

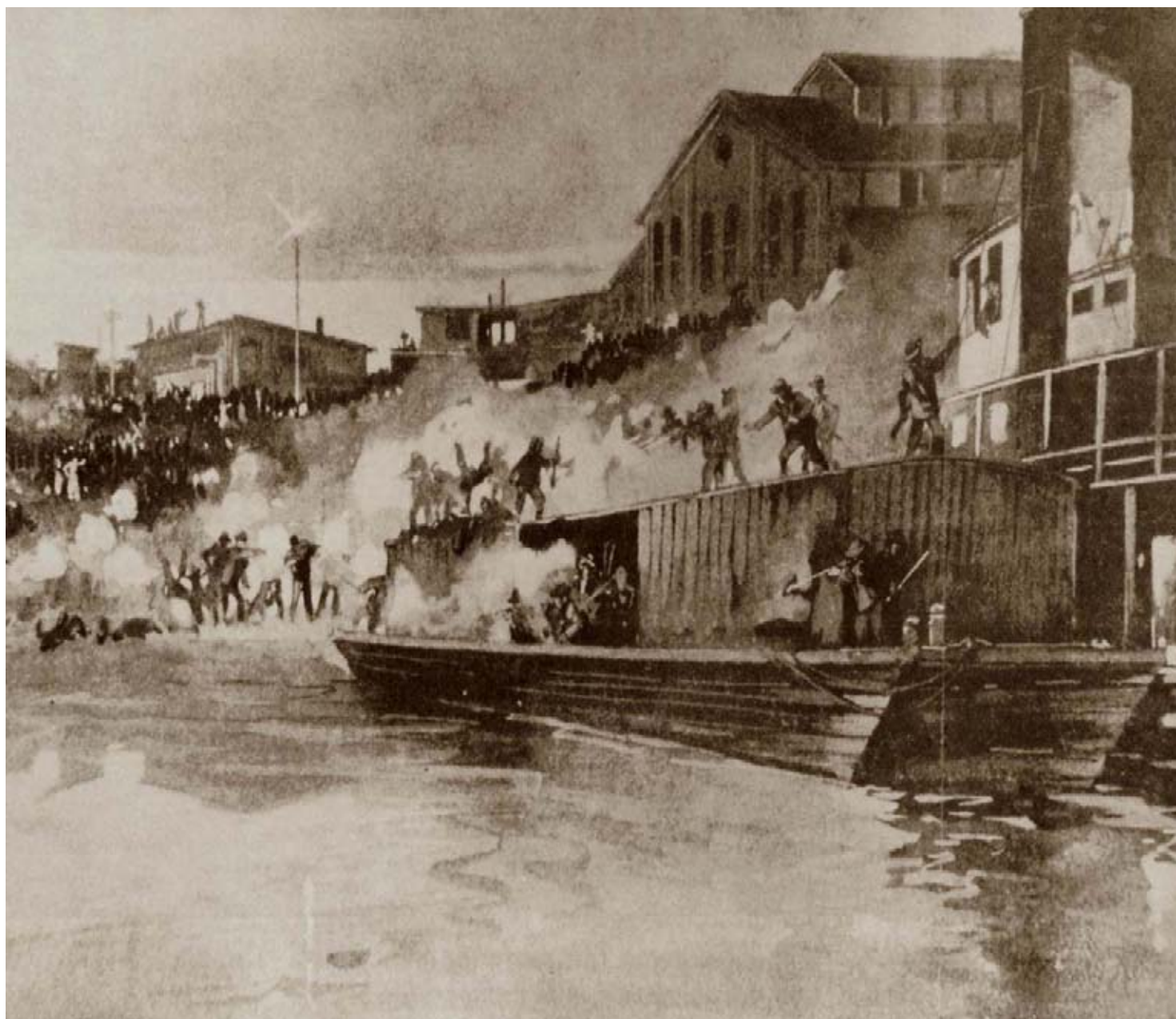


# BATTLE OF HOMESTEAD AND CARRIE FURNACES 6 AND 7

Special Resource Study

Environmental Assessment

DRAFT - September 2002



This report has been prepared to provide Congress and the public with information about the resources in the study area and how they relate to criteria for inclusion within the national park system and for the feasibility of a national park unit. Publication and transmittal of this report should not be considered an endorsement of a commitment by the National Park Service to seek or support 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.

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# Summary

Congress requested this Special Resource Study on the Battle of Homestead and Carrie Furnaces 6 and 7 as part of the Department of the Interior Appropriations Act for FY 1999. The purpose of this study is to determine whether resources associated with the former Homestead Works, including the Battle of Homestead Landing site and Carrie Furnaces 6 and 7, meet established NPS criteria for national significance, suitability and feasibility for inclusion in the National Park System.

When considering national significance, the site of the former Homestead Works is best remembered for two important occurrences in the nation's history:

- Homestead was the site of one of America's greatest and most far-reaching labor wars, the "Battle of Homestead" in 1892, and related developments during the nearly 50 years on the non-union period in the steel industry.
- The operation of the integrated plant was pivotal in the development of the American iron and steel industry during the 1892 to 1951 period, helped to identify Pittsburgh as the capital of "Big Steel" and influenced steel making throughout the country.

The heart of the steel manufacturing plant has been demolished, diminishing the historic integrity and context of this community. The Bost Building, a National Historic Landmark is of national significance and meets the significance criteria for inclusion in the National Park System. The remaining resources associated with the former Homestead Works do not fully meet the significance criteria for designation as a unit of the National Park System. When considered as an ensemble, however, this collection of distinct resources – including the NHL Bost Building, Carrie Furnaces 6 and 7, the Battle of Homestead Landing site and the Homestead National Historic District – have the potential to offer superlative opportunities for public education and appreciation of this labor and steel worker history and retain individual site integrity commensurate with the ever-changing nature of the industry.

Based on review of existing NPS and other historic sites and other research, this study concludes that there is an outstanding opportunity to tell the important story of labor organizations and protests within the context of the steel industry and related communities' resources. While other furnace complexes and related iron and steel industry resources are available and interpreted in Pennsylvania and elsewhere, this site offers a prime ensemble of resources to interpret the intertwined and nationally significant story of labor and its relationship to the "Big Steel" era and community. The finding of this study is that the Bost Building is suitable for inclusion in the National Park System.

The study found that the resources in the Homestead vicinity are individually important and that the resources as a group have considerable interpretive value. The configuration and condition of the multiple resources in the Homestead vicinity — scattered sites in varying states of repair, uncertainty regarding the protection of the resource setting over time, and significant improvement and operations cost exposure — lead this study to conclude that NPS ownership and management of these individual or collective resources is not feasible nor is direct NPS management required, inasmuch as some of the resources, such as Carrie Furnaces 6 and 7 would be extremely difficult and costly to manage while others already are managed by other private, public or nonprofit entities.

Since the Bost Building is owned and operated by a nonprofit organization, the study concludes that establishment of a federally owned and operated NPS unit at the Bost Building is not necessary since the nonprofit organization is adequately operating and maintaining the building at present. However, the value of the resources and the importance of the themes they convey raises the possibility that other management alternatives should be considered that do not rely on NPS ownership of land or buildings but have some other level of participation of the NPS.

Three alternatives are presented for consideration and comparison:

- **Alternative 1: Continued Support to Rivers of Steel National Heritage Area** – The Rivers of Steel National Heritage Area management entity, the Steel Industry Heritage Corporation (SIHC), would

continue to be the primary entity responsible for preservation and interpretation of the resources in the Homestead vicinity, as part of its general mission to conserve, promote and manage the historic, cultural, natural and recreational resources of steel and related industries in southwestern Pennsylvania and to develop uses for these resources so they may contribute to economic revitalization of the region. NPS would continue its current support to the SIHC, who would continue its endeavors to implement the Management Action Plan for the NHA. No additional federal action would be proposed.

- **Alternative 2: The Homestead Steel Workers National Historic Site** – The focus of Alternative 2 would be the stories of steel workers, their communities and their dramatic struggle with powerful steel companies to secure decent working conditions and fair wages, including a nearly 50-year struggle to rebuild a union after it was broken by the Battle of Homestead. Congress would designate a National Historic Site as an affiliated area of the National Park System to authorize the NPS to provide financial, interpretation and preservation assistance to local public and private entities beyond that provided in existing authorities. NPS assistance would be directed toward key resources in the vicinity of the former Homestead Works and its community that illustrate these themes. The boundary of the NHS would include certain noncontiguous historic sites in Homestead, West Homestead, Munhall, Swissvale and Rankin, Pennsylvania.
- **Alternative 3: Lower Mon Valley Steel National Historic Site** – Alternative 3 would focus on the stories of steel workers, their communities and their dramatic labor struggles – told in the Homestead vicinity. It would place the unique labor story of Homestead in a larger context by expanding interpretation to encompass the historic industrial sites and related resources that line the Lower Mon Valley to convey the massive scale of the “big steel” industry that employed hundreds of thousands of workers, built mammoth plants that indelibly imprinted the form and culture of its river landscape, and produced basic materials that changed the lifestyles of a nation. Congress would designate a National Historic Site as an affiliated area of the National Park System to authorize the NPS to provide technical and financial assistance to local public and private entities for interpretation and preservation of resources beyond that provided by existing authorities. The boundary of the NHS would include the same sites as Alternative 2, which would be eligible for interpretation and preservation assistance, supplemented by a corridor of varying width on both sides of the Lower Mon River between the Youghiogheny River and the confluence of the Mon with the Allegheny River. Along this river corridor, where limited NPS interpretive assistance would be available to link resources in the Homestead vicinity to other steel industry related resources, the scope and power of the “Big Steel” story can be appreciated by the public.

Based on comparison of the above alternatives, the study finds that the resources in Homestead warrant consideration of some federal involvement, as they have the potential to convey the nationally significant labor story of Homestead and its workers, offering a group of individual sites that represent places significant to the labor movement as well as venues representative of work and community life in the “Big Steel” era. The study finds that the establishment of a National Historic Site as an affiliated area of the National Park System, without NPS ownership or management of property, but with NPS technical and financial assistance is appropriate. This federal recognition and involvement could be a catalyst for greater local commitments and initiatives, and could greatly enhance broader public understanding, use and interest in the role of labor and workers in the “Big Steel” era.



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Cover Illustration:

Frank Leslie's Illustrated Weekly July 14, 1892

“The Repulse of the Pinkerton Barges at the Landing”

# INTRODUCTION

## Purpose and Need for Action

### *Background of the Special Resource Study*

#### **Overview**

Homestead, Pennsylvania,<sup>1</sup> was once synonymous with the steel industry. The Homestead Steel Works, established in 1881 by the Pittsburgh Bessemer Steel Company and purchased by Andrew Carnegie in 1883, was once the largest steel plant in the country. The Works were located in Allegheny County, approximately seven miles southeast of Pittsburgh and stretched along both banks of the Monongahela River. On the south bank, the Works included the boroughs of Homestead, West Homestead and Munhall extending four miles and on the north bank, it included the boroughs of Swissvale and Rankin for a distance of nearly a mile.

The Works became the focus of national attention when a violent clash between labor and manage-

ment, known as the Battle of Homestead, occurred there during the summer of 1892. The Battle stands for both the high-water mark of craft unionism and the onset of the nearly 50-year non-union period in the steel industry. Subsequently, under Carnegie's dynamic leadership, the Homestead Steel Works was expanded during the 1890s when Carnegie Steel bought the Carrie Furnace Plant, with its two existing iron furnaces – Carrie Nos. 1 and 2. In 1901, the company linked the Carrie Furnace Plant to its Homestead Works with the construction of the Hot Metal Bridge to transport molten iron in ladle cars across the Monongahela River. Later in 1901, Carnegie sold the Homestead Works and Carrie Furnaces to J.P. Morgan, and it became part of the U.S. Steel Corporation, the nation's first billion-dollar company. Although eclipsed in size by the turn of the century by the construction of new steel plants, the Homestead Steel Works remained the largest in the Pittsburgh area during the twentieth

**1902 Lithograph.** Rivers of Steel.



century.

Following a twenty-year decline, downsizing began at the Homestead Steel Works in the 1970s. In 1978, the Carrie Blast Furnace plant was shut down and many structures were demolished, leaving only the Carrie Furnaces 6 and 7 and related structures on the site. As competition from foreign steel mills increased and the market for heavy steel products collapsed during the early 1980s, USX (successor of U.S. Steel) closed the Homestead Steel Works in 1986. The property was sold to the Park Corporation, which shortly began demolition of mill structures for scrap and to clear the site for redevelopment. Over 250 acres were cleared, leaving the Pump House, the adjacent water tower, and twelve brick stacks on the site. In the past several years, a major mixed use complex known as the Waterfront has been developed on the site of the steel works and includes numerous big box stores, movie theatres, restaurants, and housing.

The history of the site is powerfully intertwined with nationally significant stories. These include the growth of the steel industry and its role in the nation's economy, the evolution of the labor movement, and the development of immigrant ethnic communities that grew up around this pivotal plant. The demolition of the majority of the Homestead Works at the center of the study area and its replacement by mixed use contemporary development have detracted from the integrity and legibility of the setting as defined by the individual resources considered as part of this study. Despite

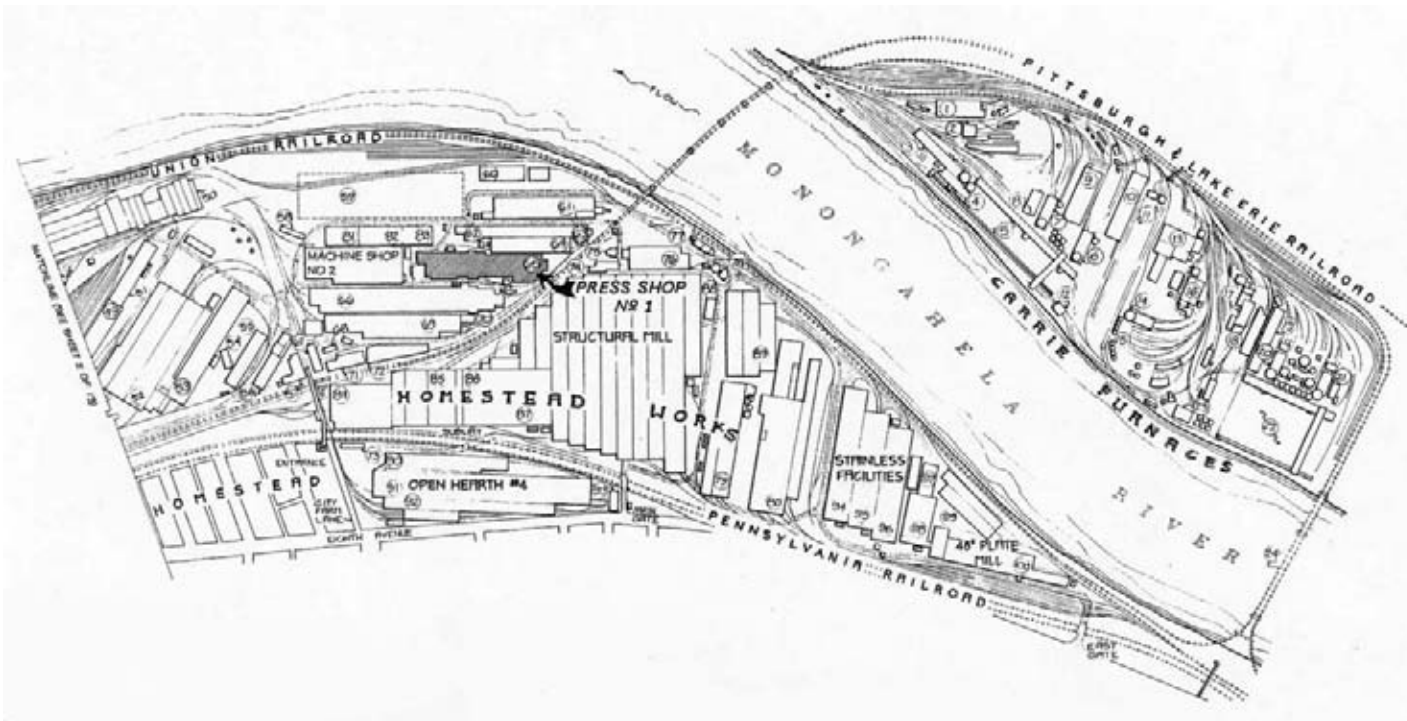
the loss of integrity of the setting, the key individual resources, including one National Historic Landmark, and other sites and districts of importance, have the potential to illustrate Homestead's nationally significant stories and themes, which are not communicated by other sites in the National Park System or by other agencies or the private sector.

## Past Evaluations

The importance of the resources was recognized as early as 1989 when demolition of the steel works got underway. The Historic American Engineering Record (HAER), a branch of the National Park Service (NPS), began a campaign to record the Homestead Works and other steel mills in the Lower Monongahela Valley that were closing due to de-industrialization. HAER maintained a field office at Homestead for four years, recording with measured drawings, photographs, and narrative histories the Homestead Works, National-Duquesne Works at Duquesne and McKeesport, and the Edgar Thomson Works at Braddock, as well as documenting other aspects of the valley's steel industry.<sup>2</sup>

In 1988, the Steel Industry Heritage Task Force, a nonprofit organization, was formed to conserve the culture of steel communities and preserve parts of the mills for adaptive reuse and as a potential heritage park. This group evolved into the Steel Industry Heritage Corporation (SIHC) in 1990 and gained support from communities, civic groups, regional foundations, and from local, state and

**Map of Homestead Works.**  
HAER photograph.



federal governments. The SIHC succeeded in preserving parts of the Homestead Steel Works including: the 1899 48" universal plate mill, which was moved and placed in storage; the 12,000 ton forging press, which remains approximately *in situ*; the remains of the 1892 Battle of Homestead site, including the rehabilitated Pump House; Carrie Furnaces Nos. 6 and 7; and the Hot Metal Bridge spanning the Monongahela River between the Carrie and the Homestead Works sites.<sup>3</sup>

Other preservation efforts targeted non-industrial properties in the Homestead area that were typically associated with the steel works. A nomination for the Homestead National Register Historic District was submitted to the National Register of Historic Places and was approved June 10, 1990.

Further recognition of the importance of steel-related cultural resources in Homestead and surrounding areas came in 1996 with the designation of the Rivers of Steel Heritage Area by the Commonwealth of Pennsylvania. Concurrently, this seven-county area bordering the Monongahela, Allegheny, Youghiogheny, Ohio and Beaver Rivers was designated the Steel Industry National Heritage Area (later changed to "Rivers of Steel") by the United States Congress in 1996.<sup>4</sup>

In the fall of 1998, a National Historic Landmark (NHL) nomination was submitted for the Bost Building (which was the meeting place of the Amalgamated Association of Iron and Steel Workers in Homestead and the place where the Advisory Committee representing the eight Iron and Steel Worker Lodges met during the 1892 strike/lockout). The Secretary of the Interior designated the site as a NHL in January 1999.

Several attempts have been initiated to seek designation of additional properties associated with Homestead as NHLs; to date these efforts have not been successful. A submission for NHL designation was submitted for the Battle of Homestead Landing site, including the river landing and the Pump House, in July 1998. The site was denied NHL designation because of a lack of integrity. A NHL nomination was drafted for Carrie Furnace Nos. 6 and 7 in December 1998 and tabled pending re-examination of the boundaries. The NHL nomination was resubmitted but was not acted upon due to questions about the context of the site and its relationship to other comparable sites elsewhere.

## *SRS and Environmental Assessment Purpose*

This document is a Special Resource Study and Environmental Assessment (SRS/EA) of the Battle of Homestead site and adjacent resources in the vicinity of Homestead and the Carrie Furnaces 6 and 7 area. The study was authorized in fiscal year 1999 in the Department of the Interior and Related Agencies Appropriations Bill, House of Representatives Committee Report 105-609.

The purpose of the Battle of Homestead and Carrie Furnaces SRS/EA is to evaluate cultural resources in Homestead, West Homestead, Munhall, Swissvale and Rankin, Pennsylvania, for possible inclusion in the National Park System and also to determine the degree and kind of federal actions that may be desirable for the management and protection of this area, if it is considered to have potential for addition to the system. In order for the area to potentially be designated part of the National Park System, it must meet four criteria: national significance, suitability, feasibility, and need for NPS management. The study evaluates the resources according to these criteria.

A **statement of significance** was developed by evaluating the area and the proposed sites in the contexts of steel making, labor, and community history in the United States. An **assessment of suitability** was developed by comparing the study area's resources to other themes and resources already represented by the National Park System and other public and private agencies. A **feasibility assessment** was prepared which considered such factors as cost, threats, long-term protection of the resources, and potential public use of the area and its resources. Fourth, an evaluation of the **need for direct NPS management** as opposed to effective management by other agencies or organizations was conducted. The assessments of significance, suitability, feasibility, and need for NPS management are described in Chapters 2, 3, 4 and 5. The key finding of this study is that the resources do not fully meet the required criteria for designation as a unit of the National Park System.

The study includes **management alternatives** that define alternate approaches to the protection, interpretation and management of the sites and weighs the impacts and benefits of each alternative.

The study process involved public scoping, historical research, review of previous National Register and National Historic Landmark nominations, and review of existing plans including the Rivers of



**Bost Building, prior to rehabilitation.** National Park Service photograph

**Bost Building, 2002, after rehabilitation.** Rivers of Steel photograph.

Steel National Heritage Area Management Plan and other local initiatives in the study area.

After public review and comment on this SRS/EA, a report, which incorporates response to public comments, will provide Congress with information about the quality and condition of the resources, their relationship to the assessment criteria, and recommendations regarding implementation of ideas and alternatives.

## *General Description of Resources*

### **Study Area Location**

The study area for the SRS centers on sites associated with the former Homestead Steel Works, including the Carrie Furnaces site, along the Monongahela River. The area is in Allegheny County, up river from Pittsburgh. Figure 1 shows the Homestead vicinity and its position along the Monongahela River.

The communities that have historic relationships with the Homestead Steel Works and Carrie Furnaces are West Homestead, Homestead, Munhall, Swissvale and Rankin. The resources that are under consideration for this study are all located within the Rivers of Steel National Heritage Area.

Resources on the south bank of the river include the Bost Building and the Battle of Homestead site located in Homestead borough, and the Homestead National Historic District and associated structures located in Homestead, West Homestead and Munhall boroughs. Resources on the north bank include Carrie Furnaces Nos. 6 & 7 and the Hot Metal Bridge.

Access to the study area is provided through State Route 885 connecting south from Interstate Highway 376 and extending west to Pittsburgh. Eighth Avenue in Homestead is the primary east-west route paralleling the river and provides access to the study area and resources located south of the river. The Carrie Furnaces 6 and 7 are not readily accessible as they are currently in private ownership and are isolated from the adjacent community by railroad tracks and circuitous access by road. The Hot Metal Bridge is not open to the public.

Figure 2 shows key resources in the Homestead vicinity.

### **Resource Description**

The study resources include a cross section of

uses and areas associated with the Homestead Steel Works. It is important to note that the central missing resource within this ensemble is the steel mill itself, which was demolished in the 1980s. The following descriptions indicate the location, current use and ownership, type of resources, current status, and formal historic designations of each key resource:

- **The Bost Building**, a designated NHL, was built in 1892. This three-story, vernacular brick commercial building is located at 621-623 East Eighth Avenue in Homestead borough. The property is significant as the headquarters of the Amalgamated Association of Iron and Steel Workers during the 1892 Battle of Homestead, and as the base for newspaper correspondents who covered the events. The building is adjacent to the site of a commercial multi-use development created after the demolition of the former Homestead Steel Works. The exterior of the building retains a high level of integrity to its 1892 appearance. It was listed as a contributing resource in the Homestead National Register Historic District on June 10, 1990, and listed individually as a National Historic Landmark on January 20, 1999. It is significant under National History Landmark Theme XXI in the area of Social and Humanitarian Movements. The interior has been rehabilitated and will include a labor history exhibit, archives and offices for SIHC, and a visitor's center for the Rivers of Steel State and National Heritage Areas.
- **The Battle of Homestead Site** is located in Munhall and situated at the riverfront of the former Homestead Steel Works. The site originally comprised 18 acres, approximately half of which is now underwater due to construction of a concrete river wall relatively close to the north side of the Pump House building. It was the location of the Battle of Homestead, which marked both the high point of craft unionism and the beginning of the non-union period in



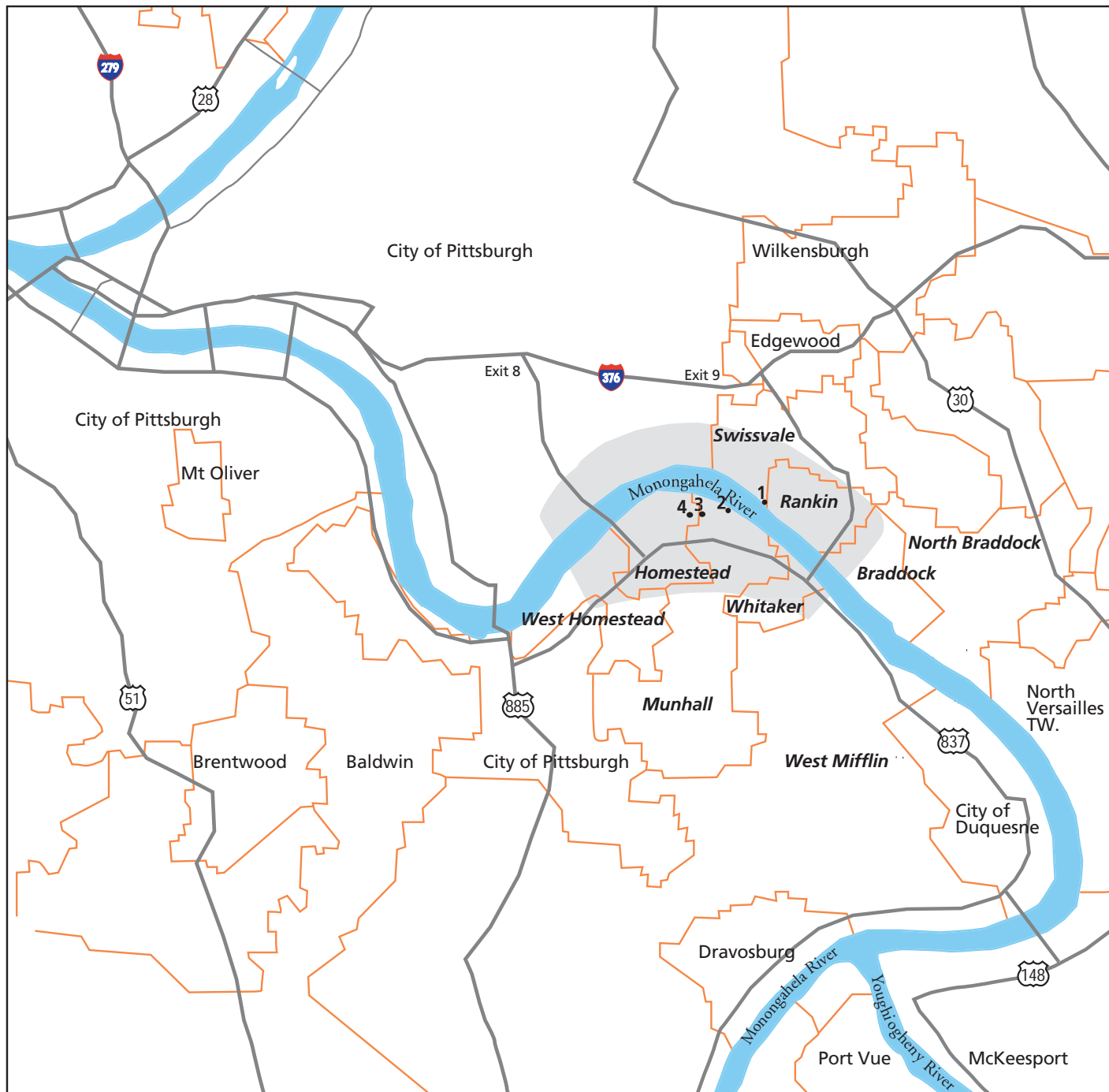
**1890s view of Pump House and Landing Site.** Rivers of Steel photograph.

**Current view of river wall at Battle of Homestead Landing.** Rivers of Steel photograph.



**Battle of Homestead Landing, remaining piers.** National Park Service photograph.

**Figure 1: Homestead Vicinity**

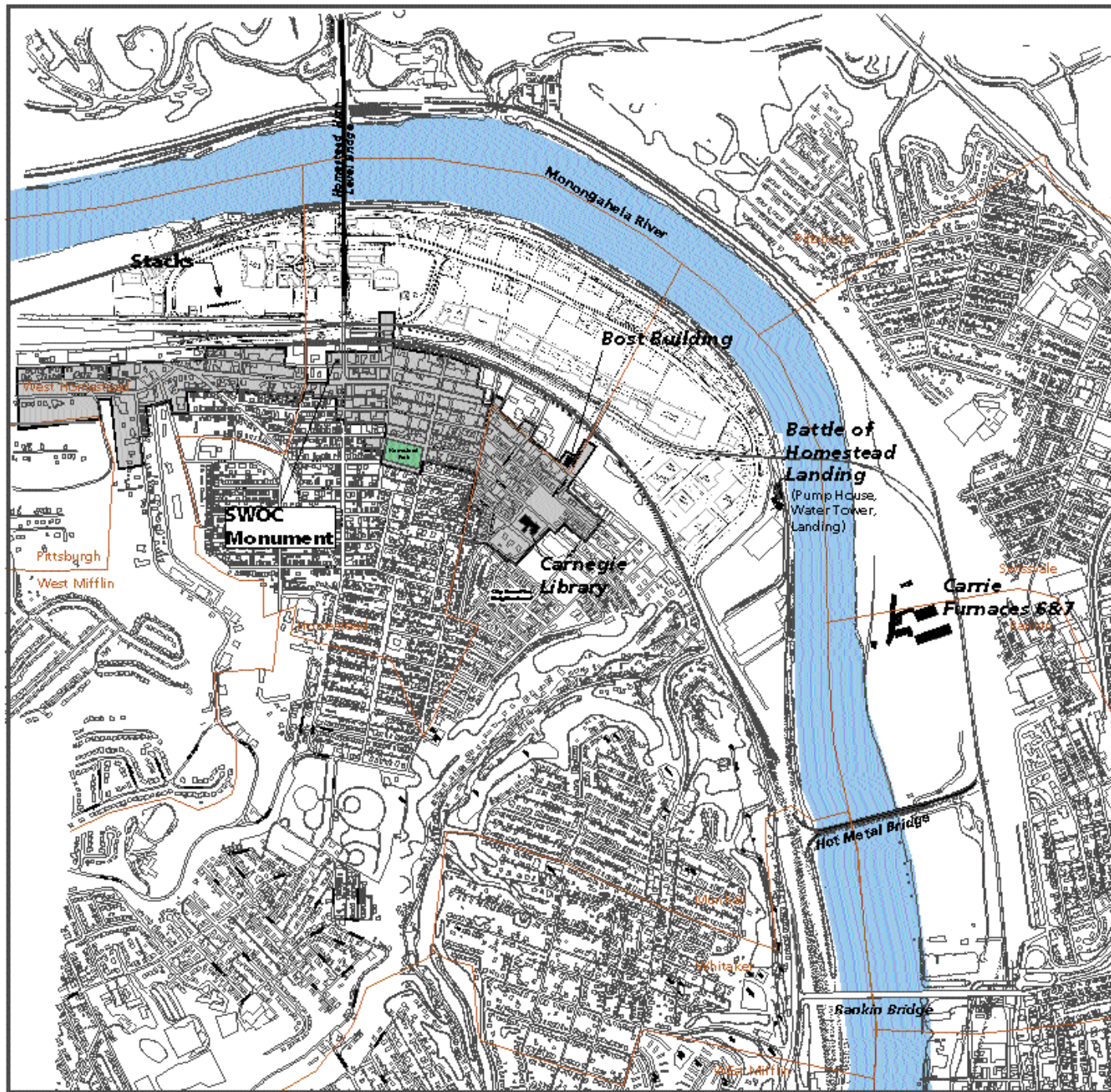


 Homestead Vicinity


1. Carrie Furnaces 6 and 7
2. Battle of Homestead Landing site
3. Bost Building National Historic Landmark
4. Homestead National Historic Register District



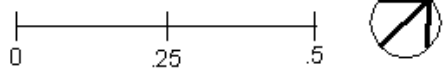
Figure 2: Key Historic Resources in Homestead Vicinity



Special Resource Study and  
Environmental Assessment for the  
Battle of Homestead and Carrie  
Furnaces 6 and 7

 Homestead National  
Register Historic District

National Park Service  
United States Department of the Interior  
Approximate Scale in Miles





**Carrie Furnaces 6 & 7.** National Park Service photograph.

**Carrie Furnaces 6 & 7, casting floor.** National Park Service photograph.

the steel industry from 1892 to 1936-1937. The battle was a direct engagement between Pinkerton Detective Agency employees hired by Carnegie Steel and Homestead Works employees and their allies and families. The battle took place on July 6, 1892, with the Pinkerton Agents firing weapons from a barge on the river and the steel workers fighting back from the land.

