HENRY AARON STATE PARK TRAIL

FEASIBILITY STUDY

MASTER PLAN

and

ENVIRONMENTAL ASSESSMENT

MENOMONEE VALLEY GREENWAY ADVISORY COMMITTEE

NATIONAL PARK SERVICE

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
MOTION FOR HENRY AARON STATE PARK

Move that the master plan for Henry Aaron State Park be approved as described in the proposed plan and as shown on the maps contained in the plan with the following exceptions:

1. If the exchange agreement among CMC, the State and the District for certain lands in the Menomonee Valley is concluded and the eastern portion of the Department of Health and Social services parcel — the old prison site (the DHSS parcel) is divided and conveyed to CMC by the State as partial consideration for CMC's land on both sides of the Menomonee River then, and in that event, that portion of the DHSS site shall be excluded from the jurisdictional boundaries of the Henry Aaron State Park, except as to those easement areas acquired or to be acquired by the DNR by negotiation with CMC for a 50 to 75 foot wide strip of land along the Menomonee River for the trail component of the park.

2. In addition, the proposed natural and cultural interpretive site, which has been represented as being a historical marker, designated on the proposed state park trail plan and being located on CMC's remainder parcel to the north of the eastern portion of the DHSS parcel shall be relocated (1) elsewhere in the Menomonee Valley but not on CMC property: (2) the land that has been conveyed to the State by Milwaukee County and made available in part for the Henry Aaron State Park trail by Milwaukee County Board Resolution, File No. 96-499, adopted on July 18, 1996; or (3) to land east of the Menomonee River and north of the DHSS parcel, which land will be conveyed by CMC to the State pursuant to the exchange agreement, but subject to a review by the District of parking needs of the Milwaukee Brewers.

3. If the relocation effort described above fails, after a good faith effort by DNR, it is understood CMC will reasonably and in good faith negotiate with the DNR to permit the DNR to acquire an easement at an appropriate site on CMC's land for placement of the historical marker.

The Henry Aaron State Park Trail Feasibility Study, Master Plan and Environmental Assessment, along with this Motion, was Approved by the Natural Resources Board on October 23, 1996 and by Governor Tommy G. Thompson on February 10, 1997.
Wisconsin Department of Natural Resources Board

Herbert F. Behnke, Chair
Trygve A. Solberg, Vice-Chair
Neal W. Schneider, Secretary
Betty Jo Nelsen
Howard D. Poulson
James E. Tiefenthaler, Jr.
Stephen D. Willett

Wisconsin Department of Natural Resources

George E. Meyer, Secretary
Darrell L. Bazzell, Deputy Secretary
Maryann Sumi, Executive Assistant
H. Stan Druckenmiller, Administrator
Division of Resource Management
Susan L. Sylvester, Administrator
Division of Environmental Quality

