater Mill, and the villages of Slatersville, Ashton, Whitinsville, and Hopedale convey the full scope of this pattern of industrialization and its consequences more fully than any individual site could, making it possible to understand the magnitude of industrialization and its effects on the physical and social landscape.

The landscape of the Blackstone Valley was transformed by industrialization, as natural resources were manipulated to provide water power, and mill villages were established throughout the countryside. The Blackstone River became an engineered resource that, along with the mill ponds, reservoirs, and canal, formed a system upon which industrial activity in the Valley depended. The extant sections of the Blackstone Canal also exemplify the substantial influence of the Rhode Island System of manufacture over the valley landscape. The exploitation of the river and harnessing of water power are clearly illustrated at Old Slater Mill Historic Site and by the many ponds, reservoirs and dams that survive in the Valley's distinctive mill villages; these themes are particularly evident in the villages of Slatersville, Ashton, Whitinsville, and Hopedale.

The four mill villages also retain the manufacturing, residential, and civic infrastructure of high quality and integrity necessary to depict this pattern of history. The organization and design of the mill villages, and more specifically the mill housing, is a specific manifestation of the Rhode Island System of manufacture. With their emphasis on total family employment, Blackstone River Valley mill owners

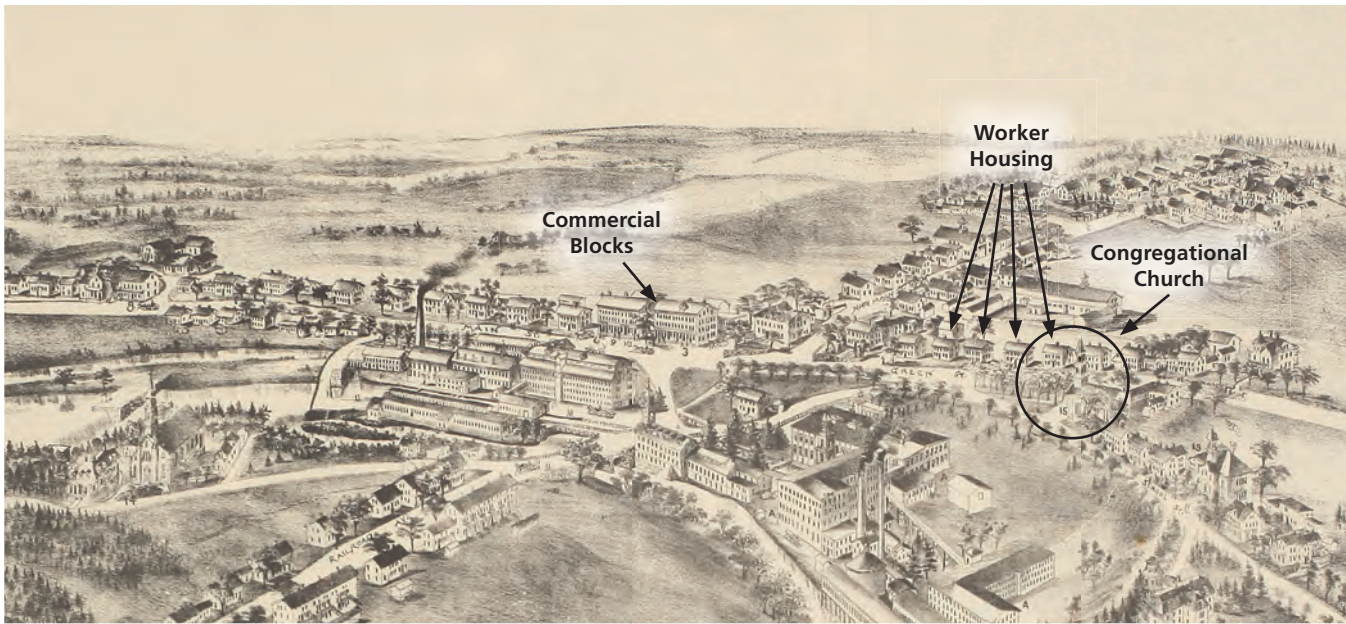


Figure 7: Slatersville, RI 1895 Bird's Eye View.



Figure 8: Slatersville, RI 2009 Aerial View. Source: Bing.com.

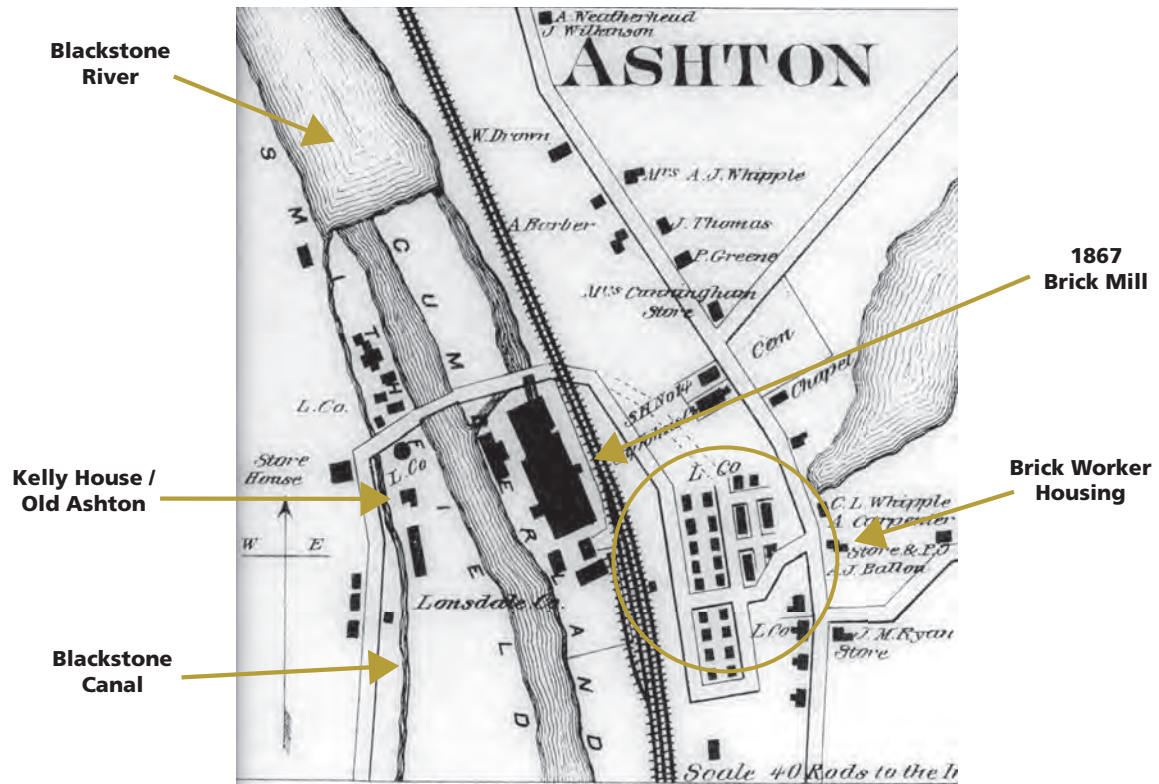


Figure 9: Ashton Village Circa 1870.



Figure 10: Ashton Village 2009 Aerial View. Source: Bing.com.

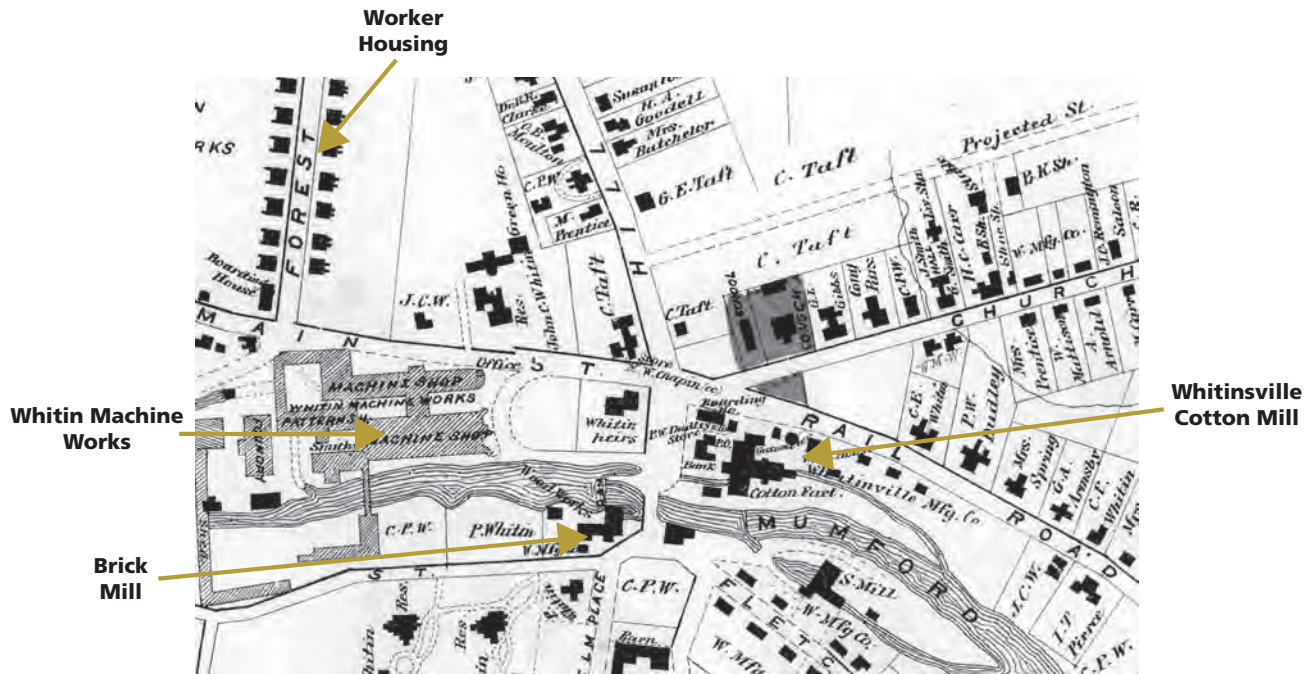


Figure 11: Village of Whitinsville, MA Circa 1880.



Figure 12: Village of Whitinsville, MA 2009 Aerial View. Source: Google Maps.

created housing and community amenities that would be attractive to such a workforce.

In conclusion, the Blackstone River Valley industrial heritage resources cited above collectively meet NHL Criteria 1 and 5, based on their significant contribution to and outstanding representation of broad national patterns in U.S. economic and industrial history and their potential to provide for an understanding and appreciation of those patterns. Collectively, they compose an entity of exceptional historical significance that illustrates the influence of Samuel Slater and the rise and evolution of the Rhode Island System of manufacture, a dynamic force in American industrial history from 1790 to 1950. These representative Blackstone River Valley resources have overall integrity as a highly developed industrial district in terms of their location, design, setting, materials, workmanship, feeling, and association; a visitor readily comprehends the industrial character that defined the Blackstone River Valley for roughly 150 years.

In June 2009 the Significance Statement was submitted to the NPS Washington History Program Office for its review and concurrence. After a July 2009 site visit to tour the resources under consideration, the review was completed, and a letter dated August 4, 2009 indicated the Program Office's concurrence with a finding of National Significance, summarized as follows:

One National Historic Landmark, six National Register Historic Districts, and the Blackstone River and its tributaries within the John H. Chafee Blackstone River Valley National Heritage Corridor meet the National Historic Landmark criteria. This conclusion is based on : 1) the important association of the property with the development of industrialization and 2) the high degree of integrity that allows for the property's national significance to be conveyed.

A copy of the NPS Washington History Program Office letter can be found in Appendix B.

Suitability Analysis

NPS Management Policies 2006 state that an area is considered suitable for addition to the National Park System if it represents a natural or cultural resource type that is not already adequately represented in the National Park System, or is not comparably represented and protected for public enjoyment by other federal agencies; tribal, state, or local governments; or the private sector. It is important to

note that the suitability analysis is not limited to whether resources are represented in the system, but extends the analysis to similar resources protected by other public entities and the private sector. Adequacy of representation is determined on a case-by-case basis, by comparing the potential area to other comparably managed areas representing the same resource type, while considering differences or similarities in the character, quality, quantity, or combination of resource values. The comparative analysis also addresses the rarity of the resources and their interpretive and educational potential. The comparison yields a determination of whether the proposed new area would expand, enhance, or duplicate resource-protection or visitor-use opportunities found in other comparably managed areas.

Blackstone River Valley – Cultural Resources

As was the case in evaluating national significance, in considering the suitability of cultural resources within or outside the NPS, the “Thematic Framework” is used to evaluate history and prehistory. The three thematic concepts applicable to the Blackstone River Valley as expressed in the Statement of Significance are *Developing the American Economy*, *Transforming the Environment*, and *Expressing Cultural Values*.

Developing the American Economy

This theme reflects the ways Americans have worked, including slavery, servitude, and non-wage, as well as paid labor. It also reflects the ways Americans have materially sustained themselves by the processes of extraction, agriculture, production, distribution, and consumption of goods and services. Topics that help define this theme include extraction and production, distribution and consumption, industrial towns, labor organizations and protests, exchange and trade, and economic theory. This theme is applicable to historic industrial districts such as the Blackstone River Valley and specifically to the mill villages.

There were several different models of American industrialization, and the resources of the Blackstone River Valley represent the Rhode Island System of manufacture, one of the most important and distinctive of these models. The particular area of significance for the Blackstone River Valley is production, as expressed in the Rhode Island System of manufacture of textiles and support industries in a cohesive, intensely developed area. The Rhode Island System was distinguished by small mills operating on the factory system and forming detached mill villages located at previously isolated water power sites within a rural setting.

The textile mills were owned by individuals or partnerships and generally employed families initially drawn from the countryside.

Units of the National Park System that reflect the theme of *Developing the American Economy* in the area of industry and that are comparable to similar resources of the Blackstone River Valley include:

1. **Paterson Great Falls National Historical Park, New Jersey** (authorized) – Paterson Great Falls offers an example of another distinct model of industrialization. Created by Alexander Hamilton and others to move the United States toward further economic independence from England, it is representative of privately financed and planned industrial development. Located in Paterson, New Jersey, the Great Falls of the Passaic are part of a National Historic Landmark (NHL) district and as the Great Falls of Paterson/ Garrett Mountain are also a designated National Natural Landmark (NNL). At the Great Falls, Alexander Hamilton implemented a plan to harness the force of water to power the new industries that he hoped would secure the new nation's economic independence by means of a new, publicly sanctioned, corporate structure: the Society for Establishing Useful Manufactures (S.U.M). Although the initial vision enjoyed only limited success, Paterson later became a center for the manufacture of textiles, silk fabrics, railroad engines, paper, sail cloth, and hemp, among other products.
2. **Lowell National Historical Park, Massachusetts** – Lowell offers another distinct model of industrialization: the large-scale, corporate, vertically integrated system of manufacture. While it originated as a center for textile manufacturing, Lowell became the focus of many other industrial pursuits, among them machinery firms established to meet the demands of textile manufacturers throughout New England and steam locomotives for the region's expanding rail network. Other textile-related firms manufactured and distributed a broad array of mill fixtures, tools, and textile machine parts.
3. **Springfield Armory National Historic Site, Harpers Ferry National Historic Site, and Charlestown Navy Yard at Boston National Historical Park** – These three examples represent still another distinct model of industrialization: federally supported and funded industry limited to production for national defense. Springfield Armory was founded in 1794 and developed and

produced firearms for the military until 1968. It was responsible for many innovations in arms design and production in the realm of interchangeable parts and precision manufacturing. The United States Armory and Arsenal was established at Harpers Ferry in 1799 and transformed the location from a remote village into an industrial center. In this setting, inventor John H. Hall pioneered interchangeable firearms manufacture from 1820 to 1840 and helped lead the change from craft-based production to manufacture by machine.

The Charlestown Navy Yard at Boston National Historical Park was established in 1800 by the U.S. government and served as a ship-building and repair center until 1974. The men and women of its workforce built more than 200 warships and maintained and repaired thousands. From its inception the yard was in the forefront of shipyard technology, from building the Navy's only ropewalk, supplying the Navy with most of its rope supplies, to becoming a center of missile and electronics conversions.

4. **Hopewell Furnace National Historic Site, Pennsylvania** – Hopewell, an iron "plantation," or a facility that produced lower-grade ("pig") iron, presents another distinct model of early industrialization. Operating from 1771-1883, it represents the relatively isolated, self-sufficient village established to conduct extractive industry.
5. **Edison National Historic Site, New Jersey** – Edison NHS is an example of a research and development facility designed to create products that could be profitably manufactured or licensed. For more than 40 years, the inventions developed at Thomas Alva Edison's laboratory had enormous impact on the lives of millions of people worldwide.

Sites outside the National Park System that express the theme of *Developing the American Economy* in the area of industry and which are comparable to similar resources in the Blackstone River Valley include:

1. **Old Slater Mill Historic Site and Museum, Pawtucket, Rhode Island** – Old Slater Mill is the earliest example of a textile mill within the larger landscape of the model of industrialization known as the Rhode Island System of manufacture. An NHL, the Old Slater Mill complex includes the Old Slater Mill, Wilkinson Mill, and Sylvanus Brown House, which together describe the influence of Samuel Slater and the advent of American industrialization. The property is owned by the Old Slater Mill

Association and is operated as a museum that is regularly open to the public.