Since the time of the battle, the riverfront landscape has been drastically altered by the addition of fill and concrete retaining walls on the riverbank. The site was denied NHL designation because of the lack of integrity caused by changes to the river edge landscape, where the battle occurred, and to related structures. Other site features include an 1892 brick Pump House building, which was present during the battle but modified from its 1892 appearance and configuration; approximately fifty circa 1883 wooden pilings, also present during the battle, which are visible just under the water at the river's edge; and an 1893 steel cylinder water tower. The previous landowner has rehabilitated the Pump House, and it is now accessible to the public. The SIHC hopes to create a boat landing at this location to make this site part of a "Big Steel Journey" that is intended to be an important part of the visitor experience.

- **Carrie Furnaces 6 and 7 and the Hot Metal Bridge.** Carrie Furnaces 6 and 7 and their associated structures are located on a portion of a 35-acre site along the north bank of the Monongahela River in Swissvale and Rankin boroughs. Carrie Furnaces 6 and 7 were built in 1906-1907 in order to expand the capacity of the existing Carrie Furnace Plant.

The original site was purchased by Carnegie Steel in 1898. In 1900-1901, before selling its property, Carnegie Steel linked the Carrie Furnace Plant to its Homestead Works with the construction of a massive steel-truss bridge, the



**8th Avenue view during the 1920s.** Rivers of Steel.

**Current view of 8th Avenue.** Rivers of Steel photograph.



**Hot Metal Bridge.** NPS photograph.

Hot Metal Bridge. This bridge made it possible to establish a fully integrated steel plant; iron was produced at the Carrie blast furnaces and transported as molten iron directly to the steel processing plant on the other side of the river. When Carrie Furnaces 6 and 7 went on-line in 1907, they represented the latest innovations in the blast furnace technology that had been developed in the Pittsburgh district during the 1890s.

Carrie Furnaces 1, 2, 3, 4 and 5, built on this site between the 1890s and 1903, and their associated structures were demolished for new development. The site is now cleared except for Furnaces 6 and 7 and their associated structures, including the two furnace stacks and their ancillary equipment, hot blast plant, blowing engine house, AC power house, gas processing equipment, and raw material storage and handling equipment, including mechanical car dumper, ore yard, ore bridge and stock house.

The Carrie Furnace site is owned by the Park Corporation. Currently, the Allegheny County Redevelopment Authority is working on a redevelopment plan for the site, which spans the boroughs of Rankin, Swissvale, Braddock and North Braddock. Additionally, the Mon-Fayette Expressway, a major transportation project, may affect this resource as the North Shore Alternative (the preferred alternative) runs along the north bank of the Monongahela River and abuts the northerly edge of the Carrie Furnaces property.

- **The Homestead National Register Historic District.** The Homestead National Register Historic District is the historic link between the former steel works and the ethnically diverse communities of West Homestead, Homestead, and Munhall. Listed on the National Register of Historic Places on June 10, 1990, it consists of residential, commercial, educational and religious buildings, monuments and parks. This district has also been designated a local historic district, with formation of a historic architectural review board with the ability to approve changes to properties in order to protect its historic character. The demolition of historic structures has been delayed by action of the historic district review board, which has shown its high commitment to preservation by joining in litigation against the proposed demolition.

The district encompasses more than 30 city

blocks in the boroughs of Homestead, West Homestead and Munhall and includes 478 contributing resources and 41 non-contributing resources. The district has national and state-level significance in the areas of architecture and social history, and its period of significance is circa 1890 to 1941. Although it was the scene of the 1892 Battle of Homestead, most of the buildings date to the next half-century, when U.S. Steel dominated the communities. All of the properties in the district were associated with the Homestead Steel Works in some manner, but those listed below (in addition to the resources noted above) have a particularly strong connection to the important interactions between labor and management in this area:

- **Steel Workers Organizing Committee (SWOC) Monument.** Located at 109 W. Eighth Avenue, Homestead borough, in front of Chiodo's Tavern, a worker gathering place little changed since the heyday of the Homestead Works, this four-ton engraved granite obelisk was erected on September 1, 1941, by SWOC to honor steel workers killed at the Battle of Homestead on July 6, 1892. It features an embossed image of an open-hearth steel worker and the following inscription:

*"Erected by the members of the Steel Workers Organizing Committee Local Unions in memory of the iron and steel workers who were killed on July 6, 1892 while striking against the Carnegie Steel Company in defense of their American rights, Dedicated September 1, 1941."*

The monument is one of several commemorations of the 1892 battle by steel workers and SWOC organizers during and shortly after the successful organization of the Homestead Steel Workers under the banner of the United Steel Workers of America in 1936 and 1937. The monument is included in the Homestead National Register Historic District, though not specifically mentioned in the nomination.

- **The Homestead Carnegie Library.** Located at 510 East Tenth Avenue in Munhall, the Carnegie Library is situated on land purchased by Carnegie, Phipps & Company in 1890 and used for encampment by the Pennsylvania Militia shortly after the Battle of Homestead in 1892. The library includes a Music Hall, Library, and Athletic Club. The library is directly and poignantly

linked to Andrew Carnegie and, although not completed until 1898, connected to the labor struggle itself. Carnegie promised Homestead a library in 1889, and initial plans were developed in 1892 before the battle. Built between 1895 and 1898, the library was dedicated by Carnegie in an emotionally charged ceremony in 1898 as a peace offering after the bitterness of the battle had faded. It is one of only three libraries (including Braddock, built in 1889 and Duquesne, 1901) that Carnegie provided with an endowment. Of these three, only the Homestead Library has served the community continuously since its construction.



**Carnegie Library.** Rivers of Steel photograph.

**Several Other Resources** are located nearby the foregoing resources. The **Carnegie Land Company, City Farm Plan Neighborhood** is a wedge-shaped section of Munhall extending from Eighth Avenue up the hill from McClure Street to the west and to Martha Street to the east, ending at Nineteenth Avenue. The section, which is partly included within the Homestead Historic District, features superintendents', workers' and middle-class housing dating from the 1890s to 1920s, the Carnegie Library, and St. Michael Roman Catholic Church. **Twelve brick smokestacks** are located on the former Homestead Works site and have been preserved and integrated into the multi-use development that was built between 1999 and 2001.

### *Context of the Study Area*

There was substantial community disruption and adverse economic impact in the Homestead vicinity when the steel operations were shut down in 1986, and the area has struggled to cope with this change. Nearby Pittsburgh has been a national example of downtown and community recovery from industrial downsizing, although this process has taken time. Similarly, the communities of the Lower Mon Valley have had difficult times coping



**S.W.O.C. Memorial.** Rivers of Steel photograph.



**Andrew Carnegie at dedication of Carnegie Library.** Rivers of Steel photograph.

with changed economic circumstances. However, the future of the Homestead vicinity is looking brighter, due to a combination of circumstances that include aggressive public sector revitalization efforts, including the establishment of the Rivers of Steel National Heritage Area, and an evolving development climate. On either side of the Homestead vicinity, major recreation attractions – Sandcastle water park and the Kennywood amusement park – act as magnets to pull recreational users to the area. The area is highly accessible to downtown Pittsburgh and metropolitan employment centers and the amenity of the reclaimed edges of the river is attracting development interest.

Concerted redevelopment efforts at the site of the main plant of the former Homestead Works have attracted an estimated \$350 million of development to this site, including retail uses, offices, and residential uses. Siemens Westinghouse Power Corporation is building a \$122-million fuel cell factory next to the Rankin Bridge and selected the site over other options because of preferred financing as well as the transportation and amenity advantages of the location. Across the river at Nine Mile Run, an innovative collaboration among the Army Corps of Engineers, the City of Pittsburgh Department of City Planning, and a local developer has been prompted by a large Combined Sewer Overflow wastewater project that will clean up a former slag dump from the steel mill operations and create a 110-acre expansion of Frick Park and a \$243-million housing development. Designation of an Enterprise Zone that includes the Boroughs of

West Homestead, Homestead and Munhall will attract significant funding and incentives to assist in preserving the buildings and settings within the Homestead National Register and Local Historic District. The Mon Valley Initiative, which initially advocated for National Heritage Area designation, is attracting housing rehabilitation and infill funding to the area. Allegheny County is coordinating study of the development potential of lands surrounding the Carrie Furnaces 6 and 7 and the ongoing activities of Rivers of Steel are resulting in rehabilitation of the National Historic Landmark Bost Building, a broad range of cultural activities, and trail initiatives along the Mon River Valley.

All these activities are important signs of optimism and positive change in the Homestead vicinity. The community fought hard to forestall the demolition of the main site of the Homestead Works. Perhaps it is appropriate to the steel industry that, when huge manufacturing plants close, these massive steel-sided buildings are recycled for scrap and go on to live another day as future steel products. These large structures, unfortunately, are typically not suitable for reuse, as has happened with the well-lit masonry mill structures from the textile and other industries. Through the actions of supportive local interests, the several important buildings and settings described in Resource Description (pg. 4) are indicative of the scale of manufacturing operations, as well as the community and powerful labor history of the Homestead vicinity. This Special Resource Study addresses the appropriate federal actions to preserve and interpret these resources.



## CHAPTER 2

# Significance

### Introduction

The first topic to be investigated in a Special Resource Study is the significance of the resources that are under consideration. The NPS has developed criteria to evaluate the national significance of a site. The National Park Service Management Policies 2001 state that a resource is nationally significant if it meets all of the following requirements:

- **Resource Quality** – It is an outstanding example of a particular type of resource.
- **Interpretive Value** – It possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation’s heritage.
- **Potential for Use** – It offers superlative opportunities for public enjoyment or for scientific study.
- **Integrity** – It retains a high degree of integrity as a true, accurate, and relatively unspoiled example of the resource.

Nationally significant cultural resources include districts, sites, buildings, structures or objects that possess exceptional value or quality in illustrating or interpreting our heritage. This chapter on significance is an evaluation of the individual and collective historical and thematic national significance of the Battle of Homestead site, the Carrie Furnaces Nos. 6 and 7, and nearby closely related resources according to the criteria listed above.

### Historical Significance and Themes

Extant cultural resources associated with the Homestead Works represent three broad threads in American history — *the role of engineering and technology in developing the American economy, labor’s role in developing the American economy, and peopling places and community* — reviewed in order in this chapter, as their sequence reflects their chronology. These topics are incorporated within, although not identical to, themes and sub-themes in the *History in the National Park Service: Themes & Concepts* (2000).<sup>5</sup> Theme V, *Developing the*

*American Economy*, incorporates “the activities of ... workers, entrepreneurs, and managers, as well as the technology around them” as well as sub-topic (5) under this theme, *Labor Organizations and Protests*. Theme I, *Peopling Places*, refers to “...communities [that] have evolved according to cultural norms, historical circumstances, and environmental contingencies.”

During the period from 1892 to 1951, the Homestead Works was a leader in technological innovation and the most productive steel mill in the Pittsburgh area, widely recognized as the leading steel center in the United States. Associated from 1883 to 1901 with one of America’s leading steel barons and philanthropists, Andrew Carnegie, the Homestead Works became a part of U.S. Steel in 1901, the nation’s first billion dollar corporation, and remained part of the “corporation” until its closure in 1986.

The critical events of July 1892 stand for both the high-water mark of craft unionism and the onset of the non-union period in the steel industry, from 1892 to 1936. Between 1936 and 1938, as Homestead’s steel workers played a leading role in the Steel Workers Committee’s (SWOC) effort to organize the steel industry, Homestead became a cradle of industrial unionism. During this period, the communities associated with the Works — Homestead, West Homestead and Munhall — reached their fullest development in size and in cultural expression. The events which brought closure to this period were the 1941 erection of a monument to strikers slain in the Battle of Homestead by the SWOC, an event which symbolized the triumph of industrial unionism; the expansion of the Homestead Works by the Defense Plant Corporation and concomitant destruction of ethnic neighborhoods in the “Ward district” during World War II; and the construction of the 1951 ore bridge at Carrie Furnaces Nos. 6 and 7, an addition that completed the modernization of Homestead’s iron-making plant.

### Industry and Technology: Homestead’s Role in Developing the American Economy

The Homestead Works was established in 1881 by the Pittsburgh Bessemer Steel Company. Andrew Carnegie purchased the Homestead Works in 1883. Under Carnegie’s dynamic leadership, the

Homestead Works grew to become the most productive steel mill in the Pittsburgh area by 1890 and the largest in the nation until about 1900.<sup>6</sup>

Carnegie's investments helped make Pittsburgh the steel capital of America by 1900. While the leadership of competitive capitalists like Carnegie and a tradition of engineering excellence partly explain the emergence of Pittsburgh, geographical factors also played a vital role. Changes in fuel and iron ore sources, which occurred during the 1880s and 1890s, created a shift in production from eastern to western producers. Eastern Pennsylvania iron and steel makers relied mostly on local ores and on anthracite for fuel. As coke was substituted for anthracite when blast furnace fuel and Lake Superior ores replaced local ores in the 1880s, Pittsburgh obtained a geographic advantage because of the city's proximity to the Great Lakes and to low-cost, high-quality Connellsville coke manufactured in southwestern Pennsylvania. By 1900, the Pittsburgh district manufactured 40% of the nation's iron and steel.<sup>7</sup>

After purchasing the Homestead Works, Carnegie dramatically transformed it from a Bessemer rail mill to a highly mechanized, fully integrated, heavy products mill. In rapid succession, Carnegie Steel Company installed three basic open-hearth furnace plants, blooming, slabbing and plate mills, structural mills, a wheel and axle works, and an armor plate forge. To ensure an adequate supply of iron for his open-hearth furnaces and thereby integrate the Homestead Works, Carnegie purchased the Carrie Furnace Company's iron works in 1898, which held two blast furnaces, Numbers 1 and 2. The Furnaces were situated across the Monongahela River from Homestead in Swissvale. To link them to steel making and shaping facilities at Homestead and thus more fully integrate the works, Carnegie built the massive Hot Metal Bridge in 1900-1901, which featured the heaviest span ever built at the time.<sup>8</sup>

The Homestead Works was an integrated steel mill containing facilities to smelt iron, make steel and roll the steel into finished shapes. Its tremendous growth came because Carnegie recognized the growing market for heavy structural steel, and was able to corner the market with his cost-cutting production methods. Under Carnegie, the Homestead Works was a leader in making the transition from iron to open-hearth steel in the production of structural shapes – principally beams for construction. By 1897 Carnegie Steel, with structural rolling operations solely at Homestead, controlled 49.37% of the structures market. Beams rolled at Homestead were used to build American skyscrap-

ers, including the 1885 Home Insurance Building, the nation's first skyscraper, as well as for the many steel truss bridges around the country.

Another product line that spurred the growth of the steel mill was armor plate, for which Carnegie was able to obtain contracts with the U.S. Navy. The Homestead Works produced the armor plate that played a central role in the development of American sea power, including that for Commodore Dewey's flagship in the Battle of Manila Bay, the *U.S.S. Olympia*. When installed at Homestead in 1899, the extant 48" universal plate mill was the largest in the world.<sup>9</sup> Homestead continued to supply armor plate and other steel products to the U.S. Armed Forces through much of the twentieth century, equipping President Theodore Roosevelt's "Great White Fleet" and earning the title "arsenal of democracy." Homestead's historic relationship with the U.S. Navy led the federal government's Defense Plant Corporation to enlarge the works in 1941 by some 110 acres, one of the largest expansions of steel plants during the war.<sup>10</sup> The following resources, personality and corporation were involved with Homestead and illustrate its role in *Developing the American Economy* through their innovations in the field of steel industry and technology:

**Carrie Blast Furnaces Nos. 6 and 7** represent technological innovations and improvements in furnace design developed to increase production. As built in 1906-1907, the design of Carrie was based on a set of technological innovations known as "hard-driving," in which more powerful blast engines, hotter blasts, larger blast furnaces, new raw materials storage and delivery systems and clean blast furnace gas were used to increase productivity. In addition, the furnaces were some of the first in the nation to be built specifically for the smelting of Mesabi iron ores. This design had a direct impact on the construction of other U.S. Steel blast furnace plants, most notably the furnace plant of the corporation's new Gary Works. Construction of the Gary Works commenced soon after the construction of Carrie 6 and 7, and the Gary facility adopted the same furnace lines and hot blast plant as those used at Carrie 6 and 7.<sup>11</sup>

**Carnegie.** Carnegie's empire was built on a simple formula: cut the costs of production, undercut the competition, corner the market, and profits will take care of themselves. Rooted in his Social Darwinist belief in the survival of the fittest and the desperate competitive struggle between steel firms in the 1880s and 1890s, this economizing drive was the foundation for Carnegie's management style

and his endless quest for more efficient production through new technologies and integration. It also defined his treatment of steel workers: long hours, low wages, bleak conditions, and anti-unionism all flowed from this basic economizing premise.<sup>12</sup>

Animated by this economizing drive, Carnegie revolutionized the steel industry. He introduced cost-accounting methods first developed by the Pennsylvania Railroad and hired savvy managers such as Charles Schwab, who later founded Bethlehem Steel. He achieved full integration of iron and steel making through his partnership with Henry Clay Frick, which placed at his disposal high-quality Connellsville coke at the price of production and by purchase of iron ore lands. In many cases “borrowing” from his competitors, he introduced high-volume, mechanized production technologies, including the practice of “hard-driving” at Carrie blast furnaces, and the “through-put” or continuous flow of materials system. And, with his defeat of the Amalgamated Association of Iron and Steel Workers in 1892, Carnegie rid his works of unionism, a force that threatened to drive up labor costs and challenge his control and the drive for economy that had characterized his operations.<sup>13</sup>



Cover of Leslie's Illustrated Weekly, 1892. Rivers of Steel.

By the turn of the twentieth century, Carnegie and his lieutenants had built the greatest steel empire in the world. Just as important, the “Carnegie spirit” of economizing had come to dominate the entire American steel industry.<sup>14</sup> With nothing more to accomplish and desiring to give away his vast wealth, Carnegie sold Homestead and all of his holdings to J.P. Morgan in 1901. Homestead and Carnegie's Monongahela Valley mills became the nucleus of the U.S. Steel Corporation, the nation's first billion-dollar company.

U.S. Steel institutionalized Carnegie's economizing policies. The “corporation,” as it was commonly called, expanded production at Homestead with two new open hearths, construction of Carrie blast furnaces Nos. 3, 4, 5, 6 and 7, new shops and an expanded armor plate division. Modernization of facilities and the expansion of production at Homestead continued, reaching its peak at the onset of World War II with the massive Defense Plant Corporation expansion.<sup>15</sup>

### Labor: Homestead's Role in Developing the American Economy

Far-reaching events in the history of the American labor movement occurred at Homestead during the 1892 to 1941 period. Few events in American

labor history have attracted as much attention as the Homestead Lockout and Battle of Homestead in 1892. Journalists made it a cause celebre during the summer of 1892. Their reports roused the nation, and the events at Homestead had an impact on the Presidential election of 1892. The battle inspired discourses, poems and songs, and soon became a part of American folklore. It made Homestead a famous place in labor history, attracting the attention of sociologists John A. Fitch and Margaret F. Byington for their acclaimed work for the Pittsburgh Survey during the first decade of the twentieth century.<sup>16</sup> A more recent outpouring of historical monographs has enshrined Homestead in academic literature and made the battle “one of the most ... thoroughly researched strikes in American history.”<sup>17</sup>

**The Battle of Homestead** - The dramatic events of the lockout, according to historian Paul Krause, “are among the most famous of American history,” so the “savage and significant” story need not be retold in detail here. The work of Krause, Montgomery and other historians has drawn attention to the tremendous strength of craft unionism in Homestead during the 1880-1892 period. The Amalgamated Association of Iron and Steelworkers bargained as equals with Carnegie Steel, played a role in setting the pace of production at Homestead and was a strong force in local government. In this period, the Amalgamated – not Carnegie – was the dominant force at Homestead.<sup>18</sup>

The lockout that gripped Carnegie's Homestead Works from the beginning of July to the end of November 1892 put the Amalgamated movement to the test. Under a new manager, Henry Clay Frick, who had smashed strikes in the coal and coke fields of the Connellsville district, the company built fortifications around the Homestead Works. Frick proposed drastic reductions in wages for skilled workers and refused to deal with the Amalgamated union. On July 2, the company discharged all its workers and served notice that thereafter the Homestead Works would operate as a non-union mill.

Frick and Carnegie wanted to destroy the Amalgamated because the union controlled the pace of production at Homestead. Composed largely of skilled iron and steel workers, the Amalgamated stood in the way of management's desire to install the new open-hearth steel making technology at Homestead with the objective of increasing production.



In response, Amalgamated lodges in Homestead rallied workers with mass meetings, elected an advisory committee of thirty-three members to direct the struggle and set up special committees to patrol the streets, watch for the importation of “scabs” and maintain law and order. In effect, the Advisory Committee, with its headquarters in the Bost building, became the government of Homestead.

Four days later, two barges filled with Pinkerton detectives arrived at the waterfront entrance to the Works, now known as “the landing site.” Refusing to obey the advisory committee’s instructions to depart, the Pinkertons held their positions along the landing site as hundreds of aroused Homesteaders gave battle. While Pinkertons fired through gun slits in the armor plating of their barges, the populace of Homestead assaulted the invaders with rifle fire, dynamite, flaming oil, cannon fire, and fireworks left over from the Fourth of July. Seven Homesteaders and three Pinkertons died in the shoot-out. Toward the end of the day, the Pinkertons surrendered, and as they were led from the landing site, they were forced to run a bloody gauntlet of angry men, women and children.

The Amalgamated won the Battle of Homestead, but as events unfolded, it lost the war for unionism due largely to the intervention of the Pennsylvania National Guard. Convinced that the sheriff of Allegheny County was unable to cope with the situation, Governor Robert E. Pattison ordered the deployment of the guard. On July 12, 1892, 8,000 soldiers under the command of General George Snowden began a 95-day occupation. This show of military might permitted civil authorities to regain control, and allowed Frick to restart the works with non-union labor. By November 24, the Homestead Works was in full production, and the Amalgamated voted to go back to work on Frick’s terms.<sup>19</sup>

Thus, in a period of just under five months, organized labor fell from its high place to a position of powerlessness. This fall of the house of labor placed Carnegie Steel “in the saddle,” and led to the elimination of the Amalgamated, first at Homestead and subsequently in the rest of the nation. At Homestead and in the nation’s mills steel workers lost the right to join unions, bargain collectively and play a role in setting hours and working conditions. The loss not only ushered in the long non-union period in labor relations, but also brought a

**1940s Strike.** Rivers of Steel photograph.



new order of social relations in steel communities. Workers lost their influence in community politics and their capacity to speak freely, and became dependents of powerful steel companies.

Such was the state of labor during the non-union period from 1892 to 1936. Steel workers were subjected to the “Carnegie spirit” of economizing. Like the technological systems that they operated, they were subject to “hard-driving” and became simply a cost of production. Blast furnace plant workers, in particular, were driven unmercifully. They worked seven-day, twelve-hour shifts, with a twenty-four hour turn every other Sunday, in a hot and smoke-filled environment where foreman and gang pushers drove the crews as hard as the equipment for the achievement of production records. Such treatment led to physical and mental exhaustion, as well as frequent accidents.<sup>20</sup> The movement known as “welfare capitalism” brought some amelioration of the arduous and dangerous working conditions in the mills during the 1910s and 1920s. Elbert Gary, President of U.S. Steel, initiated the movement to establish the eight-hour day, which became common in the industry by 1923.<sup>21</sup>

**Return of the Union** - As Homestead was the scene for the events that brought the demise of labor in 1892, it was also the setting for organized labor’s revival in the 1930s. Following the successful organization of the nation’s coal miners under the banner of the United Mine Workers of America (UMWA), President John L. Lewis established the Congress of Industrial Organizations in 1935 to organize steel and other workers in an industrial union. The Steel Workers Organizing Committee (SWOC) was formed the following year with UMWA Vice-President Philip Murray as chairman. SWOC inaugurated its national organizing campaign with a rally at Homestead on July 5, 1936, the anniversary of the Battle of Homestead.<sup>22</sup> Thousands of steel workers joined the successful rally, highlighting it with a march to the unmarked graves of the strikers killed in the 1892 battle. As steel workers from other Monongahela Valley mills joined the movement, Myron Taylor, chairman of the board of U.S. Steel, recognized SWOC on March 2, 1937, and signed a collective bargaining agreement. Steel workers finally had their union back. To further celebrate their triumph, SWOC’s Homestead local erected a monument along Eighth Avenue in 1941 honoring the martyrs of 1892.<sup>23</sup>

#### **Community: Homestead’s Social Institutions and Cultural Expressions**

Residents speak of Homestead as a “company town” to express the large influence that Carnegie

Steel and U.S. Steel had upon the development of the communities that grew up next to the steel mill. Yet, Homestead, West Homestead and Munhall were not classic company towns in the sense of Lowell, Massachusetts or hundreds of “coal camps” in the Appalachian coalfields. The steel company did not own all property in these steel towns, nor did it control every aspect of worker’s lives. There was a certain sphere of freedom and autonomy outside the world of work. Yet, the towns (especially Homestead and Munhall) were heavily influenced by the “corporation” and, at times, dominated by it.

By and large, the influence of Carnegie Steel and U.S. Steel on the communities they spawned waxed and waned according to the power of labor. During the period before the Battle of Homestead, when the Amalgamated reigned, workers, rather than the company, controlled local politics and set the agenda for community affairs. During this period of the workers’ republic, skilled, native-born, Protestant, European-Americans dominated — if not in numbers then in influence — and Homestead’s communities varied little from thousands of other commercial and industrial towns across the nation.<sup>24</sup>

The face of Homestead’s communities and their relationship to the steel company changed dramatically after the defeat of the union in 1892. As Carnegie took control, workers lost rights and power in the community just as they had lost the same inside the mill. In his 1907-1908 survey of Homestead’s steel workers, which was published in 1910 as “The Steel Workers,” John Fitch wrote of a “system of repression that stifles initiative and destroys healthy citizenship.” He harshly criticized the steel corporation for imposing the twelve-hour, seven-day week on blast furnace workers, for it had destroyed family life and citizenship.<sup>25</sup>

With a tremendous demand for semi-skilled and unskilled labor, Homestead attracted great numbers of immigrants from Eastern Europe during the 1892 to 1921 period. A series of laws passed during the 1920s restricted immigration from these nations, but African-American migrants made up for the decline, arriving in great numbers after a 1919 strike, a dismal failure for organized labor. As a result, the population of the Homestead area grew from about 500 in 1890 to nearly 20,000 by 1920. These newcomers, primarily Catholic, Greek or Russian Orthodox, spoke different languages and had different cultures than those of the “native stock.” Generally, immigrants from each particular nation or region lived in close proximity,



**Russian Club, 8th Avenue.**  
Rivers of Steel photograph.

developing distinct neighborhoods with their own churches, fraternal organizations and saloons. These ethnic neighborhoods were, for the most part, located below the railroad tracks in what was known as the “Ward” district. In this manner, they were able to carve out a sphere where they possessed some independence and, at the same time, adjust to the industrial order. As long as these unskilled, immigrant workers were docile, the steel company did little to directly impact their lives or communities.

During the twentieth century, Homestead and Munhall became a central focus for the numerous ethnic groups that settled and worked in the Homestead Works, as well as in surrounding boroughs. A large percentage of the mill’s workforce was Slavic. Slovaks established an American Slovak Literary Club and the First Slovak Building and Loan Association. They built the beautiful St. Michael the Archangel Church in 1927. Polish immigrants built two churches in Homestead, and Rusyns (a nationality also known as Ruthenians emigrating from the Ukraine) built three churches and had a club and a “Rusin Peoples Home.” The African-American community built at least four churches and lodges, including the Precious Jewel Masonic Lodge, one of the first Black Masonic organizations in the country. The Homestead Grays were a world-famous Negro League baseball team. Homestead’s Jewish community grew to be one of the largest mill town Jewish communities in the Pittsburgh area. By 1927, there were 1,100 Jews in Homestead and at least two synagogues.<sup>26</sup>

As the years went by, Carnegie Steel and U.S. Steel tempered their authoritarian stance with paternalistic welfare programs designed to reduce labor turnover, gain the loyalty of workers and divert attention away from poor working conditions and labor organizers. Carnegie Steel’s benevolence to the community was directed largely to the native stock neighborhoods above the railroad tracks. In 1894 a subsidiary of Carnegie Steel Company, the Carnegie Land Company, began to subdivide the City Farm area, a 144-acre tract, for the creation of a management/skilled worker neighborhood. Fine homes were built for the mill’s top management on Eleventh Avenue. On this same tract, which was incorporated into the borough of Munhall in 1901, Carnegie made his most conspicuous gift to the community. Dedicated in 1898, the Homestead Carnegie Library was the great philanthropist’s personal peace offering. Other individuals associated with Carnegie Steel made similar gifts: in 1903 Charles Schwab, who had been a

superintendent of the works, presented the C.M. Schwab Industrial School, built at his expense in Homestead.

After U.S. Steel purchased the Homestead Works in 1901, the corporation guided the development of Homestead communities with the same type of paternalistic policies. The corporation virtually controlled politics and local welfare and some public services programs. In 1910 U.S. Steel established a welfare department. Through this agency, the corporation underwrote playgrounds, picnics, sports clubs and even churches. The Carnegie Library also continued to exert a large influence in the community through its educational, recreational and cultural enrichment programs.<sup>27</sup>

The coming of unionization in the late 1930s gave workers bargaining power once more and established a new era of community relations. As New Deal Democrats replaced anti-union Republicans, local governments grew more responsive to the needs of workers. However, steel workers did not dominate community life in the manner their predecessors had before 1892. The attitude of dependence on the corporation for public services such as parks, schools and other community betterments continued.

The Homestead National Register District, particularly the Homestead Carnegie Library and the houses and churches found within the Carnegie Land Company, City Farm Plan neighborhood, depicts in architecture and landscape the cultural expressions and social institutions developed by the Homestead and Munhall communities during the 1892 to 1951 period. The principal cultural expressions of Homestead’s ethnic neighborhoods were churches. In 1940 fifty churches were listed in a community directory. Many of these remain as remarkable works of architecture. They attest to the religious and ethnic diversity of Homestead as a whole and evoke a feeling that religion was an important part of life in the community.<sup>28</sup> Recently restored, the Homestead Carnegie Library is a potential NHL property, especially in light of the fact that no Carnegie library has received NHL designation and that this structure illustrates such strong personal ties to Andrew Carnegie.

In terms of layout and the architecture of housing, community resources at Homestead are typical of riverine steel mill towns in Pennsylvania, including Bethlehem along the Lehigh River, Cambria on the Conemaugh and McKeesport, Duquesne, Braddock and Clairton along the Monongahela.



**St. John’s Church, Homestead Historic District.** Rivers of Steel photograph.



**Homestead Residents at St. John's Church.** Rivers of Steel photograph.

Each had a simple hierarchy, from the giant mill along the river, to the parallel business district and the housing and other structures situated on the slopes. Some communities, including Homestead and Braddock, developed riverfront neighborhoods. Housing was utilitarian for workers, and row houses were fairly typical. Distinct ethnic neighborhoods developed in most of the towns.<sup>29</sup>

Homestead conforms to this general pattern, for the most part, but it is somewhat unique in one respect. The lower part of the Homestead and Munhall boroughs, specifically the strip of land between Ninth and Eleventh Avenues, became a center for the building of churches during the first half of the twentieth century. A concentration of seventeen religious buildings was erected here between 1892 and circa 1950.<sup>30</sup> While the churches of this area give Homestead a distinctive character, the loss of its ethnic neighborhoods in the riverfront or “Ward District” during the WW II era in favor of plant expansion diminishes the general level of integrity of its communities.

### *Resource Evaluation and Determination of Significance*

The following descriptions explain the resources measured against the significance criteria defined in the Chapter 2 Introduction, above. These criteria included Resource Quality, Interpretive Value, Potential Use and Integrity.

#### **Bost Building**

The Bost Building is listed as an NHL for its association with the Battle of Homestead and retains a high level of integrity. Through its designation as an NHL, it has been determined to be nationally significant. However, its setting has been lost due to the clearance of the Homestead Works and other elements of the neighborhood surrounding the property. A summary of its significance includes:

- **Resource Quality** — The building is a singular resource and the only place at which the organizers of the strike/lockout that precipitated the Battle of Homestead met.
- **Interpretive Value** — The building will offer high value in illustrating and interpreting labor history: exterior and part of interior are undergoing restoration; interpretation will be provided.
- **Potential Use** — The building will be open to

the public and operated as an interpretive facility.

- **Integrity** — The building has high integrity. The integrity of its setting has been lost due to urban clearance, however.