Southeast District
Gloria L. McCutcheon, District Director

Donald W. Tills, Assistant District Director, Resource Management
Ronald W. Kazmierczak, Assistant District Director, Environmental Quality
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acknowledgements</td>
<td>i</td>
</tr>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Acquisition</td>
<td>3</td>
</tr>
<tr>
<td>Partnerships</td>
<td>3</td>
</tr>
<tr>
<td>Background</td>
<td>4</td>
</tr>
<tr>
<td>Citizen Participation</td>
<td>4</td>
</tr>
<tr>
<td>NeedBenefits</td>
<td>4</td>
</tr>
<tr>
<td>Environmental Enhancement</td>
<td>4</td>
</tr>
<tr>
<td>Urban Parks and Recreation</td>
<td>5</td>
</tr>
<tr>
<td>Proposed Designation and Project Description</td>
<td>6</td>
</tr>
<tr>
<td>Proposed Designation</td>
<td>6</td>
</tr>
<tr>
<td>Description of Plan</td>
<td>6</td>
</tr>
<tr>
<td>Proposed Goal</td>
<td>8</td>
</tr>
<tr>
<td>Goal Statement</td>
<td>8</td>
</tr>
<tr>
<td>Objectives</td>
<td>8</td>
</tr>
<tr>
<td>Land Classification</td>
<td>11</td>
</tr>
<tr>
<td>Proposed Management</td>
<td>11</td>
</tr>
<tr>
<td>Costs</td>
<td>12</td>
</tr>
<tr>
<td>Acquisition</td>
<td>12</td>
</tr>
<tr>
<td>Development</td>
<td>12</td>
</tr>
<tr>
<td>Operations</td>
<td>12</td>
</tr>
<tr>
<td>Environmental Remediation</td>
<td>13</td>
</tr>
<tr>
<td>Description of the Study Area</td>
<td>14</td>
</tr>
<tr>
<td>Cultural and Historical</td>
<td>15</td>
</tr>
<tr>
<td>Milwaukee County Park and Open Space</td>
<td>15</td>
</tr>
<tr>
<td>Environmental Corridors</td>
<td>16</td>
</tr>
<tr>
<td>Water Resources</td>
<td>16</td>
</tr>
<tr>
<td>Fisheries</td>
<td>17</td>
</tr>
<tr>
<td>Soils</td>
<td>17</td>
</tr>
<tr>
<td>Vegetation and Woodlands</td>
<td>17</td>
</tr>
<tr>
<td>Wildlife</td>
<td>18</td>
</tr>
<tr>
<td>Endangered Resources</td>
<td>18</td>
</tr>
<tr>
<td>Environmental Impacts of the Proposed Plan</td>
<td>19</td>
</tr>
<tr>
<td>Overview</td>
<td>19</td>
</tr>
<tr>
<td>Section</td>
<td>Page</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>------</td>
</tr>
<tr>
<td>Environmental Effects and Their Significance</td>
<td>19</td>
</tr>
<tr>
<td>Wildlife</td>
<td>20</td>
</tr>
<tr>
<td>Recreation</td>
<td>20</td>
</tr>
<tr>
<td>Fisheries</td>
<td>20</td>
</tr>
<tr>
<td>Water Resources</td>
<td>22</td>
</tr>
<tr>
<td>Environmental Contamination</td>
<td>22</td>
</tr>
<tr>
<td>Significance of Cumulative Effects</td>
<td>23</td>
</tr>
<tr>
<td>Significance of Risk</td>
<td>23</td>
</tr>
<tr>
<td>Significance of Precedent</td>
<td>24</td>
</tr>
<tr>
<td>Significance of Controversy Over Environmental Effects</td>
<td>24</td>
</tr>
<tr>
<td>Citizen Participation</td>
<td>24</td>
</tr>
<tr>
<td>Riverwalk Proposal</td>
<td>24</td>
</tr>
<tr>
<td>Changes in Land Ownership and Land Use</td>
<td>25</td>
</tr>
<tr>
<td>Safety</td>
<td>25</td>
</tr>
<tr>
<td>Liability</td>
<td>25</td>
</tr>
<tr>
<td>Alternatives to the Proposed Project and Their Impacts</td>
<td>25</td>
</tr>
<tr>
<td>Smaller Boundary Modification</td>
<td>25</td>
</tr>
<tr>
<td>Larger Boundary Modification</td>
<td>25</td>
</tr>
<tr>
<td>No Action</td>
<td>26</td>
</tr>
<tr>
<td>Compliance with the Wisconsin Environmental Policy Act</td>
<td>27</td>
</tr>
<tr>
<td>Decision</td>
<td>27</td>
</tr>
<tr>
<td>EIS Process Not Required</td>
<td>27</td>
</tr>
<tr>
<td>Notice of Appeal Rights</td>
<td>27</td>
</tr>
<tr>
<td>Appendices</td>
<td></td>
</tr>
<tr>
<td>A - Citizen Participation and Contacts</td>
<td>29</td>
</tr>
<tr>
<td>B - Public Comments</td>
<td>31</td>
</tr>
<tr>
<td>C - Funding Programs</td>
<td>36</td>
</tr>
<tr>
<td>D - References</td>
<td>52</td>
</tr>
<tr>
<td>Maps</td>
<td></td>
</tr>
<tr>
<td>Southern Wisconsin Trail Connection Map</td>
<td>2</td>
</tr>
<tr>
<td>Proposed Henry Aaron State Park Trail Project Map</td>
<td>9</td>
</tr>
</tbody>
</table>
Acknowledgements

Many people have contributed information, comments, and time to the development of the Henry Aaron State Park Trail feasibility study and master plan. Special thanks go to the Advisory Committee, and the Concept Development, Environment and Finance Work Groups. Please refer to Appendix A for additional information regarding public input.