2. **Hagley Museum and Library/Eleutherian Mills, Delaware** – The Hagley Museum/Eleutherian Mills is another example of early industrialization. This National Historic Landmark is the site of the 1802 works that revolutionized gunpowder manufacturing and grew into the E.I. DuPont Company, a leader in several branches of industry. The NHL boundary includes DuPont’s residence, offices, mills, and structures for workers. The museum is open to the public and offers tours and educational programs.
3. **Harrisville Historic District, New Hampshire** – A center for the manufacture of woolen goods beginning in 1789, and now a NHL, Harrisville’s mills, stores, boarding houses, dwellings, and churches depict the life of an early 19th-century New England mill town. Many facets of the mill town’s form and organization may be attributed to the influence of the Rhode Island System of manufacture during this period. Historic Harrisville is a primary property holder in the district and owner of the Cheshire Mills, a key contributing complex within the district. There are no public programs in the district, and the goal of Historic Harrisville, Inc. is to maintain the “essential character of a small, quiet, relatively isolated village where real people live and work.”
4. **Boston Manufacturing Company, Massachusetts** – A National Historic Landmark in Waltham Massachusetts, this manufacturing complex, begun in 1813, gave its name to the “Waltham System,” an alternative model to the “Rhode Island System” exemplified in the Blackstone Valley. A model that attained a fuller development at Lowell, the Waltham System is characterized by a single, large, heavily capitalized, vertically integrated system of manufacture. The Charles River Museum of Industry uses the structures for exhibits and visitor programs. The museum is currently closed due to the spring 2010 floods.
5. **Cheney Brothers Historic District, Connecticut** – A National Historic Landmark, this 175-acre milling community in South Manchester, Connecticut commemorates and interprets the Cheney family’s silk-manufacturing enterprises. With over 200 mill buildings, worker houses, churches, schools, and the Cheney family mansion, this is a well-preserved example of a 19th- to early 20th-century paternalistic mill town devoted to a single industry. Established originally in 1838, Cheney Brothers became the single largest and most profitable

silk producer in the nation by the late 1880s. The Manchester Historical Society provides multiple educational and interpretive opportunities within the resources of the district, including access to Cheney company resources such as Cheney Hall, the Cheney Homestead, company firehouse, the Old Manchester Museum located in the former Cheney School, and the Manchester History Center located in the former Cheney Machine Shop.

6. **Coltsville Historic District, Connecticut** – Like Cheney Brothers, Coltsville is a paternalistic, planned manufacturing community concentrating on a single industry, in this case the manufacture of firearms. Coltsville was an extensive manufacturing complex established in 1855 by Samuel Colt as the location of the Colt Firearms Company. An NHL in Hartford, Connecticut, the Coltsville Historic District includes Armsmear, the home of Samuel and Elizabeth Colt. The site was the subject of a Special Resource Study conducted by the NPS to determine whether it met the criteria for designation as a unit of the National Park System. Coltsville was found to meet the criteria for national significance and suitability but did not meet the criteria for feasibility or the need for NPS management.

Transforming the Environment

This theme “examines the variable and changing relationships between people and their environment, which continuously interact... The American environment today is largely a human artifact, so thoroughly has human occupation affected its features... While conservation represents a portion of this theme, the focus here is on recognizing the interplay between human activity and the environment as reflected in particular places.” Topics that help define this theme are: manipulating the environment and its resources; adverse consequences and stresses on the environment; and protecting and preserving the environment. The particular area of significance for the Blackstone River Valley is manipulating the environment and its resources, as evidenced in the exploitation of the river and surrounding landscape for the furtherance of industry, throughout the length of the Blackstone River and its tributaries. While the other topics defined by this theme are evident in the Blackstone, this is the topic most closely reflected in the statement of significance.

Units of the National Park System that reflect the theme of *Transforming the Environment* in the area of manipulat-

ing the environment and its resources, specifically related to water power, include:

1. **Paterson Great Falls National Historical Park, New Jersey** (authorized) – Located in Paterson, New Jersey, the Great Falls of the Passaic are included within an NHL district and have been designated an NNL under the name Great Falls of Paterson/Garrett Mountain. At the Great Falls, Alexander Hamilton implemented a plan to harness the force of water to power the new industries that he hoped would secure U.S. economic independence. Paterson became a center for the manufacture of textiles, silk, railroad engines, paper, sail cloth, and hemp, among other products.
2. **Lowell Locks and Canals District, Lowell, Massachusetts** – According to the 1977 National Historic Landmark nomination, “the Locks and Canals District encompasses all of the canals in the city of Lowell, their associated locks, and the mills that were powered by the canals. This canal system led to the supremacy of Lowell as the cotton textile manufacturing center of the United States, and contributed to the evolution of the first major American industrial city. The District contains virtually unaltered waterways, mills and machinery.”
3. **Harpers Ferry National Historical Park, West Virginia** - George Washington chose Harpers Ferry for a new national armory in 1794 because, he claimed, it possessed an “inexhaustible supply of water.” The park offers a place to explore the legacy of waterpower in America. Cradled between the free-flowing and often unpredictable waters of the Potomac and Shenandoah rivers, Harpers Ferry demonstrates the important relationship between nature and man’s early industrial activities.
4. **Saugus Iron Works National Historic Site, Massachusetts** – According to the park’s website, Saugus Iron Works was “the first successfully integrated manufacturing facility for the production of cast and wrought iron in North America. The historic structures of the Iron Works are nestled along the banks of the Saugus River, an important natural resource for newly settled families and workers to the area during the 17th century.” The iron works began production in 1645. The Saugus River provided a means of transportation and waterpower. A canal fed water from a dam upstream into sluiceways leading to each building.

Sites of national significance outside the National Park System that reflect the theme of *Transforming the Environment*, specifically related to water power, include:

1. **Augusta Canal National Heritage Area and Historic Augusta Canal and Industrial District NHL, Georgia** – Located on the Savannah River, Augusta Canal is the nation’s only industrial power canal still in use for its original purpose. Native Augustan Henry H. Cumming built the Augusta Canal in 1845, intending that Augusta could one day become “the Lowell of the South.” By 1847 the first two of many factories that would eventually line the canal were built; a saw and grist mill and the Augusta Factory.
2. **Lightfoot Mill, Pennsylvania** – A National Historic Landmark located in Chester Springs, Pennsylvania, “Lightfoot Mill represents an extremely rare archetypal example of a small, 18th century custom grain mill with an intact power transmission system. Surveys suggest that no other custom mills in the United States survive from this period with intact machinery. The basic technology of this mill dates from the mid-18th century, adapted to make use of several of the automating inventions of the famous American inventor, Oliver Evans, which were appended to the original works. The milling system functions today much as it did in the mid-18th century.”⁴⁹
3. **Columbus Historic Riverfront Industrial District, Georgia** – An NHL in Columbus, Georgia, “dating from 1844 to 1900, this area physically documents the evolution of hydrotechnology and its contributions to the growth of an important southern textile center. Here is the best surviving concentration of 19th and early 20th century hydro-mechanical and -electrical engineering systems in the South.”⁵⁰

Expressing Cultural Values

This theme encompasses expressions of culture: people’s beliefs about themselves and the world they inhabit, as well as the way that people communicate their moral and aesthetic values. Topics that help define this theme include: educational and intellectual currents; visual and performing arts; literature; mass media; architecture, landscape architecture, and urban design; and popular and traditional culture. The particular area of consideration for the Blackstone River Valley is architecture. As expressed in the sig-

49 National Historic Landmark Program website.

50 National Historic Landmark Program website.

nificance statement, the mill buildings and mill villages, as well as the hilltop towns and farms of the Blackstone Valley, express the cultural and aesthetic values of their time through their architecture and landscapes.

Similar to the Blackstone River Valley, the following sites and districts embody the cultural and aesthetic values of their time through their architecture and their landscape. In addition to their respective time periods, they also differ in the reflection of each area's social or industrial purpose. Units of the National Park System that reflect the theme of *Expressing Cultural Values* in the area of architecture specific to industrialization include:

1. **Lowell National Historical Park, Massachusetts** – Lowell interprets a major alternate model of industrialization. The story of female labor and living conditions is told at the Patrick J. Mogan Cultural Center, located in a Boott Mill boardinghouse. The practice of employing single female workers in group housing is one of the defining points of difference that distinguishes Lowell from the Rhode Island System of manufacture, which preferred to employ family units.
2. **Keweenaw National Historical Park, Michigan** – Keweenaw, significant for its copper mining history, consists of two units located 12 miles apart. In addition, 19 official Keweenaw Heritage Site partners are located within and beyond park boundaries. The resources center on the mines and include company-planned aspects of the mining community. The park's enabling legislation notes that "the corporate-sponsored community planning in Calumet, Michigan, as evidenced in the architecture, municipal design, surnames, foods, and traditions, and the large scale corporate paternalism was unprecedented in American industry and continues to express the heritage of the district." The planned, paternalistic aspects in some ways resemble the mill villages of the Blackstone Valley, but Keweenaw was a later, isolated community, built on a larger scale and devoted to an extractive industry.
3. **Wrangell-St. Elias National Park and Preserve, Alaska** – This National Park includes the Kennecott Mill Town, the center of copper operations from 1901 through 1938. Like Keweenaw, the Kennecott NHL district was a self-contained company town that included a hospital, store, school, skating rink, tennis court, recreation hall, and dairy.

Sites outside the National Park System that reflect the theme of *Expressing Cultural Values* and relate to similar resources of the Blackstone River Valley include:

1. **Harrisville Historic District, New Hampshire** – A center for the manufacture of woolen goods beginning in 1789, and now a NHL, Harrisville's mills, stores, boarding houses, dwellings, and churches depict the life of an early 19th-century New England mill town. Historic Harrisville is a primary property holder in the district and owner of the Cheshire Mills, a key contributing complex within the district. There are no public programs in the district; and among the goals articulated on its website, Historic Harrisville, Inc. describes itself as maintaining the "essential character of a small, quiet, relatively isolated village where real people live and work."
2. **Pullman Historic District, Illinois** – A National Historic Landmark located in Chicago, Pullman was constructed between 1880 and 1884 for George M. Pullman (1831-1897), an engineer and industrialist. The Pullman Company made sleeping cars for the railroads. Pullman was a completely planned model industrial town intended to provide, on a thoroughly paternalistic basis, a dramatic and pioneering departure from the unsanitary, over-crowded, makeshift living conditions found in working-class districts in other 19th-century industrial environments.
3. **Old Salem Historic District, North Carolina** – An NHL in Winston, Old Salem is a restored example of an 18th-century theocratic planned community, established by Moravians in 1766. A governing board of church officials controlled the lands, plan, buildings, and industries. The planned industrial town was built in 1880 and designed by architect Solon Beman and landscape architect Nathan Barrett. There is a Visitor Center, and interpretive tours are conducted.
4. **Cheney Brothers Historic District, Connecticut** – An NHL, this 175-acre milling community in South Manchester commemorates and interprets the Cheney family's silk manufacturing enterprises. Established originally in 1838, Cheney Brothers became the single largest and most profitable silk producer in the nation by the late 1880s. With over 200 mill buildings, worker houses, churches, schools, and the Cheney family mansion, this is an excellently preserved example of a 19th- to early 20th-century paternalistic mill town devoted to a single industry.

5. National Coal Heritage Area, West Virginia –

Located in West Virginia, National Coal Heritage Area interprets the history of the coal industry. Due to the isolated locations of coal mines, it was necessary for coal companies to build towns and houses for their miners throughout the region. By 1922, nearly 80 percent of West Virginia miners lived in company houses.

Conclusion – Finding of Suitability

As noted in the significance statement, no single, uniform process transformed the nation into a major industrial power. The course of industrialization varied by region, time period, and industry. Several distinct pathways to industrialization have been identified and, as a result, no one site can convey the full extent and complexity of American industrialization.

The sites described above represent various models of industrialization that emerged in response to different industrial requirements, types and availability of capital investment, ownership and management structure, and the nature of the labor force. While some closely parallel or reflect the Blackstone River Valley's experience, they all differ from it in some way. As a result these places complement, rather than compete with, the Blackstone River Valley in possessing resources that convey the complex story of the nation's industrial development. This is true across all three thematic areas – *Developing the American Economy*, *Transforming the Environment*, and *Expressing Cultural Values*.

Based on the analysis of comparable resources and interpretation already represented in units of the National Park System, or protected and interpreted by others, this study concludes that the resources of the Blackstone River Valley depict a distinctive and important aspect of American history that is not adequately represented or protected elsewhere and are therefore suitable for inclusion in the National Park System.

Feasibility Analysis

Areas found suitable for potential designation as units of the National Park System are subject to a feasibility evaluation, which determines among other factors whether long-term resource protection can be assured and visitors accommodated. Factors used to examine feasibility include size and configuration; landownership; access; threats to the resource; and public support.

Size and Configuration

The Blackstone River forms the natural spine of the Blackstone River Valley and is the source of the region's physical and historical identity. In its 46-mile journey from its headwaters in Worcester to its outlet on Narragansett Bay in Providence, the river meanders past quiet, wooded landscapes, courses through once-bustling mill villages, and is channeled through intensely developed urban centers. The Blackstone River is joined by four major tributaries (the Branch, Mumford, Quinsigamond, and West) along with many smaller branches, forming a watershed that encompasses 500 square miles and supports over 1,300 acres of ponds, lakes and reservoirs. Seventeen of the original 34 dams on the Blackstone River remain intact. Likewise, numerous historic dams and impoundments remain on its tributaries, including sites in Slatersville, Whitinsville, and Hopedale.

The Blackstone Canal largely runs parallel to the Blackstone River from Providence to Worcester. The Rhode Island Department of Environmental Management (RIDEM) owns and manages a three-mile segment of the canal, located to the west of the river, and approximately 150 acres of land on either side of the canal trench, as part of Blackstone River State Park. In Massachusetts a four-mile segment of the canal including the tow path trail and three water-control structures are maintained by the Department of Conservation and Recreation (MA DCR) at the Blackstone River and Canal Heritage State Park in the towns of Uxbridge and Northbridge. Within the state park, MA DCR also owns remnants of 2 locks and a canal landing.

Old Slater Mill and the four mill villages that form the core of historic resources in this analysis are non-contiguous and are located throughout the Blackstone Valley. Old Slater Mill and Ashton immediately adjoin the Blackstone River, with Ashton also being near a restored segment of the Blackstone Canal. Slatersville, Whitinsville, and Hopedale are all located along tributaries of the Blackstone River (the Branch River, the Mumford River, and the Mill River, respectively).

Likewise, a number of pre-existing gateway visitor centers are also located throughout the Valley. The Blackstone Valley Visitor Center is located in Pawtucket, Rhode Island immediately across the street from Old Slater Mill. Blackstone River State Park adjoins historic Ashton village in Lincoln, Rhode Island and is the location of the Captain Wilbur Kelly House, which offers visitor information and exhibits. In downtown Woonsocket, Rhode Island,

the Museum of Work and Culture offers visitor information and exhibits. In Massachusetts, River Bend Farm at the Blackstone River and Canal Heritage State Park, and the proposed Worcester Visitor Center currently do or will offer visitor information and exhibits. The facilities at Pawtucket, Blackstone River State Park, Woonsocket, and Blackstone River and Canal Heritage State Park are all located along the Blackstone River. A Blackstone River Bikeway has been under development for several years and will eventually parallel the entire length of the Blackstone River and canal to link Worcester and Providence. Some segments of the bikeway have been completed, particularly in Rhode Island, and offer links to these visitor service facilities and historic sites.

The mileage chart (Figure 13) describes the distances between the various historic and visitor services resources. The single longest distance exists between resources located in Pawtucket, Rhode Island and Worcester, Massachusetts – approximately 41 miles.

Old Slater Mill Historic Site NHL includes three buildings on the west bank of the Blackstone River in downtown Pawtucket: Old Slater Mill, Wilkinson Mill, and the Sylvanus Brown House. The approximately 4.2-acre site also encompasses an open-space parcel on the opposite side of the river, two dams, and a parking area. The configuration of the property is compact and well-contained within a single city block bounded by the Blackstone River, Roosevelt Avenue, Main Street, and Leather Avenue.

The Slatersville Historic District (North Smithfield, RI) encompasses an approximately 130-acre area that radiates from the intersection of Main Street, North Main Street, Green Street, and Church Street. The boundaries of the district are defined largely by parcel/lot lines. A variety of building types are located at the center or hub of the district, including the mill complex, a reservoir, religious, commercial and civic buildings, and a limited number of residences. As one moves to the edges of the district, the predominant building type is residential. Within one of the management options proposed in Chapter Four, local communities would be encouraged to create local historic districts to better protect the most essential, character-defining resources in the historic district. The proposed local historic districts would not necessarily have to follow the existing configuration of the National Register District boundary, and the lines could be more tightly drawn, as was the case

when North Smithfield's Town Council approved a Local Historic District within the village of Slatersville.

The Ashton Village Historic District (Cumberland, RI) encompasses an approximately 61-acre area, divided between the "lower village" and the "upper village." The lower village occupies land on the east bank of the Blackstone River and includes the mill complex, brick workers' housing, a dam, and a rail line. The upper village is organized along a roughly half-mile segment of Mendon Road (Route 122) and a portion of Scott Road and is situated at a dramatically higher elevation, overlooking the river. Religious, commercial, and civic buildings as well as additional worker residences characterize the upper village. Like Slatersville, the district boundaries largely follow parcel/lot lines, though the boundaries of this district are somewhat more compact. The Ashton Village Historic District has been designated a local historic district in the town of Cumberland.

The Whitinsville Historic District (Northbridge, MA) encompasses about 250 acres and approximately 350 structures built over the course of a century. The District is wide-ranging, with components on both sides of the Mumford River. At its core, where Hill Street, Main Street, Douglas Street, Linwood Street, and Church Street converge, are the three mill complexes, religious, civic, and commercial institutions including parks, libraries, and schools. As the district radiates out from the core, residential neighborhoods representing different economic strata within the community and periods of development are evident. The district also encompasses dams and reservoirs that were developed to power the village's industry. The historic district also includes the approximately 100-acre Castle Hill farm located across the river from the district's core area. The district boundaries largely follow parcel/lot lines. As noted in Slatersville, the designation of a local historic district would be encouraged but would not have to follow the existing configuration of the National Register District boundary, and the local historic district boundary could be more tightly drawn.