#### **SWOC Monument**

Erected by steel workers, the SWOC monument commemorates the 1892 Battle of Homestead and the 1941 return of the union to power—bookends of the non-union period.

- **Resource Quality** — The monument is a singular resource and uniquely commemorates union recognition, and is intertwined with the Homestead workers and their community.
- **Interpretive Value** — The monument commemorative text is legible and offers strong value in illustrating and interpreting labor history and its link to community.
- **Potential Use** — The monument is within a public space with high visibility and access.
- **Integrity** — The monument is relatively unchanged since its installation. The integrity of its setting is diminished with removal of the Homestead Works.

#### **Battle of Homestead Landing site**

The Battle of Homestead Landing site was denied NHL status because of its lack of physical integrity. Site features include an 1892 brick pump house building, which was present during the battle but modified from its 1892 appearance and configuration; approximately fifty circa 1883 wooden pilings, also present during the battle, which are visible just under the water at the river's edge; and an 1893 steel cylinder water tower.

While the Battle of Homestead Landing Site has lost individual integrity, the site offers high value in interpreting labor history, and the rehabilitated Pump House is accessible to the public. The significance of the site can be summarized as follows:

- **Resource Quality** – The site is a singular resource: the site of the Battle of Homestead.
- **Interpretive Potential** – Although there is a loss of integrity, the area is capable of communicating its significance.
- **Potential Use** –The Pump House and river overlook are accessible to visitors and are

intended to be integral parts of the Rivers of Steel visitor journey experience.

- **Integrity** – The site has lost integrity, due to its truncation by changes to the river wall. Comparison with engravings of the time shows that the land formerly was graded gradually to the river, providing a more direct connection to the river (and to the Pinkertons' vessels). However, the site is directly opposite the Carrie Furnaces 6 and 7, on the opposite bank of the river, and does retain visual connection to this major remaining artifact of the Homestead Works.

### Carrie Furnaces 6 and 7

Following the demolition in the 1980s and 1990s of the Homestead Works and the other Carrie Furnaces, Carrie Furnaces 6 and 7 and the Hot Metal Bridge stand as the only remaining components of the Homestead Works.

The modernizations of the Carrie 6 and 7 plant in 1926 and 1936 were consistent with the further development and elaboration of "hard-driving" technologies by U.S. Steel engineers. In considering the integrity of this resource, it is important to recognize that by their nature, twentieth-century iron making facilities were continually modernized to increase productivity or adapt to the demands of new raw materials. As the plant stands today, lacking only its blowing engines, it is a good example of an American blast furnace plant that was a part of an integrated steel mill and developed in the first half of the twentieth century.

The plant retains all but one main component that was critical to its function as a blast furnace for an integrated steel mill: the blowing engines (although the blowing house remains). Over the years there has been some deterioration caused by the elements, including the collapse of the Carrie Furnace 7 cast house, but the remaining structures are in fair to good condition.

If Carrie is compared with the more intact Lehigh Plant of the Bethlehem Steel Corporation, now out of operation and undergoing study by the Smithsonian Institution for conversion to a Museum of Industrial History, or to USX's Edgar Thomson Steel Works at nearby Braddock, which is currently in operation, Carrie furnaces would not be considered the best and only example of these type of blast furnaces. However, it is a good example of technological innovation and hard-driving. Carrie has value because it still stands and can represent the importance of Homestead as an integrat-

ed steel mill. Currently, only one American blast furnace plant, the Sloss Furnaces in Birmingham, Alabama, has been designated a National Historic Landmark. Unlike Carrie, Sloss is a southern merchant foundry iron blast furnace plant that produced pig iron for the open market rather than for associated steel works, a very different type of operation. Since 70% of the nation's output of iron during the 1920s and 1930s was produced in integrated plants, Carrie is more representative of the dominant iron making technology in this period.

A survey of extant blast furnaces in 1996 showed that there are four furnace complexes in the United States that, like Carrie 6 and 7, were built before World War I and not significantly modernized after World War II. Like Carrie, these complexes include paired furnace stacks that were integrated with steel mills. In addition to Carrie 6 and 7, the furnace complexes are:

- Furnaces 1 and 2 of the Inland Steel Company in East Chicago,
- Furnaces 1 and 2 of the USX/Kobe Steel in Lorain, Ohio, and
- Furnaces 1 and 2 of the Wheeling-Pitt Steel Company in Steubenville, Ohio.<sup>31</sup>

These plants are currently in operation and the extent of renovations to their blast furnaces is not known. Other iron - or steel - making facilities that have been designated NHLs or park units include Tredegar Iron Works as part the Richmond National Battlefield Park in Virginia, Saugus Iron Works NHS in Massachusetts, Hopewell Furnace NHS in eastern Pennsylvania, the Cambria Iron Works NHL in Johnstown, Pennsylvania, and the Sloss Blast Furnaces NHL in Alabama. All of these facilities, except for Cambria, are from earlier periods (pre-1880s) and are examples of iron making, not steel. Besides Sloss and Saugus, none include blast furnaces and are not comparable.

In summary, assessment of the significance of the Carrie Furnaces includes:

- **Resource Quality** — Carrie 6 and 7 are a good example of blast furnaces from the era, but other examples exist in the nation that retain connection to steel works.
- **Interpretive Potential** — Because there is a loss of setting and the connection to the demolished Homestead Works is weak, the furnaces could provide interpretive and educational value only

if they are assisted through special programs and interpretive media.

- **Potential Use** — A high degree of intervention would be necessary to make the site capable of receiving visitors.
- **Integrity** — As an individual element of a steel plant, the furnaces have high integrity. Demolition of rest of the Carrie Furnaces site and Homestead Works resulted in loss of visual and functional connection to the mill of which the furnaces were an integrated component. The setting of the furnaces has lost integrity.

### Hot Metal Bridge

The bridge is important because of its unique design and its association with Andrew Carnegie, who owned the Homestead Works when the construction of the bridge began. It was the heaviest span ever built at the time. Although the bridge is dwarfed by many heavier spans today, it remains the only bridge standing in the U.S. designed to carry molten iron, rather than passengers or freight, over a major waterway. The bridge retains a high degree of integrity although its setting has been altered by demolition that has occurred over the past decade. On the Homestead side, there is an operating steel mill nearby, although unrelated to the original mill, and on the Carrie side, there are many acres of cleared land between it and Carrie Furnaces 6 and 7.

- **Resource Quality** — The Hot Metal Bridge is an excellent and unique example of this type of resource.
- **Interpretive Value** — Because of loss of setting and connection to the demolished Homestead Works, the bridge can provide good interpretive value if assisted through on-site programs and interpretive media.
- **Potential Use** — Because of loss of setting and connection to the demolished Homestead Works, the bridge can provide good educational value for visitors if assisted through on-site programs and interpretive media. A high degree of intervention would be necessary to make the bridge safe and secure for use by the public.
- **Integrity** — Individually, the bridge has high integrity. Its setting has lost integrity due to the demolition of a significant portion of the Carrie Furnaces site that connected to the north end of the bridge and full demolition of the Homestead Works on the south side of the river. The Hot

Metal Bridge stands alone and no longer connects the furnaces to a mill.

### Homestead National Register Historic District

Despite the demolition of the Ward District, most of the extant resources associated with the Homestead community maintain a generally high level of integrity. For example the Homestead Carnegie Library has been restored, and the churches are well maintained. However, the decline of the community following the closure of the mill has adversely impacted some of the churches. Due to a shrinking congregation, St. John's Greek Catholic Church has been sold to individuals, and its fate is uncertain. For the same reason, the Hungarian Reformed Church has suffered from neglect. However, when compared to nearby Braddock and Clairton, which contain operating plants, the resources within the Homestead district fare well. Surprisingly, neighborhoods and buildings in those communities have suffered more than those in Homestead from neglect and decay. Additionally, sources of outside funding associated with a large enterprise zone and state assistance are being targeted to these resources. As assessment of the significance of the district includes:

- **Resource Quality** — The district is a good example of a community organized around and influenced by a particular industry and includes individual resources that are outstanding.
- **Interpretive Value** — The district offers high value in illustrating the nature of a steel company town, particularly due to the tangible presence of "peace offerings" made by the company following the battle.
- **Potential Use** — The district and its individual resources are easily made ready for visitors. Many are currently open to the public.
- **Integrity** — The district retains high integrity.

### *Determination of Significance*

The resources considered in this study do not uniformly and fully meet the criteria for national significance. A summary of the findings related to each criterion is provided below.

- **Resource Type** — Collectively the resources form an outstanding ensemble of resources in the categories of labor and community at Homestead and are good examples of resources linked to

the steel industry.

Individually, not all resources exemplify outstanding examples of a particular resource type. The Battle of Homestead Landing site, Bost Building, Hot Metal Bridge, and Homestead Carnegie Library are unique examples in their categories. The Carrie Furnaces 6 and 7 and the Homestead National Register Historic district, while good examples, are not unique in their categories.

- **Interpretive Value** — Collectively the resources and their story offer high interpretive value in illustrating three broad themes in American history with particular focus on labor history. Those themes include: *the role of engineering and technology in developing the American economy, labor's role in developing the American economy, and peopling places and community.*

Individually some of the resources offer exceptional interpretive value for illustrating *labor's role in developing the American economy*, including the Bost Building, the Homestead National Register Historic District, Carrie Furnaces 6 and 7, and the Battle of Homestead Landing site.

- **Opportunities for Public Enjoyment or Scientific Study** — Collectively the resources could provide high educational value for visitors if assisted through on-site programs, interpretive tours and media.

Individually some resources are easily made visitor-ready and accessible, including the Bost Building, the Battle of Homestead Landing site, and the Homestead National Register Historic District through existing planned actions or new initiatives. Other resources such as the Carrie Furnaces 6 and 7 and the Hot Metal Bridge would need a high degree of intervention to make them accessible and visitor-ready.

- **Integrity** — The Bost Building, an NHL that was the site of a key series of events in labor history, meets all four significance criteria. The Carnegie Library, the Steel Workers Organizing Committee Monument and the Homestead National Register Historic District retain great site integrity, although their setting and relationship with the Homestead Works has been lost due to the plant's demolition. Similarly, the Carrie Furnaces 6 and 7 and the Hot Metal Bridge have retained individual integrity, although their setting has diminished integrity due to demolition of a large part of the Carrie

Furnaces site and the Homestead Works. Finally the Battle of Homestead site has lost its setting integrity due to the alteration made to the riverfront, the demolition of the Homestead Works and the new development on the site of the Works.

These significance criteria are summarized for each resource at the end of this section in Table 1: Application of Special Resource Study National Significance Criteria.

## Conclusion

Today the Homestead Steel Works is best remembered for two important occurrences in the nation's history:

- Homestead was the site of one of America's greatest and most far-reaching labor wars, the "Battle of Homestead" in 1892, and related developments during the nearly 50 years on the non-union period in the steel industry.
- The operation of the integrated plant was pivotal in the development of the American iron and steel industry during the 1892 to 1951 period, helped to identify Pittsburgh as the capital of "Big Steel" and influenced steel making throughout the country.

These are two distinct but interconnected stories. The Battle of Homestead is a nationally significant story about the struggle of workers to maintain their rights against industry supported by government. The 1892 Bost Building, 1892 Battle of Homestead Landing site, and 1941 Steel Workers Organizing Committee monument represent the role of labor at Homestead in developing and regulating the American economy. These resources are clearly associated with the labor movement and organized workers who challenged the hegemony of steel barons and corporate structures in 1892 and 1936-1937. The Bost Building was designated an NHL in 1999.

The second somewhat larger story is about steel making in the Pittsburgh area — the importance of Big Steel to our nation, the concept of hard driving and technological advances to boost production, and the associated culture and immigrant communities. For many generations, from the 1890s through the 1970s, the name Pittsburgh was associated with steel making in the United States. Some would say to tell the story of steel, it must be told in the vicinity of Pittsburgh.



Carrie Furnaces 6 and 7, the Hot Metal Bridge and the Homestead Historic District are important remnants of that industry. Carrie is the only blast furnace in the Pittsburgh area still standing that has not been altered to suit today's standards. Carrie Furnaces in combination with the Hot Metal Bridge tell an important part of the Homestead Works story and the much bigger Pittsburgh story. The Homestead National Register Historic District provides a context and a backdrop for the nationally important labor events that took place in the Homestead vicinity.

Individually, the resources (except the Bost Building) associated with the former Homestead Works do not meet the significance criteria for

inclusion in the National Park system. When considered as an ensemble, however, this collection of distinct resources is an outstanding example of the development of industry, labor and community; has the potential to offer superlative opportunities for public education and appreciation of this history; and has elements that retain integrity commensurate with the ever-changing nature of the industry.

**Table 1: Application of Special Resource Study National Significance Criteria**

	Resource is an outstanding example of a particular type of resource.	Resource possesses exceptional value or quality in illustrating or interpreting the natural or cultural themes of our nation's heritage.	Resource offers superlative opportunities for public enjoyment or for scientific study.	Resource retains a high degree of integrity as a true, accurate and relatively unspoiled example of the resource.
<b>The Bost Building</b>	The building is a singular resource and the only place at which the organizers of the strike/lockout that precipitated the Battle of Homestead met.	The building will offer high value in illustrating and interpreting labor history: exterior and part of interior are undergoing restoration; interpretation will be provided.	The building will be open to the public and operated as an interpretive facility.	The building has high integrity. The integrity of its setting has been lost due to urban clearance.
<b>Battle of Homestead Landing Site</b>	The Landing Site is a singular resource and the only place on which the Battle of Homestead took place. While its loss of integrity impairs its illustrative potential, it is a highly appropriate place for commemoration of the event.	Because of loss of integrity to the site itself, as well as loss of the site's setting due to demolition of the Homestead Works, site can provide good interpretive value if assisted through on-site programs and interpretive media.	Because of loss of integrity to the site itself, as well as loss of the site's setting due to demolition of the Homestead Works, site can provide good educational value for visitors if assisted through on-site programs and interpretive media.	Site has integrity of location but has lost integrity of other landscape characteristics.
<b>Carrie Furnaces 6 and 7</b>	Carrie 6 and 7 are a good example of blast furnaces from integrated steel plants of pre-WWII but have lost their setting and connection to demolished Homestead Works. Three other essentially similar examples exist nationwide that retain their connections to steel works.	Because of loss of setting and connection to demolished Homestead Works, furnaces can provide high interpretive value if assisted through on-site programs and interpretive media.	Because of loss of setting and connection to demolished Homestead Works, furnaces can provide good educational value for visitors if assisted through on-site programs and interpretive media. A high degree of intervention would be necessary to make the site visitable by the public.	As an individual plant, furnaces have high integrity. Demolition of rest of Carrie Furnaces site and Homestead Works resulted in loss of visual and functional connection to the mill of which the furnaces were an integrated component. Setting has no integrity.
<b>The Hot Metal Bridge</b>	The Hot Metal Bridge is an excellent example, although it has lost its setting and connection to demolished Homestead Works.	Because of loss of setting and connection to demolished Homestead Works, bridge can provide good interpretive value if assisted through on-site programs and interpretive media.	Because of loss of setting and connection to demolished Homestead Works, bridge can provide good educational value for visitors if assisted through on-site programs and interpretive media. A high degree of intervention would be necessary to make the bridge visitable by the public.	Individually, bridge has high integrity. Setting has no integrity due to demolition of most of Carrie Furnaces site and Homestead Works. Bridge stands alone and no longer connects furnaces to a mill.
<b>Homestead National Register Historic District</b>	The district is a good example of a community organized around and influenced by a particular industry, and includes individual resources that are outstanding.	The district offers high value in illustrating the nature of a company town, particularly due to the tangible presence of "peace offerings" made by the company following the battle.	The district and its individual resources are easily visitable. Many are currently open to the public.	The district retains high integrity.
<b>Ensemble of Resources</b>	Considered together, the steel, labor and community resources represent all elements of these integrated stories and provide a good, illustrative example.	Considered together, the steel, labor and community resources provide a critical mass of elements to illustrate the integrated themes of industry, labor history and development of community.	Considered together and if well supported by other agencies, the steel, labor and community resources can provide outstanding opportunities for education and public use.	Although the ensemble of resources can have no greater integrity than the individual components, considered together, the steel, labor and community resources represent all the basic components of these themes.

# CHAPTER 3

## Suitability

### *Introduction*

National Park Service *Management Policies 2001* require that sites under consideration for inclusion in the National Park System be evaluated for their suitability:

- 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.
- Adequacy of representation is determined on a case-by-case basis by comparing the potential addition 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 rarity of the resources, interpretive and educational potential and similar resources already protected by the national park system or in other public or private ownership. The comparison results in 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.<sup>32</sup>

NPS evaluates and assesses themes based on its 1996 Thematic Framework. This framework invites thoughtful consideration of larger trends and broader contexts that replaced earlier thematic emphasis of chronology of events and thematic topics. Adequacy of representation is determined by comparing the proposed addition to other units in the National Park System. In that comparison, the NPS considers differences or similarities in the character, quality, quantity or combination of resources and opportunities for public use.

This section describes how the resources meet the thematic framework and determines the suitability of including the resources in the National Park System by examining existing National Historic Site and park units and other historic sites around the

country in public ownership to determine the extent to which the story and themes of resources considered by this SRS are told elsewhere.

### *Thematic Framework*

Although the former Homestead Works has been largely demolished, important resources remain in its vicinity that illustrate three broad themes in American history: *the role of engineering and technology in developing the American economy*, *labor's role in developing the American economy*, and *peopling places and community*. As noted in Historical Significance and Themes (pg. 10), these themes are incorporated in Theme I: Peopling Places and Theme V: Developing the American Economy, as well as sub-topics to these themes, identified as part of the *History in the National Park Service: Themes & Concepts* (2000).<sup>33</sup> The relationship and importance of the resources that represent each of these broad themes is summarized below:

- **Carrie Blast Furnaces 6 and 7 and the Hot Metal Bridge** portray *the role of engineering and technology in developing the American economy*. They represent technological innovations and improvements made at the Homestead Works by Carnegie Steel and U.S. Steel engineers to increase production during the 1907 to 1951 period. At Carrie, the practice of “hard-driving” with the utilization of Mesabi ores was developed. These innovations, together with comparable technological advances in steel making and shaping, made Homestead the most productive steel mill in the Pittsburgh area during the twentieth century and made Pittsburgh itself the steel capital of America.
- **The Bost Building, Battle of Homestead Landing Site, Steel Workers Organizing Committee Monument, as well as Carrie 6 and 7**, represent *labor's role in developing the American economy*. The first three resources are important sites in the history of the American labor movement. The Bost Building and Battle of Homestead landing site were the primary settings for the historic Battle of Homestead in 1892, which inaugurated the non-union period that lasted until 1937. The SWOC monument commemorates union workers slain in the 1892

battle and the triumph of industrial unionism in 1936 and 1937. The Carrie Furnace site represents labor's plight of arduous work, long hours and unhealthy conditions during the non-union period, when workers were subjected to the same inhumane hard-driving as the machinery.

- **The Homestead Historic District, particularly the Homestead Carnegie Library and a complex of churches and housing in the City Farm Plan Neighborhood**, represents the theme of *peopling places and community*, including the development of social institutions and expression of cultural values during the 1892 to 1951 period. The association of buildings with steel workers, as well as the layout of the communities and the architecture of buildings, convey a key part of the Homestead story.

### *Comparison With Other National Park Service Units and Historic Sites Managed by Others*

Out of the 380 units of the National Park System, only 9 are highlighted by NPS to represent industrial themes. Two NPS sites represent early iron-making and no sites represent the steel industry. No sites deal with the combination of themes described in Chapter 2 from the end of the nineteenth through the mid-twentieth century: *the role of engineering and technology in developing the American economy*; *labor's role in developing the American economy*; and *peopling places and community*.

The following is a descriptive overview of the historic sites that represent these thematic topics. The historic sites that were examined included National Park System units that deal with themes of industry as well as several other sites not in the system that deal specifically with iron and steel industries. These sites are grouped into categories corresponding to their current management, with sites in each category listed chronologically.

#### **National Park System units**

- **Saugus Iron Works National Historic Site, MA.** This is the site of the first integrated iron-works in North America, 1646-1668. It includes the reconstructed blast furnace, forge, rolling mill and a restored seventeenth century house. Saugus illustrates the critical role of iron making to seventeenth-century settlement and its legacy in shaping the early history of the nation. This site does not deal with the steel industry, predates the labor movement and has no relation-

ship to an adjacent community of the period.

- **Hopewell Furnace National Historic Site, PA.** The buildings include a blast furnace, the iron-master's mansion, village and auxiliary structures. Hopewell Furnace was founded in 1771 by ironmaster Mark Bird. The furnace operated until 1883. Hopewell Furnace NHS is committed to preserving and interpreting the site to represent an iron-making community and a significant way of life and work in the late eighteenth and nineteenth centuries. This site is rural in character, does not deal with the steel industry and deals with labor themes of an earlier period.
- **Lowell National Historical Park, MA.** The site is a partnership park that commemorates America's Industrial Revolution as well as themes of immigration and urbanization. The Lowell Park includes the Boott Cotton Mill Museum, with an operating weave room of 88 power looms, "mill girl" boardinghouses, the Suffolk Mill Turbine Exhibit and guided tours that tell the story of the transition from farm to factory, chronicle immigrant and labor history and trace industrial technology, including Lowell's extensive power canal system. This site emphasizes nineteenth century industrialization and has strong resources that interpret the relationship of industry to workers and their community. The site deals with the textile industry, whose form and technologically are significantly earlier and different in scale from the steel technology represented at Homestead. Although the site deals with workers and labor, it does not focus on labor movements and protests.
- **Tredegar Iron Works, VA.** A private firm, Tredegar was the South's largest major antebellum rolling mill capable of producing cannon and railroad rails, and it operated from 1843 to 1957. After closing, most of the aboveground structures were razed. The Ethyl Corporation bought the site, restored the Confederate Gun Foundry and stabilized the rest of the site, and today allows the NPS and the Riverfront Development Corporation to use key portions of the site for public benefit and interpretation. The site includes a new visitor center and exhibits interpreting the Richmond National Battlefield Park and the Iron Works. The visitor center for the Richmond National Battlefield Park is located in the Pattern Storage Building. The evolution of the Tredegar site is illustrated from its beginnings as one of Richmond's many flour mills to its unique identity as the Confederacy's major supplier of artillery. The significant period and technology of this site predate the

era of steel, and the site has no strong relationship to an adjacent community.

- **Port Chicago Naval Magazine National Memorial, CA.** This site, located on the Sacramento River on a naval ammunition base, was the site of a tragic explosion on July 17, 1944, that killed 320 men, of whom 202 were black enlisted men. This site is an affiliated area and is the only NPS site that centrally deals with the theme of Labor Organizations and Protests, as it was the site of a spontaneous work stoppage, which amounted to a mutiny, on August 9 of the same year, as well as a two-day hunger strike organized by 1,000 African-American construction battalion workers to protest racist conditions and hiring practices. The tragedy was a factor in the U.S. military steps to end racial inequality after WW II. Although this site deals with labor themes, its story of racial inequality is not central to Homestead's resources and the site does not deal with the steel industry. Special permission from the U.S. Navy is required for entry to this site, and it is of limited interpretive value to the general public.

### **Historic Sites Managed by State or Local Entities**

- **Cornwall Iron Furnace, PA.** This historic site is administered and managed by the Pennsylvania Historical and Museum Commission. It includes the stone furnace, steam-powered air-blast machinery and several related buildings that survived intact through the years. The stone furnaces are a dramatic landscape feature at this completely preserved mid-nineteenth century iron-making complex, which was in blast from 1742 to 1883. This site does not deal with the steel industry, predates the labor movement and does not have a strong relationship to an adjacent community of the period.
- **The Scranton Iron Furnaces, PA.** The Lackawanna Iron and Coal Company Furnaces represent the remnants of an industry with statewide significance. The Iron Furnaces operated from 1841 to 1903. In 1903 the operations ceased, as its owners relocated the company to upstate New York for better access to raw materials and shipping. The site was sold to the Wyoming Valley Railroad, which contracted with a Philadelphia company that scrapped all of the equipment and tore down all the structures except the stone blast furnaces. In the late 1960s, the furnaces were acquired by the Commonwealth of Pennsylvania. Currently the site is managed by the Pennsylvania Historical and Museum Commission and is part of the Pennsylvania Anthracite Heritage Museum. This site deals with relatively early iron blast furnace technology that substantially predates the steel industry and its larger scale and more technologically sophisticated methods. The site has no relationship to an adjacent community or to important labor movements.
- **The Lehigh Plant of the Bethlehem Steel Corporation, PA.** In 1863, the first iron was produced in Bethlehem for the rolling of railroad rails. In 1904, Bethlehem Steel was incorporated, and in 1941, operations at Bethlehem Steel shifted to all-out war production of steel plate for ships and tanks, structural steel for defense plants and forgings for guns, shells and aircraft engines. After the war, production shifted to coated steel sheets. The steel plant closed in 1995. The world headquarters of Bethlehem Steel Corporation remains here. The site is being redeveloped as a mixed-use complex, and in 1997, the Bethlehem Steel Corporation signed a memorandum of understanding with the Smithsonian Institution for the long-term loan of artifacts from the 1800s to be exhibited in a new museum, the National Museum of Industrial History, which will be affiliated with the Smithsonian. The museum will be located in the plant's No. 2 machine shop. The site is a key component in the Delaware and Lehigh National Heritage Corridor. This site deals strongly with steel technology and industry and has strong relationships to its adjacent community. However, this site is not strongly associated with significant events of the labor movement.
- **Sloss Blast Furnaces, AL.** This NHL is publicly owned and operated by the City of Birmingham. The Sloss Blast Furnaces operated from 1882 to 1971 and is now open to the public as a museum of industry. It illustrates the beginning of industrialization in Alabama and the importance of the site to the development of its community and Birmingham. It also illustrates the central role African-American workers played in the industrial economy of the South at the turn of the century. This site does include significant blast furnace remains, although its focus was industrial pig iron, not steel. The site also deals with important labor stories, particularly the segregation of tasks of African-American workers and their struggle for fair treatment, although the plant was never unionized and this resource does not deal with the key events in the labor movement.
- **The Cambria Iron Works, PA.** This complex is a NHL that is considered one of the most intact

nineteenth century steel-making complexes in the country. Once owned by the Cambria Iron Company, it was known as the country's top steel rail producer during the late 1870s. Today, the site is owned by the Bethlehem Steel Corporation, and while many of its mill buildings have been demolished, there are still numerous structures left intact and unused at the present time. This site has strong relationships to the early steel industry (predating Carnegie and his "hard-driving" concepts) and is closely associated with ethnic neighborhoods that have close associations to the plant. The site is not strongly associated with national labor events.

- **The Ford Rouge Plant, MI.** This site is a NHL, initially developed by Henry Ford in 1917 and by 1930 was the largest industrial complex in the world. The plant was a vertically integrated complex that delivered raw materials that were required for automobile production, combined several levels of manufacturing processes, including a steel mill, and assembled these products into cars. At peak, the plant employed 100,000 workers and produced a new car every 49 seconds. The plant was also the site of major events in labor history including "the Battle of the Overpass" in 1937 involving Walter Reuther, who went on to achieve UAW recognition by 1941. The site is still used for active production by the Ford Motor Company, which is in the process of major reinvestment to modernize facilities with an environmentally responsible "green" philosophy. This site includes important elements of all three themes present at Homestead, including industry & technology, labor, and community, as it adjoins southwest Detroit whose form and ethnic structure was strongly influenced by the job opportunities of the Rouge. A planned modernization by Ford Motor Company may substantially alter the historic resources at the Rouge and its continued use as a manufacturing plant may create significant potential conflicts with visitor activities. Although the site includes a still-functioning steel mill, its primary association remains with the automobile industry.

## *Determination of Suitability and Conclusion*

Based on the preceding analysis, the following findings have emerged:

- The labor protest and organization story has very limited representation in the National Park

System. The sole NPS site devoted to this theme is the Port Chicago Naval Magazine National Memorial, which is on U.S. Navy property and not open to the public. The NHL Bost Building specifically illustrates this labor theme. Nearby resources, including Carrie Furnaces 6 and 7, as well as other sites along the Lower Monongahela River in nearby Braddock, Duquesne and Pittsburgh, place labor in the context of the "big steel" era and its community, as represented by the Homestead Historic District. The combination of these resources offers unique interpretive potential.

- No existing National Park System sites nor sites managed by other entities focus on the "big steel" industrial period and technology represented by Homestead. The consolidation and scale that occurred within the steel industry in the very late nineteenth and early twentieth century resulted in construction of massive steel plants in close proximity to associated worker communities. The relevant NPS industrial sites either interpret other industries (e.g., textiles at Lowell) or earlier charcoal iron technologies and earlier contexts where community associations are weak (e.g., Saugus Iron Works and Hopewell Furnace).
- Other former industrial sites that are managed by entities other than the NPS do not deal effectively with the combination of themes to be found at Homestead. Some of these sites do not strongly represent the labor themes to be found at Homestead (e.g., Bethlehem, Tredegar and Sloss). The Ford Rouge Plant and its adjacent neighborhood illustrate a combination of themes, but related to a different industry. The Rouge Plant continues to remain in active production, posing a threat to the integrity of its earliest production facilities through modernization.

Based on the review of existing historic sites and other research, this study concludes that there is an outstanding opportunity to tell the important story of labor organizations and protests within the context of the steel industry and related communities' resources. While other furnace complexes and related iron and steel industry resources are available and interpreted in Pennsylvania and elsewhere, this site offers a prime ensemble of resources to interpret the intertwined and nationally important stories of labor, the "Big Steel" era, and community. The finding of this examination is that the Bost Building NHL and certain supporting resources are suitable for inclusion in the National Park System.

## CHAPTER 4

### Feasibility

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 proposed park boundaries and,
- Be capable of efficient administration by the NPS at a reasonable cost.

Regarding the issue of size and appropriate configuration, the discontinuity and loss of integrity caused by the demolition of the Homestead Works have diminished the overall setting, placing the multiple resources considered in the Homestead vicinity into a context that would be difficult for visitors to perceive and understand as a conventional NPS unit. The development of contemporary shopping and mixed-use development on the site of the former Homestead Works creates a discontinuity of land use between resources that is not characteristic of the typical national park setting. Additionally, the communities within which these resources are located have been and will be compelled to seek productive uses on the major tracts of land cleared when the Works were demolished as well as lands adjoining Carrie Furnaces 6 and 7. The consequence of this search for new development and taxable uses is likely to result in other significant new future development in relatively close proximity to key resource sites.

Exacerbating these intrusions onto the cultural scene, the Pennsylvania Department of Transportation is now in the process of detailed studies of a major toll highway to the immediate north of the Carrie Furnace 6 and 7 site. The combination of the noncontiguous sites and the uncertainty regarding ultimate nearby development between and adjacent to these sites does not fulfill

the conventional expectations regarding quality of setting for a NPS unit.

Regarding the issue of efficient administration by NPS at a reasonable cost, the scale and nature of the industrial artifacts at Carrie Furnaces 6 and 7 will require considerable expenditures of funds for stabilization, preservation and interpretation. Estimates show that a minimum of \$15 million would be required for stabilization and rehabilitation of the Carrie Furnace 6 and 7 complex alone, not including site acquisition, interpretation or improvement. The long-term management and maintenance of this physical resource will require ongoing funding that is difficult to estimate. It is difficult to support NPS commitment to the resource and property management obligations of the collection of resources found at Homestead, given other system-wide cost and maintenance pressures.

For these reasons — quality and configuration of the resource, uncertainty regarding the protection of the resource setting over time, and significant improvement and operations cost exposure — this study concludes that establishment of a conventionally managed, federally owned and operated NPS unit in the Homestead vicinity is not feasible.

For reasons enumerated in Chapters 2 and 3, however, the study does find that the collection of resources in the Homestead vicinity have an important story to tell about labor and “Big Steel,” that these stories and resources are not represented in the National Park System, nor are they dealt with effectively by sites operated by other public or private entities. Accordingly, while this study finds that creation of a new unit of the National Park System is not warranted, it does recommend that other types of federal recognition be considered, including designation of an affiliated area of the National Park Service.



## CHAPTER 5

### Need for Direct NPS Management

NPS management policies require that, prior to recommendation for creation of a NPS unit, that direct NPS management be demonstrated to be the “clearly superior” course of action. Several factors particular to the Homestead vicinity resources argue against the need for, or desirability of, direct NPS management. Inasmuch as the Bost Building, an NHL, has already been improved by collaborative effort between SIHC and the Commonwealth of Pennsylvania and will be managed by SIHC, NPS management is not essential to its preservation or interpretation. The integrity of the Battle of Homestead Landing site is diminished, making NPS acquisition or management of this site inappropriate. The Homestead Historic District includes hundreds of properties in private ownership that would not be practical or desirable for NPS ownership or management. Carrie Furnaces 6 and 7 are important industrial artifacts that require a very high level of investment and intervention for preservation, interpretation and ongoing operations that would not be supportable or affordable by the NPS alone. The scale of interpretation that was envisioned in proposals for the Rivers of Steel Management Action Plan suggested magnitudes of expenditure and interpretive techniques that would be beyond the capacity of the NPS to achieve.