The proposed project is referred to in this report as the Henry Aaron State Park Trail. The project name was determined during the development of the feasibility study. During the study process, the project was referred to as the Menomonee Valley Greenway.

Menomonee Valley Greenway Advisory Committee

Supervisor Sheila Aldrich
Milwaukee County Board of Supervisors

Sallie Alefsen (replacing Joan Zepecki)
Historic Third Ward Association

Senator Brian Burke
State of Wisconsin

Charles Causier
Howard, Needles, Tammen & Bergendoff

Gerald Emmerich, Jr.

Phil Evenson
Southeastern Wisconsin Regional Planning Commission

Eduard Freer
Johnson, Johnson & Roy, Inc.

Gary Gagnon
Milwaukee Metropolitan Sewerage District

Jim Goulee
Milwaukee County, Department of Parks, Recreation and Culture

Greg High
Milwaukee County, Department of Public Works

Stephen Hiniker
City of Milwaukee, Department of Public Works

Thomas Miller
City of Milwaukee, Department of Public Works

Alderman Michael Murphy
City of Milwaukee, Common Council
Thomas Murray  
Wisconsin Department of Transportation

Vadimeer Oustimovich  
Chicago-Milwaukee Corporation

Gabe Paul, Jr.  
Milwaukee Brewers

Ron Ripley  
Marquette University

Gordon Rozmus  
City of Wauwatosa

Debra Skinner  
Wisconsin Department of Tourism

Richard E. Snow  
Milwaukee River Revitalization Council

John Stiarnac  
Menomonee Valley Business Association

Jim Treichel  
Wisconsin Department of Natural Resources

Menomonee Valley Greenway Work Groups

Concept Development Work Group
Tom Blatz, Wisconsin Department of Natural Resources, Community Assistance
Senator Brian Burke, Wisconsin State Legislature
Tom Ehler, Public
Gerald Emmerich
Eduard Freer, Johnson Johnson & Roy
Paul Gobster, U.S. Department of Agriculture
Jim Goulee, Milwaukee County, Department of Parks, Recreation & Culture
Stephen Hiniker, City of Milwaukee, Department of Public Works
Dan Kaemmerer, Wisconsin Department of Natural Resources, Community Assistance
Thomas Miller, City of Milwaukee, Department of Public Works
Tom Murray, Wisconsin Department of Transportation
Vadimeer Oustimovich, Chicago-Milwaukee Corporation
Gabe Paul, Milwaukee Brewers
Gordon Rozmus, City of Wauwatosa
Steve Skavronoeck, Milwaukee Metropolitan Sewerage District
John Stiarnac, Menomonee Valley Business Association
Jim Treichel, Wisconsin Department of Natural Resources, Parks and Recreation
Tom Watkins, Wisconsin Department of Natural Resources, Property Management
Environment Work Group
Barry Ashenfelter (for Senator Brian Burke)
Bob Biebel, Southeastern Wisconsin Regional Planning Commission
Carl Birk, Milwaukee County
Ted Bosch, Wisconsin Department of Natural Resources, Wastewater
Dan Burke, Lake Michigan Federation
Charles Caulisier, Howard, Needles & Tannenbaum
Tom Ehlet, Public
Gary Gagnon, Milwaukee Metropolitan Sewerage District
Margaret Graefe, Wisconsin Department of Natural Resources, Environmental Remediation Program
Stephen Hiniker, City of Milwaukee, Department of Public Works
Marsha Jones, Wisconsin Department of Natural Resources, Water Resources
Mike Kners, Wisconsin Department of Natural Resources, Fisheries Management
Steve Mace, Wisconsin Department of Natural Resources, Environmental Analysis and Review
Ed Miller, Wisconsin Department of Natural Resources, Air Management
Tom Murray, Wisconsin Department of Transportation
Dave O'Malley, Wisconsin Department of Natural Resources, Property Management
Will Wawrzyn, Wisconsin Department of Natural Resources, Water Resources