The Hopedale Village Historic District is roughly bounded by the Milford Town Line, Malquin Drive, Mendon Town Line, and Upton Town Line in Hopedale, Massachusetts and encompasses about 800 acres and almost 800 resources including buildings, designed landscapes, structures, and objects. The district has a fairly regular boundary that includes parklands, recreational fields, industrial, commercial, civic, and residential development. The district also encompasses the dams and reservoirs that were

51 Pedestrian access between the Kelly House and Ashton Village via Blackstone River Bikeway is considerably shorter.

	Old Slater Mill / Pawtucket	Ashton (Cumberland, RI)	Blackstone River State Park / Kelly House	Slatersville (North Smithfield, RI)	Woonsocket, RI	River Bend Farm (Uxbridge, MA)	Whitinsville (Northbridge, MA)	Hopedale	Worcester Visitor Center (proposed)
Old Slater Mill / Pawtucket	0	5.4 mi.	6.0 mi.	16.2 mi.	12.6 mi.	27.9 mi.	27 mi.	28.6 mi.	41.4 mi.
Ashton (Cumberland, RI)	5.4 mi.	0	1.9 mi. ⁵¹	10.7 mi.	7.4 mi.	18.4 mi.	21.8 mi.	23.4 mi.	31.9 mi.
Blackstone River State Park / Kelly House	6.0 mi.	1.9 mi.	0	10.8 mi.	8.5 mi.	18.2 mi.	22 mi.	18.5 mi.	32 mi.
Slatersville (North Smithfield, RI)	16.2 mi.	10.7 mi.	10.8 mi.	0	3.9 mi.	7.6 mi.	11.8 mi.	13 mi.	21.9 mi.
Woonsocket, RI	12.6 mi.	7.4 mi.	8.5 mi.	3.9 mi.	0	10.4 mi.	15.1 mi.	10.6 mi.	25.1 mi.
River Bend Farm (Uxbridge, MA)	27.9 mi.	18.4 mi.	18.2 mi.	7.6 mi.	10.4 mi.	0	3.6 mi.	6.2 mi.	17.8 mi.
Whitinsville (Northbridge, MA)	27 mi.	21.8 mi.	22 mi.	11.8 mi.	15.1 mi.	3.6 mi.	0	10.2 mi.	14.2 mi.
Hopedale	28.6 mi.	23.4 mi.	18.5 mi.	13 mi.	10.6 mi.	6.2 mi.	10.2 mi.	0	19.2 mi.
Worcester Visitor Center (proposed)	41.4 mi.	31.9 mi.	32 mi.	21.9 mi.	25.1 mi.	17.8 mi.	14.2 mi.	19.2 mi.	0

Figure 13: Mileage Chart (by Vehicle).

developed to power local industry. The district boundaries largely follow parcel lines and in some cases fall just short of or just over the town's municipal boundaries. As noted previously, the designation of a local historic district would not necessarily have to follow the existing configuration of the National Register District boundary, and the lines defining the local district could be drawn more tightly.

Nearly all of the pre-existing visitor services resources are small in scale and are operated in conjunction with a larger entity. The Blackstone Valley Visitor Center is located on the ground floor of a rehabilitated department store that includes other commercial, retail, academic, and transportation functions. The Captain Wilbur Kelly House is a free-standing historic home that has been rehabilitated for use as an exhibit space. The Kelly House is part of RI DEM's Blackstone River State Park. The Museum of Work and Culture in Woonsocket occupies the ground and sec-

ond stories of a rehabilitated mill building. The museum is part of and is operated by the Rhode Island Historical Society. The visitor facility at River Bend Farm is a rehabilitated barn that is located in MA DCR's Blackstone River and Canal Heritage State Park.

Conclusion

Despite the non-contiguous nature of the resources and the distances that separate them, the existing road systems and visitor infrastructure provide the necessary linkages to overcome this logistical challenge. The Blackstone River Bikeway, the gateway visitor facilities, and a corridor-wide system of directional signage all contribute in this vein. The configuration of the National Register Historic Districts varies in scale and geography, however, as noted in the analysis, for management purposes smaller, more tightly-drawn local historic districts may be designated to ensure

local protection of the most important, character-defining features in the historic district. As a result of these mitigating factors, the size and configuration of these resources supports the feasibility of a proposed new unit.

Land Ownership

The vast majority of land under consideration in this study is currently in private ownership, while several key properties are publicly owned.

- In Pawtucket, the building housing the visitor center is owned by the City of Pawtucket's redevelopment authority (a public entity) and Old Slater Mill is owned by the private, non-profit Old Slater Mill Association.
- In Ashton Village, the properties are almost entirely in private ownership. Many of the housing units have been made available for lease. In Ashton Village a couple of major property owners hold multiple parcels. Much of the property, particularly in the area west of Mendon Road, is available as residential rental property, a percentage of which is made available as affordable housing.
- The Museum of Work and Culture in Woonsocket occupies a city-owned structure.
- The Village of Slatersville contains a combination of municipal and private holdings. Scores of individual properties are located within the Slatersville National Register District most of which are private residences.
- Within Hopedale's historic district, a substantial number of acres (particularly the parklands) are municipally owned. The town owns civic structures like the library and community center, as well as the Little Red Shop (an early industrial building). Otherwise, property continues to be held in private ownership. The National Register District encompasses nearly 800 properties, many of which are private residences.
- Most of the property within Whitinsville's historic district is in private ownership. The exceptions include some of the civic institutions like the town hall, library, community center, schools, and memorial park, which are owned by the municipality. Hundreds of properties are located within the National Register District, again most of which are private residences.

Land ownership and development varies greatly along the edges of the Blackstone River and its tributaries and the Blackstone Canal. The number of owners is presumed

to be considerable and has not been thoroughly evaluated at this time. The states of Rhode Island and Massachusetts each maintain a state park unit that encompasses a segment of the Blackstone River and Blackstone Canal – Blackstone River State Park in Lincoln, Rhode Island and Blackstone River and Canal Heritage State Park in Uxbridge and Northbridge, Massachusetts.

Conclusion

Lands within the proposed park boundaries would encompass a variety of ownerships – the vast majority of which would be private. NPS ownership would be limited under any management option. Overall, any acquisition strategy would emphasize resource protection and public access. A partnership approach would be required to ensure that key resources within the park are protected.

Access

All of the historic areas are currently accessible to the public for exterior viewing and walking tours. Old Slater Mill offers interior tours and exhibits of the mill buildings from May through October, six days a week; an admission fee is charged. The villages of Slatersville, Hopedale, and Whitinsville have all collaborated with the Corridor to publish guides for walking tours, highlighting and interpreting key resources within the community. Commission staff also offer guided walking tours of all of the historic sites under consideration. No structures are currently open to the public for interpretation or visitor services in Slatersville or Whitinsville. At Ashton, the nearby Blackstone River State Park does offer visitor services at the Captain Wilbur Kelly House, though outside the official district boundary. At Hopedale, the Little Red Shop has been rehabilitated and offers exhibits interpreting Hopedale's industrial past. The Little Red Shop museum is currently open Sunday afternoons and by appointment.

As previously noted, a number of visitor services facilities located throughout the valley offer maps, brochures, exhibits, and other information to orient the visitor to the Valley's resources: Pawtucket, Lincoln, and Woonsocket, Rhode Island; and Uxbridge, Massachusetts, with a fifth location proposed in Worcester. These facilities serve as visitor gateways, providing an overview as well as in-depth information on different facets of the Blackstone River Valley's history. Both the Blackstone Valley Visitor Center and the Museum of Work and Culture are open year-round, six days per week. The Captain Wilbur Kelly House Museum, located at Blackstone River State Park in Lincoln, Rhode

Island, is open from April through October, seven days a week. Finally, the River Bend Farm Visitor Center, located at the Blackstone River and Canal Heritage State Park in Uxbridge, Massachusetts, is open year-round, seven days per week.

The sites are served by a well-developed network of surface roads (often historic and scenic routes) and limited-access highways. Public transportation in the Blackstone Valley is limited. The City of Pawtucket is interested in establishing rapid bus service as well as pursuing the establishment of a commuter rail station on the border with Central Falls. The Massachusetts Bay Transportation Authority (MBTA) commuter rail offers service connecting Boston with Worcester and Providence respectively. Both Worcester and Providence are served by Amtrak and have regular regional public bus service. Pawtucket also benefits from a smaller volume of local bus service with connections to Providence. The villages of Ashton, Slatersville, Whitinsville, and Hopedale are not well served by public transportation, though Ashton is on a bus route located along Mendon Road. The region is served by two major international airports – T. F. Green International Airport in Warwick, Rhode Island and Logan International Airport in Boston, Massachusetts.

The Blackstone River Bikeway offers another opportunity for access to the Blackstone River and Canal, as well as the industrial villages that are located along it. The bikeway is currently under development, with nearly 12 miles completed in Rhode Island and just over 2.5 miles completed in Massachusetts. The bikeway will eventually link Worcester and Providence. Similarly, reaching some of these sites by water is becoming increasingly popular as public access to the region's waterways grows.

Conclusion

All of the sites and districts proposed for inclusion in the park offer published guides for walking tours, signage, and some interpretive media to enable current visitors to understand and appreciate the resources. However, few of them offer in-depth opportunities for visitors to access interpretive programming or exhibits. As noted previously (in size and configuration), the system of roads, directional signage, the recreational bikeway, and the gateway visitor facilities enable visitors to obtain access to these sites and districts from the nearby interstate highway and regional airports and provide physical linkages among them. Existing opportunities for visitor access to these locations as

well as the potential for future enhancements contribute to the feasibility of the proposed new unit.

Threats to Resources

The Larger Landscape

According to a Heritage Landscapes Inventory focusing on 10 Massachusetts communities in the Blackstone River Valley that was completed by the Commission and MA DCR in 2006:

In the Blackstone Valley, a great deal of recent development has already altered the character of some communities, and steps are being taken to manage future growth in a variety of ways. Partnerships between public and private organizations have aided in the protection of heritage landscapes through zoning bylaws, preservation restrictions, open space acquisition, and planning for smart growth.

Excerpt from *Heritage Landscape Inventory Regional Historic Context – Quinebaug-Shetucket and John H. Chafee Blackstone River Valley National Heritage Corridors*, by Susan W. Frechette. pp.38-39.

A survey of five Rhode Island communities, cosponsored by the Commission and the Rhode Island Historical Preservation and Heritage Commission, was completed in 2010.⁵² Based on the observations of the study team, the state of the rural character of the valley in Rhode Island was similar to conditions identified in Massachusetts. The agricultural and rural character of the Blackstone River Valley's outlying areas is gradually being eroded by suburban development. In its recent report entitled "Losing Ground," the Massachusetts Audubon Society identified the Blackstone River Valley as a "sprawl frontier" having one of the highest rates of development in the state. The interrelationships among the valley's mill villages, urban centers, rural agricultural lands and open space, and the Blackstone River itself, contribute to a distinct "sense of place" that pervades the region and provides the essential context for its core industrial heritage resources. Protection of the region's larger rural landscape is an important part of preserving the integrity of the Blackstone River Valley's industrial heritage resources.

The Blackstone River & its Tributaries

Despite significant improvements over the last 30 years, the Blackstone River remains subject to many stresses and

⁵² The Rhode Island communities involved in the project include: Burrillville, Glocester, Lincoln, North Smithfield, and Smithfield.

problems that affect its ecological, recreational and aesthetic values along its entire length. These issues include contaminated sediments; the impacts of permitted wastewater discharges on downstream water quality; the presence of hazardous waste sites, old dumps, and landfills that cause non-point source pollution; non-point sources of pollution that affect habitat and water quality and threaten drinking water supplies; and water withdrawals.⁵³ At present, the Blackstone River is considered suitable only for non-contact recreation. Many tributaries of the Blackstone River, including portions of the Branch and Mumford Rivers, are considered to be swimmable and fishable.

The Blackstone River Coalition, a bi-state organization representing many agencies, institutions, and individuals with an interest in the watershed, has been waging a campaign to make the Blackstone swimmable and fishable by 2015. The Coalition has worked collaboratively to develop and implement a strategic plan to improve the ecological health of the watershed.

The Blackstone River also harbors many cultural features such as dams, reservoirs, and other remnants of its industrial past. Some of the remaining dams continue to be used to generate hydropower, such as the Riverdale dam in Northbridge and the Tupperware dam in Blackstone – both in Massachusetts – and Thundermist Dam in Woonsocket, RI. A proposal to develop a hydropower plant in Slatersville is making its way through the Federal Energy Regulatory Commission (FERC) process. Most of these features are in private ownership; some are recognized as part of existing National Register districts, but none are listed individually on the National Register. As part of the larger water management scheme that pervaded the Valley and powered its industry, these features need to be recognized and their future management considered.

The Blackstone Canal

The Blackstone Canal is listed in the National Register of Historic Places as two separate districts – one in Massachusetts, one in Rhode Island. Segments of the canal trench and towpath, along with other canal features – some remarkably intact – survive in both states. The best-preserved section of canal in Rhode Island is located in the town of Lincoln, within the Blackstone River State Park. In Massachusetts, the best-preserved canal segments and features are found in Uxbridge and Northbridge within Blackstone River and Canal Heritage State Park. Studies and preser-

vation plans for both the Rhode Island and Massachusetts portions of the canal have been completed, with recommendations for prioritizing resources based on existing conditions and restoration potential. Much of the remnant canal is broken out among many different private ownerships.

Old Slater Mill

Old Slater Mill has been owned and operated by the Old Slater Mill Association since 1921 and was designated a National Historic Landmark in 1966. The state holds a 25-year preservation covenant for the exterior of the Wilkinson Mill that ends in 2015 and a 50-year preservation covenant for Slater Mill that will end in 2060. The trustees of the Old Slater Mill have expressed a willingness to sign a permanent historic preservation easement with the National Park Service.

Though the Old Slater Mill Association has maintained its commitment to preserving these resources and to providing public access and programming, its financial condition has fluctuated over its nearly 90 years. Over its own 25-year history, the Commission has provided funding support for preservation and the development of exhibits and programs. More recently the Commission has provided some staff support to Old Slater Mill. Maintaining financial stability has been one of the greatest sources of concern for the institution.

Ashton Village, Cumberland, Rhode Island

Ashton Village was designated a historic district (overlay zoning district) in accordance with Title 45, Chapter 24.1, of the General Laws of Rhode Island, as amended, which declares the preservation of structures of historic or architectural value to be a public purpose and authorizes the creation of the Historic District Commission (HDC) for that purpose in the Town of Cumberland. Ashton is one of seven historic preservation overlay districts created in the town. In a local historic district zone, all exterior alterations and new construction must be reviewed and approved by the historic district commission, which ensures that the historic character of the buildings is maintained when necessary changes are made. In addition, the town of Cumberland has adopted Development Plan Review Standards.

The Ashton Mill completed a rehabilitation project with federal tax credits in 2005 with a 5-year NPS review period.

⁵³ RI Rivers Council/ State Planning Council. RI Rivers Policy and Classification Plan (State Guide Plan 162). Originally adopted in Jan. 1998; amended May 2004.

Slatersville, North Smithfield, Rhode Island

North Smithfield's Town Council approved the designation of a Local Historic District within the Slatersville Historic District in November 2010. The Local Historic District is concentrated in the center of the Village and does not include the Congregational Church adjoining the Village Green. The town's by laws allow the Local Historic District designation to expire in two years if it is deemed necessary. They are currently in the early stages of their effort. The Slatersville Mill Complex was rehabilitated for use as housing and received a federal historic preservation tax credit in 2007. In consultation with the RI State Historic Preservation Office, the National Park Service must review and concur with any proposed changes to the structure until 2012.

The Slatersville National Register District crosses several land use zones, the largest of which is Manufacturing, followed by Suburban Residential, Urban Residential, Rural Estate/ Agriculture, and Business Neighborhood.

Whitinsville, Northbridge, Massachusetts

The Town of Northbridge has designated a core area of the National Register District (approximately 20 percent) as a Heritage District. It is an overlay zoning district addressing land use and is administered by the town's zoning board, though it does not address changes to the appearance and historic character of the structures in the zoning district. The Heritage District is concentrated on the downtown intersections of Hill, Church, Linwood, and Main Streets and encompasses community resources like the Town Hall, community center, library, schools, the memorial square, churches, the older mill buildings, and some private residential properties, it excludes the Whittin Machine Works complex. According to Northbridge's zoning bylaws, the purpose of the Heritage District is to preserve and reinforce the visual and historical character of the Memorial Square Area of the Town of Northbridge by regulating the type and intensity of uses that may be proposed within it. Specifically, the bylaws note that the intent is to provide for uses that are similar to those existing at the time of enactment of the section in 1980.

The Massachusetts Historical Commission holds preservation restrictions in perpetuity on several properties located within the heritage district, including: Northbridge Town Hall, Trinity Episcopal Church, Whittin Community

Gym, Whittinsville Mill and Forge (Alternatives, Inc.), and the Whittinsville Old Cotton Mill.⁵⁴

Other land uses permitted within the National Register District include four different residential zones allowing for different densities of development and combinations of use, a substantial industrial use area encompassing the area around the Whittin Machine Works, and two business zones. The Castle Hill Farm area is zoned R-1 which permits the development of detached, single-family homes and a wide variety of other uses. The town has also expressed an interest in preserving and protecting the property.

Hopedale, Massachusetts

Hopedale contains no designated local historic districts. A significant portion of the area within the historic district is town-owned and is presumed to be protected from development. Another area within the National Register district is zoned as Historic Multi Family. The Historic Multi Family zone encompasses a single block bounded by Hopedale, Freedom, Dutcher, and Chapel Streets and is occupied by a single multifamily structure, parking area, and small area of town-owned open space. Other land use zones within the historic district include town lands, two types of residential use, industrial, and general business.