Nonetheless, this Special Resource Study has concluded that some of the resources in the Homestead vicinity are individually important and that the resources as a group have considerable interpretive value and could be suitable for inclusion in the National Park System. NPS ownership and management of these individual or collective resources is not feasible nor is direct NPS management required. However, the value of the resources and the importance of the themes they convey raise the possibility that other management alternatives should be considered that do not rely on NPS ownership of land or buildings but have some other level of participation of the NPS.

One possibility that is considered among other alternatives reviewed in the following chapter is the designation of an “affiliated area” that would recognize the area’s importance to the nation without requiring or implying management by the NPS. To be considered as an affiliated area of the National Park System, the area’s resources must (1) meet the standards for national significance that apply to

units of the National Park System; (2) require some special recognition or technical assistance beyond what is available through existing NPS programs; (3) be managed in accordance with the policies and standards that apply to units of the National Park System; and (4) be assured of sustained resource protection, as documented in a formal agreement between the NPS and the non-federal management entity.

These criteria for designation of an affiliated area are briefly discussed below and amplified in the alternatives presented in Chapter 6:

- **Meet the standards for national significance that apply to units of the National Park System** – As noted in Chapter 2, the Bost Building, as an NHL, is an individual structure that meets the test of national significance, whereas the group of resources do not rise to the level of significance. The full ensemble of resources possesses exceptional interpretive value for the thematic topics of labor history and the powerful story of “Big Steel.”
- **Require some special recognition or technical assistance beyond what is available through existing NPS programs** – Labor history, particularly the sub-theme of “Labor Organizations and Protests” has very limited representation in the National Park System, nor, as noted in Chapter 3, are sites associated with the steel industry. Although the recognition provided by designation of the Rivers of Steel National Heritage Area is helpful, the special role of Homestead and “Big Steel” in the nation’s labor history require a focus and emphasis that is not practical to expect from a large heritage area that includes seven counties. Moreover, the preservation and interpretation of the Carrie Furnaces 6 and 7 will require significant resource commitments from local entities that may be difficult or impossible to achieve without explicit national recognition of this resource. NPS recognition and assistance may be pivotal to protect and interpret the resources considered in this study.
- **Document that a cooperative arrangement with the Park Service and contributions from other sources will be adequate to assure long-term protection of the resource** — NPS

already is cooperating with Rivers of Steel in providing technical assistance to the Rivers of Steel National Heritage Area, with special focus on trail opportunities through its Rivers, Trails and Conservation branch. The Commonwealth of Pennsylvania has provided considerable funding to rehabilitation of the Bost Building and has indicated that substantial support from the state to Carrie Furnaces may be available if this resource receives NPS recognition. Further, there is a considerable precedent in the Pittsburgh region for foundation and private support for historic and community resources, most recently manifest by a significant expansion of the Pittsburgh History Center on the Allegheny River, as well as by the expanded activities of the Pittsburgh History and

Landmarks Foundation to resources associated with the steel industry. It is likely that substantial capital funding can be raised through public and private sectors, if the Homestead and specific related resources are included in an affiliated area of the National Park System. Specific commitments may be impractical to secure until local entities have the opportunity to cooperatively plan with the assurance that national recognition is established.

- **Be assured of sustained resource protection.** This criterion is highly dependent on the recognition and cooperative management and funding approach that would be developed and is reviewed in the context of the alternatives in the following chapter.

## CHAPTER 6

# Management Alternatives

### Introduction

This chapter describes management alternatives to protect and interpret the nationally significant resources and themes of the study area.



Guided boat tour, 2001.  
Rivers of Steel photograph.

- **Alternative 1: Continued Support to Rivers of Steel National Heritage Area** – The Rivers of Steel NHA management entity, the Steel Industry Heritage Corporation (SIHC), would continue to be the primary entity responsible for preservation and interpretation of the resources in the Homestead vicinity, as part of its general mission to conserve, promote and manage the historic, cultural, natural and recreational resources of steel and related industries in southwestern Pennsylvania and to develop uses for these resources so they may contribute to economic revitalization of the region. NPS would continue its current support to the SIHC, who would continue its endeavors to implement the Management Action Plan for the NHA. No additional federal action would be proposed.
- **Alternative 2: The Homestead Steel Workers National Historic Site** – The focus of Alternative 2 would be the stories of steel workers, their communities, and their dramatic struggle with powerful steel companies to secure decent working conditions and fair wages, including a nearly 50-year struggle to rebuild a union after it was broken by the Battle of Homestead. Congress would designate a National Historic Site as an affiliated area of the National Park System to enable NPS to provide financial, interpretation and preservation assistance to local public and private entities beyond that provided by existing authorities. NPS assistance would be directed toward key resources in the vicinity of the former Homestead Works and its community that illustrate these themes. The boundary of the NHS would include certain noncontiguous historic sites in Homestead, West Homestead, Munhall, Swissvale and Rankin, Pennsylvania.
- **Alternative 3: Lower Mon Valley Steel National Historic Site** – Alternative 3 would focus on the stories of steel workers, their communities and their dramatic labor struggles –

told in the Homestead vicinity. It would place the unique labor story of Homestead in a larger context by expanding interpretation to encompass the historic industrial sites and related resources that line the Lower Mon Valley to convey the massive scale of the “Big Steel” industry that employed hundreds of thousands of workers, built mammoth plants that indelibly imprinted the form and culture of its river landscape and produced basic materials that changed the lifestyles of a nation. Congress would designate a National Historic Site as an affiliated area of the National Park System to enable NPS to provide technical and financial assistance to local public and private entities for interpretation and preservation of resources beyond that provided by existing authorities. The boundary of the NHS would include the same sites as Alternative 2, which would be eligible for interpretation and preservation assistance, supplemented by a corridor of varying width on both sides of the Lower Mon River between the Youghiogheny River and the confluence of the Mon with the Allegheny River. Along this river corridor, where limited NPS interpretive assistance would be available to link resources in the Homestead vicinity to other steel industry related resources, the scope and power of the “Big Steel” story can be appreciated by the public.

The alternatives described in this chapter adopt various strategies for resource protection, interpretation, management and NPS involvement.

### *Actions common to all alternatives*

Actions common to all alternatives include the following:

- The Steel Industry Heritage Corporation (SIHC) would continue to implement the Rivers of Steel National Heritage Area (NHA<sup>34</sup>) Management Action Plan and provide assistance to local entities to accomplish preservation and interpretation of the resources within the large NHA boundary.
- NPS would provide continued financial and technical assistance to the Rivers of Steel NHA, consistent with financial limits and time periods

defined by the legislative mandate that established the NHA.

- The Bost Building rehabilitation and exhibits would be completed with assistance from the Commonwealth of Pennsylvania's Heritage Park Program to include interpretive exhibits and an initial visitor center for the Homestead vicinity.
- Current public and private support for preservation efforts in the Homestead vicinity would continue, such as rehabilitation of the Pump House by the owners, and efforts to preserve, rehabilitate and effectively use the Homestead Historic District, with assistance from various county, state and other sources. A historic architectural review board that has been established to review actions in the Homestead Historic District will exercise good stewardship and leadership for resource preservation.
- Additional assistance for preservation and interpretation would continue to be provided based on other existing authorities and programs including the Pennsylvania Heritage Park Program, Enterprise Zone funding, and other public initiatives.
- Significant assistance would continue to be provided from private and nonprofit entities, charitable sources of funds, and other entities that have assisted the Rivers of Steel NHA effort since its inception in the early 1990s.
- The interpretive strategy for the Homestead vicinity would include the three interlinked topics of the *steel industry's role in the development of the American economy, labor, and community* as delineated in Chapter 2 of this report.
- NPS would not own or manage any resources.

### *Alternative 1: Continued Support to Rivers of Steel National Heritage Area*

*This alternative assumes continued implementation of the Rivers of Steel NHA Management Action Plan by SIHC in partnership with the Commonwealth of Pennsylvania, NPS, and other public and private entities, with no further federal action.*

#### **Action Description**

The Rivers of Steel NHA management entity, the Steel Industry Heritage Corporation (SIHC), would continue to be the primary entity responsible for

preservation and interpretation of the resources in the Homestead vicinity, as part of its general mission to conserve, promote and manage the historic, cultural, natural and recreational resources of steel and related industries in southwestern Pennsylvania and to develop uses for these resources so they may contribute to economic revitalization of the region. The Rivers of Steel State and National Heritage Area would continue to be implemented by SIHC with assistance from local, state and federal partners. The NPS would continue to provide technical and financial assistance, as authorized in Public Law 104-333, Title IV. Additional assistance could be provided based on other existing authorities and programs, as funding is available. No additional federal action would be proposed.

This alternative constitutes the "no action" alternative required by the National Environmental Policy Act (NEPA). It assumes a continuation of existing trends and no additional federal action, and therefore constitutes a baseline against which the two "action" alternatives can be measured. It describes current conditions as they may be expected to continue over the next five or ten years. This alternative is far from passive, as it assumes that the Pennsylvania Heritage Parks Program, NPS, and other entities would continue to help SIHC, the authorized management entity for the NHA, to implement the Heritage Area Management Action Plan.

The SIHC is a nonprofit organization whose mission is to conserve, promote, and manage the historic, cultural, natural, and recreational resources of steel and related industries in southwestern Pennsylvania and to develop uses for these resources so they may contribute to economic revitalization of the region.

The Management Action Plan was originally prepared in 1995 to fulfill requirements of the Pennsylvania Heritage Parks Program and was subsequently broadly accepted by the Secretary of the Interior in fulfillment of the planning requirement for the Rivers of Steel NHA. The plan called for intergovernmental cooperation on many levels across seven counties and assumed that assistance would continue to be available from the Pennsylvania Heritage Parks Program and from other entities, identifying a total regional investment far exceeding the maximum \$10 million of Federal funding authorized for the Rivers of Steel NHA.

The Management Action Plan defined a series of

river journeys along the Ohio, Youghiogheny, Allegheny and Ohio River Valleys that would tie together diverse resources across the seven counties. Each journey included groups of resources sharing common themes, exhibits, historical sites and attractions. The plan proposed creation of river landings, support of a tour boat system, and assistance to key resource communities at each landing to encourage preservation, interpretation and development. Figure 3 shows the seven-county area included within the Rivers of Steel Area.

Homestead was proposed as the central anchor location for a Steel Heritage Interpretive Center to serve the entire Rivers of Steel NHA, as well as the heart of a “Big Steel” journey that would focus on Andrew Carnegie and his empire, connecting Homestead to the Carnegie Science Center and Station Square areas of Pittsburgh, and potentially extending from Duquesne on the lower Monongahela River to the settings of Sharpsburg and Lawrenceville on the Allegheny River. Alternative 1 assumes that the river journeys will continue to be a focus of SIHC effort.

Many of the actions proposed in the Management Action Plan, as well as a significant proportion of the plan’s capital budget, focused on Homestead and its related resources, including the rehabilitation and reuse of the Bost Building for exhibits and a visitor facility, rehabilitation of Carrie Furnaces 6 and 7 to serve as a Steel Industry Heritage Center to support the entire NHA, improvement and interpretation of the Battle of Homestead Landing site, and rehabilitation assistance to historic workers’ communities, including the Homestead National Register District. Alternative 1 assumes that SIHC will continue to use its authorized funds and to solicit new funds to make major improvements to all these sites.

The Management Action Plan recommended designation of a National Park unit at Carrie Furnaces and defined an ambitious investment program for the Steel Industry Heritage Center there. Alternative 1 assumes that, contrary to the plan’s recommendation, NPS designation would not be given to Carrie Furnaces, based on the findings of this Special Resource Study. This alternative assumes that the improvements anticipated in the Management Action Plan would have to be supported by other public and private sources, including state and local funding. Consequently, Alternative 1 is likely to result in scaling down of the proposed actions at Carrie Furnaces, an extended schedule to accomplish major improvements at Carrie Furnaces or a combination of both.

Considerable funds would need to be raised beyond those authorized as part of the Rivers of Steel NHA. This alternative assumes that SIHC would continue to aggressively seek additional sources of assistance from existing public and private entities and would continue its strong relationships with the Pennsylvania Heritage Park Program to implement most elements of its Management Action Plan, including proposed improvements in the Homestead vicinity.

Figure 4 shows Alternative 1.

## Interpretation

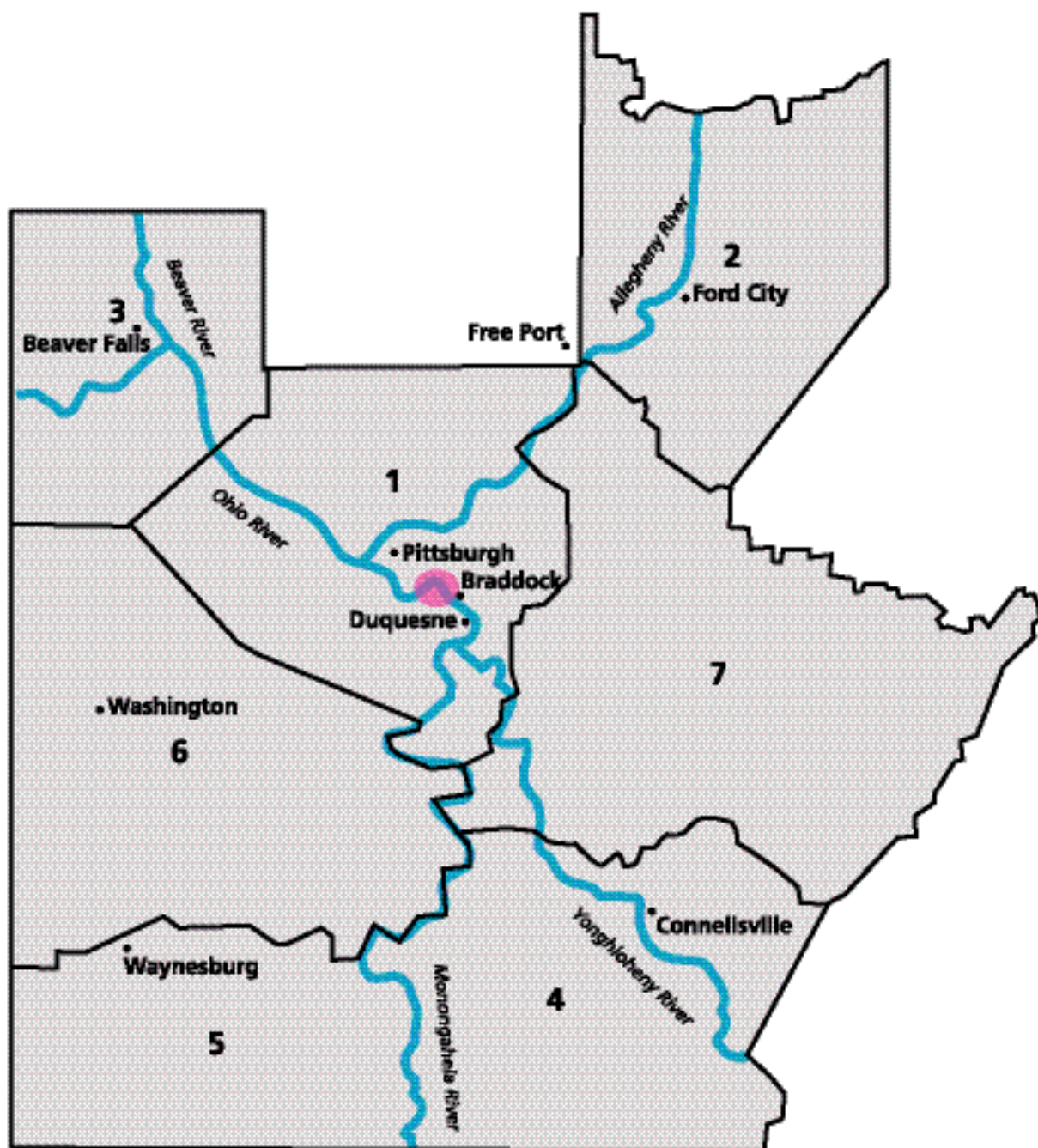
In Alternative 1, SIHC’s interpretive efforts and visitor experience would continue to follow the framework of the Management Action Plan with its overall river-wide focus and the development of the Big Steel Journey that will connect Homestead with other Big Steel resources in Pittsburgh and further up the Mon Valley.

SIHC has assisted in the construction of the Riverwalk Trail adjacent to the new Waterfront development and is currently developing a visitor orientation center at the Bost Building with assistance from the Pennsylvania Heritage Parks Program. Alternative 1 assumes that SIHC would be responsible for the development of the Steel Heritage Interpretive Center at the Carrie Furnaces site, interpretive exhibits at the Battle of Homestead Landing site, the Big Steel Journey River Landing at Carrie Furnace, and the Riverwalk Trail and Steel Valley Trail that would link together the Carrie Furnace site, the Hot Metal Bridge, the Battle of Homestead Landing site, the Bost Building and other Homestead resources. SIHC, in collaboration with other local entities, would coordinate the provision of personnel to provide interpretive and education services within the Homestead vicinity. Additional assistance for interpretation of the Carrie Furnaces 6 and 7 and other local resources would be sought from non-NPS sources, as funding is available.

## Preservation

In Alternative 1, SIHC, in partnership with state, local and non-profit entities, would continue to facilitate preservation of the resources in the Homestead vicinity, in collaboration with local and other entities, as part of its responsibilities across the seven-county Rivers of Steel NHA. SIHC has coordinated the Bost Building rehabilitation with major assistance from the Pennsylvania Heritage Parks Program and the installation of interpretive exhibits at the Pump House. The Hot Metal Bridge is now owned by SIHC. A major study of the

Figure 3: Rivers of Steel National Heritage Area



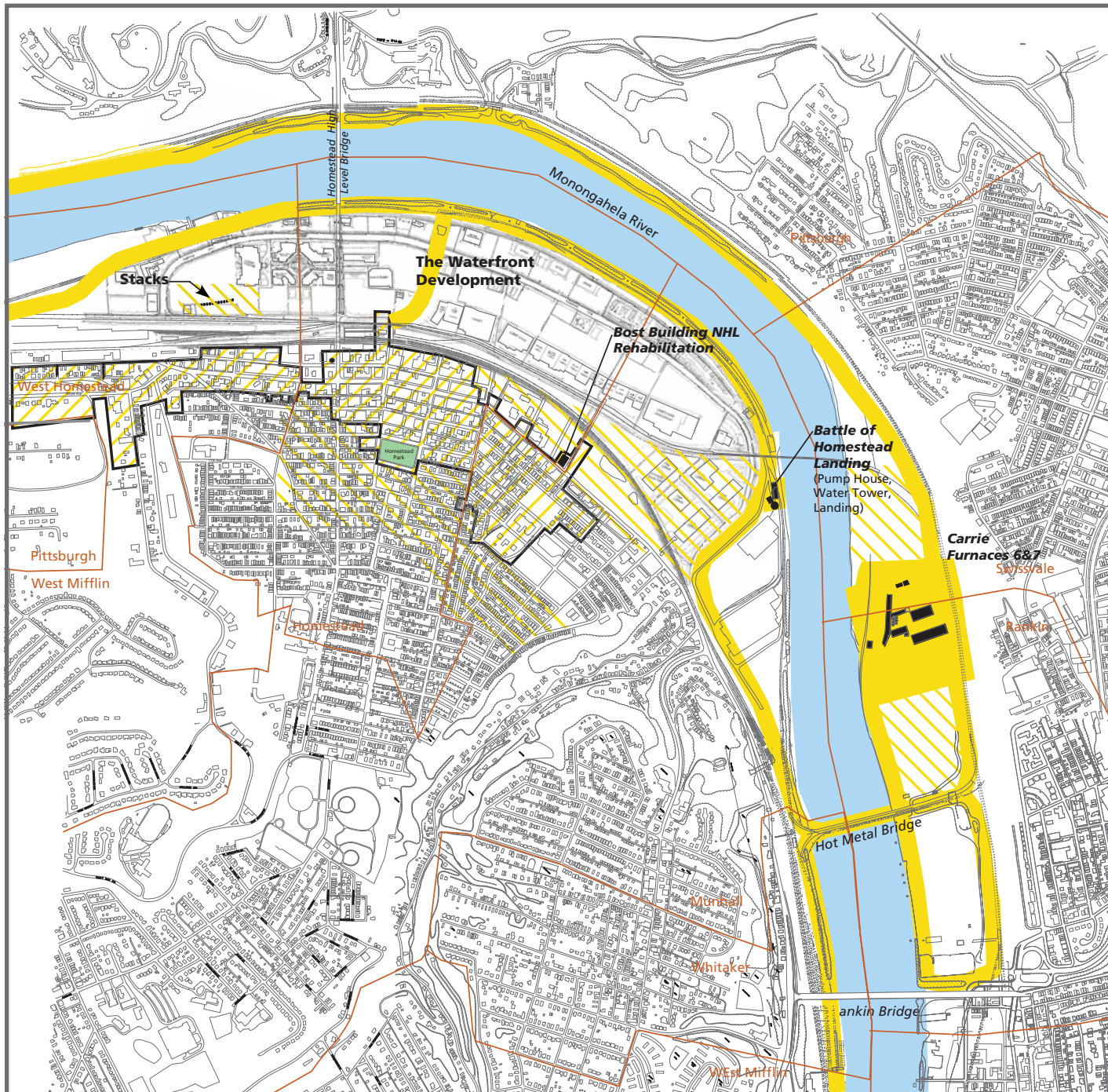
#### Counties

1. Allegheny
2. Armstrong
3. Beaver
4. Fayette
5. Greene
6. Washington
7. Westmoreland

● Homestead Vicinity



Figure 4: Alternative 1 – Continued Support to Rivers of Steel National Heritage



**Special Resource Study and  
Environmental Assessment for the  
Battle of Homestead and Carrie  
Furnaces 6 and 7**

National Park Service  
United States Department of the Interior  
Approximate Scale in Miles

0 .25 .5



- Area of Special focus  
for Steel Industry Heritage  
Corporation (SIHC)
- Areas where SIHC may  
provide coordination and  
selected assistance
- Other areas of concern  
to SIHC

Carrie Furnaces vicinity and potential related development is underway under the sponsorship of Allegheny County. In Alternative 1, SIHC would continue its preservation efforts in the Homestead area and assist, along with other local public and private entities, in stabilizing and rehabilitating the Carrie Furnaces 6 and 7, protecting and rehabilitating the Hot Metal Bridge to make it safely usable as a link across the river, and encouraging and supporting preservation activities in the Homestead National Register District.

### **Management and Feasibility**

Under this alternative, SIHC would continue to implement, manage and coordinate activities for preservation and interpretation of the key resources in Homestead, with support from the Pennsylvania Heritage Park Program, as part of its overall activities within the seven-county Rivers of Steel NHA. There would be no additional NPS involvement in the area beyond the current authorized assistance as defined in the 1996 legislation that designated the NHA; authorized federal financial assistance is scheduled to end in 2007. SIHC would have the primary obligation to seek funds and other assistance from state, county, municipal and private entities to complete capital improvements defined by the Management Action Plan and to sustain heritage area activities beyond 2007.

### **Preliminary Cost Considerations**

The 1995 Management Action Plan for the NHA estimated a total regional ten-year capital program of \$97 million, a large proportion of which was targeted for the Homestead vicinity. Projects included the acquisition of the Battle of Homestead Landing site and Carrie Furnaces, stabilization and rehabilitation of the Carrie Furnaces, the development of the Steel Industry Heritage Interpretive Center, the restoration and development of the Bost Building, and other initiatives such as boat landings for the Big Steel Journey, use of the Hot Metal Bridge as a trail linkage, and other preservation and interpretation activities in the vicinity. However, the 1995 Plan also assumed that a unit of the National Park System would be created at Carrie Furnaces 6 and 7 and included a large budget for the Steel Industry Heritage Interpretive Center that was proposed there. As defined in this Special Resource Study, Alternative 1 does not include a unit of the National Park System at Carrie Furnaces.

The cost of Alternative 1 is estimated to a level of detail commensurate with the conceptual nature of this alternative. Supporting documentation is provided in Appendix A of this report. The improvements to the site of Carrie Furnaces 6 and 7 assum-

ing rehabilitation, stabilization, site improvements and a visitor/exhibit building of approximately 20,000 SF are estimated to be approximately \$27 million. The cost of expanded interpretation at the Bost Building and of major site and interpretive improvements at the Battle of Homestead Landing site are estimated to be approximately \$5-6 million. The cost of a preservation assistance grant program and new interpretive facilities within the Homestead Historic District is estimated at approximately \$5 million. In addition to these costs, it is assumed that enhancement of interpretive linkages (excluding the construction costs of trails and walkways) between the key identified sites would be approximately \$1 million. The total cost of improvements to the key Homestead resources and interpretive linkages among these sites is assumed to be approximately \$39 million. For the purposes of this comparative Special Resource Study, the Alternative 1 estimate is less than the estimate for these sites in the 1995 Management Action Plan because the improvements are assumed to be of more modest scale and cost, due to the absence of a national park unit. It is conceivable that a larger scale improvement program in the Homestead vicinity, on the scale of the \$70+ million estimated by the Management Action Plan, might be pursued by local entities. In Alternative 1, any staff support costs would be borne by SIHC or by other local entities, and have not been estimated here.

In Alternative 1, SIHC would continue to be a conduit of funds through the Rivers of Steel NHA appropriations and a catalyst for related program and project funding. The NHA is authorized to receive up to \$1 million for any fiscal year, with a cumulative maximum of \$10 million. Assuming a continuation of authorizations of \$1 million per year going forward, SIHC would exhaust its authorized limit by 2007.

SIHC has demonstrated considerable success in fundraising in support of the Rivers of Steel NHA, including facilitating over \$24 million in grants from a combination of sources since 1989. Federal sources have included the NPS, the U.S. Department of Transportation's TEA-21 and ISTEA Programs, the U.S. Department of Housing and Urban Development, National Endowment for the Arts and others. State sources have included the Department of Conservation and Natural Resources through the Pennsylvania Heritage Parks Program, the Pennsylvania Historic and Museum Commission, Pennsylvania Council for the Arts and others. Several grants have been secured from Allegheny County as well as over \$700,000 from regional and national foundations, private groups



and nonprofit entities. Major activities across this region have been diverse and have included folk art and cultural activities and programs, a series of trail initiatives (many of which link to Homestead) and a range of improvement initiatives that support key heritage venues in Homestead and across the region as well as proposed river journeys defined in the Rivers of Steel Management Action Plan.

Beyond the grants directly received by SIHC, the entity has served as a catalyst agency to encourage support of its mission throughout the NHA, but particularly in Homestead where it is located, and its activities have been important in encouraging other public and private commitments to make maximum use of heritage resources. Examples of these types of parallel, but supportive, commitments include the current activities by Allegheny County to study opportunities in the Carrie Furnace vicinity, improvements planned as part of the Enterprise Zone in the business district of Homestead, West Homestead and Munhall, and the enactment and formation of the Local Historic District Review Board. When the NHA federal funds are no longer available, SIHC will have to rely on other sources to support development, preservation, visitor services and interpretative improvements to the study area.

### *Alternative 2: The Homestead Steel Workers National Historic Site*

*The focus of Alternative 2 would be the stories of steel workers, their communities, and their dramatic struggle with powerful steel companies to secure decent working conditions and fair wages, including a nearly 50-year struggle to rebuild a union after it was broken by the Battle of Homestead. Congress would designate a National Historic Site as an affiliated area of the National Park System to authorize the NPS to provide financial, interpretation and preservation assistance to local public and private entities beyond that provided in existing authorities. NPS assistance would be directed toward key resources in the vicinity of the former Homestead Works and its community that illustrate these themes. The boundary of the NHS would include certain noncontiguous historic sites in Homestead, West Homestead, Munhall, Swissvale and Rankin, Pennsylvania.*

#### **Concept**

The NPS would join local governments and organizations to tell the stories of steel workers, their communities and their dramatic struggle with powerful steel companies to secure decent working

conditions and wages. The stories of craft and labor unions, community life in a steel industry town and the nearly 50 year struggle to rebuild a union after it was broken by the Battle of Homestead are represented by historic resources in Homestead, West Homestead, Munhall, Swissvale and Rankin, Pennsylvania.

The resources would be designated a National Historic Site to be managed as an affiliated area of the National Park System. The noncontiguous boundary of the NHS would include the Homestead National Register District (including the Bost Building and SWOC monument), the Battle of Homestead Landing site (including the Pump House, Water Tower and riverfront), Carrie Furnaces 6 and 7 and the Hot Metal Bridge.

NPS assistance at the NHS would focus on providing interpretation and education about the worker and labor history, in the context of Homestead's community and industry setting. NPS would be authorized to provide technical and financial assistance for historic preservation for National Register properties within the affiliated area boundary.

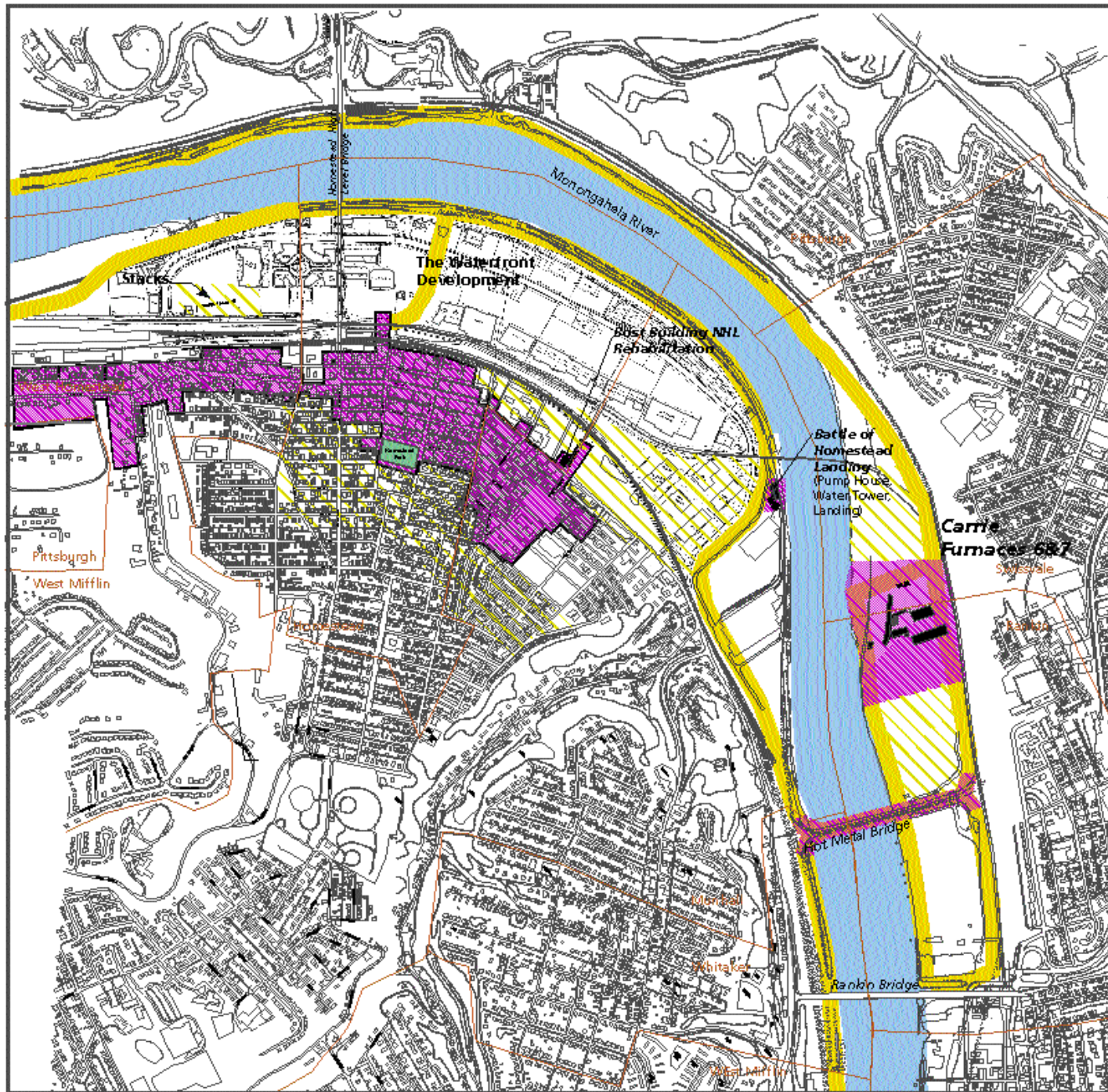
NPS would collaborate with SIHC, local management entities and site owners, the Pennsylvania Heritage Parks Program and/or other local public or private entities that would continue to own and maintain the historic resources. NPS would not own or manage resources. In cooperation with these entities, a General Management Plan would be developed for the NHS by the NPS to define relative roles and responsibilities.