Finance Work Group
Supervisor Sheila Allesch, Milwaukee County Board of Supervisors
Tom Blotz, Wisconsin Department of Natural Resources, Community Assistance
Jim D'Antuono, Wisconsin Department of Natural Resources, Water Resources
Rick DeYarman, Wisconsin Department of Natural Resources, Property Management
Kim Greenc, Wisconsin Department of Natural Resources, Forestry
John Hagman, Wisconsin Department of Natural Resources, Property Management
Stephen Hiniker, City of Milwaukee, Department of Public Works
Marsha Jones, Wisconsin Department of Natural Resources, Water Resources
Dan Kaemmerer, Wisconsin Department of Natural Resources, Community Assistance
Thomas Miller, City of Milwaukee, Department of Public Works
Debbie Skinner, Wisconsin Department of Tourism
Jim Treichel, Wisconsin Department of Natural Resources, Parks and Recreation
Tom Winkel, Wisconsin Department of Transportation

Contributors
Therese Gripentrog, Wisconsin Department of Natural Resources
Wink Hastings, National Park Service
Diane Banta, National Park Service
Bob Boucher, Volunteer
Melissa Cook, Wisconsin Department of Natural Resources
Stephen Harrington, Intern, Wisconsin Department of Natural Resources
Lisa Kromaj, Intern, Wisconsin Department of Natural Resources
Eric Riser, Intern, Wisconsin Department of Natural Resources
Map Development and Printing

Dave Barker, City of Milwaukee, Department of City Development
Roger Rick, City of Milwaukee, Department of City Development
Anderson Graphics, Inc., Milwaukee, Wisconsin
Graphics Works, Atlanta, Georgia
True Cad Enterprises, Inc., Columbus, Georgia

The National Park Service Rivers, Trails and Conservation Assistance Program provides assistance in support of local river conservation projects and advocates community-based conservation action by providing technical assistance.
HENRY AARON STATE PARK TRAIL FEASIBILITY STUDY

"Rivers have what man most respects and longs for
in his own life and thought—a capacity for renewal and replenishment,
continual energy, creativity,cleansing."

Introduction

Overview: The Wisconsin Department of Natural Resources (Department), in partnership with the National Park Service (Service) and an Advisory Committee of private and public sector individuals, conducted a study for a recreation corridor along the Menomonee River in Milwaukee County (County). This eight-mile corridor would connect Lake Michigan shoreline parks and downtown Milwaukee with the western suburbs; with state and county trails between Milwaukee, Madison and Dodgeville; and with the Ice Age National Scenic Trail. (Southern Wisconsin Trail Connection Map, Page 2). The corridor would also provide an important linkage among many cultural, historic and natural sites in the county through the acquisition of lands and development of recreational facilities such as a multi-purpose trail, riverwalk system, river access sites and interpretive signage.

The development of this facility would provide additional river-oriented recreational opportunities as well as access to the river for boating, fishing and wildlife watching. The proposed vegetation and green space along the river would also protect floodplain areas and restore riparian vegetation.

The study evolved in 1991 when the Wisconsin State Legislature directed the Department to study the feasibility of establishing “Henry Aaron State Park” in the city of Milwaukee (City). As indicated in the legislation, the park was to be located on the Menomonee River adjacent to Milwaukee County Stadium. Following several field visits and the review of the Milwaukee County Park and Open Space Plan and the City’s Menomonee Valley Plan, Department and City officials agreed to redirect the study focus toward the establishment of an urban greenway. It was believed that such a greenway would fulfill mutual Department and City interests by providing increased opportunities for recreation and enhancing natural resources in the urban center.

Recommendation. It is recommended that the Department acquire land to develop an approximately five-mile multi-purpose trail (three additional miles are being developed and will be managed by Milwaukee County with assistance from federal transportation and Department Stewardship grants); approximately six miles of riverwalk, a 5-acre vest-pocket park, a 5-acre access site at 47th and State streets, approximately six miles of riverine conservation areas with multi-purpose and pedestrian trails and river access sites, two fishing and carry-in boat access sites along the Menomonee River in the County-owned Hoyt and Jacobus parks, and natural and cultural resource interpretive sites. See “Proposed Henry Aaron State Park Trail” map, Page 9.
Acquisition: The acquisition of land is required to develop the recommended recreational facilities. The project boundary delineates the area in which land rights may be acquired for the development of the multi-purpose trail, riverwalk, conservation corridor, and other facilities. The boundary encompasses a greater area than is needed for the acquisition of land or the development of facilities. This is because the facilities are shown conceptually on the map, and may need to be built in a location different from the one shown on the map. Only land on which facilities would be developed is recommended for acquisition. The other lands would still be in the project boundary, but would not be acquired. Some land on which facilities would be developed is already in public ownership, mainly by the City. It may be necessary, in some cases, to provide relocation monies to the City for relocating materials that are currently stored on City-owned land on which the riverwalk would be built. See Appendix C - Funding Programs for information on various grant acquisition and development programs available to the Department.