The Massachusetts Historical Commission holds a permanent preservation restriction on the Bancroft Memorial Library.

Conclusion

The analysis of threats to resources throughout the Blackstone River Valley and within the sites and districts that would compose the proposed park reveals much progress in terms of understanding and protecting resource values, but also indicates that there is still a continuing need. The National Park Service and the Commission contributed much both directly and indirectly to previous efforts. The remaining threats to the Valley's "sense of place" and to the integrity of the sites and districts that would compose the proposed park unit reinforce the need for a National Park Service presence.

Public Support

Members of the study team have engaged in preliminary consultations with the members of the Commission, board members at Old Slater Mill, local municipal officials in the

⁵⁴ Source: Massachusetts Historical Commission, 2008 State Register as reported by Michael Steinitz.

affected communities, the academic community, and Native American tribes. In general, there is considerable and continuing support for the Corridor and rising concern that the Commission will soon expire. There is an expressed appreciation for the federal presence that the Corridor has brought to the Blackstone River Valley. Public meetings conducted during the study process and described in Chapter Six: Coordination and Consultation indicate broad public support for potential designation of a new unit of the National Park System.

Feasibility Conclusion

Distances among historic sites and districts and visitor services resources are bridged by a well-developed road system that enables quick and easy access to many areas via limited-access highways. Secondary roads offer a less direct but often more scenic and historic option for traveling between sites. Suggested auto and bicycle routes, signage, and other visitor service amenities could make navigating the region easy and informative for visitors.

Creating smaller, more tightly drawn local historic districts that encompass the most important character-defining features in these often large, historic districts could facilitate both management and protection. The wide-ranging scope of these resources can support many interesting and diverse interpretive opportunities.

Relative to feasibility, landownership patterns and resource protection requirements are closely related. To ensure that key resources across the Blackstone River Valley receive adequate protection, some measure of NPS full-fee or less-than-fee ownership may be necessary to protect the most significant or fragile of resources. However, much of the responsibility for the long-term care and protection of these resources would continue to fall to local municipalities and their residents. NPS support for protection activities would increase their likelihood of success.

Public support for a federal presence in the Blackstone River Valley is firm, and specific support for the formal designation of an NPS unit in the Blackstone River Valley has been verified via public comments received in response to the Preliminary Alternatives newsletter.

Based on its analysis of the factors addressing feasibility, as summarized above, the study team concludes that the resources meet the feasibility criteria for inclusion in the National Park System.

Need for NPS Management

The need for NPS management is the final criterion for the potential establishment of a unit of the National Park System. The criterion requires a finding that NPS management would be superior to potential alternative management arrangements by other entities.

In the 1984 Assessment of the Blackstone River Valley, NPS found public support for a limited federal role in the Corridor that emphasized federal recognition, coordination of interstate efforts, mediating use conflicts in the river corridor, and studying and interpreting the Corridor's historical resources. This has been the role and function of the Commission, a federal body staffed by NPS, for nearly 25 years.

While the Corridor would continue to exist under non-federal management when the Commission expires in October 2011, the region will keenly feel the loss of the federal interpretive presence and technical support for resource protection and visitor services. No other organization within the Valley provides the same level of expertise in these areas as that offered by the National Park Service. Further, NPS has developed knowledgeable staff members who have served the region and its resources with a consistently high level of quality and professional depth that would be difficult for other organizations to replicate. NPS acquisition may be an essential strategy for ensuring protection of and public access to nationally significant properties within the Valley.

The Corridor and its Commission have created a new sense of cohesion among the two states and numerous municipalities. Although the continued presence of the Corridor will perpetuate some of this feeling, no substitute for the NPS presence is anticipated that will intensify (or even maintain) the understanding of the Blackstone River Valley as a unified and distinctive historical entity, as described in the Historical Overview and Statement of Significance.

Generally, a National Park Service presence in the Blackstone River Valley and more specifically, NPS resource protection and interpretive support of the core sites and districts considered in this analysis would be superior to conceivable management arrangements undertaken by other entities.

The study team finds that under the right conditions in terms of NPS authorities, financial resources, and staffing, and with broad-based, public support for an NPS presence and commitment to resource protection, the resources un-

der consideration would be best managed with the involvement of NPS.

Summary of Findings: Criteria for New Parklands

Based on extensive analysis and with the concurrence of the National Park Service's History Program Office in Washington, the study team concluded that the Blackstone River Valley's industrial heritage resources including the Blackstone River, the Blackstone Canal, Old Slater Mill National Historic Landmark District, and the villages of Slatersville, Ashton, Whitinsville, and Hopedale met the criteria for national significance. This is based on their significant contribution to and outstanding representation of broad national patterns in U.S. economic and industrial history and their potential to provide for an understanding and appreciation of those patterns.

The suitability analysis considered comparable resources representing various models of industrialization throughout the United States. While some of these resources were similar in some ways, they differed in others. These other places were more likely to complement, rather than compete with, the Blackstone River Valley in terms of possessing resources that convey the complex story of the nation's industrial development. Based on this analysis the study concludes that the resources of the Blackstone River Valley depict a distinctive and important aspect of American history that is not adequately represented elsewhere and is therefore suitable for inclusion in the National Park System.

The feasibility analysis indicated that the size and configuration of the non-contiguous sites and districts that would compose the proposed park would not be a prohibiting factor for management and is mitigated by existing roads and visitor infrastructure (e.g., visitor facilities, directional signage, and interpretive media). The area enjoys good highway access and is served by two international airports as well as intercity train and bus service. Visitor access has been facilitated by existing directional signage systems, published tour guides, and maps. Much of the primary resource base continues to be under private ownership and that is unlikely to change. Strategic NPS acquisition of key properties (in full or partial fee) for preservation or public access purposes would be one facet of the proposed park's resource management strategy. Partnerships with local communities and property owners to encourage resource protection would also be critical.

Finally, with regards to the need for NPS management the study concludes that given the appropriate authorities, financial and human resources, the resources under consideration would be best managed with the long-term involvement of the National Park Service.

In conclusion, the study team finds that, based on the factors cited above and the extensive analyses conducted during the course of this special resource study, the resources associated with the Blackstone River Valley are nationally significant and both suitable and feasible for inclusion in the National Park System. It further concludes that there is a demonstrated need for NPS management of these resources in partnership with others described in this report.



CHAPTER FOUR: Management Options

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The study team has identified a range of *management options* describing different ways that the resources identified in the Blackstone River Valley could be protected and interpreted for the benefit of the public. Management Option 1 (the “status quo” alternative) is organized somewhat differently from Management Options 2 and 3 to better describe the present condition as well as the possible conditions after the Commission expires in October 2011.

Management Option 1. John H. Chafee Blackstone River Valley National Heritage Corridor Continues to Operate Under Current Authorities

Concept

Under this management option, no new unit of the National Park System would be proposed. The John H. Chafee Blackstone River Valley National Heritage Corridor (“Corridor”) would continue to be recognized as a federally designated national heritage corridor. In compliance with Public Law 109-338, the John H. Chafee Blackstone River Valley National Heritage Corridor Reauthorization Act of 2006, the Corridor Commission (“Commission”) would continue to operate under its present authorities and receive operating funds from the National Park Service until October 2011. The Corridor is authorized to receive development funds through 2016. In the absence of the Commission, there would be no dedicated federal operational funding and no federal staff to operate the Corridor.

Commission staff would continue to provide planning support and technical assistance to state and local partners, and uniformed National Park Service rangers would continue to be available for visitor programming and public outreach as long as the Commission remains in operation. In the absence of the Commission, a cadre of volunteers and docents in combination with the staff of key institutions like the state parks, the Museum of Work and Culture, and Old Slater Mill would continue to offer the same visitor programs and exhibits they do now. Existing visitor facilities would be maintained and made available to the public by their respective owner/operators.

The Commission is currently in the process of developing a strategic plan to address the transition from a commission to a non-federal operating body. This process is

being undertaken independent of, but in coordination with, the Special Resource Study.

Visitor Experience

As with many heritage corridors, it is up to the visitors to craft their own experience, making use of the informational materials made available by the management entity and its partners. The Commission, as a federal body, has previously been staffed by the National Park Service, whose uniformed NPS interpretive ranger staff has been a constant presence in the Valley.

Many visitors begin their experience at one of the four existing facilities located throughout the Blackstone River Valley:

- The Blackstone Valley Visitor Center, Pawtucket, RI
- Kelly House, Blackstone River State Park, Lincoln, RI
- The Museum of Work and Culture, Woonsocket, RI
- River Bend Farm/ Blackstone River and Canal Heritage State Park, Uxbridge, MA

Each of these facilities is operated by a Corridor partner and provides exhibits focusing on a different facet of the Blackstone River Valley’s history. Each facility has rack cards and brochures highlighting other destinations in the Valley including a series of guides for walking tour prepared by Commission staff and its partners for many of the Blackstone River Valley’s industrial villages. The NPS interpretive rangers and volunteers offer guided walks, lectures, school programs, and provide staff support to key partners (e.g., Old Slater Mill).

The Commission staff also spearheads numerous regional events and initiatives that attract many participants and user groups. These include the Greenway Challenge (a hike, bike, and paddle event across the entire Blackstone River Valley), Footsteps in History (an initiative that coordinates the development and promotion of history-based programming), and continued development of the Blackstone River Bikeway. The Commission also worked with its own network of partners and with state and local agencies to develop a uniform, regional signage system that would make visitors aware of the Corridor and the resources associated with it.

After the expiration of the Commission, the presence of NPS interpretive rangers will end. Programs previously offered by the NPS rangers could be undertaken by the new management entity or by its many partners as staff-

ing permits. While the use of static media (e.g. exhibits, brochures, etc.) would continue and could be updated as needed; personal services (e.g. guided walks, lectures, etc.) would likely become less available to visitors.

Museums and visitor facilities would continue to operate within and collaborate with the Corridor, remaining available to the visiting public. The new management entity of the Corridor would continue to coordinate and promote regional programs and initiatives, working with state and local agencies and a network of partners to maintain the regional signage system throughout the Valley.

Management Entity

The activities and initiatives of the Corridor would continue to be provided by the bi-state, federally appointed 25-member Commission until its authorization expires in October 2011 as directed by P.L. 109-338. The Commission was established by Congress in 1986 to work with the states, the municipalities, and other partners in developing cultural, historical, and land resource management plans that would retain, enhance, and interpret the Corridor's resource values.

The Commission would also continue to develop, revise, and implement a Corridor-wide management plan in partnership with the two states, Corridor communities, and other members of the partner network; and to account for the use of federal funds appropriated to achieve Corridor goals. The Commission would continue to consult and coordinate with other federal agencies' project review and compliance procedures to assure that such projects are carried out, to the maximum extent feasible, in a manner consistent with congressional purposes of the Corridor. The Commission would also continue to provide planning support and financial and technical assistance to state and local partners.

Until October 2011, the National Park Service would continue to provide staff to the Commission to support a variety of functions including interpretive services, planning and project support, and technical assistance. The Commission would continue to make matching funds available to support selected projects throughout the Blackstone River Valley. P.L. 109-338 also authorizes development funds for the Corridor through 2016.

After October 2011, the Commission would cease operation, and the Corridor would be managed by a non-profit organization, the recently incorporated Blackstone River Valley National Heritage Corridor, Incorporated ("Black-

stone Corridor, Inc."). Similar to the existing Commission, the new management entity would be locally based and broadly representative of interests throughout the Valley and would play a similar role in the Corridor. The new management entity would be eligible for potential funding support under existing authorities of the National Park Service, but would largely be responsible for raising its own operating budget. In the absence of the Commission, National Park Service staff would no longer be available to the Corridor.

National Park Service/ Federal Role

Prior to the Commission's expiration in 2011, the National Park Service would continue to provide operational funding and staff support to support its current role and function in the Blackstone River Valley. Uniformed NPS rangers would continue to be available for visitor programming and public outreach.

Partnerships

Functionally, the Corridor is a regional partnership among the Commission and all levels of government, other organizations, and individuals who support and seek to advance the vision and goals of the Corridor. Each state has multiple agencies represented on the Commission, and the governors of each state are authorized to appoint Commission members from each of their states. State agencies have fiscal and management responsibilities for a number of initiatives that relate to and support the Corridor's vision and goals (e.g., development of the Blackstone River Bikeway and preservation planning for the Blackstone Canal). State agencies also provide funding and staff assistance for collaborative projects within the Corridor. In addition, the Corridor's cities and towns have some representation on the Commission and, like the state, they assume responsibility for many initiatives supportive of the Corridor's vision and goals (e.g., protecting historic resources).⁵⁵ While organizations and individuals do not have dedicated seats on the Commission, they too are central to the Corridor's network of partners. The Corridor's non-governmental partners are involved in numerous management and collaborative project activities (e.g., Old Slater Mill, the Museum of Work & Culture, and the Campaign for a Swimmable & Fishable Blackstone by 2015).

⁵⁵ Not all cities and towns within the Blackstone River Valley are represented on the Commission at any given time. The composition of the Commission changes as terms expire and new appointments are made.

Though this network of partners does not necessarily dissolve after the Commission expires in October 2011, the overall construct could change. Old Slater Mill, the state parks, the Museum of Work and Culture, and other organizations would continue to provide visitor and educational programs and support resource protection initiatives. The newly formed non-profit Blackstone Corridor, Inc. could continue to work with the Blackstone Valley Tourism Council, the Blackstone Valley Chamber of Commerce, and others to promote heritage tourism and engage in joint fundraising. Additionally, Blackstone Corridor, Inc. could coordinate fundraising efforts, as well as regular programs and special events among existing organizations and institutions.

Resource Protection

Until October 2011, the Commission would continue to champion resource protection through its educational and interpretive programs; financial and technical support for resource protection initiatives undertaken by state and local agencies, as well as private organizations and institutions; and coordination of multi-party efforts to seek funding and support for resource protection efforts throughout the Blackstone River Valley. The Commission would continue to consult and coordinate with other federal agencies' project review and compliance to assure that such projects are carried out, to the maximum extent feasible, in a manner consistent with congressional purposes of the Corridor.

The new management entity, Blackstone Corridor, Inc., would continue to promote and advocate for resource protection and for the support of local organizations and institutions whose missions support the purposes of the Corridor. The management entity's role and function could extend to providing technical assistance and planning support if it can muster a sufficient level of professional staffing and funding.

Interpretive and Educational Programming

The Commission would continue to employ uniformed NPS park rangers to perform a variety of visitor service and educational functions until October 2011. These include developing and executing a comprehensive interpretive plan; developing of exhibits and other interpretive media; conducting walking tours; providing operational support to Corridor visitor centers; supporting special programs and events in the Blackstone Valley; and giving interpretive talks at numerous venues throughout the Valley.

Until October 2011, the Commission staff would provide continued support to develop and maintain visitor facilities at key locations throughout the Valley and would support the development of interpretive media and visitor programming at each site. A system of interpretive waysides and signage has also been developed and deployed throughout the Blackstone River Valley with the continued assistance of the Commission. Visitor centers operate at Pawtucket, Woonsocket, and River Bend Farm in Uxbridge.

After the Commission expires, NPS staff will no longer be available to the Corridor. The new management entity, Blackstone Corridor, Inc., would continue to work collaboratively with local agencies and institutions to coordinate the development and delivery of visitor services.

The Commission would continue to support updating and replacing interpretive signage, exhibits, and walking-tour brochures. After the Commission ceases operation in October 2011, this function would have to be undertaken by each community and its institutional partners, working in concert with the new management entity.

Recreational Opportunities

Until the Commission expires, its staff would continue to be actively engaged in long-term efforts to develop a Blackstone River Bikeway. They would continue to work with state agencies to develop and install interpretive signage along the trail.

After the Commission ceases operation in October 2011, the new management entity, Blackstone Corridor, Inc., could become an advocate for the continued development of the Blackstone River Bikeway and for the continued clean-up of the Blackstone River.

Finance

Until October 2011, the Commission would continue to receive operating funds from the National Park Service's operating budget and through the Heritage Partnership Program. Per its authorizing legislation, the federal contribution to the Commission could not exceed 50 percent of its annual operating costs.

The Commission was authorized to provide funds for the following purposes: preservation and restoration of properties on or eligible for inclusion on the National Register of Historic Places; design and development of interpretive exhibits to encourage public understanding of the resources of the Blackstone River Valley; and cultural or environmental educational programs related to environ-

mental awareness or historic preservation. Funds made available for these purposes are subject to a 50:50 matching requirement.

After the Commission ceases operation, some Corridor-related projects may be eligible for technical and financial assistance through existing competitive funding and grants offered by state and federal programs, including those programs within existing NPS authorities (e.g. RTCA). The new management entity would have to raise funds to support its operations and initiatives.

Legislative Requirements

In anticipation of the October 2011 expiration of the Commission, legislation amending the Corridor's enabling act would be required to authorize the new management entity.

Cost Estimates

Note: This reflects the Commission's budget through the end of Fiscal Year 2011.

Annual Costs

Operations (salaries and other operational costs)

\$ 923,000

Technical Assistance/ cooperative agreements

\$744,000

One-Time Costs

Research

\$0

Planning (Update Corridor Management Plan)

\$20,000

Construction

\$0

Management Option 2: Old Slater Mill National Historic Site

Concept

This management option proposes that the Old Slater Mill National Historic Landmark District be considered as a potential unit of the National Park System that would be jointly operated, preserved, and maintained by the Old Slater Mill Association (OSMA) and the National Park Service. The site would continue to be owned by OSMA, though the National Park Service would acquire a preservation easement on the property to ensure its preservation for future generations. The National Park Service would enter into a cooperative agreement with OSMA that would define the roles and responsibilities of each party in the operation and management of the site. The proposed boundary would coincide with the boundary of the National Historic Landmark District as depicted in Figure 2 in Chapter Two: Historical Overview and Resource Description.