Figure 5 illustrates Alternative 2.

#### **Interpretation**

The Bost Building, an NHL recognized for its significance in the story of union-management relations and related labor sub-themes, and the Battle of Homestead Landing site would be focal points for interpretation. Additional resources within the affiliated area, including Carrie Furnaces 6 and 7 and the Homestead Historic District, would be interpreted to provide an understanding of the context of work and home that served as a backdrop to the labor story. NPS would provide technical and financial assistance to interpret the labor story in Homestead and its complex relationships to places of work and community. Interpretation would focus on the story of labor relations, workers' lives, and working conditions in Homestead and the conflicts between management and labor that arose with rapid industrial growth. The story of "Big Steel" in the region will be told through

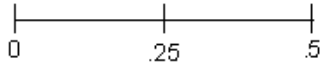
Figure 5: Alternative 2 – Homestead Steel Workers National Historic Site



Special Resource Study and  
Environmental Assessment for Battle of  
Homestead and Carrie Furnaces 6 and  
7

National Park Service  
United States Department of the Interior

Approximate Scale in Miles



Proposed boundary of  
area where NPS may provide  
technical and financial assistance  
for preservation and interpretation



Areas of focus for Steel Industry  
Heritage Corporation (SIHC)



Other areas of concern  
to SIHC

both the human and industrial scale of these nineteenth and twentieth century undertakings.

The interpretive program and activities might include technical assistance and grants for a range of activities such as education, guided tours, interpretive exhibits, interpretive brochures and interpretive training. NPS could provide resource-based tours and programs within the affiliated area and could provide training to non-NPS staff to supplement interpretive capabilities. NPS would work cooperatively with SIHC, local management entities and local organizations to enhance educational and interpretive programs at the NHS. Extensive existing documentation and photography of the area's historic industrial resources by the NPS Historic American Building Survey and Historic American Engineering Record (HABS/HAER) would provide a strong foundation for future interpretive programs.

Local management entities would retain the major responsibility for management of exhibits and interpretive facilities, including providing physical linkages among the multiple sites that would be part of the NHS. Interpretive exhibits and spaces at Carrie Furnaces 6 and 7 would be developed by local management entities with assistance from NPS as described in Alternative 2 Feasibility and Management on page 40. Interpretive implementation that deals with resources outside the boundary of the NHS would be coordinated by SIHC through funding sources other than new NPS appropriations for the NHS.

### **Preservation**

The Secretary would be authorized to provide technical and financial preservation assistance to local management entities for National Register properties within the NHS boundary. SIHC would continue to coordinate regional preservation initiatives as part of its responsibility across the seven-county Rivers of Steel NHA. The NPS would work cooperatively with SIHC and local management entities to develop a preservation strategy as part of the General Management Plan for the NHS. Preservation of other related resources beyond the NHS boundary would be accomplished through coordination by SIHC and/or other entities, with potential assistance from a variety of other non-NPS programs and funding sources.

### **Feasibility and Management**

All resources, including the Bost Building, the Battle of Homestead Landing site, the Carrie Furnaces and the Steel Heritage Interpretive Center would be developed and managed by local manage-

ment entities. The NPS would execute cooperative agreements with local management entities to ensure that resources would be properly managed and maintained. NPS would not own, manage, develop or maintain structures, property or other resources.

The resources within the boundaries would continue to be owned, maintained and operated by others. The Bost Building, the Hot Metal Bridge, the Pump House and Battle of Homestead Landing site are currently owned or managed by SIHC. The Carrie Furnaces site is in private ownership, but it is understood that its owners are amenable to a transfer as part of an overall plan that would involve NPS recognition of this site. The study of the Carrie Furnace vicinity underway by Allegheny County is part of the resolution of this issue.

NPS would assign staff to the NHS, on a reimbursable or non-reimbursable basis, to provide planning, interpretive, educational programming and research services to SIHC and possible other partner institutions. The Steel Workers NHS would be authorized two permanent full-time employees. NPS financial assistance would fund the General Management Plan and/or interpretive planning and/or design activities and the cost of project implementation, pursuant to the completion of the General Management Plan, which would be authorized up to \$3 million, subject to appropriations.

Local management entities would be responsible for raising the funds to support the capital expenditure and ongoing operating and maintenance costs for the sites within the boundary that will be part of the public and visitor experience. Such local support may include foundation and corporate sources as well as other public and private funds. NHS designation is likely to be an important factor in soliciting local support.

### **Preliminary Cost Considerations**

As part of this study, preliminary cost estimates were developed for NPS responsibilities for the National Historic Site. These estimates are Class C estimates, which are general and thus subject to refinement and modification in future planning. Cost estimates include project-related planning and development costs and as well as operational costs. Supporting documentation is provided in Appendix A of this report.

It is assumed that the costs of improvements in Alternative 2 would *range between \$12 million and \$40 million*. The lower range would include the



estimated costs for the Homestead and Homestead Linkages projects estimated in Alternative 2, Table 8 (page 73). The higher range would include the estimates for the combined Carrie Furnace, Homestead and Homestead Linkages projects listed in the same table. Of the *higher* estimated cost, Alternative 2 would assume that the NPS would contribute approximately \$3 million toward preservation and interpretation costs associated with the designated sites, with the remainder being provided by other entities.

*Steel Industry Heritage Corporation and other organizations have shown exceptional capabilities in fundraising within the area encompassed by this alternative. It has expended approximately \$4.5 million in the purchase and rehabilitation of the Bost Building and plans to spend an additional \$12 million for an addition to the building for interpretive displays. A \$25 million capital fund raising campaign over a five-year period has begun. Already \$505,000 in grants have been received for a redevelopment plan for the Carrie Furnaces and surrounding land. Funding amounting to \$750,000 has been secured for work on the pump house and water tower at the Homestead site. Additional grants of \$4,411,000 have been received for trails development, with only \$300,000 of the total coming from federal sources. This study concludes that there is capacity in the region to raise funds necessary to implement the higher range of estimates provided above. Projects that may qualify for federal funding estimates under this alternative would be identified in a general management plan to be approved by the Secretary of the Interior.*

Several types of planning, design and implementation costs are required in Alternative 2, including preparation of the General Management Plan for the NHS and design and implementation of preservation and interpretive improvements at these properties in accordance with the plan. Examples of preservation implementation projects might include preservation of Carrie Furnaces 6 and 7 or grant assistance for preservation of selected properties within the Homestead Historic District. Examples of interpretation projects might include supplementary exhibits at the Bost Building, interpretive exhibits and site improvements at the Battle of Homestead Landing site, and the major new interpretive facilities at the Carrie Furnaces 6 and 7 Steel Heritage Interpretive center.

Operations costs for this Alternative, *using a non-reimbursable model*, should support two full-time employees to provide interpretive services and to coordinate activities with SIHC staff and/or a local

management entity in connection with research, educational and interpretive programs offered at the designated sites. Other additional projected operational costs might include assistance for related preservation and interpretation activities. Alternative 2 will require \$132,000 (2001) to support the two full-time NPS employees.

### *Alternative 3: Lower Mon Valley Steel National Historic Site*

*Alternative 3 would focus on the stories of steel workers, their communities and their dramatic labor struggles – told in the Homestead vicinity. It would place the unique labor story of Homestead in a larger context by expanding interpretation to encompass the historic industrial sites and related resources that line the Lower Mon Valley to convey the massive scale of the “Big Steel” industry that employed hundreds of thousands of workers, built mammoth plants that indelibly imprinted the form and culture of its river landscape and produced basic materials that changed the lifestyles of a nation. Congress would designate a National Historic Site as an affiliated area of the National Park System to authorize the NPS to provide technical and financial assistance to local public and private entities for interpretation and preservation of resources beyond that provided by existing authorities. The boundary of the NHS would include the same sites as Alternative 2, which would be eligible for interpretation and preservation assistance, supplemented by a corridor of varying width on both sides of the Lower Monongahela River between the Youghiogheny River and the confluence of the Monongahela with the Allegheny River. Along this river corridor, where limited NPS interpretive assistance would be available to link resources in the Homestead vicinity to other steel industry related resources, the scope and power of the “Big Steel” story can be appreciated by the public.*

### **Concept**

The NPS would join Pittsburgh-area local governments and organizations to tell the stories of steel workers, their communities and their dramatic struggle with powerful steel companies to secure decent working conditions and wages, in the context of the Carnegie and “Big Steel” empire that evolved in the Lower Mon Valley. Alternative 3 would incorporate the thematic content and key Homestead resources defined in Alternative 2 – dealing with resources in the Homestead vicinity that relate to steel workers, community life in a steel industry town and the nearly 50-year union struggle – and would enable interpretation of these resources within the Lower Monongahela River

context where the scale and impact of Carnegie's industrial vision and financial empire can be appreciated. This alternative would include interpretive outreach and linkages to steel industry resources along the Lower Monongahela River between its confluences with the Allegheny River to the west and Youghiogheny River to the east. Along this river corridor, where barges still transport steel products, related industrial resources include operating plants and adjacent communities at Carnegie's initial plant, the Edgar Thompson Works in Braddock, the former Duquesne Works, U.S. Steel's Irvin Plant in West Mifflin, and the heart of Pittsburgh's Three Rivers area, where the Monongahela joins the Allegheny to form the Ohio River. In the heyday of the industry, this corridor represented a concentration of production that employed hundreds of thousands. Even today, at the east end of the Lower Monongahela, U.S. Steel's Mon Valley Works operates a coordinated operation where iron ore is converted to raw steel at Edgar Thompson and shipped to the Irvin plant for finishing, producing enough steel every 24 hours to lay a path from Philadelphia to Pittsburgh. At the west end of the Monongahela, adjoining downtown Pittsburgh, worker neighborhoods of the South Side, the corporate headquarters of U.S. Steel, the restored Station Square complex with its collected industrial artifacts and the Carnegie Science Museum all bear witness to the wealth that "Big Steel" brought to its region.

As in Alternative 2, Congress would designate a National Historic Site to be managed as an affiliated area of the National Park System. The noncontiguous boundary would include sites named in Alternative 2 that would be eligible for both interpretation and preservation assistance — Homestead National Register District (including the Bost Building and SWOC monument), the Battle of Homestead landing site, Carrie Furnaces 6 and 7 and the Hot Metal Bridge — supplemented by a corridor of varying width on both sides of the Monongahela River between the Youghiogheny River and its confluence with the Allegheny and Ohio Rivers where limited NPS interpretive assistance would be available to link resources in the Homestead vicinity to other resources along this industrial corridor where the "Big Steel" story can be appreciated by the public.

Similar to Alternative 2, NPS operations at the defined sites in the Homestead vicinity would focus on providing interpretation and education about the worker and labor history. These activities would be strengthened in Alternative 3 by providing the ability to link with and interpret sites that are close-

ly associated with the activities and impacts of the steel industry.

As with Alternative 2, NPS would collaborate with local management entities and other partners who would continue to own and maintain the historic resources. NPS would not own or manage resources. Figures 6 and 7 illustrate Alternative 3.

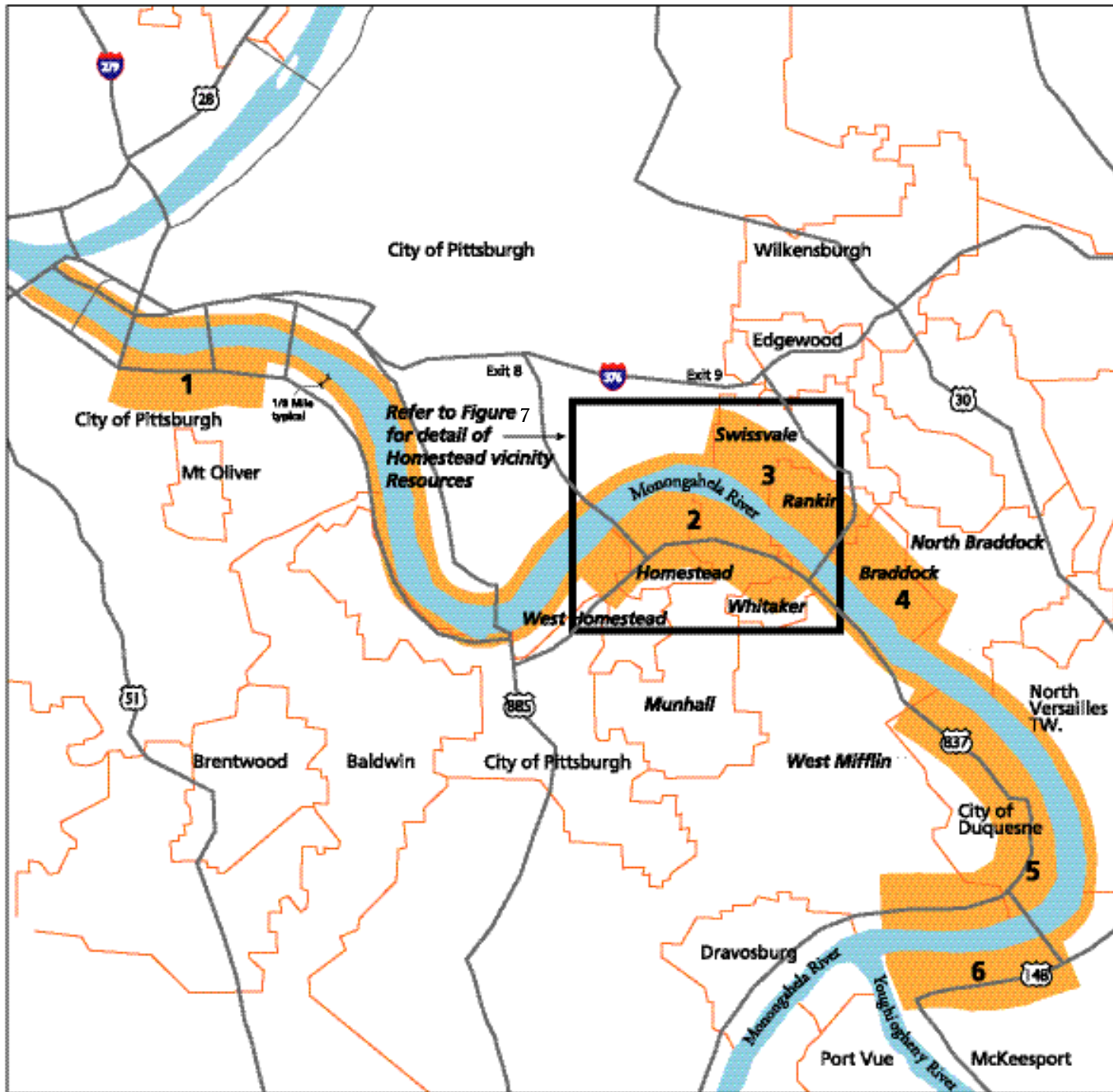
### **Interpretation**

The NPS role in providing interpretive technical and financial assistance to defined sites within the Homestead vicinity — Homestead National Register District (including the Bost Building and SWOC monument), the Battle of Homestead Landing site, Carrie Furnaces 6 and 7 and the Hot Metal Bridge — would be as described in Alternative 2 Preservation on page 38. Alternative 3 would expand NPS interpretive assistance to provide technical, planning, design and limited implementation assistance to establish and enhance programmatic and interpretive linkages between the Homestead vicinity sites and other thematically related sites in the Lower Mon Valley area between the Youghiogheny and Allegheny Rivers. Extensive existing documentation and photography of the area's historic industrial resources by the NPS Historic American Building Survey and Historic American Engineering Record (HABS/HAER) would provide a strong foundation for future interpretive programs.

NPS interpretive assistance would tie the stories of labor, the steel industry and community to the extensive historic resources that also illustrate these themes. In the Homestead vicinity, actions and activities would be similar to those described in Alternative 2, although Alternative 3 would authorize expanded technical and financial assistance for interpretation to create physical and programmatic connections that link the Homestead vicinity sites to other thematically related resources along Monongahela River in order to broaden the understanding of the development of the steel industry and the effect of industrialization in the Mon Valley area. Examples might include interpretive initiatives along trail connections along the river and interpretive improvements at individual sites where the key themes are most compelling and evident.

Responsibilities for interpretation would be similar to those described in Alternative 2 and in addition NPS would provide expanded technical and financial assistance to SIHC and/or local management entities for interpretive linkages among the Homestead sites and the Homestead vicinity and other sites along the defined reach of the Mon

Figure 6: Alternative 3, Lower Mon Valley Steel National Historic Site Detail of Homestead Vicinity



NPS provides assistance to a network of historic resources along the Lower Monongahela River.

#### Existing or former steel plants and their communities

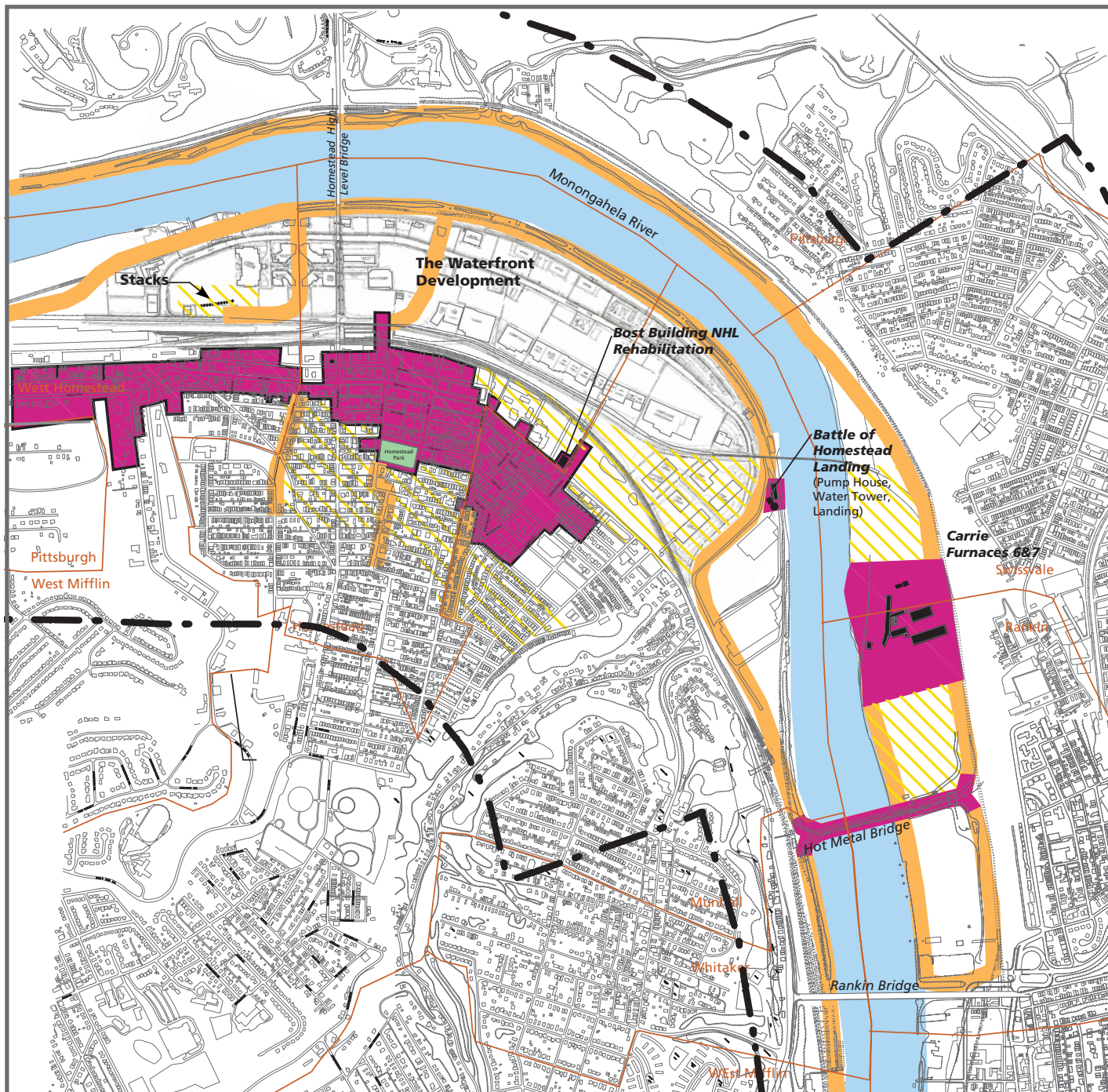
1. Jones and Laughlin; South Side, Pittsburgh
2. Homestead (south bank); Homestead, Munhall, and West Homestead
3. Homestead (north bank); Carrie Furnaces 6 and 7; Swissvale and Rankin
4. U.S. Steel Edgar Thompson Works\*; Braddock
5. Duquesne Works and U.S. Steel Irvin Plant\*; Duquesne and West Mifflin
6. National Tube Works, Christy Park, and others; McKeesport

 **NPS Interpretive Assistance Area**

\*Currently in operation in 2002

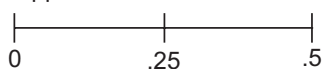


Figure 7: Alternative 3, Lower Mon Valley Steel National Historic Site, Overview Map



**Special Resource Study and Environmental Assessment for Battle of Homestead and Carrie Furnaces 6 and 7**

National Park Service  
United States Department of the Interior  
Approximate Scale in Miles



Proposed boundary of areas where NPS may provide technical and financial assistance for preservation and interpretation



Illustrative linkage area potentially eligible for NPS interpretive assistance



Other areas of concern to SIHC



Area within which NPS can provide interpretive assistance

Valley.

### **Preservation**

Preservation actions integral to Alternative 3 would be identical to those defined in Alternative 2 and would be limited to the sites identified within the boundary of Alternative 2.

### **Feasibility and Management**

The general role of NPS, SIHC, and local management entities in the Homestead vicinity would be nearly identical to that described in Alternative 2 Preservation (pg. 38), excepting that in Alternative 3 the NPS would be authorized to provide technical and financial assistance for interpretive linkages among individually designated sites in the Homestead vicinity as well between the Homestead vicinity and other thematically linked sites along the lower reach of the Monongahela River between the Youghiogheny and Allegheny Rivers. Local entities would remain responsible for implementing other regional elements of the Rivers of Steel Plan, including journey linkages along the river and its banks. The identity and recognition provided to sites along the river under Alternative 3 through expanded interpretation and connection to Homestead should improve the ability of these locations in seeking funding from non-NPS sources for improvements and collateral projects.

### **Preliminary Cost Considerations**

The costs of improvements in Alternative 3 would include the costs defined by Alternative 2, approximately \$39 million, plus an additional \$5 million to accomplish interpretive and programmatic linkages between the Homestead resources and other venues in the Lower Mon River Valley for a total of approximately \$44 million. Alternative 3 would assume that the NPS would contribute \$3 million toward preservation and interpretation costs associated with the designated sites as well as interpretive and programmatic linkages between them and other sites on the Monongahela River, with the remainder to be provided by other entities. Interpretive and preservation activities would be similar to those defined in Alternative 2, with the addition of interpretive waysides along the linkages within Homestead and along the Monongahela River to other sites, and interpretive products at key sites beyond the Homestead vicinity that com-

municate important aspects of the three primary themes. Supporting documentation is provided in Appendix A of this report.

Operations costs for Alternative 3 should support two NPS staff members to provide interpretive services and to coordinate activities with SIHC staff and/or a local management entity in connection with research, educational and interpretive programs offered at the designated sites as well as at other thematically related sites along the Lower Monongahela River. Other additional projected operational costs might include technical assistance for related preservation and interpretation activities. Alternative 3 will require \$132,000 to support the two full-time NPS employees.

### *Alternatives eliminated from further study*

The 1995 Management Plan for the Rivers of Steel National Heritage Area proposed establishment of a national park at Carrie Furnaces 6 and 7, implicitly referred to as a unit under NPS management. The NPS was requested by Congress in 1999 to undertake this SRS of the Battle of Homestead site and Carrie Furnaces 6 and 7. The purpose of this SRS is to evaluate certain cultural resources in the Homestead vicinity for possible inclusion in the National Park System. In accordance with the established criteria for national park designation (explained in Chapters 2, 3, 4 and 5), the resources were not found to be eligible for designation as a unit of the system. Accordingly, alternatives that included establishment of a national park unit under National Park Service management were not included in this study.

### *Management alternatives compared*

Table 3 compares the three alternatives and their key characteristics.



**Table 2: Comparison of Management Alternatives**

	<b>Alternative 1</b> <b>National Heritage Area</b> <i>NPS continues its partnership with Rivers of Steel NHA</i>	<b>Alternative 2</b> <b>The Homestead Steel Workers National Historic Site - an affiliated area of the National Park System</b> <i>NPS provides assistance to key historic districts and sites in and near Homestead</i>	<b>Alternative 3</b> <b>Lower Mon Valley Steel National Historic Site</b> <i>an affiliated area of the National Park System</i> <i>NPS provides assistance to a network of historic community resources along the Lower Monongahela River</i>
<b>Description of Action</b>	<p>NPS continues to provide technical and financial assistance to Rivers of Steel National Heritage Area. Steel Industry Heritage Corporation (SIHC) continues its substantial preservation, revitalization, and interpretive initiatives with the assistance of Commonwealth of Pennsylvania's State Heritage Park Program, Allegheny County, and other public and private entities.</p>		
			<p>A National Historic Site would be designated that focuses on Homestead's labor and related community and steel industry history. The primary focus of the NHS would place emphasis on the area's role in the labor movement and would include preservation and interpretation of several non-contiguous sites: Homestead National Register Historic District, including the Bost Building, Battle of Homestead Landing site, Carrie Furnaces 6 &amp; 7, and the Hot Metal Bridge.</p>
			<p>A secondary and additional focus of the NHS in this alternative would be on interpretive improvements to link the designated sites defined in Alternative 2 with other thematically-related sites along the Mon River between the Allegheny and Youghiogheny Rivers, in order to communicate the scope, power, and scale of the impact of Carnegie's consolidation of the steel industry.</p>
<b>NPS Role</b>	<p>NPS would continue to provide technical and financial assistance to SIHC as authorized in Public Law 104-333, TITLE IV.</p>		
			<p>For the named Homestead vicinity sites, upon completion and approval of NPS provided general management plan for the NHS, the Secretary of the Interior would be authorized to provide financial assistance up to \$3,000,000 for <i>preservation and/or interpretation projects</i>. NPS would provide on-site personnel to assist in research, education, and interpretation activities.</p>

	<b>Alternative 1</b> National Heritage Area <i>NPS continues its partnership with Rivers of Steel NHA</i>	<b>Alternative 2</b> The Homestead Steel Workers National Historic Site – an affiliated area of the National Park System <i>NPS provides assistance to key historic districts and sites in and near Homestead</i>	<b>Alternative 3</b> Lower Mon Valley Steel National Historic Site an affiliated area of the National Park System <i>NPS provides assistance to a network of historic community resources along the Lower Monongahela River</i>
<b>Role of SIHC and/or local management entity</b>			Upon completion and approval of the NPS funded general management plan for the NHS, the Secretary would be authorized to provide financial assistance up to up to \$3,000,000 toward the total cost of implementation of <i>interpretation projects</i> that establish linkages among the designated sites in the Homestead vicinity defined in Alternative 2 as well as to other thematically related sites along the Lower Mon River within the boundary of the affiliated area.
		The NHS would be an affiliated area of the National Park System. NPS would not own or manage property.	
<b>Role of SIHC and/or local management entity</b>	The SIHC would continue to coordinate activities for preservation and interpretation of the key resources in Homestead, as part of its overall activities within the seven-county Rivers of Steel National Heritage Area.		
	The SIHC would coordinate the provision of personnel to provide interpretive and education services within the Homestead vicinity.	SIHC and other local management entities would take the major responsibility for coordinating and providing interpretive and programmatic linkages among the multiple sites that are part of the NHS.	SIHC and other local management entities would take responsibility for coordinating and providing interpretive and programmatic linkages among the multiple sites that are part of the NHS with assistance, as available, from NPS.
<b>Role of other entities</b>	Additional assistance would continue to be provided from state, county, local and/or private sources based on other existing authorities and programs, including the Commonwealth of Pennsylvania’s State Heritage Park program, Allegheny County, and other entities, as funding is available.		

# CHAPTER 7

## Affected Environment

### *Introduction*

This section describes the existing environment that would be affected by the alternatives proposed in Chapter 6 of this Special Resource Study. The information should be considered as a baseline description against which the effects of each alternative can be compared in Chapter 8, Environmental Consequences.

### *Impact Topics*

#### **Natural and Recreational Resources**

**Physiography and soils.** The study area is in the Pittsburgh Low Plateau of the Appalachian Plateaus Province physiographic region. Deep valleys and ravine-like hollows extending from the hilltops into the river valley characterize it. The study area encompasses land on the south and north bank of the Monongahela River, where the terrain rises from the river's pool elevation of approximately 710 feet to more than 1,100 feet. The Monongahela River runs through the study area in sweeping curves, eroding the hillsides at the outer edge of each curve and forming broad alluvial plain areas within each curve. This topography was favorable for both the coal and steel industries. The cliff-like outcroppings made the coal easily accessible and the generous expanses of level land could support the steel mills.

The study area is underlain by typical coal of the main portion of the Pittsburgh Coal Seam. In the Monongahela River, the sedimentary bedrock formations were deposited in the Paleozoic era and consist primarily of limestone, dolomite and sandstone. The study area soils are ultisols: highly weathered soils that have very little humus and developed over noncarbonate sedimentary rocks. Much of the soil in the area has been greatly altered and is mainly covered by buildings and other urban structures.

**Surface Water Resources.** The Monongahela River flows north 129 miles from West Virginia, begins flowing west a few miles east of Pittsburgh and unites with the Allegheny River in Pittsburgh to form the Ohio River. The "Mon" River has been used to transport raw materials and finished goods to and from Pennsylvania. In recent years, recre-

ational uses have greatly increased along the river.

A 2001 USGS news release on water quality in the Allegheny and Monongahela River Basins reports that the water quality is generally good when compared to the national average. As a result of the area's coal mining history, the water is generally acidic (low pH) and high in metals and sulfate, particularly for streams draining mined areas. In some areas, coal discharge is the most influential and persistent factor affecting water quality. According to the report, however, new sources of acidic discharge from coal mining areas have not been observed, and water treatment and compliance with regulations for water discharged from active mines are contributing to a steady improvement in water quality. Pollution continues to influence water quality, with traces of PCBs, chlordane and DDT found, although, as the study reports, use of these compounds has been prohibited for two decades. Overall, as the report states, water quality has improved dramatically over the past twenty years, contributing to an increase in fish populations. Significantly, the Monongahela River currently supports recreational bass and walleye fishing in downtown Pittsburgh.

The Pennsylvania Department of Environmental Protection classifies the Monongahela River as a warm-water fishery. Because of its outstanding scenic value, the Pennsylvania Scenic Rivers Inventory identifies the river as a Priority Three Scenic River. The Army Corps of Engineers operates nine navigational locks and dams on the river, creating 9,400 acres for flat-water recreation. Lock and dam improvements are currently underway as part of the modernization plan for the lower Monongahela River. This plan will help address constraints to swift, large-scale barge traffic and spur-of-the-moment recreational boating. Lock and Dam 2 in Braddock, which is the nearest lock and dam to the study area, is scheduled to be replaced by a gated dam and renamed Braddock Locks and Dams in 2008. The Monongahela River supports swimming, boating, non-power and whitewater boating and fishing for trout, walleye, bass and perch.

**Vegetation.** The natural vegetation of the lower Monongahela Valley has been profoundly changed by the industrial activity in the area. White pine

and hemlock, once common to the area, were timbered for charcoal making, shipbuilding, lumber, and rail and mine building. Regenerated second and third growth forest are now common in forested areas. The only natural reserve and park close to the study area is Frick Park to the east of Pittsburgh. The most common trees found in this area are maples (*Acer spp.*), tuliptree (*Liriodendron tulipifera*), basswood (*Tilia americana*), and various species of oaks (*Quercus spp.*). A mixture of introduced and native species grows in the understory and forest floor including Dutchman's breeches (*Dicentra cucullaria*), Mayapples (*Podophyllum peltatum*) and dwarf larkspur (*Delphinium tricorne*).

The study area is a heavily developed urban area that has been for the most part cleared of natural vegetation, except for trees found in small city parks and the vegetation growing along the banks of the Monongahela River. The studio for Creative Inquiry at Carnegie Mellon University conducted an inventory of stream bank woody vegetation on the riverbanks and islands in the Pittsburgh Pool, 3 Rivers 2<sup>nd</sup> Nature Biotic Assessment 2000. Both banks along the Monongahela River were assessed. In some cases, abundance of species varied on the south and north banks. In general, native species are more abundant than introduced species along the Monongahela River banks; however many introduced species are well established.