Partnerships: The Department should take the lead in all aspects of this project, including the acquisition of land, development of facilities, and operations by utilizing public/private partnerships. The potential exists with this project to implement parts of the study recommendations in partnership with local units of government, private businesses and nonprofit conservation organizations. Many of the local units of government and a recently formed nonprofit group, The Friends of the Menomonee River, have ongoing efforts to improve the riverine lands—efforts which complement the proposals in this study. These projects and their status as of August, 1996 include:

Canal Street Reconstruction: The City plans to rebuild portions of and extend Canal Street in the Menomonee Valley. EFW, Inc. completed a West Canal Street Improvement and Extension Study for the City in 1995. The multi-purpose trail system is intricately dependent on the implementation of the recommendations in this study. The City, however, will not be pursuing this project until such time that redevelopment efforts along Canal Street are advanced.

Water Aeration Facility: The Milwaukee Metropolitan Sewerage District studied the feasibility of constructing a water aeration facility on the Menomonee River. The report outlines various aeration facilities that could be constructed to increase the dissolved oxygen in the Menomonee River, improving the water quality. It may also have recreational space incorporated into its design. The facilities may be constructed at a site near South 6th Street and at MMSD's facility at 25th Street.

Menomonee Valley Conservation Project: The City conducted a feasibility study which determined that they should create a detention basin/wetland and passive recreational facilities on a portion of three acres of land, currently owned by the Wisconsin Department of Transportation, under the Wisconsin Avenue Viaduct. This proposal is shown as the "City of Milwaukee Conservation Project" on the plan and it would be developed and operated by the City. The City is now entering the design phase of the project.

Formation of the Friends of the Menomonee River: The Friends of the Menomonee River formed in 1995 to protect the water quality and wildlife habitat in the Menomonee River corridor, and to advocate for sound land use in the Menomonee River Watershed. The Friends group has partnered with fishing and other nonprofit groups.
to organize fishing trips and river clean-ups, and has applied for funding to help fulfill the shared goals of their organization and this project.

**Riverlink.** The City has partnered with private businesses along the Milwaukee River to construct public riverwalk along both sides of the Milwaukee River from Clybourn Street north to Juneau Avenue, on the west side of the river from Juneau Avenue north to Pleasant Street, and on the east side of the river from Clybourn Avenue to the Summerfest Grounds. The proposed Menomonee River riverwalk will link up to Riverlink.

**Background.** The Department formally initiated this study in November, 1992 with the organization of the 21-member Advisory Committee and associated Work Groups (concept development, environment and finance). The Advisory Committee provided direction and reviewed study products, and will facilitate implementation. The three Work Groups identified and provided resource data, further developed plan concepts generated by the Advisory Committee and provided information on environmental concerns and funding options.

**Citizen Participation.** Meetings were held with numerous neighborhood groups, land and business owners, the Menomonee Valley Business Association, private organizations and public agencies. Meetings were also conducted with Mayor John Norquist and County Executive Tom Ament. See Appendix A - Citizen Participation and Contacts. Six public forums conducted during the study generated a substantial number of positive comments about the study recommendations. See Appendix B - Public Comments.