In order to convey the full influence of Old Slater Mill on the early development of the American textile industry, NPS would be authorized to enter into cooperative agreements with private and public entities to engage in the interpretation of Old Slater Mill National Historic Landmark District and the Rhode Island System of manufacture as it existed in the Blackstone River Valley.

Visitor Experience

Repeat visitors to Old Slater Mill Historic Site and Museum would be unlikely to notice any substantial changes to the overall sense of place or the nature and quality of the programs offered to the public. However, some aspects of the experience may be reshaped in some tangible ways. Under this alternative, the present Blackstone Valley Visitor Center in Pawtucket could be expanded and retooled to serve as administrative, orientation, exhibit, and education space specifically serving the national historic site. Visitors could arrive at the Visitor Center, learn about Old Slater Mill and the industrial heritage of the Blackstone River Valley, purchase admission tickets, register for programs offered by NPS or its partners, and peruse the bookstore. They would also be offered a printed guide or downloadable program that would assist them in touring the many related industrial heritage locations that dot the Blackstone River Valley. Computer kiosks could be developed for the

visitor center that would enable visitors to customize a tour of the valley based on their interests and time constraints.

At the Visitor Center, visitors would be greeted by NPS staff and/or by docents from Old Slater Mill. After receiving an orientation, they would venture across Roosevelt Avenue to participate in regularly scheduled tours and demonstrations at the Old Slater Mill, Wilkinson Mill, and the Sylvanus Brown House. Tours may be offered by NPS and museum staff or volunteers. Community events and other outdoor activities that have traditionally taken place on the grounds would continue. Programs and activities currently offered by the museum, such as those associated with the current Fiber Arts program, would also continue.

A fundamental interpretive message for Old Slater Mill acknowledges it as the launch point for a well-defined pathway to American industrialization – the Rhode Island System of manufacture – that is evident throughout the Blackstone River Valley and beyond. Visitors would be encouraged to venture out into the Valley to learn more about this important American story.

National Park Service/ Federal Role

NPS Ownership

The Old Slater Mill Historic Site and Museum would continue to be owned by the OSMA. The National Park Service would also seek the conveyance of a protective easement on the buildings and property within the NHL district to ensure that it is preserved for the benefit of future generations of Americans. NPS would seek to acquire or lease the Blackstone Valley Visitor Center for redevelopment and use for visitor orientation, education, and administrative purposes.

Resource Protection

The National Park Service would have the authority to enter into cooperative agreements with OSMA to jointly operate, interpret, preserve, and maintain the Old Slater Mill, Wilkinson Mill, Sylvanus Brown House, and other character-defining features on the property and to assist in educational programs, research, and interpretation of the Old Slater Mill and related industrial heritage sites throughout the Blackstone River Valley.

NPS would work with OSMA to prepare a general management plan for the property and would provide assistance to Old Slater Mill in support of planning, resource protection, interpretive and educational programming, and operations.

Interpretation and Visitor Services

NPS could also work cooperatively with OSMA and the City of Pawtucket to update, expand, and staff the existing visitor center located directly across the street from the historic site through donation of the property to, or under a lease with, the National Park Service. Orientation exhibits could continue to include information about related sites throughout the Blackstone River Valley, but would also include more orientation material for Old Slater Mill. The visitor facility could be expanded inside the building to allow for the introduction of flexible program space that could accommodate school groups and other visitor needs as well as for additional administrative offices.

In order to convey the full influence of Old Slater Mill on the early development of the American textile industry, the National Park Service would be authorized to enter into cooperative agreements with the states of Massachusetts and Rhode Island and other relevant agencies and organizations to provide assistance related to the interpretation of the Old Slater Mill National Historic Landmark District and the Rhode Island System of Manufacture as it existed in the Blackstone River Valley. NPS would also provide assistance to agencies and organizations engaged in the protection and interpretation of the Blackstone River and its tributaries, Blackstone Canal, and the larger rural landscape as well as those working on the development of recreational trails that link industrial heritage resources.

Role of Partners/ Blackstone River Valley National Heritage Corridor, Inc.

Resource Protection

OSMA would continue to own and operate the museum and be the lead organization responsible for the long-term protection of its structures, landscape features, archeological resources, and collections. As a unit of the National Park System, the historic site would be required to comply with NPS policies and standards. Through its cooperative agreement with the National Park Service, OSMA would have access to the operational support and technical assistance in the provision of visitor services, development of interpretive media and exhibits, and preservation of the site's resources.

Interpretation and Visitor Services

The Corridor would continue to exist independent of this NPS unit. The park could work in partnership with the Corridor or any one or more organizations engaged in the

preservation/ interpretation of industrial heritage resources and their context. While the park's interpretive focus would be the region's industrial heritage, the Corridor would take the lead in interpreting other facets of the Blackstone River Valley's history and development.

Finance

If authorized, funding for this proposed new unit of the National Park Service would be available through the operating budget of the National Park Service. Federal assistance funds would require a match.

Legislative Requirements

Legislation authorizing the establishment of a new unit of the National Park System would be required.

Cost Estimates

Annual Costs

Operations (salaries and other operational costs)

\$1,100,000

One-Time Costs

Research (HRS, CLRs, HSRs, NRHP docs)

\$250,000

Planning (GMP/Preservation Plans)

\$450,000

Construction/Rehabilitation (Create/Outfit flexible program space and offices at Blackstone Valley Visitor Center; preservation assistance to OSMA)

\$2,000,000

Upgrade Exhibits at gateway visitor centers

\$250,000

Research could include the completion of a Historic Resource Study (HRS), Cultural Landscape Report (CLR), Historic Structures Report (HSR), and updated National Register documentation. Planning would include the development of a general management plan (GMP) and a preservation plan. Remaining one-time costs would address upgrading existing exhibits and creating flexible program and office space at the Blackstone Valley Visitor Center.

Management Option 3. Blackstone River Valley Industrial Heritage National Historical Park

Concept

This management option envisions that a new unit of the National Park System would be created by an act of Congress. The new unit would include specific nationally significant sites and districts located within the Blackstone River Valley that possess high resource integrity and effectively convey the industrial heritage themes of the Valley. The park would engage in visitor programs and resource protection primarily for the sites and districts that would be named in potential legislation establishing the park including:

- Old Slater Mill National Historic Landmark District, Pawtucket, RI
- Slatersville Historic District, North Smithfield, RI
- Ashton Historic District, Cumberland, RI
- Whitinsville Historic District, Northbridge, MA
- Hopedale Village Historic District, Hopedale, MA
- Blackstone River and its tributaries
- Blackstone Canal

The non-contiguous historic districts named above and as depicted on maps found in Chapter Two: Historical Overview and Resource Description would form the boundary of the proposed park unit.

These areas of national significance and NPS interest are where potential acquisition could occur in full or partial-fee. Properties in which NPS acquires a partial interest (e.g., a preservation easement) could also be cooperatively managed if appropriate. The following properties are possible candidates for full or partial-fee acquisition by NPS:

- Old Slater Mill National Historic Landmark District, Pawtucket, RI
- Blackstone River State Park, Kelly House/ Old Ashton segment, Lincoln, RI (adjoins Ashton Village Historic District in Cumberland, RI)
- Centennial Memorial Park, Slatersville, North Smithfield, RI
- The Parklands, Hopedale, MA
- Castle Hill Farm, Whitinsville, Northbridge, MA

The NPS may also seek to acquire and develop other locations in the village historic districts for interpretive purposes (e.g., a residence could be acquired and developed

to interpret a mill worker's daily life). The NPS may also acquire properties along the Blackstone River and Canal that are historically significant or that provide for continuous linkage, supporting public access, and resource protection. A General Management Plan would be developed for the park that identifies priorities for acquisition (full fee or partial fee), and protection and public use of the resources. Any NPS acquisition would occur on a willing-seller basis, and properties currently in public ownership could be acquired only by donation.

In addition to land acquisition authority, within the park's authorized boundaries NPS would have the authority to enter into cooperative agreements to provide assistance for resource protection and interpretation. The park would also be authorized to provide interpretive assistance to thematically-related resources located throughout the Corridor.

The National Historical Park would be operated by the National Park Service in cooperation with a regional partner that could be specifically identified in the park's enabling legislation and with other local management partners, as appropriate. The NPS would be authorized to enter into a cooperative agreement with the regional partner to undertake activities that support the purposes of the park. The regional partner would assume a lead role in preserving, protecting, and interpreting related industrial heritage resources throughout the Corridor that fall outside of the park's boundary, as well as the region's larger rural and agricultural landscape. The regional partner is likely to be Blackstone River Valley National Heritage Corridor, Inc. ("Blackstone Corridor, Inc."), a newly formed 501(c)3 non-profit organization that will assume responsibility for the Corridor after the Commission expires in October 2011.

Visitor Experience

The visitor experience could begin at any one of the four pre-existing gateway facilities at key locations in the Blackstone River Valley:

- The Blackstone Valley Visitor Center, Pawtucket, RI
- Captain Wilbur Kelly House, Blackstone River State Park, Lincoln, RI
- The Museum of Work and Culture, Woonsocket, RI
- River Bend Farm/ Blackstone River and Canal Heritage State Park, Uxbridge, MA

A fifth gateway facility is planned and presently under development in Worcester, MA.

Each gateway facility would offer a uniform orientation exhibit introducing visitors to the park's sites and districts as well as the larger context of the Blackstone River Valley. Visitors would also be made aware of the Blackstone River Bikeway, river access along the Blackstone River and its tributaries, local trails, and other opportunities to view and experience the region's industrial heritage resources.

Visitors would be greeted by NPS or museum staff or volunteers and would be able to view an exhibit orienting them to the industrial heritage of the entire Blackstone Valley and introducing them to the major components of the park. They would also be able to obtain park brochures and other publications.

While visitors would be made aware of the historical sequence of events in the Blackstone River Valley's development and influence, they would be able to develop their own itinerary for their visit. For example, computer terminals could be available at each visitor facility, allowing visitors to plan their trip based on individual interests, time constraints, etc.

At the park's sites and districts, visitors could participate in guided or self-guided walking tours enhanced by interpretive waysides and/or an audio presentation and, at some locations, view indoor interpretive exhibits highlighting some facet of the Blackstone Valley's industrial heritage. Uniformed park rangers and volunteers would be present and would offer regularly scheduled park programs. The development of interpretive media such as directional signage, interpretive waysides, published guides and brochures, and audio tours would be supported by NPS and could be undertaken in partnership with others.

National Park Service/ Federal Role

NPS Ownership

NPS ownership would be limited to those structures or sites within the boundary of the park that are appropriate and necessary for preservation, rehabilitation, and interpretation as they relate to the purposes of the park. For instance, NPS might consider the direct acquisition of a residential property to develop an interpretive exhibit on mill housing. NPS may also acquire properties along the Blackstone River and Canal that are historically significant or that provide for continuous linkage, supporting public access and resource protection.

NPS would also seek the conveyance of preservation easements on key historic properties and open spaces with-

in the park boundary, such as the Old Slater Mill National Historic Landmark District, on a willing-seller basis or by donation.

Other acquisition could be undertaken in full or partial fee and would likewise be on a willing seller basis. The development of NPS facilities in the Corridor could also be accomplished through long-term lease or cooperative agreements with existing owners and managers. These facilities could include the gateway visitor facilities and administrative office space for park headquarters in Woonsocket, Rhode Island.

Resource Protection

Because much of the property within the boundary of the park would remain in private hands, the park and its regional partner would work in partnership with the local community and property owners to ensure the long-term protection of these resources. At a minimum, NPS would provide assistance to support the creation of local historic districts that would be overseen by the local historical commissions. The park, its regional partner, and the affected communities would work together to develop a preservation plan for each site or district within the park boundary. Eligibility for further assistance would require consistency and compliance with the approved General Management Plan and the relevant preservation plan. NPS would have the authority to enter into cooperative agreements with state and local governments and agencies as well as private interests for resource protection and interpretation.

The potential National Historical Park and its regional partner would collaborate in the development of a General Management Plan (GMP) for the park that would also result in a strategic plan guiding the related work of the regional partner. The park would work collaboratively with its regional partner to support and enhance existing visitor facilities and certain recreational amenities that have been developed over time as gateways to and pathways through the Blackstone Valley. The park and its regional partner would also take steps to encourage the long-term protection of related resources that are outside of the park's boundary or authorities, such as the Blackstone Valley's larger rural landscape, the Blackstone River and Canal, and the many remnant industrial heritage resources located throughout the area. The GMP would identify priorities for land acquisition and would provide long-term policy guidance for park operations and development.

Interpretation & Visitor Services

The NPS would play a substantial role in the development and delivery of interpretive and educational programs, including an NPS ranger presence in the park's sites and districts. NPS would work with local private and public partners to enhance interpretive media and visitor facilities.

Under this management option, the park would take advantage of the existing visitor facilities and amenities throughout the Blackstone Valley. The visitor facilities at Pawtucket, Woonsocket, and Lincoln, Rhode Island, and at Uxbridge in Massachusetts would all function as orientation centers. A uniform exhibit orienting visitors to the Blackstone Valley's overall context and the park's sites and districts would be developed and installed at each venue. NPS staff and volunteers may provide limited visitor services support at these locations.

At sites or in districts where little visitor infrastructure exists, the park would work collaboratively with the local community to introduce signage, interpretive exhibits, brochures, and other visitor amenities to ensure a positive and interesting visitor experience. The National Park Service may directly acquire one or more appropriate properties to be developed for interpretive, visitor services, and/or administrative purposes.

The park and its regional partner would work with state and local agencies to support the development of the Blackstone River Bikeway and other alternative transportation opportunities that link the park's sites and districts and ties them into the greater Blackstone Valley. The park would work with state and local agencies to encourage the use of interpretive media (e.g., signage; podcasts, etc.) on recreational routes through the Corridor. The park would also support continuing local efforts to improve water quality in the Blackstone River and Canal and to encourage their recreational use.

Role of the Regional Partner and the Blackstone River Valley National Heritage Area

The National Park Service would enter into a cooperative agreement with the regional partner to enable their collaboration to advance the purposes of the park.

Resource Protection

The regional partner would assume a leadership role along with the National Park Service in working with local

communities and other key partners to develop the General Management Plan for the park and preservation plans for the park's sites and districts. One of the principal roles of the regional partner in this context would be to serve as a convener and a bridge to enhance communication among the park, community residents, local and state agencies, and other key stakeholders.

The regional partner would take the lead in pursuing the long-term protection of the Blackstone River Valley's larger rural landscape, the Blackstone River and Canal, and remnant industrial heritage resources and would work collaboratively with NPS to complete the inventories and evaluations necessary to identify priorities for protecting the valley's larger rural landscape and remnant industrial heritage resources. The regional partner would also provide assistance to related industrial heritage resources in the Blackstone Valley. NPS would work with its regional partner to create a strategic plan identifying priorities, strategies, and actions necessary to protect these resources.

NPS and its regional partner would support continuing local efforts to improve the water quality in the Blackstone River and Canal and work with state and local agencies to ensure that the historic industrial infrastructure located in and along the river (e.g., locks, gates, and dams) and their historic values are considered in any proposals for change and development along the river corridor.

In its capacity as the management entity for the Corridor, the regional partner would continue to advocate for the identification, protection, and interpretation of resources that represent the many other facets of the Blackstone River Valley's heritage (e.g., Native American culture and history, early settlement, transportation, etc.).

Interpretation & Visitor Services

The regional partner would take a leadership role in offering visitor programming in other areas of the Blackstone Valley possessing resources that support park themes or are otherwise relevant to the park's purposes (e.g., collaboration on special events, guided walking tours, development of visitor guides, etc.). Working within state curriculum guidelines and in collaboration with local school districts, the regional partner and NPS would build on existing efforts to conduct educational outreach and provide programming to local schools.

The regional partner, in its capacity as the management entity for the Corridor, would also continue to work with

a wide range of interests in the Blackstone River Valley to interpret its rich and complex history.

Finance

Funding for this potential new unit of the National Park System would be requested and authorized through the operating budget of the National Park Service. The regional partner identified in the proposed park's authorizing legislation would also be eligible to receive assistance for its work in support of the purposes of the park.

Legislative Requirements

Legislation authorizing a new unit of the National Park System and designating a regional partner as a formal park partner would be required.

Cost Estimates

Annual Costs

Operations (salaries and other operational costs)

\$3,500,000

One-Time Costs

Research (HRS, CLRs, HSRs, NRHP docs)

\$815,000

Planning (GMP/Preservation Plans)

\$1,100,000

Construction/Rehabilitation (Rehab/Reuse structures at 4 locations)

\$4,000,000

Exhibits (Develop/Install uniform orientation exhibits at 4 existing VCs)

\$200,000

Research could include the completion of a Historic Resource Study (HRS), Cultural Landscape Reports (CLR) for each site or district, Historic Structures Reports (HSR) for buildings anticipated to be rehabilitated for interpretive use within the historic districts, and updated National Register documentation. Planning would include the development of a General Management Plan (GMP) and a series of preservation plans that would address the specific preservation requirements of each site or district. Remaining one-time costs address developing and installing uniform orientation exhibits at four existing visitor centers and creating rehabilitating structures at up to four locations for interpretive purposes.

Other Recommendations

During the course of the study process, the study team made other observations that did not directly apply to this particular assessment of the Blackstone River Valley, but that do merit further consideration. These recommendations could have broader implications for the Blackstone River Valley and beyond.

Industrial History Theme Study

The National Park Service should consider updating the 1966 Industrial History Theme Study to reflect contemporary interpretations of the nation's industrial development and consider the varying pathways to industrialization as articulated by Walter Licht of the University of Pennsylvania and others. In recent years, NPS has undertaken many studies considering the possible inclusion of industrial heritage resources in the National Park System. With each of these efforts, the study team has been confronted with the same set of questions relative to evaluating national significance. An updated Industrial History Theme Study would provide the necessary context for consistent evaluation of these resources.