Overall, native sycamore (*Platanus occidentalis*) is the most abundant woody plant along the Monongahela River, followed by two introduced species: tree of heaven (*Ailanthus altissima*) on the north bank and Japanese knotweed (*Polygonum cuspidatum/sachalinense*) on the south bank. Native willows (*Salix spp.*) are the third most abundant species growing on the south bank of the river. On the north bank, introduced white mulberry (*Morus cf. alba*) is the third most abundant woody plant. Other abundant woody plants along the Monongahela River include box elder (*Acer negundo*), silver maple (*Acer saccharinum*), black locust (*Robinia pseudoacacia*), elm (*Ulmus americana/rubra*) and wild grape (*Vitis spp.*). False indigo (*Amorpha fruticosa*) does not grow in any other riverbank in the Pittsburgh Pool except for the south bank of the Monongahela River.

Although the 3 Rivers 2<sup>nd</sup> Nature Biotic Assessment 2000 focused on woody vegetation, limited data were collected on some specific herbaceous plant groups. Grasses (*Poaceae*) and sedges (*Cyperaceae*) are abundant on the north bank of the Monongahela River. Ferns (*Pteridophyta*) and

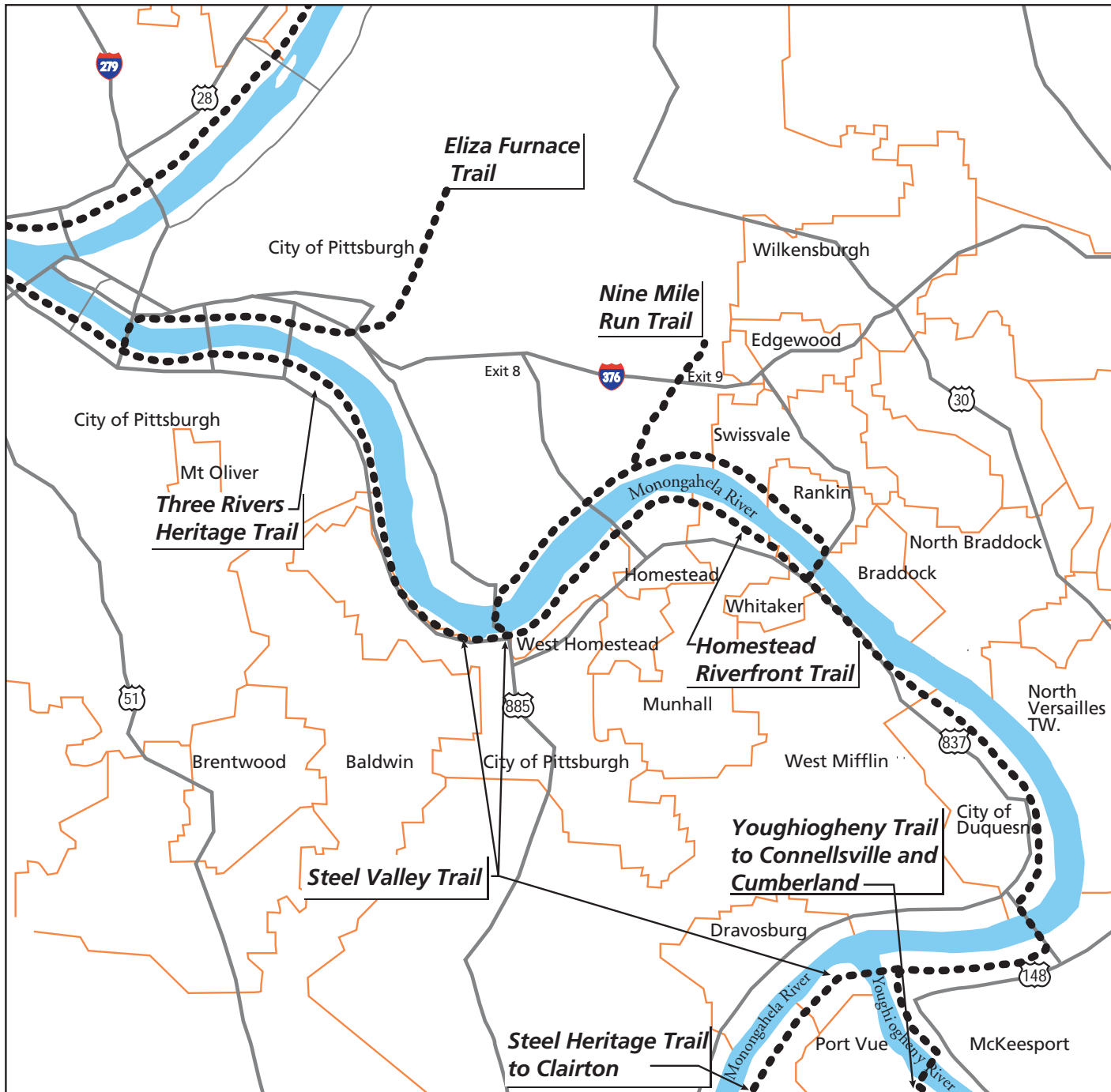
emergent aquatic plants are found along the river, but are not abundant. Purple loosestrife (*Lythrum salicaria*) is a rampant invasive plant in wetlands. Plants of this type have a relatively large presence here.

**Fish and Wildlife.** The species of birds that have been recorded in Allegheny County include the red-throated loon (*Gavia stellata*), common loon (*Gavia immer*), pied-billed grebe, horned grebe and the red-necked grebe. Of these birds, the pied-billed grebe is the only one recorded to have bred regularly in Allegheny County.

Until the 1970s, the Monongahela River contained almost no fish, except for the acid-tolerant flathead and channel catfish (*Pylodictis olivaris* and *Ictalurus punctatus*). Pollutants degraded the water quality and river basin, and the river suffered from vast fish kills. In recent years, fish populations have made a modest recovery since improved environmental controls have been in place. The reproduction of the paddlefish after reintroduction by the Fish and Boat Commission is evidence of the improved water quality of the river. This species was almost entirely eliminated from the Monongahela River due to pollution, channelization, dams and intensive fishing. The return of the sauger (*Stizostedion canadense*), a pollution-sensitive fish, is another encouraging sign of improved water quality. According to the Pennsylvania Fish and Boat Commission, game species in the Monongahela River include brook trout (*Salvelinus fontinalis*), yellow perch (*Perca flavescens*); several bass species among them the smallmouth bass (*Micropterus dolomieu*) and largemouth bass (*Micropterus salmoides*), white crappie (*Pomoxis annularis*), black crappie (*Pomoxis nigromaculatus*), bluegill (*Lepomis macrochirus*), pumpkinseed (*Lepomis gibbosus*), green sunfish (*Lepomis cyanellus*), tiger muskellunge (*Esox masquinongy*), longnose gar (*Lepisosteus osseus*), common carp (*Cyprinus carpio*), freshwater drum (*Aplodinotus grunniens*) and walleye (*Stizostedion vitreum*).

In recent years several non-game species have also returned to the Monongahela River. Non-game species include the gizzard shad (*Dorosoma cepedianum*), emerald shiner (*Notropis atherinoides*), mooneye (*Hiodon tergisus*), quillback (*Carpiodes cyprinus*), white sucker (*Catostomus commersoni*), northern hog sucker (*Hypentelium nigricans*), several redhorse species (*Moxostoma spp.*), logperch (*Percina caprodes*), shipjack herring (*Pomolobus chrysochloris*) and the sand shiner (*Notropis stramineus*).

**Figure 8: Proposed Regional Trail Network**



..... The proposed Steel Valley Trail is a segment of the great Allegheny passage and connects Three Rivers Trail, the Eliza Furnace Trail, the Nine Mile Run Trail, and the Homestead Riverfront Trail



**Waterfront trail at River's Edge, Homestead.** Rivers of Steel photograph.

**Threatened and Endangered Species.** According to the Pennsylvania Game Commission, the Pennsylvania Fish And Boat Commission and the Bureau of Forestry, the Peregrine Falcon (*Falco peregrinus*) is the only endangered species found around the Pittsburgh region. No nesting sites have been identified in the study area.

### Recreational Resources

**Trails.** The 700-mile **Potomac Heritage National Scenic Trail** corridor is a general route along the Potomac River that connects natural and cultural resources from the Chesapeake Bay to Allegheny Highlands. The corridor passes through Virginia, Maryland, the District of Columbia and Pennsylvania. The three trails currently recognized as "official" segments include the 184.5-mile C & O Canal Towpath, the 17-mile Mount Vernon Trail and the 70-mile Laurel Highlands Trail.

The Allegheny Trail Alliance, a group of seven "rails to trails" organizations, is developing seven trails, totaling 150 miles, called the **Great Allegheny Passage**. This trail would link Pittsburgh with the western terminus of the C&O Canal Towpath in Maryland, a trail which runs another 185 miles to Washington, DC.

The **Steel Valley Trail** (formerly the Steel Industry Heritage Trail – under construction) is one component of the Great Allegheny Passage that will extend from Pittsburgh to Cumberland, MD, thus becoming part of the network of trails linked to the Potomac Heritage National Scenic Trail corridor. The Steel Valley Trail will serve as an important link among the Youghiogheny River Trail, the Three Rivers Heritage Trail, the Eliza Furnace Trail and the Montour Trail. The Steel Valley Trail will run along both sides of the Monongahela River, connecting Homestead and the Carrie Furnaces site via the Rankin Hot Metal Bridge. Furthermore, the Steel Valley Trail at the Carrie Furnace site will connect to the 200 acres of open space to become "Frick Park Extension." The Steel Valley Trail will draw attention to the area's rich history of the steel industry. The Steel Heritage Council will oversee planning and implementation of the 12- to 17-mile final trail, construction of which began in 1999.

The **Three Rivers Heritage Trail** will run along the Allegheny, Ohio and Monongahela rivers. The Three River Trail is also part of the Great Allegheny Passage and will connect the communities north of Pittsburgh with the communities along the Monongahela River. This trail will connect to the Steel Valley Trail near West Homestead.

The **Riverfront Heritage Trail at the Waterfront** is a 2-mile segment of the Steel Valley Trail spanning West Homestead, Homestead and Munhall boroughs along the Monongahela River. It will be built on the site of the former Homestead Works at the river's edge. The trail is being developed by Continental Real Estate, the developers of the Waterfront, in partnership with the Steel Valley Trail. The trail is scheduled for completion in 2002.

The **Eliza Furnace Trail** (opened in 1998) is a 2.6-mile trail that connects downtown Pittsburgh with the neighborhood of Greenfield. The Eliza Furnace Trail was named after the Eliza Blast Furnaces that once occupied part of the site. The trail has a great collection of art that interprets the history and stories of the trail, the river and the city.

Figure 8 shows the planned and existing trails in the study area.

**Parks.** The Pennsylvania Department of Conservation and Natural Resources conducted an in-depth study of the Steel Valley area's public recreation and park services. The study focused on the boroughs of West Homestead, Homestead and Munhall. The study determined that there is a need for more recreation programs. As the result of these findings, the Steel Valley Area Recreation Commission will be created, and a comprehensive parks and recreation plan will be undertaken. The two main parks in the study area are the small **Frick Park** in Homestead and **Kennedy Park** at the foot of the Homestead Carnegie Library in Munhall. Frick Park is one block in area with both trees and lawns, and Kennedy Park, once named Library Place, is a block of steep lawn with widely spaced trees. Both parks are important historic resources. Other open spaces in the area include: **Park Square** in Munhall, **Mesta Park** in West Homestead, **Les Getz Memorial Park** in Swissvale and **Rankin Park** in Rankin. The other recreational facilities in the study are mainly playgrounds and small parks.

Other parks in the Pittsburgh area include the **Southside Riverfront Park** about four miles east of Homestead on the south shore of the Monongahela River and **Frick Park**, a large natural reserve in the city, located east of Swissvale. As part of the planned improvements for the regional parks in Pittsburgh, the city added 200 acres of land to Frick Park.

**Boating.** Allegheny County has the highest number of registered boats of the state of Pennsylvania. In recent years, the Monongahela River has experi-

enced a significant increase in recreational use. Boating increased 25% between 1975 and 1979, with projections of a nearly 300% increase by the year 2030. Close to the study area there are two public boat launch sites on the Monongahela River: the City of Pittsburgh Ramp by Southside Riverfront Park and the Braddock Public Ramp. There are also several private docking facilities on the Monongahela River. Sandcastle Water Park is a highly used docking facility's in the lower Monongahela River; parking and boat docking are free of cost.

Activity on the Mon River includes other boat types such as canoes, kayaks and rowboats. The **Three Rivers Water Trail** is an effort by the Friends of the Riverfront to make outdoor river experiences accessible to the residents of the Pittsburgh region. One of their goals is to create non-motorized boat launch points along the three rivers. They recently established an access point upstream from the City of Pittsburgh public boat ramp in Southside Riverfront Park, which is located on the lower Mon River. Additional canoe/kayak access points along the Monongahela River are planned for the future. Sporting events such as annual Three Rivers Regatta have also become popular along the Monongahela River.

**Fishing.** Fishing has greatly increased in the Monongahela River in last twenty years. The water quality in the river has improved so that it now supports a great variety of game fish. Walleye and bass tournaments are now being held.

### Historic and Cultural Resources

**Archeological Resources.** It is assumed that the construction of Homestead Steel Works and the Carrie Furnace obliterated all prehistoric remains in the area. The majority of the former Homestead Works, except for the Battle of Homestead site and Carrie Furnaces Numbers 6 and 7, were torn down during the late 1980s and 1990s. There appear to be no visible archeological remains of the former Homestead Works because most of the site has been redeveloped. It is suspected, however, that all remains have not been obliterated. Furthermore, archeological remains may be present underwater on the Monongahela River at the site of the Battle of Homestead. The historic river levels of the Monongahela River have risen, resulting in the submersion of archeological remains along the riverbank.

The Historic American Engineering Record (HAER) carried out extensive work on the industrial archeology of the area, publishing in 1990 a

documentation of a multi-year project to identify significant historic buildings, structures and large equipment at the Homestead Works and Carrie Furnaces, the Duquesne Works, the Edgar Thompson Works and the National Works. The HAER study of the Homestead vicinity concluded that "... as a result of demolition, a new strategy must be developed that seeks to preserve individual buildings and pieces of machinery and links *[sic]* them to the broader patterns of technological, business, social and labor history within the Mon Valley. For it was the Valley that was the pre-eminent iron and steel center in the United States for much of the nineteenth and twentieth centuries." <sup>35</sup>

Documents and artifacts collected from Homestead Works are currently controlled and stored by the Historic Society of Western Pennsylvania. The documents include records of the machine shop known as the "Big Shop" where machinery belonging to Homestead Works and other mills all along the Monongahela River was repaired. The artifacts include a blacksmith shop (hammers, sedges, oven), workers' clothing and signs from the works. All artifacts have been catalogued and will be given to the Steel Industry Heritage Corporation in the near future.

**Ethnic Resources.** The economic promise of the steel industry in Homestead attracted many immigrants from within the United States and many areas of Eastern and Western Europe, resulting in an area rich in ethnic diversity. The occupational skills, traditions, strong religious beliefs and labor history form the foundation of the communities in the study area. These communities also share the impacts of the decline of the steel industry with plant closings and layoffs, suburbanization and the switch to more service-oriented industries.

During the steel era, Homestead became a central focus for numerous ethnic groups that settled here and in nearby towns. Immigrants from each particular nation or region lived in close proximity, developing distinct neighborhoods with their own churches, social halls, taverns and fraternal organizations. These churches and benevolent associations became important sources of social support to members of the community, evidenced by the large membership (more than 100 members) of fraternal organizations such as the Greek Catholic Union. Churches were the principal cultural expressions of Homestead's ethnic neighborhoods. Though the populations have dispersed since the decline of the steel industry, the religious heritage of most of the ethnic communities still exists.

During the period before the Battle of Homestead in 1892, a great number of the workers were skilled, native-born, Protestant European-Americans. They were generally of Scottish or Scotch-Irish heritage and came from Virginia and New Jersey. English, Welsh and German immigrants followed, settling in Swissvale and Homestead, as well as in other industrial towns in the region. During the twentieth century, with the tremendous demand for unskilled labor, Homestead attracted great numbers of immigrants, especially Eastern European and African-American migrants. The population of Homestead grew around 4000% from about 500 in 1890 to nearly 20,000 by 1920.

The Slovaks made up a large percentage of the mill's workforce. They established in Homestead the National Slavonic Society, the First Catholic Slovak Union and later the First Slovak Building and Loan Association. The Slovaks also built **St. Michael the Archangel Church** in 1927, whose tower houses a magnificent sculpture of "St. Francis the Worker." African-American migrants came mostly from the South between 1892 and 1940. They built at least four churches and lodges including the **Precious Jewel Masonic Lodge**, which is one of the oldest African-American Masonic lodges in the country, an indication of the community's early organizational strength. The **Park Place A.M.E. Church** built in 1920 was an important religious center that is still standing. The Homestead Grays were a world-renowned Negro League baseball team at the time. **West Field** in Munhall was at one time the home field of the Grays. Today, the African-American community is still a large part of Homestead.

The Carpo-Rusyn, Croatian, Italian and Jewish communities also left a strong cultural and heritage imprint in the study area. The Jewish community in Homestead grew to be one of the largest mill-town Jewish communities in the Mon Valley. In 1894, they built the **Homestead Hebrew Congregation**, which is one of the largest and most architecturally notable synagogues in the Mon Valley. A substantial Italian community is still found in Swissvale and Rankin.

Italian is still spoken at Mass in the Madonna Del Catello Catholic church, built in 1920. The Italian San Simone Festival is a culturally important folk festival celebrated today in Swissvale. The Croatian community founded an important fraternal organization, the National Croatian Society, that had over 100 members. They are still a strong and well-organized community in Rankin borough, where they have various clubs and organize cultural activities. The Carpo-Rusyns were also a strong commu-

nity in Homestead. The national headquarters of one of their fraternal organizations, the Greek Catholic Union, was located in Homestead. They built three churches and formed the "Rusyn Peoples Home." **St. Nicolas Church**, built in 1937, continues as an important religious center in the community. Rusyns also built the Cathedral for the Byzantine Catholic churches throughout the Mon Valley, the **St. John the Baptist Byzantine Cathedral**. Today, the Byzantine Catholic church is still headquartered in Homestead.

The steel industry also attracted immigrant labor that was Polish, Gypsy, Bulgarian, Serbian, Czech, Hungarian and Rumanian. Sizeable Hungarian and Rumanian communities settled in West Homestead and Munhall. The **Gothic Revival Hungarian Reformed Church**, built in 1904, is still a religious center in West Homestead. Similarly to other groups, the Rumanians in Homestead established a club, the Rumanian Cultural Society, and the Polish community built several churches. Today, the Bulgaro-Macedonian Beneficial Association is an active organization in West Homestead.

Although the steel company did not control every aspect of the workers' lives in Homestead, the ethnic neighborhoods were greatly affected by the company's politics. The ethnic neighborhoods were, for the most part, located below the railroad tracks in what was known as the "Ward" district. These neighborhoods did not directly benefit from the "buying-goodwill" gifts of the corporation such as the **Carnegie Library** and **Frick Park**, which were built above the railroad tracks in the neighborhoods of the "native stock." Due to the wartime demands of WW II, Homestead Works expanded its operations, resulting in the demolition of a large portion of the Ward that was the port of entry neighborhood for immigrants coming into Homestead. Many institutions and communities were affected, such as the Rusyn Peoples Home, the Turners Club (German) and the only Gypsy community in the Mon Valley. Approximately 2,000 families were displaced.

The ethnic communities also shared the impacts of the steel industry's decline. As industries and populations left the area, ethnic communities began to break up and institutions have had to struggle to stay alive. The area that comprises Homestead, West Homestead and Munhall is thought to be the community whose ethnic infrastructure, both architectural and cultural, has remained the most unchanged through the twentieth century. The significant number of religious institutions that remain active and involved in the community attests to the strength of these ethnic communities.



Even as suburban development occurred and ethnic communities began to break up, traditions remained, as well as strong loyalties to the places where families and friends lived and worked. In recent years, people who had left Homestead, West Homestead and Munhall are returning to the area.

**Historic Districts and Structures.** Historic resources in the project area are associated with the Big Steel Era. At the turn of the century, the Homestead Works emerged as the largest and most productive steel producer of the world. At one time it employed nearly 15,000 workers, and life of the community revolved around it. The communities of Homestead and Munhall borough grew around the works, while the community of West Homestead grew around the Mesta Machine Company, once referred to as the “world’s largest machine shop under one roof.” These communities celebrated their history and accomplishments, which are still a source of community pride. This year, Munhall and West Homestead celebrated the 100<sup>th</sup> anniversary of their municipal founding.

Eighth Avenue, the main street in the three towns, was always bustling with activity while the Homestead Works was in operation. In 1990, the National Register of Historic Places designated the area along Eighth Avenue a historic district, for its varied and representative selection of residential, institutional and commercial architecture typical of the layout of an industrial community of the period 1890–1940. Today, the historic district is listed on the Preservation Pennsylvania 2001 list of the ten most endangered historic places due to pressures to replace historic buildings in the district with new retail uses. Being on the list is thought to give a community more stature in applying for the Keystone Grants administered by the Pennsylvania Historical and Museum Commission. Community members, foundations and the local government are involved in preservation and restoration efforts. The borough of Homestead and private foundations are aiding property owners in façade restoration of buildings within the historic district. Other buildings will undergo full restoration once funds become available. The restoration of Homestead’s firehouse and former municipal building is a combined effort from the state and local government, foundations and the private sector. Despite much local support for the conservation of the historic and cultural resources in the area, valuable historic buildings are still being torn down to make space for new development.

**Historic Districts and National Register Resources.** The Homestead National Register Historic District represents a type of interaction between industry

and dependent communities that developed in industrial America between 1890–1940. The district encompasses more than 30 city blocks in the boroughs of Homestead, West Homestead and Munhall, 10 miles southeast of Pittsburgh. Homestead Historic District is composed of nonindustrial buildings constructed between 1890 and 1941. The district contains structures that were built as worker houses for the laborers in the steel mills. The majority of the structures date from the 1920s, but a substantial number are from the 1880–1895 period. The district is also composed of a number of structures that housed important religious institutions formed by the different ethnic groups that moved to the area during the steel-making era. Several of these churches, such as **St. John the Baptist Byzantine Cathedral**, are remarkable works of architecture and still house the same congregation that built the structures. Significant commercial buildings such as the 1926 **Pittsburgh National Bank** also contribute to the richness of the district. The **Leona Theater**, built in 1913, and **Chiodo’s Tavern** are landmarks of the days when Homestead was a favorite spot for entertainment. Within the historic district there is a distinct neighborhood, the **City Farm Plan Neighborhood**, which features superintendents’, workers’ and middle class housing, and the **Carnegie Library**. Many of the houses in this neighborhood date from the 1890s. The **Homestead High-Level Bridge** was listed in the National Register of Historic Places in 1986 and was built in 1937 to replace Brown’s Bridge. The bridge is a WPA-era structure that uses the first major application of a Wichert continuous truss. Aside from its material, the structure has no special relationship to the steel industry.

#### Key Historic Structures

- **The Bost Building**, located on Eighth Avenue in Homestead, was the headquarters of the Amalgamated Association of Iron and Steel Workers during the 1892 Homestead lockout and strike, and it housed the newspaper correspondents who covered the events. It was designated as a National Historic Landmark in 1999 and is listed as a contributing resource in the Homestead Historic District. The Steel Industry Heritage Corporation is rehabilitating the building as a visitor center. The building will also house a labor history exhibit, archives and offices.
- **Carrie Blast Furnaces Numbers 6 and 7 and the Hot Metal Bridge.** Built in 1906–1907, the furnaces are the only remaining pre-WW II era

blast furnaces in the Pittsburgh District. The Carrie Furnaces, located on the north bank of the Monongahela River in Swissvale and Rankin, provided iron to various plants up and down the valley until they were purchased by Carnegie Steel in 1898. Carnegie Steel built the Hot Metal Bridge in 1900-1901 in order to transfer hot metal, pig iron and raw materials across the Monongahela River from the Carrie Furnaces to the steel-making facilities in Homestead. By integrating the iron - and steel - making facilities, the Homestead Works, together with the Carrie Furnace Plant, emerged at the turn of the century as the largest and most productive steel mill of the world.

- **The Battle of Homestead Landing site** was the site where the armed Pinkerton detectives hired by Carnegie Steel arrived, on river barges, to confront Homestead workers, their allies and families in 1892. It was on this site that the Battle of Homestead took place. Main features include an 1892 brick pump house, which was present during the battle, approximately fifty circa 1883 wooden pilings, and an 1893 water tower. The site was denied National Historic Landmark designation on the grounds that later additions as well as massive alterations to the battle site itself, compromised its integrity. The previous owner rehabilitated the Pump House, which is now accessible to the public. The Steel Industry Heritage Corporation hopes to make it part of the “Big Steel Journey.”
- **Steel Workers’ Organizing Committee Monument** is an engraved obelisk erected in 1941 to honor steel workers who were killed at the Battle of Homestead in 1892 as well as to celebrate the return of the union to power. It is located within the Homestead National Register Historic District at the Homestead end of the High-Level Bridge.
- **Carnegie Library of Homestead** was built in 1898 in what became the borough of Munhall. The facility includes a Music Hall, Library and Athletic Club. It was intended as a personal peace offering gift from Carnegie to the community.
- **Mesta Machine Company** was the largest machining operation in the Pittsburgh area. It made parts for steel mills in the United States and around the world. The borough of West Homestead grew around the Mesta Machine Company. The company was closed in 1983, but reopened years later and it is still in operation

today. Related to the Mesta Machine Company is the **Bryce Mesta House**, home of George Mesta, company founder. This house is considered to be the only genuine mansion in the Historic District.

- **Homestead Pennsylvania Railroad Station** was listed in the National Register of Historic Places in 1983. The station, built *circa* 1890, is one of the most architecturally distinguished local railroad stations along the Monongahela River Valley. The station reflects Homestead’s importance during the Steel Era when a great number of people, including industrialists, immigrants and other laborers, traveled to and from the town by train.
- **Schwab Industrial School** was built in 1903 as a training school for workers. Charles Schwab, a Carnegie partner, constructed this facility at about the time of the sale of the company to U.S. Steel.

## *The Socioeconomic Environment*

The study area defined for this SRS lies in the heart of Allegheny County in western Pennsylvania and encompasses the boroughs of Homestead, West Homestead and Munhall on the south bank of the Monongahela River and the boroughs of Rankin and Swissvale located on the north bank of the river.

### **Socioeconomic Baseline Conditions**

The study area experienced cycles of growth and prosperity since its emergence as an important industrial center in the late 1800s. Jobs drew many immigrants to the area, and the population soared in the early twentieth century. With the collapse of the steel industry in the early 1980s, however, the economic base of the area was devastated. The Mon Valley lost 17,000 jobs. Residents began to move elsewhere in search of employment, leading to a major population decline in the area. Although the overall population of the study area has continued to decline and a major economic turnaround has not yet occurred, the population of some boroughs—Munhall, Rankin and Swissvale—ceased to decline between 1998 and 2000. The population growth in these boroughs is most likely the result of affordable housing. New developments in the study area are indicative of changed perceptions about the area and may lead to additional population increase in upcoming years.

The 2000 U.S. Census data shows that the overall population has continued to decline in the study

area. The population of Allegheny County declined 4.1 percent in the last ten years. In comparison with other municipalities of Allegheny County, the boroughs of Homestead, West Homestead, Munhall, Rankin and Swissvale experienced significant declines in their populations between 1990 and 2000. Munhall borough was one of the 25 municipalities in Pennsylvania with the largest numeric decrease in its population between 1990 and 1994. However, between 1990 and 2000 the population declined by 6.8 percent, about 3 percent less than the decline in population between 1980 and 1990. Homestead had the largest population decrease of all boroughs, a 14.6 percent decline between 1990 and 2000. The population of West Homestead declined by 11.9 percent, followed by Swissvale with a decline of 9.3 percent between 1990 and 2000. In Rankin, the population declined by 7.5 percent between 1990 and 2000. Between 1998 and 2000, however, this trend changed in the boroughs of Munhall, Rankin and Swissvale, where the population has grown an average of 2.5 percent.

Munhall borough, the most populous municipality, has approximately 12,300 residents (U.S. Census 2000). Median household income is \$23,883 (1990 data), well below the 1990 national average of \$30,056 and the state average of \$29,069. Borough residents are 95 percent white. African-Americans constitute about 3 percent of the population, and Asian-Americans, Native Americans, Latinos and residents of two or more races make up 2 percent of the population.

The borough of Swissvale is the second biggest borough in population with approximately 9,700 residents with median household income of \$23,773 (1990 data), about 18 percent below the national and state averages. Borough residents are 74 percent white. African-Americans comprise 22 percent of the population, Asian-Americans and Latinos constitute 2 percent and residents of two or more races make up the remaining 2 percent of the population.

Homestead borough has a population of about 3,600 residents. Median household income is \$20,388 (1990 data), about 30 percent below the national and state averages. Residents of Homestead borough are 51 percent African-American and 43 percent white. Asian-Americans constitute about 3 percent, Latinos and Native Americans make up less than 1 percent, and residents of two or more races constitute 3 percent of the population.

The borough of Rankin has a population of

approximately 2,300 residents. Median household income is \$10,872 (1990 data), about 63 percent below the national and state averages. Borough residents are 69 percent African-American, 28 percent white, residents of two or more races make up about 2 percent of the population, and Asian-Americans, Native Americans and Latinos constitute about 1 percent of the population.

West Homestead borough has approximately 2,200 residents. Median household income is \$22,298 (1990 data), about 33 percent below the national and state averages. Borough residents are 90 percent white, African-Americans constitute about 9 percent of the population, Asian-Americans, Native Americans and Latinos make up less than 1 percent of the population.

Unemployment varied significantly among the different boroughs in the study area. Only 3.6 percent of Munhall borough was unemployed in 1998, while in Rankin unemployment was 9.6 percent; followed by the borough of Homestead, 7.3 percent; West Homestead, 5.1 percent; Swissvale, 4.3 percent. The service and retail sectors are the major employers in the boroughs, followed by manufacturing and construction. The majority of residents work in Pittsburgh or in neighboring boroughs such as at West Mifflin where there are several manufacturing companies and service-sector jobs. Manufacturing and heavy industry represent only 15 percent of all jobs in the Pittsburgh region; the remaining 85 percent of all jobs are service-sector jobs.

**Land Uses and Ownership.** From the end of the nineteenth century to the 1980s, industrial use dominated the landscape in the lower Monongahela Valley. The study area began to change from a highly industrial area to mostly residential when the steel industry collapsed in the early 1980s.

With the demolition of the Homestead Works, new development occurred on the waterfront, which is now mixed use. Within the three boroughs of Homestead, West Homestead and Munhall, the majority of land is in residential use. On the north bank, the majority of the land in Swissvale is also in residential use, while in Rankin the site of the Carrie Furnace occupies a full third of the half-mile-square borough with remaining land mostly residential.

There are commercial and mixed-use land uses throughout the study area, with the heaviest concentration at the Waterfront development in

Homestead and in the central business district of Homestead along Eighth Avenue, between Sarah Street in West Homestead to Library Place in Munhall. Industrial uses no longer dominate the study area. The only remaining heavy industrial use is at the northwestern edge of West Homestead. There are also three other sites in West Homestead, Homestead and Munhall that are light industrial in nature. Major efforts to clean up and redevelop former industrial sites are under way in the region. Upstream on the Monongahela River, beyond the Homestead vicinity, the communities of Braddock and Duquesne still have active steel mill operations.

Real estate companies, foundations, not-for-profit associations or individuals privately own the majority of the historic resources of the study area. The SIHC owns the Bost Building. Different owners including owner-residents, institutions and owners of commercial buildings own most structures within the Homestead National Heritage Historic District. The Cleveland-based Park Corporation owns the Carrie Furnaces. Continental Real Estate purchased the land of the former Homestead Steel Works, including the Battle of Homestead Landing site from the Park Corporation. The SIHC plans to buy the Hot Metal Bridge from its current owner, the Monroeville-based Transtar Inc. The Pittsburgh History and Landmarks Foundation owns the Homestead Pennsylvania Railroad Station.

**Development and Transportation Context.** After the Homestead Works closed, the county, state and other public entities launched several initiatives to reoccupy vacant lands and replace the economic engine that was provided by the plant, summarized in the remainder of this section. Figure 9 shows the location of key development initiatives within the project area.

The new 360-acre Waterfront development on the site of the former Homestead Works is transforming the riverfront into a mixed-use area, with commercial, residential, office and recreational uses. This new development encompasses portions of the boroughs of West Homestead, Homestead and Munhall extending from the Pump House to the west side of the Homestead High-Level Bridge. It covers approximately 80 percent of the land once occupied by Homestead Works. With the completion of the “Town Center” part of the Waterfront Development, adjacent to the High-Level Bridge, in October 2001, the development was at 65 percent completion. In addition to “big box” retail uses, the Waterfront includes an apartment community, a marina and a regional park with community fea-

tures. A Riverfront Heritage Trail, which is part of this development, will offer access to the river. This will be the first time since these communities were built that there will be public access to the riverfront.