Native Americans in Southern New England Study

The Blackstone River Valley was a cross road for commerce and communication among a number of Southern New England tribes, many of which are federally recognized. These Native American communities continue to be part of the historical, social, political, and economic fabric in the region. Their influence is evident in the pattern of Native American and colonial settlement, regional conflict (King Philip's War), agriculture, regional road systems, etc. While it is assumed by many that Native Americans simply disappeared from the region centuries ago, Indian tribes relate that they were part of the social and economic fabric of the region after King Phillip's War, and were important participants in the economy that grew up in the Valley. NPS should consider undertaking a collaborative research project to document this history and the ongoing legacy of the tribes in the Blackstone Corridor and surrounding areas of Southern New England.

Alternatives Considered but Dismissed

Designating the Blackstone River Valley as a whole as a unit of the NPS

The study team considered but dismissed the possibility of designating the Blackstone River Valley as a whole as a unit of the NPS, due to feasibility considerations related to administration and resource protection in a large geographic area, where there would be limited public ownership and a substantial and complex overlay of jurisdictions.

Reauthorization of the Corridor Commission and making it a permanent federal body

The study team considered but dismissed the possibility of designating the Commission as a permanent federal body, because Public Law 109-338, the John H. Chafee Blackstone River Valley National Heritage Corridor Reauthorization Act, was clear in extending the Commission's authority only until October 2011. Any extension of the Commission's authority beyond that date would need to be congressionally initiated.

Creating a National Park unit with multiple units and having an advisory/operating commission similar to that at Keewenaw National Historical Park

The study team considered but dismissed the possibility of creating a park with an advisory/operating commission, due to concerns about the clarity of roles and responsibilities and additional layers of bureaucracy that such a management structure seemed to imply.

Creating a Bi-State National Historic Reserve, as an affiliated area of the National Park System

The study team considered but dismissed the possibility of creating a bi-state national historic reserve as an affiliated area of the National Park System, because existing fiscal conditions, combined with concerns about a lack of a proposed federal body to provide cohesion between the states, made such a proposal unworkable.

Blackstone River Valley Industrial Heritage Network

The study team considered but dismissed the possibility of establishing a permanent program that would recognize

industrial heritage resources throughout the Valley and provide assistance for their long-term protection and interpretation. This alternative was presented to the public in a June 2010 newsletter and at subsequent public meetings in July. The resulting feedback indicated that there was little to no support for this alternative and that it was a source of great confusion within the context of the Corridor. It was difficult to distinguish between the roles of the network and the Corridor.

Blackstone River Valley Pathway to Industry National Historical Park

The study team considered but dismissed the possibility of establishing a unit of the National Park System that would encompass Old Slater Mill, Slatersville, and Ashton (all in Rhode Island). This alternative was presented to the public in a June 2010 newsletter and at subsequent public meetings in July. Comments received at this time highlighted the limited scope of this alternative and its failure to address the later period of development in the Blackstone River Valley's industrial history.

Environmentally Preferred Alternative

The NPS is required to identify the environmentally preferred alternative in its NEPA documents for public review and comment. The NPS, in accordance with the Department of the Interior policies contained in the Departmental Manual (516 DM 4.10) and the Council on Environmental Quality's (CEQ) NEPA's Forty Most Asked Questions, defines the environmentally preferred alternative (or alternatives) as the alternative that best promotes the national environmental policy expressed in NEPA (Section 101(b) (516 DM 4.10). In their Forty Most Asked Questions, CEQ further clarifies the identification of the environmentally preferred alternative, stating "Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources" (Q6a).

Management Option 3: Blackstone River Valley Industrial Heritage National Historical Park would be considered the Environmentally Preferred Alternative for the following reasons:

- This management option best supports the project goals articulated in Part One of the study. These goals call for a regional approach to protecting

and interpreting industrial heritage resources, thus addressing the protection of the natural, cultural, recreational, and scenic values that provide its context and the connections among non-contiguous resources.

- Through the proposed relationship with a regional partner that would be tasked with working beyond the park boundary, this management option offers the greatest opportunity for NPS to support **both** interpretive and protection efforts throughout the Blackstone Valley; and could bring about a greater level of resource protection; and could foster a greater level of public understanding and appreciation of these resources than either Management Options 1 or 2.

Most Efficient and Effective Alternative

In addition to being considered the Environmentally Preferred Alternative, Management Option 3: Blackstone River Valley Industrial Heritage National Historical Park, is also considered to be the "Most Efficient and Effective Alternative." The partnership approach described under this management option would increase the potential for preservation, restoration, and rehabilitation of industrial heritage resources throughout the Blackstone River Valley. In addition to enhancing the climate for resource protection, this management option also maximizes opportunities for a more complete understanding of the significance of the Samuel Slater and the Rhode Island System of manufacture and its role in the industrial development of the United States.

The partnership nature of this management option would foster greater opportunities to work with state and local governments, non-profits, and academic institutions to engage in collaborative research. It would also provide for further leveraging of federal financial contributions for resource protection and interpretation with matching state, local, and private financing.

Under this management option, visitors would continue to be provided an integrated resource-based experience in which individual sites would provide coordinated and integrated interpretive programming. This integrated approach is the best way to convey the story of the emergence of the American textile industry as it evolved in the Blackstone River Valley and influenced the course of American industrial history.



CHAPTER FIVE: Environmental Consequences

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National Park Service policy requires that special resource studies be subject to the requirements of the National Environmental Policy Act of 1969, as amended (NEPA) and its implementing regulations (36 CFR 1500-1508), and Director's Order #12, *Conservation Planning, Environmental Impact Analysis, and Decision-Making* (2001), and accompanying Handbook. This document also fulfills the requirements of Section 106 of the National Historic Preservation Act of 1966, as amended (NHPA), and has been prepared in accordance with the implementing regulations of the Advisory Council for Historic Preservation (36 CFR Part 800) and NPS Director's Order #28: *Cultural Resources Management* (DO-28) and accompanying Handbook. Since a study presents management alternatives at a broad level, the EA is similarly broad and the analysis is general in nature. Implementation of any action alternative would come only after action by Congress, and in the event that Congress authorizes the National Park Service to implement an alternative, the first order of business would be a general management planning process.

A complete description of the Affected Environment and its historical context may be found in Chapter Two: Historical Overview and Resource Description.

Impact Topics Considered

The National Environmental Policy Act requires that agencies consider whether a number of different possible issues require detailed analysis as impact topics. They cover a wide variety, ranging from air quality to threatened and endangered species to socioeconomic conditions. Impact topics are resources of concern that could be affected, either beneficially or adversely, by implementing any of the proposed alternatives. Impact topics were identified on the basis of federal laws, regulations, Executive Orders, NPS Management Policies, 2006, and NPS knowledge of resources. The following impact topics are considered and analyzed in this document:

- cultural resources
- natural resources
- visitor use and experience
- socioeconomic environment

For a detailed description of these resources, please refer to Chapter Two: Historical Overview and Resource Description.

Cumulative Impacts

Cumulative impacts are defined as “the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (federal or nonfederal) or person undertakes such other actions” (40 CFR 1508.7). Cumulative impacts are considered for all alternatives, including the no-action alternative.

Impact Topics Dismissed from Further Consideration

Air quality: Motor vehicle emissions, industries, agricultural practices, and other inputs that have an effect on air quality are not expected to change as a result of any of the proposals in this study.

Hazardous Materials: Implementation of any of the alternatives is not expected to result in exposure of any population to hazardous materials.

Energy: The action alternatives presented in this document subscribe to and support the practice of sustainable planning and design in part by preserving existing sites. Although the alternatives would not significantly affect the use of energy, fuel consumption may increase from the possibility of increased traffic to the sites. This increase is negligible, so energy issues have been dismissed from further analysis.

Environmental Justice in Minority or Low-Income Populations: The proposed actions do not negatively impact minority or low-income populations, who may in fact experience negligible beneficial impacts through increased employment provided and education by the action alternatives.

Sacred Sites: No sacred sites have been identified at the sites, so the topic has been dismissed from further analysis.

Indian Trust Resources: No Indian Trust resources exist at the sites proposed for inclusion, so the topic was dismissed.

Public Health and Safety: Implementation of some of the proposed actions could potentially benefit public health. The alternatives would preserve agricultural land and open space, which would contribute to improved health and recreational opportunities. Providing financial assistance for

the preservation, protection, enhancement, and maintenance of resources would improve working conditions for employees and the safety of visitors. However, because the benefits to public health and safety would be minor, they have been dismissed from further analysis.

Environmental Consequences

This section assesses the potential impacts of implementing any of the management options in this study on the impact topics described above. A description of the management options is presented first, followed by a brief description of how impacts were determined, a chart that defines the impact intensities used to measure potential impacts, and a table that presents the impact analysis by alternative, so that impacts can be compared between management options. The planning team based the impact analysis and conclusions on the review of existing research and studies and site reconnaissance.

Methodology for Assessing Impacts

The impact analysis was developed by planning team members, who drew on knowledge of current conditions, existing literature and studies, information from other professionals, and input from the public. As required by NEPA, potential impacts are described in terms of type, context, duration, and level of intensity. These terms are defined below.

Type of Impact

Impacts can be beneficial or adverse. Beneficial or positive impacts would improve resource conditions while adverse impacts would deplete or negatively alter resources.

Context

Context is the setting within which an impact occurs and can be site specific, local, or region-wide. Site-specific impacts would occur at the location of the action, local impacts would occur within the general vicinity of the project area, and region-wide impacts would extend beyond the study area's boundaries.

Intensity

Impact intensity is the degree to which a resource would be adversely affected. Because level of intensity definitions

(negligible, minor, moderate, major) varies by resource, separate definitions are provided for each impact topic analyzed. The criteria that were used to rate the intensity of the impacts for each resource topic is presented below under "impact thresholds". Beneficial impacts do not receive intensity definitions.

Duration

Duration is a measure of the time period over which the effects of an impact persist. The duration of impacts can be either short-term or long-term. A short-term impact would be temporary in duration and would be associated with construction. Depending on the resource, impacts would last as long as construction was taking place. Long-term impacts last beyond the construction period, and the resources may not resume their pre-construction conditions for a longer period of time following construction. Impact duration for each resource is unique to that resource and is presented for each resource topic.

The following table characterizes the impact intensity, or the degree to which a resource may be affected by the actions contained in any of the alternatives.

An environmental analysis typically considers the impacts of any proposed change relative to the status quo or existing conditions. In evaluating the impacts of the proposed management options in this study, it is important to note that the change that suggests the greatest level of impact occurs in Management Option 1, the status quo alternative. Management Option 1 describes the current operating circumstances for the Corridor and the conditions expected once the Commission expires. This analysis will consider the impacts of Management Option 1 both pre- and post- expiration of the Commission. The pre-expiration component of Management Option 1 and the proposals for a continued federal presence in the Blackstone River Valley through the designation of an NPS unit in Options 2 and 3 have similar impacts at slightly different scales. It is also important to note that the National Heritage Corridor would continue to exist under new management and could continue to have an influence over natural and cultural resources, the visitor experience, and socioeconomic conditions; however, it would no longer be overseen by a federal commission or staffed by the National Park Service.

Intensity of Impact	Natural Resources	Cultural Resources	Visitor Use & Experience	Socioeconomic Resources
Negligible	Impact localized and not detectable, or at lowest levels of detection.	Impact barely perceptible and not measurable. No evident consequences, either adverse or beneficial.	Visitors would not detect or be affected by changes. Impact would be short-term.	Impact on the regional and local economy would not be measurable.
Minor	Impact localized and slightly detectable but would not affect overall structure of natural community.	Impact would be perceptible or measurable, but slight and localized. Action would not affect character or diminish features of eligible site. No permanent effect on integrity of resources.	Changes would be detectable, but slight and short-term. Visitors would be aware of impacts.	Impact would be barely measurable and affect only small sector of economy. Consequences of actions not readily apparent
Moderate	Impact clearly detectable; could appreciably affect individual species, communities, or natural processes.	Impact would be perceptible and measurable. Action would change a character-defining feature of a resource, but not eliminate integrity.	Changes would be apparent and likely long-term. Visitors would be aware of impacts and would likely be able to express opinions about changes.	Impact would be clearly measurable and affect a sector of local or regional economy. Adverse impacts would not threaten economic sectors, and beneficial impacts would not produce noticeable structural shifts.
Major	Impact highly noticeable; would substantially influence individuals or groups of species, communities, or natural processes.	Impact would be substantial, discernible, measurable, and permanent. Adverse impact could change a character-defining feature making resource no longer eligible for National Register.	Changes would be apparent, severely adverse or exceptionally beneficial; would have important long-term consequences. Visitor would be aware of the impacts and would likely express strong opinion.	Impact would be readily apparent and cause appreciable shifts in regional and local economy, either adverse or beneficial.

Impact Analysis

Management Option 1: John H. Chafee Blackstone River Valley National Heritage Corridor

Summary of Management Option

Under this option, no new unit of the National Park System would be created. The Commission would continue under its present authorities until it expires at the end of its current authorization in October 2011. The National Park Service would no longer provide staff to the Corridor.

After the Commission expires, a new management entity, the Blackstone River Valley National Heritage Corridor, Inc., would assume responsibility for managing the Corridor. The new management entity would assume many

of the functions previously undertaken by the Commission but would no longer receive operating support and staff from the National Park Service.

Natural Resources:

Pre-Expiration: Over the last nearly 25 years, the Commission has served as an advocate, coordinator, and convener for regional efforts to clean up the Blackstone River and improve public access to and use of the Corridor. Water quality, public access, and use of the river continue to improve. The Commission has also conducted a natural resources inventory that enhances local efforts to protect the region's natural resources and prioritize open space acquisition. Historically, those efforts have had a beneficial impact on the Valley's natural resources.

Post-Expiration: The new management entity for the Corridor could continue to perform the roles of advocate,

convener, and coordinator. In the absence of federal staff and a regular source of operating funds, the involvement and influence of the Corridor in these efforts could decline.

The shift in management for the Corridor could slow progress in many natural resource initiatives but would not eliminate them. The presumed impacts on natural resources in the region would continue to be positive, if negligible. The actual outcome will depend on the long-term strength of the new management entity.

Cultural Resources:

Pre-Expiration: Over the last nearly 25 years, the Commission has served as an advocate, coordinator, and convener for historic preservation, land protection, and Smart Growth, all in an effort to influence both public and private sector support for the resources that underlie the Blackstone River Valley's national significance. The Commission has conducted research, provided planning and preservation assistance, and undertaken demonstration projects in support of cultural resource protection objectives. The Commission has also supported the development of an extensive oral history program. Many of the technical and financial resources necessary to support these undertakings came directly through NPS programs and staff. Historically, they have had a beneficial impact on the Valley's cultural resources.

Post-Expiration: The new management entity for the Corridor could continue to perform the functions of advocate, convener, and coordinator for these initiatives. It could apply to existing NPS programs for assistance. However, in the absence of the NPS professional staff, their ability of the new entity to provide assistance to state and local agencies and their network of partners would be limited—at least until the management entity develops its own capacity for delivering such services.

Under the new management entity, cultural resource protection activities, particularly the oral history initiative and other projects that were previously undertaken by Commission staff, could suffer. The presumed impacts on cultural resources in the valley would continue to be positive, if negligible. The actual outcome will depend on the long-term strength of the new management entity.

Visitor Use & Experience

Pre-Expiration: Over the last nearly 25 years, the Commission has undertaken efforts that have enabled local residents and visitors to understand and appreciate the national significance of the Blackstone River Valley. A region-wide identity project using a system of logos, signage, and banners unifies the Valley while highlighting its individual resources. The oral history effort resulted in a video series, *Along the Blackstone*, highlighting different facets of the region's historic and contemporary communities. The presence of NPS interpretive rangers has contributed to the creation of a cohesive visitor experience in the Blackstone River Valley. The Commission also worked closely with state agencies to advance the development of recreational facilities (e.g., Blackstone River Bikeway). Historically, they have had a beneficial impact on the valley's visitor use and experience.

Post-Expiration: In the absence of NPS visitor services staff, the role of the Corridor would likely shift from being a provider of visitor services to being an advocate, convener, and coordinator for those who would continue to provide those services. The Corridor could apply to existing NPS programs and others for funding and assistance to advance visitor programming. It could also continue to maintain a regional perspective and encourage visitor service providers to operate within a valley-wide context rather than in isolation.

Under the new management entity, some visitor services activities could suffer—particularly those that were undertaken exclusively by NPS staff. The presumed impacts of this transition on visitor use and experience in the valley could be negative, and may be moderate in scope. The actual outcome will depend on the long-term strength of the new management entity.

Socioeconomic Environment

Pre-Expiration: Over its nearly 25-year history, the Commission's efforts have enabled local residents and visitors to understand and appreciate the national significance of the Blackstone River Valley. The identification and promotion of a regional identity for the Blackstone River Valley, as well as the protection and interpretation of the valley's resources have contributed to an improved economic outlook and enhanced quality of life in many valley communities. Federal investments in support of Corridor

objectives were leveraged to a significant degree, resulting in public/ private investments in excess of \$500 million since the creation of the Commission. In many communities, historic mill buildings have been repurposed for use as commercial or residential space with the support and assistance of Commission staff. Staff members continue to work collaboratively with state and local stakeholders to address issues associated with sustainable planning and development practices, creation of recreational corridors, and preservation of important regional resources. Historically, they have had a substantial, beneficial impact on the valley's socioeconomic environment.

Post-Expiration: The new management entity for the Corridor could continue to promote the Blackstone River Valley's regional identity and advocate for the protection, interpretation, and development of its natural, cultural, and recreational assets. However, with increasingly limited federal money to fuel their involvement in local initiatives, their ability to leverage additional public and private funds could be hampered and their positive impact on the region's socioeconomic environment could be diminished.