The Waterfront is expected to contribute to the economic revitalization of the area. As many as 40,000 customers will go to the Waterfront on a weekly basis, potentially generating business opportunities for the Eighth Avenue Business District. In addition to the Waterfront development, two major customer call centers recently opened in West Mifflin and McKeesport that will create more jobs for the area. New stores have also opened in the Century Three mall area in West Mifflin. This area has been a major commercial center in the area providing many service-sector jobs.

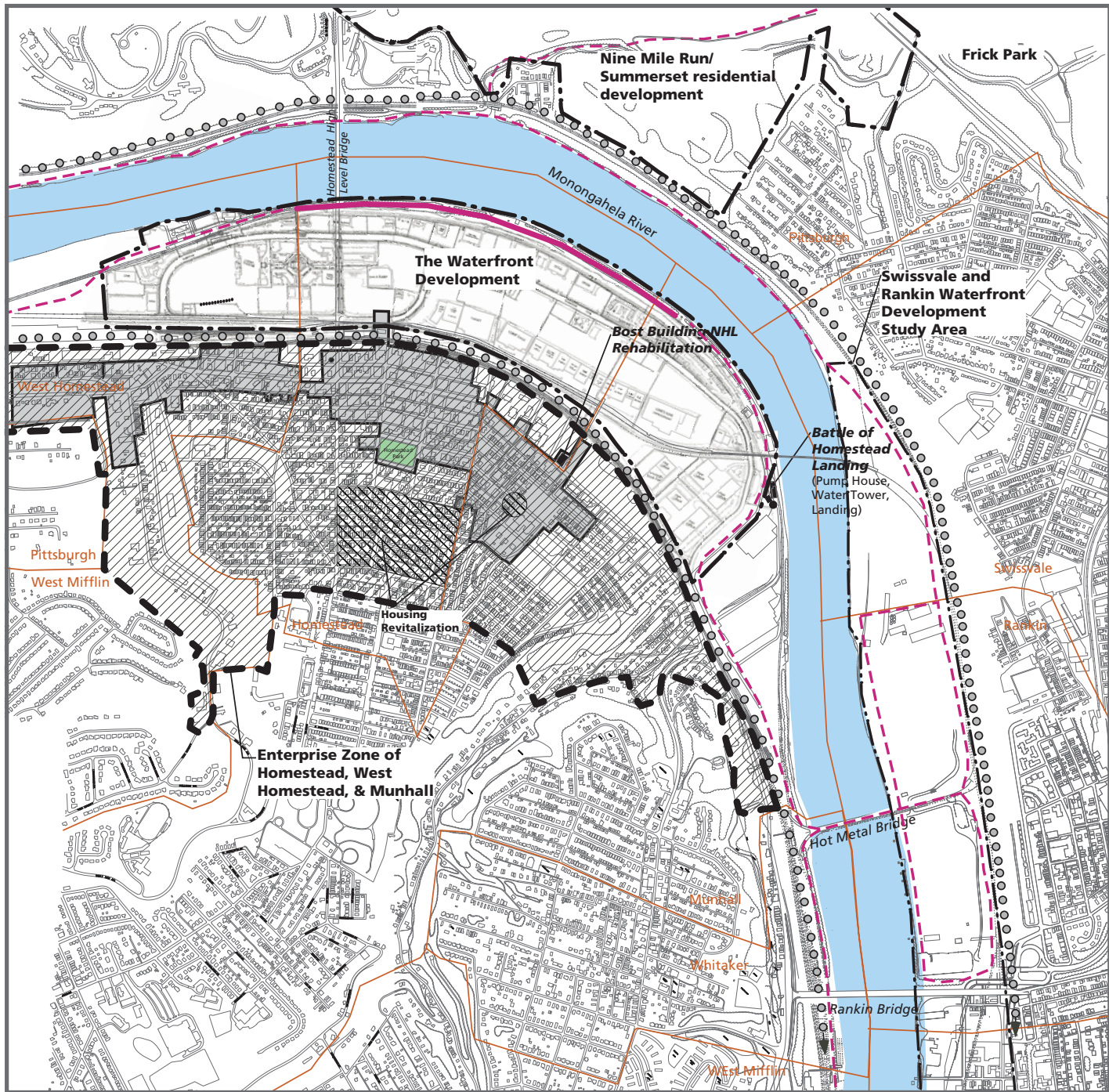
**The Comprehensive Urban Design Study and Plan for Homestead, West Homestead and Munhall** includes a range of initiatives that are designed to reinforce the existing historic commercial core of the Homestead vicinity and to capture positive momentum associated with the Waterfront Development, which is likely to evolve into the commercial center of the study area. While the Waterfront draws customers to Homestead, there is a risk that the success of this new development could draw investment and activity from the historic Eighth Avenue Business District. This study suggests linkages between the new development and older commercial area, new parking, streetscape improvements and other redevelopment proposals to rehabilitate vacant structures for commercial uses in Homestead, West Homestead and Munhall.

The Allegheny County Redevelopment Authority is working on a redevelopment plan for the Carrie Furnaces site, which spans the boroughs of Rankin, Swissvale, Braddock and North Braddock. This major initiative has proposed mixed use development on vacant parcels on either side of the Carrie Furnaces 6 and 7, integrated with interpretive and visitor improvements to the furnaces. Proposals are in the public input stage of the process.

The Allegheny County Redevelopment Authority supports a housing plan, in collaboration with the Mon Valley Initiative, that involves building rehabilitation, façade design, streetscape improvements and green space development in the area of Homestead bounded by West and McClure Streets and between 12<sup>th</sup> and 15<sup>th</sup> Avenues. The Homestead Housing Revitalization project will

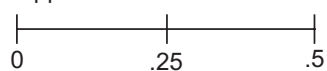


Figure 9: Planning and Development Initiatives in the Homestead Vicinity



**Special Resource Study and Environmental Assessment for Battle of Homestead and Carrie Furnaces 6 and 7**

National Park Service  
United States Department of the Interior  
Approximate Scale in Miles



- Proposed Trail
- Completed Trail
- ◄●●●●► Proposed Mon-Fayette Expressway(North & South alternative alignments)
- ⚡ SIHC Restoration Projects
- Homestead National Register Historic District
- Enterprise Zone
- Proposed Housing Revitalization
- Current Development Projects
- Ongoing Planning Studies

include a mix of rehabilitation and new construction. This rehabilitation will contribute to the revitalization of the heart of Homestead and will aid in integrating this area with the new commercial developments on the riverfront.

The Carrie Furnaces are nearby 200 acres of open space to the west that will be added to Frick Park, a large nature reserve and park owned by the City of Pittsburgh. The extension of Frick Park is the result of the Nine Mile Run project, a major development and greening effort on a previous brown-field site. The Nine Mile Run project is a collaborative effort between public and private organizations to plan and develop the old slag slopes in the city of Pittsburgh and restore the Nine Mile Run stream, a major tributary into the Monongahela River. In addition to the open space, a new housing development known as "Sommerset at Frick Park" is being constructed.

The Mon-Fayette Expressway is a proposed 65-mile highway that would connect Pittsburgh to Cheat Lake in West Virginia. There are two proposed alternative routes that each run through the study area. The North Shore Alternative (the preferred alternative) runs parallel to the north bank of the Monongahela River through North Braddock, Braddock, Rankin and Swissvale to Pittsburgh and abuts the northerly edge of the Carrie Furnaces property. The South Shore Alternative runs along the south side of the Monongahela River passing through Duquesne, West Mifflin, Whitaker, Homestead and West Homestead. Under the North Shore Alternative, there would be access to the Carrie Furnaces site via an exit ramp provided near the site.

### *Visitor Experience and Tourism*

**Regional Context.** Tourism in western Pennsylvania centers on Pittsburgh and Allegheny County, with some 3.9 million people visiting annually. The Greater Pittsburgh Convention and Visitors Bureau estimates that 26 percent of visitors to the Pittsburgh area venture out and visit other points of interest in the region and that visits to cultural attractions, museums and historic sites are the primary activity of leisure travelers to Pittsburgh. From the 1995 *American Travel Survey*, most visitor trips to the Pittsburgh area originate from Pennsylvania, followed by Ohio, New York and Virginia. The most frequent metropolitan area origins are: Washington, Baltimore, Columbus, Buffalo, Philadelphia and Cleveland. The majority of these travelers come for pleasure, including visiting friends and leisure.

The city of Pittsburgh is rich in industrial heritage, historical neighborhoods and museums, and attracts domestic and international visitors. In 1999, the Pittsburgh region ranked third after the Hershey Dutch Country and Philadelphia Countryside regions in total direct travel expenditures in the state of Pennsylvania.<sup>36</sup> Traveler spending directly supported 47,042 jobs within the region. Tourism dollars, according to the Greater Pittsburgh Convention and Visitors Bureau, support the food, lodging and retail establishments. In 1996, visitors spent \$554 million on food purchases and \$295 million on retail.

Much like the rest of Pennsylvania, shopping is the most popular tourist activity in Pittsburgh.<sup>37</sup> With the exception of the Carnegie Museums and the Duquesne Incline, all the top visitor attractions of Pittsburgh include shopping as one of their activities. After shopping, the most frequent activity was visiting a museum. The historic district in Homestead has the potential of becoming a major visitor attraction if it could offer both a culturally enriching experience and good shopping.

The Senator John Heinz History Museum opened in 1996 and features both permanent and temporary exhibitions focusing on the history of western Pennsylvania. The museum also houses a theater, library and archives, museum store, cafe and the offices of the Historical Society of Western Pennsylvania. The museum is the only attraction in the Pittsburgh metro area that interprets the steel industry heritage of the region. The museum shows a comprehensive video of the steel industry and has a permanent exhibit featuring Homestead that deals with the lives of the workers in the steel mills. Since 1996, the number of visitors has increased significantly every year, with a total of approximately 105,000 visitors in 2000, many of which are school groups. The museum plans a major expansion by 2004 that can be expected to increase its appeal and attraction and is anticipated to result in expanded visitation, projected at 150,000. The museum's exhibitions cover a variety of themes and times related to the region's history.

Other major cultural attractions in the Pittsburgh area include: the Carnegie Museum of Natural History and Carnegie Museum of Art (327,328 visitors in 2000), the Carnegie Science Center (579,668 visitors in 2000), the Pittsburgh Zoo (801,062 visitors in 2000), the Andy Warhol Museum (59,026 visitors in 2000) and the National Aviary (85,226 visitors in 2000).

**Homestead, West Homestead and Munhall.**

Although visitor attractions in the study area are still quite limited, in recent years the area has experienced a significant increase in activities that are drawing attention to that side of the valley. Major nearby recreational attractions in the area include the Sandcastle water park that draws about 800,000 visitors over the three-month summer period and the historic Kennywood Amusement Park that attracts over 1 million visitors annually.

In Homestead, West Homestead and Munhall, the scale of current tourist attractions and activities has been quite modest. In 1993, the Steel Valley Arts Council created the *Eighth Avenue Days Festival*, which usually lasts two days. For the summer of 2001, the *Eighth Avenue Days* festival was changed to the *Eighth Avenue Arts Festival* to mark the centennial celebrations of Munhall and West Homestead and ran throughout the summer. A first exhibit in June attracted 650 visitors and the August exhibit over 500. The festival is expected to become an annual event in the future. The *Pierogie Festival* celebrates the region's ethnic history with a family day of food, music and dance. It is the most attended festival of the area with about 1,500 visitors. It takes place at the Sandcastle water park in

West Homestead.

There is no tour of the historic district or individual historic buildings. Once facade restorations take place, tours of the historic district could be organized in a similar fashion to the *Take a Walk on the North Side* tour of Pittsburgh's North Side. In a recent article the *Pittsburgh Post-Gazette* compared Eighth Avenue in Homestead with Carson Street on the South Side, pointing out that both are commercial belts with mill-worker pasts and architecturally rich. The article concluded that the South Side was not inherently well placed for the vibrant recovery it made; neither is Homestead poorly placed. In 1997, the South Side was the eighth most visited attraction in the Pittsburgh area and the North Side ranked seventh after downtown Pittsburgh, Station Square, Airmall, the Carnegie Museums and the Duquesne Incline.<sup>38</sup>

**Swissvale and Rankin.** The Carrie Furnaces have the potential of becoming a tourist attraction in the area. Its proximity to the proposed Steel Valley Trail would give the site great visibility.

## CHAPTER 8

# Assessment of Impacts

### *Organization of this Chapter*

This chapter *assesses* the impacts of the alternatives, as described in Chapter 6, on the affected environment, which is described in Chapter 7, the Affected Environment. The impact topics appear in the order in which they were considered in Chapter 7.

### *Summaries of Alternatives*

- **Alternative 1: Continued Support to Rivers of Steel National Heritage Area** – The Rivers of Steel NHA management entity, the Steel Industry Heritage Corporation (SIHC), would continue to be the primary entity responsible for preservation and interpretation of the resources in the Homestead vicinity, as part of its general mission to conserve, promote and manage the historic, cultural, natural and recreational resources of steel and related industries in southwestern Pennsylvania and to develop uses for these resources so they may contribute to economic revitalization of the region. NPS would continue its current support to the SIHC, who would continue its endeavors to implement the Management Action Plan for the NHA. No additional federal action would be proposed.
- **Alternative 2: The Homestead Steel Workers National Historic Site** – The focus of Alternative 2 would be the stories of steel workers, their communities and their dramatic struggle with powerful steel companies to secure decent working conditions and fair wages, including a nearly 50-year struggle to rebuild a union after it was broken by the Battle of Homestead. Congress would designate a National Historic Site as an affiliated area of the National Park System to authorize the NPS to provide financial, interpretation and preservation assistance to local public and private entities beyond that provided by existing authorities. NPS assistance would be directed toward key resources in the vicinity of the former Homestead Works and its community that illustrates these themes. The boundary of the NHS would include certain noncontiguous historic sites in Homestead, West Homestead, Munhall, Swissvale and Rankin, Pennsylvania.

- **Alternative 3: Lower Mon Valley Steel National Historic Site** – Alternative 3 would focus on the stories of steel workers, their communities and their dramatic labor struggles – told in the Homestead vicinity. It would place the unique labor story of Homestead in a larger context by expanding interpretation to encompass the historic industrial sites and related resources that line the Lower Mon Valley to convey the massive scale of the “Big Steel” industry that employed hundreds of thousands of workers, built mammoth plants that indelibly imprinted the form and culture of its river landscape and produced basic materials that changed the lifestyles of a nation. Congress would designate a National Historic Site as an affiliated area of the National Park System to authorize the NPS to provide technical and financial assistance to local public and private entities for interpretation and preservation of resources beyond that provided by existing authorities. The boundary of the NHS would include the same sites as Alternative 2, which would be eligible for interpretation and preservation assistance, supplemented by a corridor of varying width on both sides of the Lower Monongahela River between the Youghiogheny River and the confluence of the Monongahela with the Allegheny River. Along this river corridor, where limited NPS interpretive assistance would be available to link resources in the Homestead vicinity to other steel industry related resources, the scope and power of the “Big Steel” story can be appreciated by the public.

### *Methodology*

#### **General Approach**

This Environmental Assessment (EA) describes the potential environmental consequences of each alternative presented in Chapter 6 of this document. While these alternatives offer various strategies for the preservation, interpretation and management of historic resources, the desired physical outcome of each alternative is likely to be similar, with the main difference being the level of involvement of NPS, which may affect the eventual outcome. There would be no direct NPS management or ownership of the resources under any alternative, and NPS would not have direct control over



future actions or programmatic outcomes. Because of these inherent uncertainties, it is not possible to be precise and exhaustive about impacts at this time. Instead, this EA identifies likely types of environmental consequences and describes them in qualitative terms and orders of magnitude. This EA serves to clarify which alternative will have the most beneficial or least detrimental environmental consequences.

Both action alternatives propose that a general management plan (GMP) be developed pursuant to a National Historic Site designation at Homestead. The GMP would define more specific actions to be taken, as well as management commitments of local entities and would be accompanied by an EIS. As warranted, the GMP/EIS would provide a more detailed analysis of anticipated impacts. In addition, any actions funded by federal funds would require NEPA and Section 106 compliance, which would examine impacts in detail.

The following terms are used in this document when comparing environmental impacts among alternatives:

#### **Magnitude of Impact**

*Negligible* – The impact is barely perceptible or not measurable.

*Minor* – The impact is slightly detectable and measurable but is either localized or would not adversely affect resources.

*Moderate* – The impact is clearly detectable and could have appreciable effect on resources.

*Major* – The impact is substantial and highly noticeable or measurable.

#### **Duration of Impact**

*Short-term* – The impact is typically less than one year. Short-term impacts are often associated with construction of specific facilities that temporarily change environmental conditions. Because this SRS does not recommend such actions, there will be no discussion of short-term impacts in this chapter.

*Long-term* – The impact lasts one year or longer.

#### **Quality of Impact**

*Beneficial* – The impact is generally positive on the resources being considered.

*Adverse* – The impact is generally negative on the resources being considered.

#### **Qualitative Impact Timing Considerations**

Under Alternative 1, where no further federal action is proposed, it is likely that SIHC would require an extended period of time to attract the large investment that is required to implement the NHA Management Action Plan. Further, the plan's success would be dependent on the cooperation and commitment of several local entities. There would be a risk of delay in preservation of resources beyond the projected timeline in the plan, which could translate to further deterioration and possibly loss of historic resources.

Under Alternatives 2 & 3, recognitions that would accompany the establishment of a NHS and assistance provided by the NPS would potentially result in increased local awareness of resource preservation. The increased involvement of NPS could raise the prestige of the area, which could result in several types of beneficial impacts. More rapid implementation and the ability to more effectively raise local funds would be likely to have beneficial impacts on the preservation of historic and cultural resources.

Under Alternative 3, additional NPS assistance in creating interpretive linkages to surrounding steel industry communities along the Lower Mon River Valley could create a regional awareness about historic resources that could indirectly lead to improved preservation of these resources.

#### *Impacts to Natural and Recreational Resources*

##### **Physiography and Soils**

Soils in the Homestead vicinity have been altered, compacted and, in some cases, supplemented due to historic industrial land use. The soils and physiography of riverbanks have changed over the years with modifications to the river wall.

All of the alternatives can be expected to have negligible impacts on soils and physiography, in large part due to the highly disturbed nature of the sites. While some new development is possible, such as a river landing and interpretive centers, much of the development involves the reuse of existing structures, and any development on vacant land would take place on "brownfield" sites that have been already disturbed. As specific sites for development are identified in the future, additional studies to analyze impacts would be conducted.

Development of recreational trails can result in soil compaction and erosion, but these impacts could be mitigated by choice of surface material and best management practices during construction. As trail locations are identified in the future, additional studies to analyze impacts would be conducted.

### Surface Water Resources

The Monongahela River has historically been and is still used for goods transport in and around industrial areas and is used for recreational boating. Water quality, as discussed in Chapter 7, Natural and Recreational Resources, has improved greatly over the past twenty years, but surface water is generally acidic due to a history of coal discharge in the region, and holds traces of past pollution. Because of this historic use of the river and surrounding lands, all of the alternatives are expected to have negligible to minor impacts on surface water resources, as explained below:

- **Alternative 1** – This alternative would likely have minor impacts on surface water resources as the 1995 Management Action Plan involves river transportation services between a downtown orientation center and the Carrie Furnaces interpretive center, as part of the proposed river journeys. Tour boats can leak oil, gas or diesel fuel on a regular basis, even if they are well maintained. Also, use of recreational trails can add sediment to the river, particularly during storms.
- **Alternative 2** – This alternative can be expected to have minor impacts on surface water resources for the same reasons cited in Alternative 1.
- **Alternative 3** – This alternative would likely also have minor impacts for the reasons cited in Alternative 1, although increased interpretation in Alternative 3 along the Monongahela River Valley could potentially result in an expanded scope for the river journeys and thus an increase in boat traffic.

### Vegetation

Since no floral survey has been conducted at the sites studied in the Homestead vicinity, it is not possible to reliably predict impacts on vegetation. However, because the land affected by the alternatives has been used for industrial purposes and has historically been cleared and because proposed development is in large part based on the reuse of existing structures, impacts of all alternatives on vegetation are expected to be negligible.

### Fish and Wildlife

While Chapter 7 describes the types of species found in Allegheny county, no faunal survey of these sites has been conducted, so it is not possible to determine specific impacts to fish and wildlife. As noted in Chapter 7, improvements in water quality in the past twenty years have allowed some fish to return, but proximity of the Monongahela River to heavy industry has historically meant that the river could not support many fish species. Because of the urban nature of the sites, all alternatives could be expected to have negligible impacts on fish and wildlife.

### Threatened and Endangered Species

As discussed in Chapter 7, the only endangered species found around the Pittsburgh region is the peregrine falcon, but no data is available to show this species is prevalent in the Homestead vicinity. The peregrine falcon was formally removed from the federal endangered species list in 1999, but remains on the Pennsylvania Game Commission's endangered species list because of the small local population and continued threats. Because the sites studied in this SRS are not indicated as habitat for the peregrine falcon, it is expected that all alternatives would have a negligible impact on threatened and endangered species.

### Air Quality

All alternatives could have a negligible to minor impact on air quality in the Homestead vicinity. In all alternatives, it is assumed that the 1995 Management Action Plan to implement river journeys would be carried out, which could potentially have adverse impacts on air quality from increased boat traffic. In all alternatives, however, there would be an emphasis on multi-modal transportation linkages between resources, such as walking and biking trails, which could potentially mitigate adverse impacts from boat traffic. Homestead vicinity sites may attract additional traffic, although the underlying concept of the river journeys is to disperse parking at multiple locations, including downtown Pittsburgh. To the extent that Homestead vicinity sites attract additional vehicular traffic, there could be minor adverse effects to local air quality.

### Recreational Resources

All alternatives include trails along the riverbanks that would be implemented by local entities, with the assistance of SIHC, and would link local parks and cultural resources. Assuming equivalent local effort to implement these systems of connecting links, all alternatives would have moderate beneficial impacts on trails and parks within the

Homestead vicinity. Increased boat traffic can impact fish populations and affect the experience of recreational boating and fishing. Given the activity that currently occurs on the Monongahela River, additional traffic under any of the alternatives would likely result in negligible to minor adverse impacts on these recreational resources. The beneficial impacts of additional boat landings and riverside trails could potentially mitigate these impacts.

## *Impacts to Historic and Cultural Resources*

### **Archeological Resources**

In the Homestead vicinity, industrial and earlier archeological resources have already been adversely impacted by successive urban and industrial development. For example, most of the former Homestead Steel Works has been torn down and the area has been redeveloped. Local entities, including SIHC, have already successfully collected industrial artifacts that could be incorporated into future interpretive sites. Construction of facilities, landscaping, trail improvements and other actions that require disturbance of the soil could potentially affect archeological resources. Under state and federal regulations, archeological resources must be protected for actions that use state or federal sources of funds. In all alternatives, archeological resources would be identified through systematic surveys prior to any actions funded by federal sources. Potential impacts and mitigating actions would be analyzed.

All of the alternatives could potentially have beneficial impacts on archeological resources, with minor distinctions explained below:

- **Alternative 1** – This alternative could have minor to moderate beneficial impacts on remaining archeological resources in the Homestead vicinity, as both state and federal funds would potentially be used to support the implementation process. However, because of funding uncertainties in this alternative, there is a risk of delay and/or damage to archeological resources, particularly if key sites are altered by actions of private owners.
- **Alternative 2** – This alternative could have moderate to major beneficial impacts on archeological resources because archeological surveys could be conducted as part of preservation efforts at the key sites where federal funds would be used for implementation. Also, the availability

of NPS technical assistance would provide greater likelihood of resource preservation than Alternative 1. As discussed in Chapter 6, in this alternative NPS would work with SIHC and/or the local management entity to develop a preservation element as part of a general management plan. Possible findings might include new artifacts and information about prior development at the Carrie Furnace site and at the Pump House and Battle of Homestead Landing site, which is currently partially underwater.

- **Alternative 3** – This alternative could have moderate to major beneficial impacts on archeological resources in the Homestead vicinity for the same reasons cited in Alternative 2. Additionally, NPS interpretive support for Monongahela River Valley linkages could raise local awareness about the importance of sites between Duquesne and Pittsburgh and could cause a beneficial impact on archeological resources in select communities.

### **Ethnic Resources**

Ethnic resources are associated with groups that have influenced the story of Homestead, as described in Chapter 7. Research remains to be done to determine the full extent of ethnic resources in the Homestead and Monongahela River Valley vicinity. All of the alternatives would potentially strengthen the communities' awareness of the value of their heritage, their common history, the contributions of their diverse populations and their roles in the development of labor and creation of the steel industry. The impacts of each alternative on ethnic resources are explained below:

- **Alternative 1** – This alternative would most likely have minor to moderate beneficial impacts on ethnic resources because it promotes their preservation and documentation. SIHC has begun an ambitious project to document and collect traditional knowledge, stories and personal artifacts, which will be incorporated into future interpretive sites. SIHC is actively documenting ethnic resources, including, for example, events, religious celebrations and holidays and contact information for local historians and cultural resources, and has secured several grants for these purposes.
- **Alternative 2** – This alternative would be likely to result in moderate to major beneficial impacts on ethnic resources because there is a higher probability of identifying and documenting contributing resources, due in part to greater finan-

cial resources and the potential support of NPS staff on-site for research and interpretation. Additionally, in this alternative the Homestead National Register Historic District, which represents a cross section of historic ethnic communities, would be eligible for NPS assistance. New interpretive assistance from NPS focused on the story and preservation of ethnic resources as they relate to the themes of labor, community and the steel industry could result in expanded beneficial impacts on ethnic resources, compared to Alternative 1.

- **Alternative 3** – This alternative would have impacts on ethnic resources similar to those in Alternative 2, although there is a greater likelihood of moderate to major beneficial impacts due to an expansion by NPS of interpretive assistance. Additionally, because of the expanded scope of Alternative 3, more ethnic communities and resources may be interpreted and involved with the NHS.

### Historic Districts and Structures

All of the alternatives could be expected to result in beneficial impacts to historic resources because they call for their preservation and reuse. The impacts of each alternative on historic districts and structures are explained below:

- **Alternative 1** – This alternative could have moderate to major beneficial impacts on the Homestead historic district and its structures since SIHC would continue to promote preservation of historic and cultural resources with current financial support from local, state and private funding. For example, major beneficial impacts have already been realized with the preservation and rehabilitation of the Bost Building and the Pump House, which are maintained by SIHC and others. Alternative 1 could continue to have moderate to major beneficial impacts on historic and cultural resources within the area as SIHC implements the full scope of its plan.

However, there is a potential risk of adverse impacts at sites that require timely preservation, such as the Carrie Furnaces, the Hot Metal Bridge and other structures within the Homestead National Register Historic District, which could continue to deteriorate if SIHC is unsuccessful in rapidly leveraging funding to restore them. This risk is particularly evident at sites with a high cost of preservation, such as the Carrie Furnaces site. Deterioration of resources at vulnerable sites might decrease the probability

of effective preservation as the costs of preservation grow over time or as private owners take inappropriate action. Further, the private owner of Carrie Furnaces 6 and 7 has indicated its receptivity to NPS involvement at the Carrie site but has given no guarantees that the site will be preserved if NPS is not involved. This alternative offers real risk that the owners could demolish Carrie Furnaces, especially if its future remains uncertain, impeding other development in the vicinity.

Historic resources in the study area are at risk largely due to current economic development trends. For example, the Carrie Furnaces site and the Homestead National Register Historic District are on Preservation Pennsylvania's list of ten most "at risk" areas due to economic pressure for new development. This trend could continue if long-term protection is not found.

- **Alternative 2** – This alternative could have moderate to major beneficial impacts on historic districts and structures, potentially with higher beneficial impact than Alternative 1, as Alternative 2 encompasses the current efforts of SIHC and additionally, NPS would have a permanent commitment at sites eligible for NPS preservation and interpretive assistance. At these sites, NPS involvement would provide supplemental funding, on-site staff, technical expertise and support with the interpretation of historic and cultural resources. This degree of NPS participation would provide a greater level of national recognition, which in turn could assist SIHC in leveraging the necessary funds to implement the full scope of their plan. NPS involvement also increases the probability that the resources will be preserved without significant delays.
- **Alternative 3** – This alternative could have moderate to major beneficial impacts on historic districts and structures for the same reasons cited in Alternative 2, in addition to its expanded scope, including support for interpretive linkages to historic resources along the Monongahela River Valley. In this alternative, NPS interpretive support for these linkages could raise local awareness about the importance of historic sites and structures along the Monongahela River and could cause a beneficial impact in select communities.

## *Impacts to the Socioeconomic Environment*

### **Land Use**

The SRS area is located within a heavily developed urban area that was historically dominated by industrial uses. Land use has shifted from predominantly industrial to predominantly residential and mixed use in the last two decades, as seen in recent waterfront development in Homestead, Munhall and West Homestead.

All of the alternatives could have moderate direct short-term beneficial impacts on land use in the Homestead vicinity, as all would reuse vacant industrial buildings and sites as interpretive and recreational uses. Long-term indirect land use changes are also likely, to the extent that visitors are attracted to heritage venues. These changes would be caused by increased spending and potential pressure on owners to reuse vacant commercial building and properties. To the extent that the alternatives differ in the number of visitors to be attracted, alternatives that attract more visitors will tend to have increasingly beneficial impacts. Consequently, Alternatives 2 and 3 (see below) are likely to have somewhat higher long-term beneficial impacts.

### **Transportation**

All alternatives are multi-modal, as they will take place within the framework of the Rivers of Steel NHA Management Action Plan. The plan incorporates river journeys to connect regional sites as well as trail initiatives to create bicycle and pedestrian connections among heritage venues. Differences among the alternatives include the following:

- **Alternative 1** – This alternative could have minor impacts on transportation in the Homestead vicinity. The 1995 Management Action Plan proposed that major parking would be provided in Pittsburgh at a downtown orientation center, which would be the main point of arrival and orientation for visitors. From this orientation center, tourists would use water transportation that would take them to the Steel Heritage Interpretive Center at the Carrie Furnaces site. Despite the published intent of the plan, it is likely that some new parking would need to be provided at the Carrie Furnaces site to accommodate visitors who elect to drive directly to this primary venue. However, the amount of traffic directly attracted to the site should be minor, especially compared to the large-scale traffic that was associated with the site at its peak industrial use. Should the North

Shore Alternative of the Mon-Fayette Expressway be completed, an exit would be provided near Carrie Furnaces, which would facilitate vehicular access to this site.

- **Alternative 2** – This alternative could have minor to moderate impacts on transportation in the Homestead vicinity. The scale of development would be similar to that of Alternative 1, but that development is likely to attract more visitors and be completed earlier, because the NPS imprimatur and credibility would be a likely catalyst to accelerate local commitments to implementation and site management. Alternative 2 would rely on the river journeys to serve a proportion of the visitors, but some parking would be required at Carrie Furnaces. Traffic impacts would be larger than Alternative 1, inasmuch as more visitors would be attracted to Alternative 2 than estimated for Alternative 1.
- **Alternative 3** – The traffic impact of this alternative would be similar to Alternative 3.

### **The Local Economy**

All alternatives could beneficially impact the socioeconomic conditions in the immediate study area because they would result in new construction and additional heritage tourism in the Homestead vicinity. These changes would result in increased visitor activity in and near the business district and could affect the area economy with beneficial short- and long-term changes in sales, job creation and resultant tax revenues.

- **Alternative 1** – This alternative could have minor beneficial impacts on the local economy due to increased attention focused on the area through investment in physical preservation and reuse of historic resources for interpretive and recreational uses, particularly at the Bost Building and Pump House and Battle of Homestead Landing site. It is likely that the major desired investments in this alternative at Carrie Furnaces may take some period to accomplish if sources of funding are limited to NHA federal funds and local and state sources. Although long-term benefits would likely accrue, the timing of such benefits would be uncertain.
- **Alternative 2** – This alternative could have moderate beneficial impacts on the local economy due to its proposed investment in physical preservation and reuse of historic resources within a relatively limited geographic scope. The recognition attached to the NPS affiliated area would be a factor in accelerating implementa-

tion and is likely to be helpful in attracting necessary state and local commitments. Revenue generation and tourism-related employment opportunities could be expected to occur at a faster pace than in Alternative 1. These beneficial impacts would be focused on the areas near by the Carrie Furnaces site and Homestead and should include increased visitor expenditures and job opportunities in West Homestead, Homestead, Munhall, Swissvale and Rankin.

- **Alternative 3** – This alternative could have moderate beneficial impacts on the local economy for the same reasons cited in Alternative 2. There is some potential in Alternative 3 for indirect beneficial economic impact in the linked communities along the Monongahela River.