Given sufficient funds and staffing, the new management entity could continue to spearhead regional initiatives that would support and enhance the socioeconomic environment, though it is unlikely that it would achieve the same scale as its predecessor. The presumed impacts on socioeconomic environment in the valley would continue to be positive, if negligible. The actual outcome will depend on the long-term strength of the new management entity.

Cumulative Impacts

Pre-Expiration/Post-Expiration: Cumulative impacts are similar enough under both scenarios to merit considering them together. Whether under the management of a federal commission or another type of management body, the National Heritage Corridor is directly or indirectly engaged in any number of initiatives that are undertaken by other federal, state, or local agencies, and private enterprise that have the effect of supporting of its goals and objectives. A list of regional initiatives may be found in Chapter One: Study Purpose and Background.

The Commission presently has the authority to comment on any federal activity that may have an influence on conditions within the Corridor. The new management entity could seek to fulfill a similar function.

The management entity for the Corridor has and would continue to play a moderating role in mitigating the negative impacts that may be imposed by other initiatives in the region and in supporting the benefits that likewise may be derived by other regional initiatives. In this way, the management entity of the Corridor has and would continue to limit any negative cumulative impacts.

Management Option 2: Old Slater Mill National Historic Site

Summary of Management Option

Under this option, the Old Slater Mill National Historic Landmark District would be considered as a potential unit of the National Park System. The site would continue to be owned by the Old Slater Mill Association (OSMA), though NPS would acquire a preservation easement on the property to ensure its long-term preservation. The NPS would enter into a cooperative agreement with OSMA in support of the operation and management of the site.

NPS would be authorized to provide assistance to industrial heritage resources throughout the Valley and to agencies and organizations engaged in the protection and interpretation of the Blackstone River and its tributaries, Blackstone Canal, and the larger rural landscape as well as those working on the development of recreational trails that link industrial heritage resources.

Natural Resources

The focus of this alternative is on the Old Slater Mill National Historic Landmark (NHL) district and fostering an understanding and appreciation of the region's industrial heritage through interpretation of thematically related resources Valley-wide.

A segment of the Blackstone River runs through the NHL district, NPS would work with the Old Slater Mill Association (OSMA) to continue to protect both the natural and cultural features associated with this segment of the river and would collaborate with others to improve its water quality.

The significance of the river system would be interpreted throughout the Blackstone River Valley in terms of both industrial and environmental history. Interpretive themes related to the natural resources in the valley would rein-

force the efforts of those involved in their restoration and protection.

At the Old Slater Mill site, this management option could have a positive, direct impact on natural resource protection through actions taken to protect this segment of river. Valley-wide, its impact would be positive, moderate and indirect.

Cultural Resources

Old Slater Mill has been maintained and operated by OSMA since 1921 and was designated an NHL district in 1966. A considerable amount of preservation work has been undertaken by OSMA independently and in collaboration with the Corridor and the NPS.

Under this management option NPS would acquire a preservation easement on the Old Slater Mill property to ensure its long-term protection and availability to the American public. NPS would also continue to provide support for the protection of the character-defining features of the NHL district. This management option would be of positive, long-term benefit to Old Slater Mill and would represent a negligible or minimal impact to the current state of the cultural resources there.

Through its Valley-wide interpretive outreach, this management option could foster continued recognition and appreciation of related industrial heritage resources, thereby encouraging their stewardship. This would build upon the previous efforts of the Commission and those of the new management entity to likewise protect the region's cultural resources. This management option would be of positive, long-term benefit to the region's cultural resources and would represent a negligible or minimal impact to the current condition of the region's cultural resources.

Visitor Use & Experience

Old Slater Mill presently offers a regular schedule of visitor and school-based programming as well as static exhibits. A visitor center located directly across the street is available to orient visitors to the Blackstone River Valley.

Under management option 2, the National Park Service would work with OSMA, the City of Pawtucket, and others to recast the existing regional orientation center as a park visitor and education facility. This would offer a more intensive orientation to Old Slater Mill and allow for ex-

panded exhibits and programming. Both NPS and OSMA employees and volunteers would provide programming at the visitor center/ education facility and on-site at the mill complex. Visitors would benefit from an expanded menu of programs and activities.

Region-wide interpretation of the Blackstone River Valley's industrial heritage resources would be similar to what visitors presently experience. Printed guides for walking tour, signage, and other interpretive media would continue to be maintained in collaboration with the Corridor management entity and the communities. NPS ranger staff would continue to offer scheduled walking tours, lectures, and other events throughout the Blackstone River Valley.

Under management option 2, there is likely to be a positive, long-term impact on the visitor experience in Pawtucket. Valley-wide, the impact would continue to be positive, but there would be negligible to minimal change to the existing condition.

Socioeconomic Environment

The projected impacts of Management Option 2 combined with the continued existence of the National Heritage Corridor would not have an appreciable impact on the socioeconomic environment beyond what is described in Management Option 1.

Cumulative Impacts

On a region-wide basis, the cumulative impacts under this management option are likely to be similar to those described under Management Option 1. Within the context of the Old Slater Mill National Historic Landmark District, the contribution of NPS is likely to result in an incremental benefit with regards to the cumulative impacts of multiple actors.

Management Option 3: Blackstone River Valley Industrial Heritage National Historical Park

Summary of Management Option

This option envisions the creation of a new unit of the National Park System that would include specific sites and districts located in the Corridor. Within the named historic districts and/or along the Blackstone River and Canal, certain areas of national significance and NPS interest could

be acquired in full or less-than-full fee by NPS. Acquisition would be on a willing seller basis.

NPS would work collaboratively with a legislatively named regional partner and others to support the interpretation and long-term protection of contributing resources within the named historic districts and along the Blackstone River and Canal. Through a cooperative agreement with NPS, the regional partner would provide assistance to that end in the following areas: planning, preservation, interpretation, and development.

NPS would also work with the regional partner to seek the interpretation and long-term protection of related resources that are outside of the park's boundary including the Blackstone River Valley's larger rural landscape and remnant industrial villages.

Natural Resources

The areas of emphasis for this management option include Old Slater Mill Historic Site & Museum in Pawtucket, historic districts in Slatersville, Ashton, and segments of the Blackstone River State Park, all in Rhode Island; and historic districts in Whitinsville and Hopedale in Massachusetts. The Blackstone River and Canal are also highlighted. All of these locations intersect with rivers, and in some cases, reservoirs, within the Blackstone River watershed.

As feasible, NPS would work with local and state agencies and private enterprise to protect the natural and cultural features of these waterways and to improve their water quality. The significance of the river system would be interpreted throughout the Blackstone River Valley both in terms of environmental and industrial history.

Under this management option, NPS would work with a legislated regional partner (also the management entity for the NHC) that would assume the lead in undertaking resource protection and rehabilitation projects throughout the Valley.

Actions proposed under this management option would have a positive, moderate impact on natural resources and would encourage their protection valley-wide.

Cultural Resources

As is the case for natural resources, the areas of emphasis for this management option include Old Slater Mill

Historic Site & Museum in Pawtucket, historic districts in Slatersville, Ashton, and segments of the Blackstone River State Park, all in Rhode Island; and historic districts in Whitinsville and Hopedale in Massachusetts. The Blackstone River and Canal are also highlighted.

Under this management option NPS would acquire a preservation easement on the Old Slater Mill property to ensure its long-term protection and availability to the American public. NPS may also acquire other key historic structures and open space in the areas described above. These historic structures and open spaces would be preserved and interpreted in support of the park's interpretive themes. NPS would also continue to provide support for the protection of the character-defining features of within these areas. This management option would be of positive, long-term benefit to Old Slater Mill and other sites and districts associated with the proposed park, and would represent a positive impact on the current state of the cultural resources directly influenced by NPS ownership and management.

In collaboration with NPS, the park's regional partner would offer preservation support and assistance to industrial heritage resources throughout the Blackstone River Valley. This would continue the work already undertaken by the existing Commission and would not represent a substantial change from current conditions or practices. This collaboration would continue to be of positive, long-term benefit to the region's cultural resources.

Visitor Use & Experience

Under management option 3, NPS would work with pre-existing visitor facilities and museums to offer a uniform orientation exhibit that would provide an overview of the Blackstone River Valley's industrial heritage and how to experience it. In addition to the orientation exhibits, NPS would collaborate with these organizations to offer programs that support the interpretive themes of the park.

Visitors would also be offered information on programming being offered by the park's regional partner at thematically related industrial-heritage sites throughout the Valley.

As in management option 2, NPS could work with OSMA to offer an expanded menu of programs and activities. Under this management option, NPS would also develop interpretive facilities and install interpretive media in

locations that were previously undeveloped from a visitor experience standpoint. For instance, NPS might acquire a unit of worker housing at Slatersville or Ashton and develop an interpretive exhibit on the lives of millworkers.

The park's legislated regional partner would play a substantial role in development of public information about the park and related sites throughout the Blackstone River Valley. The regional partner would also continue to play a substantial role in developing the Valley's trail network and the Blackstone River Bikeway.

Under management option 3, there is likely to be a positive, long-term impact on the visitor experience at those locations that had previously been undeveloped from a visitor experience standpoint. Access to new facilities and interpretive media as well as regularly scheduled NPS programs would greatly enhance the visitor experience at those locations. Likewise, the potential for a regular NPS presence at Old Slater Mill would enable OSMA to serve more visitors and offer a broader range of programming.

As in management option 2, Valley-wide the impact would continue to be positive, but there would be little to no change to the existing conditions.

Socioeconomic Environment

Like Management Option 2, the projected impacts of Management Option 3 combined with the continued existence of the National Heritage Corridor would not have an appreciable impact on the socioeconomic environment beyond what is described in Management Option 1.

Cumulative Impacts

On a region-wide basis, the NPS would be closely allied with its regional partner and is therefore likely to have a greater incremental benefit in its capacity to influence regional activities that may have an impact on the area. Locally, in the context of the sites and districts that would compose the park, the NPS contribution is likely to result in an incremental benefit with regard to the cumulative impacts of multiple actors.

Impact Topic Areas	Management Option 1: J.H. Chafee Blackstone River Valley National Heritage Corridor Continues to Operate Under Current Authorities	Management Option 2: Old Slater Mill National Historic Site	Management Option 3: Blackstone River Valley Industrial Heritage National Historical Park
Natural Resources	Negligible, positive, long-term (largely regional)	Positive, long-term (largely local)	Positive, long-term (both local and regional)
Cultural Resources	Negligible, positive, long-term (largely regional)	Positive, long-term (largely local)	Positive, long-term (both local and regional)
Visitor Use & Experience	Moderate, negative, long-term (largely regional)	Positive, long-term (largely local)	Positive, long-term (both local and regional)
Socioeconomic	Negligible, positive, long-term (largely regional)	Negligible, positive, long-term (largely local)	Negligible, positive, long-term (both local and regional)
Cultural Impacts	Positive	Positive	Positive

Figure 14: Summary of Environmental Impacts.



CHAPTER SIX: Consultation and Coordination

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Introduction

This chapter describes the required consultation procedures and public meetings and comments related to the preparation of the Blackstone River Valley Special Resource Study.

Notice of Intent

A notice of intent to conduct a Special Resource Study/Environmental Impact Statement was published in the Federal Register on October 6, 2008.

Public Involvement

A public information brochure outlining the study process was posted to the project website, the John H. Chafee Blackstone River Valley National Heritage Corridor (Corridor)'s website, and was made available in brochure racks at the Corridor's visitor centers in 2007. The general public was first made aware of the study process at the Scholars Panel Discussion in February 2008, when a brief introduction to the study process was presented during the opening remarks. The public information brochure was re-issued with an updated schedule in 2009. Also in 2009 a Project Update highlighting the significance findings was created and distributed in a similar manner.

In spring 2008, Ranger Chuck Arning of the Commission produced a 16-minute video presentation entitled *"What's Special about the Valley?"* that described the valley's resources, the scholars' site visit, and the special resource study process. The video was aired at the Commission's Annual Meeting and Awards Ceremony in May 2008 and at numerous other meetings since that time. A 30-minute version of the video is being produced and is expected to air on local cable stations in Rhode Island and central Massachusetts in spring 2010.

A newsletter describing the full range of management options was distributed in June 2010, followed by a series of four public meetings held at various locations throughout the Blackstone River Valley in July 2010. Fourteen hundred copies were distributed via the project mailing list, and a pdf version was made available for download on the project website.

Following the release of the newsletter, a series of public meetings was held on July 7 and 8, 2010. On July 7, meetings were held at Cumberland and Slatersville in Rhode Island; on July 8, the meetings were held at Whitinsville

and Hopedale in Massachusetts. The meetings were publicized in local media as well as through the Corridor's electronic newsletter. Nearly 100 people participated in the meetings. The meetings were also videotaped and edited for broadcast on local cable access stations throughout the Blackstone River Valley. In addition to comments offered by meeting participants, the study team received nearly 40 sets of written comments.

The evening meetings were taped and their content made available on local cable access stations throughout the Blackstone River Valley from July 23 through July 30.

Based on feedback received at the public meetings, and via comment cards, electronic mail, and formal correspondence, a number of key points emerged. They are summarized below:

- There was overwhelming support for the designation of a national park unit in the Blackstone Valley. Roughly two-thirds of respondents indicated their support for a new park unit, a majority of whom expressed particular support for Management Option 3.
- About two-thirds of respondents supported a broader regional/ geographic and thematic scope that considers the many layers of historical and ecological values and embraces the whole Corridor.
- Many respondents expressed their desire to see the river and the canal included within the boundary of the proposed park. The bikeway and the recreational values of the river and canal were also elements for which respondents wanted to see NPS support.
- Several respondents expressed concern that the northern portion of the Valley was not adequately represented in any park proposal.
- There was also substantial and continuing support for a regional, community-based management structure that worked collaboratively in partnership with NPS.
- A number of respondents expressed their support for the Commission and "keeping things the way they are" and felt that keeping the Commission should be among the alternatives considered.

Consultation

Section 106 of the National Historic Preservation Act of 1966, as amended, and National Park Service Management Policies 2006, require formal consultation with State Historic Preservation Offices when special resource studies are conducted. Section 7 of the Endangered Species

Act requires all federal agencies to consult with the United States Fish and Wildlife Service to ensure that any action authorized, funded or carried out by a federal agency does not jeopardize the continued existence of listed species or critical habitat.

Consultation was conducted through the direct involvement of the State Historic Preservation Officers of Massachusetts and Rhode Island or their respective staffs in the evaluation of resources and development of alternatives. Per the direction of the New England Field Office of the U.S. Fish and Wildlife Service, Section 7 consultation was undertaken by correspondence with the Massachusetts Natural Heritage and Endangered Species Program and the Rhode Island Department of Environmental Management. NPS received a written response from the Massachusetts Natural Heritage and Endangered Species program indicating that there were no federally-listed threatened and endangered species in the Massachusetts portion of the study area. However, numerous state-listed species have been observed in the same area.

Tribal consultations have been or are in the process of being undertaken with Native American tribes associated with the Blackstone River Valley. Letters informing the associated Native American tribes of the Special Resource Study process were sent out in April 2009. The associated Native American tribes include the federally-listed Narragansett, Aquinnah Wampanoag, and Mashpee Wampanoag, and the Nipmuc Nation and the Nipmuc Indian Council. The Narragansett tribe based in Rhode Island was briefed on the study process at a meeting held in October 2009. The tribal representative for the Narragansett expressed particular interest in ceremonial landscapes that may occur in the Blackstone River Valley as well as a study being undertaken on a King Philips War site in North Smithfield. They are interested in working more with the NPS and the National Heritage Corridor to explore Native American history and culture in the valley. In June 2010, representatives of the Aquinnah Wampanoag tribe were briefed. Many of the same ideas were discussed, but a greater emphasis was placed on the continuing presence and involvement of the Native American community in the social, political, and economic history of the valley. The tribal representatives noted that it was important to acknowledge that the Native American community did not disappear after King Philip's (Metacomb's) War. A formal consultation meeting with the Nipmuc is anticipated in spring 2011.

List of Preparers

Core Team

National Park Service

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Massachusetts Historical Commission

Michael Steinitz,
Director of Survey and Planning, Massachusetts
Historical Commission

Rhode Island Historic Preservation and Heritage Commission

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*John H. Chafee Blackstone River Valley
National Heritage Corridor Commission*

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Dick Gregory,
Vice Chair, Providence, RI

Paula Brouillette,
Secretary, Douglas, MA

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Treasurer, Pawtucket, RI

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Immediate Past Chair, Executive Director, RI
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MA Executive Office of Housing
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MA State Senator, 2nd Worcester District

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Massachusetts Historical Commission

Keith Stokes,
Acting Executive Director, RI Economic
Development Corporation

Richard Sullivan,
Secretary, MA Executive Office of Energy
and Environmental Affairs

List of Recipients

Cities and Towns in Massachusetts

Town of Blackstone

Town of Douglas

Town of Grafton

Town of Hopedale

Town of Leicester

Town of Mendon

Town of Millbury

Town of Millville

Town of Northbridge

Town of Sutton

Town of Upton

Town of Uxbridge

City of Worcester

Cities and Towns in Rhode Island

Town of Burrillville

City of Central Falls

Town of Cumberland

City of East Providence

Town of Glocester
 Town of Lincoln
 Town of North Smithfield
 City of Pawtucket
 City of Providence
 Town of Smithfield
 City of Woonsocket

Business & Tourism Interests

Blackstone Valley Chamber of Commerce
 Blackstone Valley Tourism Council
 Greater Worcester Chamber of Commerce
 Northern Rhode Island Chamber of Commerce
 Worcester County Convention and Visitors Bureau

Government Agencies

Central Massachusetts Regional Planning Commission
 MA Department of Conservation & Recreation
 MA Department of Environmental Protection
 MA Department of Fish and Game
 MA Highway Department
 Massachusetts Historical Commission (SHPO)
 RI Department of Environmental Management
 RI Department of Transportation
 RI Historical Preservation
 & Heritage Commission (SHPO)
 RI Economic Development Corporation
 RI Economic Policy Council
 RI Statewide Planning
 US Fish & Wildlife Service

Preservation/Conservation Interests

Audubon Society of Rhode Island
 Blackstone Headwaters Coalition
 Blackstone River & Canal Commission
 Blackstone River Bikeway Association
 Blackstone River Coalition
 Blackstone River Conservation Alliance
 Blackstone River Watershed Association
 Blackstone River Watershed Council/
 Friends of the Blackstone
 Blackstone Valley Chamber of Commerce
 Corridor Keepers
 Council for Northeast Historical Archeology
 Grafton Land Trust
 Greater Worcester Land Trust
 Lake Singletary Watershed Association

Massachusetts Audubon Society
 Metacomet Land Trust
 National Trust for Historic Preservation
 Northern Rhode Island Trout Unlimited
 Preservation Massachusetts
 Preservation Worcester
 Preserve Rhode Island
 Providence Preservation Society
 Rhode Island Conservation Law Foundation
 Rhode Island Historical Society
 Save the Bay
 Society for American Archeology
 Society for Historical Archeology
 Society for Industrial Archeology
 Trust for Public Land
 Vernacular Architecture Forum
 Worcester Canal Task Force

Historic Sites & Museums

Chestnut Street Meeting House
 and Cemetery Association
 Daniels Farmstead Foundation
 Douglas Historical Society
 Friends of Hearthside
 Museum of Work and Culture
 Slater Mill Historic Site
 Waters Farm
 Worcester Historical Museum

Academic Institutions

Boston University (Department of Archeology)
 Brown University
 College of the Holy Cross
 Clark University
 Rhode Island College
 Roger Williams University
 UMASS-Amherst (Dept. of Anthropology)
 UMASS-Boston (Dept. of Anthropology)
 Worcester Polytechnic Institute

Tribal Interests

Mashpee Wampanoag Tribe
 Narragansett Indian Tribe
 Nipmuc Indian Council of Chaubunagungamaug
 Nipmuc Nation
 Wampanoag Tribe of Gay Head/Aquinnah



APPENDICES

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Appendix A: Study Legislation

PUBLIC LAW 109–338—OCT. 12, 2006

120 STAT. 1857

TITLE VII—JOHN H. CHAFEE BLACKSTONE RIVER VALLEY NATIONAL HERITAGE CORRIDOR REAUTHORIZATION

John H. Chafee
Blackstone River
Valley National
Heritage
Corridor
Reauthorization
Act of 2006.

SEC. 701. SHORT TITLE.

16 USC 461 note.

This title may be cited as the “John H. Chafee Blackstone River Valley National Heritage Corridor Reauthorization Act of 2006”.

SEC. 702. JOHN H. CHAFEE BLACKSTONE RIVER VALLEY NATIONAL HERITAGE CORRIDOR.

16 USC 461 note.

(a) COMMISSION MEMBERSHIP.—Section 3(b) of Public Law 99–647 (16 U.S.C. 461 note) is amended—

(1) by striking “nineteen members” and inserting “25 members”;

(2) in paragraph (2)—

(A) by striking “six” and inserting “6”; and

(B) by striking “Department of Environmental Management Directors from Rhode Island and Massachusetts” and inserting “the Director of the Rhode Island Department of Environmental Management and the Secretary of the Massachusetts Executive Office of Environmental Affairs”;

(3) in paragraph (3)—

(A) by striking “four” each place it appears and inserting “5”; and

(B) by striking “and” after the semicolon;

(4) in paragraph (4)—

(A) by striking “two” each place it appears and inserting “3”; and

(B) by striking the period and inserting “; and”; and

(5) by inserting after paragraph (4) the following:

“(5) 1 representative of a nongovernmental organization from Massachusetts and 1 from Rhode Island, to be appointed by the Secretary, which have expertise in historic preservation, conservation, outdoor recreation, cultural conservation, traditional arts, community development, or tourism.”

(b) QUORUM.—Section 3(f)(1) of Public Law 99–647 (16 U.S.C. 461 note) is amended by striking “Ten” and inserting “13”.

(c) UPDATE OF PLAN.—Section 6 of Public Law 99–647 (16 U.S.C. 461 note) is amended by adding at the end the following:

“(e) UPDATE OF PLAN.—(1) Not later than 2 years after the date of enactment of this subsection, the Commission shall update the plan under subsection (a).

Deadline.

“(2) In updating the plan under paragraph (1), the Commission shall take into account the findings and recommendations included in the Blackstone Sustainability Study conducted by the National Park Service Conservation Study Institute.

“(3) The update shall include—

“(A) performance goals; and

“(B) an analysis of—

“(i) options for preserving, enhancing, and interpreting the resources of the Corridor;

“(ii) the partnerships that sustain those resources; and

“(iii) the funding program for the Corridor.

120 STAT. 1858

PUBLIC LAW 109-338—OCT. 12, 2006

“(4)(A) Except as provided in subparagraph (B), the Secretary shall approve or disapprove any changes to the plan proposed in the update in accordance with subsection (b).

“(B) Minor revisions to the plan shall not be subject to the approval of the Secretary.”

(d) EXTENSION OF COMMISSION.—Public Law 99-647 (16 U.S.C. 461 note) is amended by striking section 7 and inserting the following:

“SEC. 7. TERMINATION OF COMMISSION.

“The Commission shall terminate on the date that is 5 years after the date of enactment of the John H. Chafee Blackstone River Valley National Heritage Corridor Reauthorization Act of 2006.”

(e) SPECIAL RESOURCE STUDY.—Section 8 of Public Law 99-647 (16 U.S.C. 461 note) is amended by adding at the end the following:

“(d) SPECIAL RESOURCE STUDY.—

“(1) IN GENERAL.—The Secretary shall conduct a special resource study of sites and associated landscape features within the boundaries of the Corridor that contribute to the understanding of the Corridor as the birthplace of the industrial revolution in the United States.

“(2) EVALUATION.—Not later than 3 years after the date on which funds are made available to carry out this subsection, the Secretary shall complete the study under paragraph (1) to evaluate the possibility of—

“(A) designating 1 or more site or landscape feature as a unit of the National Park System; and

“(B) coordinating and complementing actions by the Commission, local governments, and State and Federal agencies, in the preservation and interpretation of significant resources within the Corridor.

“(3) COORDINATION.—The Secretary shall coordinate the Study with the Commission.

“(4) REPORT.—Not later than 30 days after the date on which the study under paragraph (1) is completed, the Secretary shall submit to the Committee on Resources of the House of Representatives and the Committee on Energy and Natural Resources of the Senate a report that describes—

“(A) the findings of the study; and

“(B) the conclusions and recommendations of the Secretary.”

(f) AUTHORIZATION OF APPROPRIATIONS.—Section 10 of Public Law 99-647 (16 U.S.C. 461 note) is amended—

(1) in subsection (a), by striking “\$650,000” and inserting “\$1,000,000”; and

(2) by striking subsection (b) and inserting the following:

“(b) DEVELOPMENT FUNDS.—There is authorized to be appropriated to carry out section 8(c) not more than \$10,000,000 for the period of fiscal years 2006 through 2016, to remain available until expended.

“(c) SPECIAL RESOURCE STUDY.—There are authorized to be appropriated such sums as are necessary to carry out section 8(d).”

Deadline.

Appendix B: Washington History Program Office Consultation Letter



IN REPLY REFER TO:
H30(2201)

United States Department of the Interior

NATIONAL PARK SERVICE
1849 C Street, N.W.
Washington, D.C. 20240

Memorandum

To: Associate Regional Director, Construction and Facility
Management, Northeast Region

From: Associate Director, Cultural Resources *Just Snyder Matthews*

Subject: Evaluation of National Significance of "Blackstone Valley Special
Resources Study, Draft Significance Statement"

This memorandum summarizes our review of the June 2, 2009, "Blackstone Valley Special Resource Study, Draft Significance Statement." Your message of June 2, 2009, requested that we evaluate the **national significance** of The John H. Chafee Blackstone River Valley National Historic Corridor.

Background

In 2008, Congress passed legislation requiring the Secretary of the Interior to conduct a Special Resource Study (SRS) to explore the potential for a permanent National Park Service (NPS) presence in the Blackstone River Valley. A possible result of the study includes Congressional action creating a new unit of the National Park System in the Blackstone River Valley. One of the criteria for inclusion in the national park system is that the area "must possess nationally significant natural, cultural, or recreational resources."

The John H. Chafee Blackstone River Valley National Heritage Corridor was originally designated in 1986. In establishing the Corridor, Congress recognized both the Blackstone Valley's national importance as the birthplace of the American Industrial Revolution as well as the need to preserve and interpret its resources for the benefit of the American people. The 1986 legislation created a Commission with Federal, state, and local representatives from Massachusetts and Rhode Island which managed the Corridor. In 2006, this Commission was reauthorized for an additional five years.

The Blackstone River Valley possesses outstanding natural, cultural and historical resources. The forty-six mile river valley includes a river with a fall of approximately ten feet per mile, as well as over 20,000 historic structures. Beginning in the late 18th century, the area's natural resources, including the Blackstone River, were harnessed to provide the necessary power for industrialization. As the first area of the country to make widespread use of waterpower for

industrial use, and as home to hundreds of factories and mill towns, the region is considered the birthplace of American mechanical industrialization.

For over twenty years, the area has been jointly managed and interpreted by Federal, state, and local governments and partnership organizations. The Corridor's significance is underscored by the fact that the NPS has a permanent staff presence there.

The Northeast Regional Office (NERO) is handling preparation of this study. On June 2, 2009, NERO submitted the "Blackstone Valley Special Resource Study, Draft Significance Statement" and asked the National Historic Landmarks (NHL) Program staff to review this document and provide its professional opinion on the national significance of the properties outlined in the document.

Criteria for Evaluation of National Significance

The NHL Program staff reviewed a draft of the "Blackstone Valley Special Resource Study" and prepared this evaluation of the property's national significance. According to the directives of the *National Park Service Management Policies*, national significance for cultural resources will be evaluated by applying the National Historic Landmarks criteria contained in 36 CFR Part 65 (*Code of Federal Regulations*).

National Historic Landmarks Criteria

NHL Criteria 1 and 5

NHL Criteria 1 and 5 state that potential NHLs are evaluated for their national significance according to a number of criteria, including:

NHL Criterion 1: Properties that are associated with events that have made a significant contribution to, and are identified with, or that outstandingly represent, the broad national patterns of United States history and from which an understanding and appreciation of those patterns may be gained.

NHL Criterion 5: Properties that are composed of integral parts of the environment not sufficiently significant by reason of historical association or artistic merit to warrant individual recognition but collectively compose an entity of exceptional historic or artistic significance, or outstandingly commemorate or illustrate a way of life.

This historic area is highly important as an outstanding surviving example of an industrialized landscape that developed over a period of over 150 years. The Blackstone River Valley is also associated with events of national importance, specifically the earliest development of industrialization in the United States. The region includes not only Old Slater Mill, the first successful water-powered cotton-spinning mill in the United States, but also a unique collection of 19th century mill villages and their factories. Collectively, these properties illustrate the influence of Samuel Slater and the rise and evolution of the Rhode Island System of manufacture, a dynamic force in American industrial history from 1790 to 1950.

The Rhode Island System, distinguished by small-scale textile mills centered in detached mill villages and located near rural isolated waterpower sites, differed in important ways from other paths to industrialization. These alternative paths included: the diversified manufacturing center which was marked by small or medium sized family-owned and managed enterprises with specific specialties which characterized industrialization in Philadelphia and other cities; the one- or two-industry city, such as Lowell, which was marked by large-scale corporately owned, bureaucratically managed, fully mechanized companies; and industrial slavery which relied on slave labor and developed in the antebellum South.

Following his success with his first mill in Pawtucket, Samuel Slater and his brother, John Slater, founded Slatersville, the first planned industrial textile community in America. Slaterville's component parts and spatial organization, with housing, civic amenities, and commercial resources clustered around a factory and a power canal system, were duplicated throughout the Blackstone River Valley. Ultimately, the Rhode Island System spread across the nation, shaping the development of industrialization in areas far beyond the Blackstone River Valley. In fact, the Rhode Island System was far more typical of American industrial development than any other pattern of industrialization. Significantly, the region's textile industry spawned important spinoffs, particularly in textile machinery production, more general-use machine tools, and precision instruments. This diversification came to characterize other industrial areas in New England and the South during the later 19th century.

By the time the Boston Manufacturing Company and the Merrimack Manufacturing Company were firmly established in Lowell, Massachusetts during the late 1820s, more than 400 mill village communities, which had developed along the Rhode Island model, had been established in the United States. The Lowell system which required more power, more workers, and significantly more capitalization than any of the Blackstone River Valley textile operations became feasible only after two decades of industrialization in the Blackstone River Valley had demonstrated the potential of American textile manufacturing. The mill villages in the Blackstone River Valley not only set the necessary preconditions for the development of other well-known paths to industrialization, they also endured as a coherent and well-defined system until well into the 20th century.

Over the course of 150 years, the Blackstone River Valley also served as the model for mill villages across the nation, particularly those in New England states such as Vermont and Connecticut as well as those in Southern states such as North Carolina, Mississippi, Alabama, and Virginia. Today, the mill villages in the Blackstone River Valley not only possess extremely high integrity, they also possess strong national significance as the model for mill villages across the nation.

One of the paramount forces in American history, industrialization has shaped nearly every aspect of American life since the early 19th century. This significant transformation first gained a permanent and important foothold in the Blackstone River Valley, and the region and its diverse resources remain one of the most significant areas in the nation associated with the emergence of industrialization.

Integrity

The John H. Chafee Blackstone River Valley National Heritage Corridor retains sufficient integrity for NHL designation. Despite decades of deindustrialization, the industrial landscape of the Blackstone River Valley still exhibits a compelling mix of factories, workers' housing, public buildings, and water facilities set against an agrarian backdrop.

Productive industrial facilities and transportation systems, if successful, change over time both to employ new technology and to meet new needs. As an active industrial region for approximately 150 years, the Blackstone River Valley witnessed significant expansion and improvement during much of its history as an industrial area. The mill village communities that defined the Blackstone River Valley and that reflect the Rhode Island System do, however, survive to a remarkable degree in the villages of Slatersville, Rhode Island; Old Ashton, Rhode Island; Ashton, Rhode Island; Whitinsville, Massachusetts; and Hopedale, Massachusetts. The historic relationship between the region's waterways (the Blackstone River, its tributaries, and the Blackstone Canal) and its industrial sites (the factories, workers' housing, and public buildings) is also especially evident across the valley.

National Significance

Seven outstanding resources have been selected for a determination of national significance when considered against the criteria for National Historic Landmarks. These resources include: the Blackstone River and its tributaries; the Blackstone Canal National Register Historic Districts; Old Slater Mill National Historic Landmark District; and the mill villages as defined by the Slatersville National Register Historic District, Ashton National Register Historic District, Whitinsville National Register Historic District, and Hopedale National Register Historic District. These discontinuous properties were chosen because, of all the industrial areas in the Blackstone River Valley, they possess the greatest integrity and best illustrate both the complexity and breadth of the story of American industrialization.

The properties in question are currently privately owned with some properties owned by state and local governments. The National Park Service and the Heritage Corridor Commission have previously worked with many of these owners through a series of partnerships that assist local and state governments in preserving and interpreting the story of the Blackstone River Valley.

Summary

One National Historic Landmark, six National Register Historic Districts, and the Blackstone River and its tributaries within The John H. Chafee Blackstone River Valley National Heritage Corridor meet the National Historic Landmark criteria. This conclusion is based on: 1) the important association of the property with the development of industrialization and 2) the high degree of integrity that allows for the property's national significance to be conveyed.

Appendix C: Scholars Site Visit Participants

Panelists:

Alison K. Hoagland, Professor of History and Historic Preservation, Michigan Technological University

Gary Kulik, scholar of early American industrial history and currently Principal at Kulik Consulting, Strategic Planning for Non-Profits

Gabrielle M. Lanier, Associate Professor of History, James Madison University

Walter Licht, Chair and Walter H. Annenberg Professor of History, University of Pennsylvania

David Meyer, Professor of Sociology, Brown University

Jonathan Prude, Associate Professor of History, Emory University

Moderators:

Larry Lowenthal, Consulting Historian, Heritage Partners, Inc.

Susan Ferentinos, Public History Coordinator, Organization of American Historians

Participants:

Chuck Arning, Interpretive Park Ranger, John H. Chafee Blackstone River Valley NHC

Ellen Carlson, Community Planner, National Park Service, Northeast Region

Joanna Doherty, Community Planner, John H. Chafee Blackstone River Valley NHC

Richard Greenwood, Deputy Director, RI Historical Preservation and Heritage Commission

Duncan Hay, Historian, National Park Service, Northeast Region

Diane Keith, Landscape Architect, John H. Chafee Blackstone River Valley NHC

Kevin Klyberg, Interpretive Park Ranger, John H. Chafee Blackstone River Valley NHC

Lisa Kolakowsky Smith, Architectural Historian, National Park Service, Northeast Region

Terrence D. Moore, Chief of Planning and Compliance, National Park Service, Northeast Region

Sarah Peskin, Senior Resource Planner, National Park Service, Northeast Region

Edward Sanderson, Chair, John H. Chafee Blackstone River Valley NHC Commission
and Executive Director of the RI Historical Preservation and Heritage Commission

Michael Steinitz, Director, Preservation Planning Division, Massachusetts Historical Commission

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