### Visitor Experience

The attractiveness of heritage or cultural resource sites to visitors is important because it affects the educational and recreational value of the visitor experience and also can directly influence the site's inherent ability to attract visitors. Major differences in the visitor experience of the alternatives considered in this study are reviewed below:

- **Alternative 1** – This alternative follows the framework of the 1995 Rivers of Steel Management Action Plan, focusing on the story of the steel industry, with its “Big Steel” journey. While Homestead and its labor-related resources would be part of this journey, the primary interpretive and visitor experience in the plan in the Homestead vicinity would be at the Carrie Furnaces 6 and 7, where the Steel Heritage Interpretive Center is proposed. The initial emphasis proposed in the plan was on the steel-making process and steel-making technology at this site through time, including interactive exhibits that would bring the process to life. As noted in Chapter 6 of this SRS, it is likely that the implementation of such a complex undertaking, in the absence of NPS designation, would be difficult and that a more modest start to this site would be likely under this alternative. Given the high cost of even base rehabilitation of Carrie Furnaces 6 and 7, the initial phases of this project may necessarily be more modest, providing less of a visitor draw to the other important resources of Homestead and still risking damage or even demolition to Carrie Furnaces.
- **Alternative 2** – This alternative would predominantly focus on nationally significant labor themes and the story of Homestead, placing them in their context of the Homestead commu-

nity and the steel industry. This emphasis, as well as the NPS involvement in this alternative, would offer the potential to accelerate implementation commitments, providing a broader and more immediately interesting visitor experience that might serve a more diverse audience than Alternative 1, giving visitors an expanded opportunity to choose activities based on their interests. The national significance of the labor story would be more fully conveyed in this alternative, giving visitors an understanding of how the three themes are interrelated and how the resources and history of Homestead fit into a local and national context. The presence of NPS interpretive rangers would increase the prominence and visibility of the key sites and the Homestead vicinity, providing an immediate boost for visitation and related activities.

- **Alternative 3** – This alternative encompasses the same thematic and interpretive focuses as in Alternative 2, with added interpretive support in the form of increased NPS staff on-site and linkages to other resources along the Lower Monongahela River. Because of these linkages, visitors might better understand the steel and community themes, due to the involvement of more resources and an interpretation of their stories, setting Homestead in context. Because of this broad scope, Alternative 3 has the greatest potential to serve a larger audience.

### Economic Impacts of Site Visitation

Assessment of the tourism-related economic impacts of a NPS management unit, where all improvements would be the financial responsibility of NPS and park operations would be undertaken by NPS, has some degree of predictability regarding the quality of product and timing of implementation of a federal action. For the assessment of alternatives in this SRS, forecasts of tourism impacts are considerably more uncertain, as all alternatives assume significant state and local contributions to improvements and management, the timing and certainty of which are speculative and are, necessarily, factors in considering impact. The economic projections based on visitor activity are based upon the NPS MGM2 economic model<sup>39</sup>, based on comparable urban metropolitan areas and historic attraction patterns and are presented to provide a comparative basis across these general alternatives. The comparative assessment of impact is as follows:

- **Alternative 1** – This alternative could have minor to moderate beneficial impacts on tourism in the Homestead vicinity and

Monongahela River Valley, stemming from increased visitor awareness of the region's resources and story. The 1995 Management Action Plan, assuming full implementation of a national park site (not assumed in Alternative 1 of this study) predicted an increase in visitor volume to the Homestead vicinity of 400,000 people per year. Alternative 1, assuming continuation of NHA support through 2007 and continued implementation coordination by SIHC, would incorporate the rehabilitation of the Bost Building, new interpretive exhibits at the Pump House and a likely extended completion for the Carrie Furnaces site. Given the scale of visitation at other regional historical attractions, such as the major new facility of the Pittsburgh Regional History Center, which attracts 150,000 visitors per year, it is likely that the overall tourist visitation in Alternative 1 to the Homestead vicinity would be considerably more modest than the 1995 Management Action Plan forecast; relatively few tourists visit the site today. Assuming that the efforts of SIHC are successful in creating a unique environment and experience, achievement of visitation in a range from 100,000 to 150,000 visitors per year would be a reasonable assumption, particularly in comparison to the Pittsburgh Regional History Center. Visitation at this scale would create economic benefits for the area, but the timing of the increase would be dependent on the effectiveness of local fund-raising efforts. With an assumed visitor attendance of 150,000 per year, a conservative estimate would envision \$3.4 million in direct and indirect regional sales generated by visitor activity and the creation of 68 jobs.

- **Alternative 2** – This alternative could have a moderate to major beneficial impact on tourism, with potentially larger beneficial impact than Alternative 1, because greater regional and national recognition could result from NPS designation of the affiliated area. NPS ranger presence, interpretive materials and maps, and support for preservation of key resources would increase area credibility and visibility, positively influencing visitor perceptions and experience. Most importantly, NPS on-site involvement is likely to increase the local- and state-funding commitment to the Carrie Furnace element of the project, which is both the most difficult to execute but potentially the most exciting and unique visitor attraction. Alternative 2 may attract from 200,000 to 250,000 visitors per year, a total that could potentially be reached earlier than the Alternative 1 projection, because of the factors mentioned above. With an assumed visi-

tor attendance of 250,000 per year, a conservative estimate would envision \$5.6 million in direct and indirect regional sales generated by visitor activity that would result in the creation of 113 jobs. This impact would be increased by the positive economic impact of up to five NPS staff positions, plus local staff commitments.

- **Alternative 3** – This alternative would have a moderate to major beneficial impact on tourism in the Homestead vicinity for the same reasons and of the same magnitude cited in Alternative 2, with the additional potential for modest beneficial visitor activity in communities along the Lower Mon Valley associated with interpretive linkages to the Homestead vicinity and its increased visitation that might increase local awareness of the region's resources and story. Assuming that total visitors per year would increase to 300,000 due to expanded regional activity and visibility, a conservative estimate would envision \$6.7 million in direct and indirect regional sales generated by visitor activity that would result in the creation of 135 jobs. This impact would be increased by the positive economic impact of up to seven NPS staff positions, plus local staff commitments.

### *Unavoidable Adverse Impacts*

Under all of the alternatives, short- and long-term disturbance and vegetation loss may result from construction activities relating to new visitor facilities and trails. Implementation of appropriate erosion control and revegetation measures would minimize the magnitude of these effects where they occur. Additionally, construction activities would have short-term impacts on air quality due to dust and exhaust, and would cause short-term noise disturbance. While some new development is possible, such as a river landing and interpretive centers, much of the development involves the reuse of existing structures, and any development on vacant land would take place on "brownfield" sites that have already been disturbed.

Development of recreational trails can result in soil compaction and erosion, but these impacts could be mitigated by choice of surface material and best management practices during construction. As specific sites for new construction or trails are identified in the future, additional studies to analyze impacts would be conducted. Under Alternatives 2 and 3, there is a greater likelihood of increased trail use, resulting in more impact.

Increased boat traffic on the river would likely have

minor impacts on surface water resources as boats can leak oil, gas or diesel fuel on a regular basis, even if they are well maintained. Also, use of recreational trails can add sediment to the river, particularly during storms. Homestead vicinity sites may attract additional traffic, although the underlying concept of the river journeys is to disperse parking at multiple locations, including downtown Pittsburgh. To the extent that Homestead vicinity sites attract additional vehicular traffic, there could be minor adverse effects to local air quality. An emphasis in all alternatives on multi-modal forms of transportation could potentially mitigate any adverse impacts from increased traffic. Under Alternatives 2 and 3, there is a higher probability of increased boat and automobile traffic.

Archeological resources may be impacted by the above development activities. At this time, it is not known whether significant archeological resources are present. If such resources were found before or during construction activities, the facilities could be relocated or the archeological resources could be excavated to salvage artifacts. Under the latter condition, some impacts to archeological resources would be unavoidable.

### *Relationship between Short-term Uses and Maintenance and Enhancement of Long-term Productivity*

NPS is required to describe actions in terms of the NEPA objective to maintain and enhance the long-term productivity of the environment. All alternatives include numerous elements that would enhance the long-term productivity of the environment.

Improving the management of the Homestead vicinity's historic and cultural resources would contribute to the long-term protection and preservation of those resources. All of the alternatives emphasize the preservation and protection of these resources, including the adaptive reuse of existing resources, and also take steps to prevent development of the land in the mixed-use development pattern typical of the region. Trails and linkages among resources would contribute to an increased appreciation of and protection for natural, historic and cultural resources in the long term. Additionally, all alternatives provide linkages among resources that encourage multi-modal forms of transportation, such as walking and biking. This could reduce automobile use and have long-term beneficial impacts on the environment, particularly air quality. Documentation of ethnic

resources called for in this plan would preserve these resources in the long term. In some cases, intervention in the short term is necessary to preserve historic and cultural resources. Under Alternatives 2 and 3, a higher level of interpretive and preservation assistance could result in a higher probability of long-term resource protection.

### *Irreversible and Irretrievable Commitments of Resources*

An irreversible commitment of resources is one that cannot be changed once it occurs; and irretrievable commitment means that the resource cannot be recovered or reused.

Any loss of undiscovered underground resources in areas undergoing preservation or rehabilitation would be an irreversible and irretrievable commitment of resources. In addition, loss of historic material from the reuse of existing structures would be an irreversible and irretrievable commitment of resources. Surveys, avoidance through design, documentation and other mitigation would be accomplished before any preservation or rehabilitation occurs, so these impacts would be minimized. Additionally, land use in some cases would no longer be vacant and would likely not return to a natural, vacant state.

### *Environmentally Preferred Alternative*

National environmental policy, as expressed in NEPA [section 101(b)], sets out guidelines for determining an environmentally preferred alternative. In this study, the Environmentally Preferred Alternative is Alternative 2, which is the most effective alternative because it focuses on the core resources in the Homestead environs related to the interpretation of the nationally significant story of labor and its relationship to the "Big Steel" era and community.

Fulfills the responsibilities of each generation as trustee of the environment for succeeding generations. All alternatives emphasize the preservation of resources for future generations. Alternative 2 has a high potential for beneficial impact.

Ensures for all Americans safe, healthful, productive, and aesthetically and culturally pleasing surroundings. Alternative 2 takes steps to ensure a safe, healthful, productive and accessible environment in the long term, preventing development of the land in the mixed-use development pattern typical of the region. Alternative 2 also preserves and



promotes aesthetically and culturally pleasing surroundings.

Attains the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences. Beneficial uses of the environment are high in Alternative 2, as it encourages trail linkages between resources and a high level of interpretation, which could increase resource appreciation and the likelihood of resource protection. As specific development is proposed or approved, environmental degradation and other undesirable consequences will be avoided, to the maximum extent possible, through a development review process and mitigation measures.

Preserves important historic, cultural and natural aspects of our national heritage and maintains, wherever possible, an environment that supports diversity and variety of individual choice. Alternative 2 would potentially result in high levels of beneficial impacts on cultural and historic resources because it includes the broadest measures for resource preservation. Alternative 2 also includes a high level of resource interpretation and linkages with many communities, which would result in a diversity of choices in visitor experience and would attract a wide audience.

Achieves a balance between population and resource use that will permit high standards of living and a wide sharing of life's amenities. Because of its scope, Alternative 2 could increase resource preservation and economic development in more communities and so enhance the quality of life in a wide geographic range. Additionally, by emphasizing trail linkages, Alternative 2 contributes to a wide usage of different resources.

Enhances the quality of renewable resources and approaches the maximum attainable recycling of depletable resources. Alternative 2 demonstrates a high potential for protection of natural resources, which are "renewable resources." Nonrenewable resources such as historic resources would be afforded the highest level of protection under this alternative. Additionally, Alternative 2 encourages adaptive reuse of existing resources, effectively recycling depletable resources.

### *Cumulative Impacts*

The Homestead Special Resource Study is one of many initiatives in the Homestead vicinity. Several planning initiatives and other projects are underway throughout the region that, in combination

with the actions described in the alternatives in this SRS, have the potential to create regional cumulative effects.

Some of the notable initiatives include the following. The *Comprehensive Urban Design Study and Plan for Homestead, West Homestead and Munhall* includes a range of initiatives that are designed to reinforce the existing historic commercial core of the Homestead vicinity. This study suggests linkages between the new Waterfront development and older commercial area, new parking, streetscape improvements and other redevelopment proposals to rehabilitate vacant structures for commercial uses in Homestead, West Homestead and Munhall. The *Waterfront development* has attracted an estimated \$350 million of development to the former site of Homestead Steel Works, including retail uses, offices and residential uses. Designation of an *Enterprise Zone* that includes the Boroughs of West Homestead, Homestead and Munhall will attract significant funding and incentives to assist in preserving the buildings and settings within the Homestead National Register and Local Historic District. The *Mon Valley Initiative*, which initially advocated for National Heritage Area designation, is attracting housing rehabilitation and infill funding to the area. Allegheny County is coordinating study of the development potential of lands surrounding the Carrie Furnaces 6 and 7 and the ongoing activities of *Rivers of Steel* are resulting in rehabilitation of the National Historic Landmark Bost Building, a broad range of cultural activities and trail initiatives along the Monongahela River Valley. At *Nine Mile Run*, across the river from Homestead, the Army Corps of Engineers, the City of Pittsburgh Department of City Planning and a local developer will clean up a former slag dump from the steel mill operations and create a 110-acre expansion of Frick Park and a \$243 million housing development. Finally, the *Mon-Fayette Expressway* is a proposed highway whose two proposed alternative routes each run through the study area. These initiatives are described more fully in **Chapter 1, Context of the Study Area, and Chapter 7, The Socioeconomic Environment: Development and Transportation Context.**

Environmental impacts from the recommendations in this SRS, added to other past, present, or foreseeable future actions, may cause the following cumulative positive and/or negative impacts.

In general, actions of this plan, combined with other regional initiatives, will bring about positive impacts, including:

Ongoing preservation efforts for historic and cultural resources resulting in more appreciation of cultural heritage. All alternatives would most likely result in long-term, beneficial cumulative impacts, with Alternative 2 having the potential for beneficial impacts.

Increased demand for development of tourism facilities and commercial establishments, which, along with other economic revitalization initiatives, would contribute beneficially to the economic health of the area.

Ongoing development of trail systems linking resources, which encourage multi-modal forms of transportation and recreational use of open space, and would improve access to and appreciation of resources. All alternatives would potentially result in long-term, beneficial cumulative impacts, with Alternative 2 has a high level of beneficial impacts.

Ongoing redevelopment of vacant industrial build-

ings and sites resulting in urban revitalization. This would potentially result in long-term, beneficial cumulative impacts.

In some cases, aspects of this plan may combine with other regional actions to increase the potential for adverse impacts, including:

Increased automobile traffic congestion and emissions. This impact may not be significant as compared to the impact of the proposed Mon-Fayette expressway on the area, and should be considered in the context of current and future traffic volumes.

Increased boat traffic and emissions. The increase in boat traffic proposed in this SRS should be considered in the context of current boat traffic levels and considering the possibility that additional waterfront development along the river could add to current levels. The beneficial impacts of additional boat landings and riverside trails proposed in this plan could potentially mitigate these impacts.

## CHAPTER 9

# Consultation and Coordination

### *Public Involvement*

A public meeting was held at the headquarters of the Steel Industry Heritage Corporation for the purpose of introducing the Special Resource Study on June 29, 1999. Comments from this meeting enforced the idea that many different resources in the Homestead vicinity are important to the residents and that valuable resources are not limited to the Carrie Furnaces, Battle of Homestead Landing site, and the Hot Metal Bridge. The meeting made clear that community concerns transcended individual sites and that a broader context for the study was needed. Additionally, the only environmental impacts of concern that were mentioned were potential positive environmental impacts and greater protection of certain sites. There was no mention of concern over adverse impacts but a general concern to achieve positive economic impacts.

In the course of this study, there has been interaction and outreach efforts with a range of individuals and entities, including public officials, institutions, municipal officials, community organizations and community members in the Pittsburgh region including:

#### Organizations

- Allegheny County
- Allegheny County Redevelopment Authority
- Allegheny Trail Alliance
- Army Corps of Engineers
- Battle of Homestead Foundation
- Carnegie Library of Homestead
- Carnegie Mellon University
- Continental Real Estate
- Homestead Economic Revitalization Corporation
- Homestead Historic Society

- Mon Valley Initiative
- Nine Mile Run
- Park Corporation
- Pennsylvania Turnpike Commission
- Pittsburgh History and Landmarks Foundation
- River Life Task Force
- Senator John Heinz Pittsburgh Regional History Center
- Steel Valley Arts Council
- Steel Valley Chamber of Commerce
- Steel Valley Enterprise Zone Corporation
- Steel Valley Trail Council
- Summerset Land Development Associates

#### Elected Officials

- Mayor Betty Esper, Borough of Homestead
- Mayor Ray Bodner, Borough of Munhall
- Mayor George Tkach, Borough of Rankin
- Mayor Tony Vergona, Borough of Swissvale
- Representative Harry Reidshaw, State of Pennsylvania
- Representative Mike Doyle, United States Congress
- Representative William J. Coyne, United States Congress
- Senator Arlen Specter, United States Congress
- Senator Jay Costa, Jr., State of Pennsylvania
- Senator Rick Santorum, United States Congress

# Appendix A

## Cost Estimates

The attached tables provide costs estimates for the Management Alternatives defined in the Special Resource Study. These estimates have been provided based on the following assumptions:

**Table 3** is a transcription of the 1991 estimate prepared by Landmark Design for the Carrie Furnaces. It is the only itemized estimate that has been prepared for this site, inasmuch as access to the site since that time has been limited due to its remaining in private ownership of the Park Corporation.

**Table 4** adjusts the estimates, escalating costs from 1991 to 2001. It is important to note that the Rivers of Steel National Heritage Area (RSNHA) Management Action Plan of 1995 included considerably higher numbers for the “Steel Industry Interpretive Center” proposed at the Carrie Furnaces (\$50 million), but that this facility was predicated on the assumption that

there would be a national park site established there. Table 2 shows removal of the major exhibit from the 1991 estimate and its replacement by a 20,000 SF exhibit, assumed to be of a more modest scale than the \$50 million proposal.

**Table 5** provides order of magnitude estimates for other Homestead elements.

**Table 6** estimates an allowance for interpretive linkages between Homestead elements.

**Table 7** estimates an allowance for Lower Mon River linkages.

**Table 8** allocates these estimates across the alternatives as defined in the draft, apportioning costs from the previous tables and apportioning local vs. NPS shares, commensurate to the intent of each alternative.

**Table 9** estimates NPS staff costs.

**Table 3: Cost Estimates for Carrie Furnaces from 1991 Study**

	Exhibits	Rehabilitation	Visitor Interpretative facilities (buildings)	Visitor Interpretative facilities (sites)	Total	Notes
1. A/C Power House	\$68,983	\$2,327,017			\$2,396,000	(1)
2. Blowing Engine House	\$2,783,000	\$1,359,000			\$4,412,000	(1)
3. Site Between A/C and BEH				\$380,000	\$380,000	(1)
4. Blast Furnace/Cast House 6	\$50,600	\$562,400			\$613,000	(1)
5. Stoves & Dust Catchers	\$50,600	\$367,400			\$418,000	(1)
6. Blast Furnace/Cast House 7	\$12,650	\$379,350			\$392,000	(1)
7. Gas Washing Area	\$37,950	\$257,050			\$295,000	(1)
8. Stock House	\$94,875	\$345,125			\$440,000	(1)
9. Ore Yard		\$76,000			\$76,000	(1)
10. Ore Bridge		\$139,000			\$139,000	(1)
11. Car Dumper		\$89,000			\$89,000	(1)
12. Carrie Riverbank/Boat				\$401,000	\$401,000	(1)
13. Car Parking (500 Spaces)		\$627,000			\$627,000	(1)
14. Performance Area			\$751,034	\$1,063,966	\$1,185,000	(1)
Total 1991 Estimate	\$3,098,658	\$6,528,342	\$751,034	\$1,184,966	\$12,223,000	

Notes: (1) Source of Estimates is 1991 Landmark Design Study

**Table 4: Adjustment of 1991 Carrie Furnace Estimate to 2001**

	Exhibits	Rehabilitation	Visitor Interpretative facilities (buildings)	Visitor Interpretative facilities (sites)	Total	Notes
1. 1991 Estimate	\$3,098,658	\$6,528,342	\$751,034	\$1,844,966	\$12,223,000	(2)
2. Escalate Estimate from 1991 to 2001	\$4,112,703	\$8,664,763	\$996,813	\$2,448,736	\$16,233,016	(3)
3. Add factor for deterioration		\$4,332,382			\$4,332,382	(4)
4. Remove 1991 Exhibit	-\$2,783,000				-\$2,783,000	(5)
5. Add visitor facility/exhibit	\$5,692,500		\$3,795,000		\$9,487,500	(6)
6. 2001 Estimate	\$7,022,203	\$12,997,145	4,791,813	\$2,448,736	\$27,259,898	

Notes: (2) Estimate from Table 3  
(3) Escalation from 1991 to 2001 133% per R.S. Means for Pittsburgh region  
(4) Assume Rehabilitation cost increased by 50% due to 10 years of deterioration  
(5) Subtract exhibit assumed in line 2 of 1991 estimate, Table 3  
(6) Add cost of 20,000 SF visitor facility, include assumed 15,000 SF of exhibits

**Table 5: Estimate of Cost of Other Homestead Resources**

	Exhibits	Rehabilitation	Visitor Interpretative facilities (buildings)	Visitor Interpretative facilities (sites)	Total	Notes
1. Bost Building Enhancement	\$1,897,500		\$984,750		\$2,846,250	(7)
2. Homestead Landing Site				\$2,755,170	\$2,755,170	(8)
3. Homestead Historic District Preservation Assist Grants		\$1,250,000			\$1,250,000	(9)
Interpretation, site & bldgs	\$1,897,500		\$984,750	\$688,793	\$3,535,043	(10)
Subtotal	\$3,795,000	\$1,250,000	\$1,897,500	\$3,443,963	\$10,386,463	

Notes: (7) Assume added 5,000 SF of building and exhibit space to Bost Building  
(8) Assume 2 acres of site and interpretive work at Landing @ \$25/SF  
(9) Assume 25 grants at \$50k each within the Homestead Historic District  
(10) Assume a total of 5,000 SF of exhibit space in Historic District and interpretive improvement to 1/2 acre site

**Table 6: Homestead Linkages**

	Exhibits	Rehabilitation	Visitor Interpretative facilities (buildings)	Visitor Interpretative facilities (sites)	Total	Notes
1. River Linkages						
Additional Boat Landing at Battle Site	\$63,250		\$63,250	\$532,229	\$658,729	(11)
2. Land Linkages						
Between Homestead Resources	\$253,000			\$250,000	\$503,000	(12)
Subtotal		\$316,250	\$0	\$63,250	\$782,229	\$1,161,729

Notes: (11) Allowance for shelter, interpretive, and dock at Homestead Landing (escalate 1991 cost for river landing)  
(12) Allowance for 20 waysides

**Table 7: Summary of Maximum Cost, by Element**

	Exhibits	Rehabilitation	Visitor Interpretative facilities (buildings)	Visitor Interpretative facilities (sites)	Total	Notes
Carrie	\$7,022,203	\$12,997,145	\$4,791,813	\$2,448,736	\$27,259,898	
Homestead	\$3,795,000	\$1,250,000	\$1,897,500	\$3,443,963	\$10,386,463	
Homestead Linkages	\$316,250		\$63,250	\$782,229	\$1,161,729	
Lower Mon Valley Linkages	\$1,454,750		\$189,750	\$3,321,061	\$4,965,561	
Totals	\$12,588,203	\$14,247,145	\$6,942,313	\$9,995,988	\$43,773,649	

**Table 8: Cost Estimates and Allocation by SRS Alternative**

	Exhibits	Rehabilitation	Visitor Interpretative facilities (buildings)	Visitor Interpretative facilities (sites)	Total	Notes
<b>Alternative 1 Rivers of Steel NHA</b>						
Carrie	\$7,022,203	\$12,997,145	\$4,791,813	\$2,448,736	\$27,259,898	
Homestead	\$3,795,000	\$1,250,000	\$1,897,500	\$3,443,963	\$10,386,463	
Homestead Linkages	\$316,250	\$0	\$63,250	\$782,229	\$1,161,729	
<b>Totals</b>	<b>\$11,133,453</b>	<b>\$14,247,145</b>	<b>\$6,752,563</b>	<b>\$6,674,927</b>	<b>\$38,808,089</b>	
<b>Allocation by Source</b>						
NPS	\$0	\$0	\$0	\$0	\$0	(14)
Local (Including RSNHA funds)	\$11,133,453	\$14,247,145	\$6,752,563	\$6,674,927	\$38,808,089	
<i>Notes: (14) Assume no NPS Involvement beyond authorized assistance to NHA</i>						

**Alternative 2 Homestead Steelworkers NHS**

Carrie	\$7,022,203	\$12,997,145	\$4,791,813	\$2,448,736	\$27,259,898	
Homestead	\$3,795,000	\$1,250,000	\$1,897,500	\$3,443,963	\$10,386,463	
Homestead Linkages	\$316,250	\$0	\$63,250	\$782,229	\$1,161,729	
<b>Totals</b>	<b>\$11,133,453</b>	<b>\$14,247,145</b>	<b>\$6,752,563</b>	<b>\$6,674,927</b>	<b>\$38,808,089</b>	<b>(15)</b>
<b>Allocation by Source</b>						
NPS	\$870,000	\$1,140,000	\$540,000	\$450,000	\$3,000,000	
Local (Including RSNHA funds)	\$10,263,453	\$13,107,145	\$6,212,563	\$6,224,927	\$35,808,089	(16)
<i>Notes: (15) These costs to be the responsibility of the local management entity</i>						
<i>(16) Local costs to be responsibility of local management entitites, but may include part of NHA federal funds</i>						

**Alternative 3 Lower Mon Valley Steel NPS**

Carrie	\$7,022,203	\$12,997,145	\$4,791,813	\$2,448,736	\$27,259,898	
Homestead	\$3,795,000	\$1,250,000	\$1,897,500	\$3,443,963	\$10,386,463	
Homestead Linkages	\$316,250	\$0	\$63,250	\$782,229	\$1,161,729	
Lower Mon Valley Linkages	\$1,454,750	\$0	\$189,750	\$3,321,061	\$4,965,561	
<b>Totals</b>	<b>\$12,588,203</b>	<b>\$14,247,145</b>	<b>\$6,942,313</b>	<b>\$9,995,988</b>	<b>\$43,773,649</b>	
<b>Allocation by Source</b>						
NPS	\$870,000	\$960,000	\$480,000	\$690,000	\$3,000,000	
Local (Including RSNHA funds)	\$11,718,203	\$13,287,145	\$6,462,313	\$9,305,988	\$40,773,649	(16)
<i>Notes: (16) Local costs to be responsibility of local management entitites, but may include part of NHA federal funds</i>						

**Table 9: NPS Annual Operations Cost Estimate, by SRS Alternative**

	FTE Interpretation and Technical Assistance	Annual Cost/FTE	Support Services Costs)	Total Costs
Alternative 1: Rivers of Steel	0	\$0	\$0	\$0
Alternative 2: Steel Workers' NHS	2	\$110,000	\$22,000	\$132,000
Alternative 3: Lower Mon Valley NHS	2	\$110,000	\$22,000	\$132,000

# Appendix B

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# Appendix C

## Foot Notes

<sup>1</sup> In this Special Resource Study, “Homestead” or “the Homestead vicinity” are used to refer to the area of the former Homestead Steel Works and its adjacent community. As noted in this paragraph, the Homestead Works included both banks of the Monongahela River; parts of the boroughs of Homestead, West Homestead, and Munhall on the south bank of the river and parts of the boroughs of Swissvale and Rankin on the north bank of the river.

<sup>2</sup>HAER documentation of the Homestead Steel Works was developed by Dr. Mark Brown, historian, and Marty Stupich, photographer. Copies of some HAER reports are available at the Steel Industry Heritage Corporation offices in Homestead; research materials, including maps and drawings, used in preparation of the Monongahela Valley HAER reports are archived at the HAER office in Washington, D.C.

<sup>3</sup>Randolph J. Harris, “The Legacy of Historic Homestead: Guidepost for the Future,” Pittsburgh City Paper Vol. 2, Issue 27 (July 1 thru July 7, 1992): 10-11.

<sup>4</sup>Public Law 104-333, TITLE IV, The Steel Industry American Heritage Area Act of 1996, established the initial designation. Congress recognizes National Heritage Areas for their distinctive history and resources. Conservation, interpretation and other activities are managed by partnerships among federal, state, and local governments and private nonprofit organizations. The NPS typically plays the role of catalyst by providing technical assistance and financial assistance for a limited period.

<sup>5</sup> *History in the National Park Service, Themes and Concepts* is the NPS’ Revised Thematic Framework, based on an original study adopted in 1994, revised and issued in 1996, and revised and reprinted in 2000. The document is used as a conceptual tool for evaluating the significance of cultural resources within or outside the NPS. The short citations in the paragraph are from this document.

<sup>6</sup>Kenneth Warren, The American Steel Industry (Oxford: Clarendon Press, 1973), p. 288; John P. Hoerr, And the Wolf Finally Came: The Decline of the American Steel Industry (Pittsburgh, Pa.: University of Pittsburgh Press, 1988), p. 5, 87. The Homestead Works was eclipsed in size by the

Lackawanna Works in Buffalo, built in 1898-1900, and the Gary Works, constructed in 1908-1910.

<sup>7</sup>Bruce Bomberger, William Sisson, and Diane Reed, “Iron and Steel Resources of Pennsylvania, 1716-1990,” National Register of Historic Places, Multiple Property Documentation Form, 1991, p. 59; John N. Ingham, *Making Iron and Steel: Independent Mills in Pittsburgh, 1820-1920* (Columbus: Ohio State University Press, 1991), p. 50-52.

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<sup>18</sup>Krause, The Battle for Homestead, pp. 250-251.

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<sup>23</sup>George Powers, Cradle of Unionism, Monongahela Valley, Pa. (East Chicago, Indiana: Figueroa Printers, 1972), pp. 92-94.

<sup>24</sup>Curtis Miner, Homestead, pp. 24-25.

<sup>25</sup>Fitch, The Steel Workers, pp. viii-ix.

<sup>26</sup>Historical Society of Western Pennsylvania, "Historic Site Survey of the Greater Monongahela River Valley," 1991, pp. 153-154.

<sup>27</sup>Miner, Homestead, p. 24-26.

<sup>28</sup>PHLF, "Homestead Historic District," Section 8, p. 5.

<sup>29</sup>Historical Society of Western Pennsylvania, "Historic Site Survey," p. 157.

<sup>30</sup>PHLF, "Homestead Historic District, Section 8, p. 4.

<sup>31</sup>*Ibid.*, pp. 38-39.

<sup>32</sup>NPS *Management Policies 2001*, Section 1.3.2, pages 10-11

<sup>33</sup>*History in the National Park Service, Themes and Concepts* is the NPS' Revised Thematic Framework, based on an original study adopted in 1994, revised and issued in 1996, and revised and reprinted in 2000.

<sup>34</sup>In this chapter "Rivers of Steel NHA" refers to both the Rivers of Steel National Heritage Area designated by the U.S. Congress in 1996 (Public Law 104-333, TITLE IV) and the approved Pennsylvania Heritage Park. The seven county designated area for both National and State Heritage Areas are identical and both entities are proceeding on the basis of the 1995 Management Action Plan.

<sup>35</sup>Historic American Engineering Record, Homestead Steel Works and Carrie Furnaces, Homestead, Pennsylvania: Inventory of Historic Structures and their Significance, August 1990, page 9.

<sup>36</sup>D.K. Shifflet and Associates Ltd., *Summary of 1999 Pennsylvania Economic Impact Report*.

<sup>37</sup>Purdue Tourism and Hospitality Research Center, *Greater Pittsburgh Visitor Profile Study 1996-1997*.

<sup>38</sup>Purdue Tourism and Hospitality Research Center, *Greater Pittsburgh Visitor Profile Study 1996-1997*.

<sup>39</sup>Stynes, Daniel J, and Dennis B. Probst, Wen-Huei Chang, and Ya Yen Sun, Estimating National Park Visitor Spending and Economic Impacts: The MGM2 Model, Department of Park Recreation and Tourism Resources, Michigan State University, East Lansing, Michigan, May 2000.

# Appendix D

## List of Preparers

### **National Park Service Planning Team**

#### Northeast Regional Office

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As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural and cultural resources. This includes fostering wise use of our land and water resources, protecting our fish, preserving the environmental and cultural values of our national parks and historic places, and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people. The department also promotes the goals of Take Pride in America campaign by encouraging stewardship and responsibility for the public lands and promoting citizen participation in their care. The department also has major responsibility for the American Indian reservation communities and for people who live island territories under the administration of the United States of America.

“The National Park Service cares for special places saved by the American people so that all may experience our heritage.”

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