"The life of every river sings its own song, but in most the song is long marred by the discords of misuse."
Aldo Leopold (1966-1948), Sand County Almanac, 1949

**Need/Benefits.**

**Environmental Enhancement.** The entire valley has at one time or another been completely altered by development. For more than 100 years, the Menomonee Valley has been the center of Milwaukee's industrialization, thriving with livestock yards, power generation, heavy manufacturing, bulk storage and railroad facilities. Accommodation for this industrial growth has severely altered the river's character—crumbling and sheet piling to fortify its banks, concrete lining and fill to contain river flows and maximize developable lands, and re-routing the river to areas less suitable for industry. The degradation of the river resulted from impervious surfaces contributing contaminants to the river, channelization and the loss of natural streambanks eliminating suitable fish habitat and urban and rural runoff resulting in excessive sedimentation. As a result, water quality of the lower Menomonee River exhibits high fecal coliform bacteria counts, concentrations of lead and phosphorus, and low dissolved oxygen. Even though the river's lower reaches are highly degraded, the annual salmon migration and vegetated areas have continued to attract area residents. As industrial land uses decline and innovative water treatment facilities are implemented, there has been a renewed interest within the community to revitalize the river.
Urban Parks and Recreation. The report of the President's Commission on American's Outdoors (1987) concluded that 85 percent of Americans would live in metropolitan areas by 2000, and that our nation's greatest open space needs exist within urban communities. A 1992 Trust for Public Land survey found that parks were concentrated in affluent neighborhoods in two-thirds of the cities surveyed, leaving low-income, inner-city communities with inadequate and severely overcrowded park lands. This study revealed a pattern of municipal disinvestment and a deteriorating infrastructure of public parks. Among the most serious problems identified were inadequate maintenance, crime and safety.

As a result of rapid urban growth, development frequently outpaces efforts to conserve public open space. In addition, this and many other national studies have found that parks and public open space are inequitably distributed within metropolitan areas, particularly among disadvantaged populations; growing urban populations require ever increasing parklands in close proximity to residents; opportunities to establish public open space in urban areas is rapidly diminishing; many states no longer assist in meeting municipal recreation needs; growing urban problems require an ever increasing proportion of public expenditures; and public open space is more frequently viewed as an amenity rather than as an essential component of a viable metropolitan area.

In a recent study of urban parks and open space, the Trust for Public Lands found that inner-city abandonment has resulted in vacant lots and neighborhood blight. While little natural land remains in such areas, the study concluded that opportunities for public open space exist along rail corridors and urban waterfronts, through municipally owned lands (often acquired via tax foreclosure) and through the re-use of surplus public and institutional lands. The study further concluded that urban open space needs are often inseparable from the larger goals of rebuilding infrastructure and revitalizing neighborhoods—the mechanism of acquiring additional public open space is frequently linked to downtown redevelopment, housing, modern transportation systems, and new jobs. The urban park and public open space needs characterized by both the President's Commission and Trust for Public Lands are fully exhibited in Milwaukee, particularly within its urban core.

The Milwaukee urban core exhibits a critical need for the acquisition of additional public open space areas to directly increase park and recreation opportunities and indirectly improve the quality of air, water and living conditions. This is particularly so in view of Milwaukee's status as an air quality non-attainment area. This emphasizes the need for region-wide trail linkages affording a viable alternative to motorized transportation as well as opportunities for recreation. Connecting currently isolated public open space greatly enhances resource management (particularly at the ecosystem level) augments fish and wildlife habitat restoration, and facilitates the creation of important environmental corridors and the restoration of urban waterways. Of increasing importance is the community is the general improvement of water quality in area waterways including the Menomonee River and the substantial reduction in nonpoint source pollution and urban runoff.

Within the downtown Milwaukee area, stretching from the lakefront parks to the near western suburb of Wauwatosa, there are substantial needs in local parklands and open space areas. Local needs such as close-to-home recreation, an interconnected network of pedestrian and non-motorized trails, and access to regionally important natural and cultural resources are of particular importance to the residents of neighborhoods adjoining the Menomonee River. The
lack of public open space areas also leads to reduced environmental quality and aesthetic values in the downtown area. Closely related to improving environmental quality is the need to enhance the Menomonee Valley as a viable business community, encourage beneficial river-based economic development, preserve and interpret the city’s substantial industrial heritage, increase water-based recreational opportunities and promote urban conservation efforts and environmental education.

By establishing Henry Aaron State Park Trail in the center of Wisconsin’s largest urban area, the entire Wisconsin State Park System will benefit. Henry Aaron State Park Trail will be a window to the whole system for a large number of people who may not otherwise be exposed to state parks. This would most likely increase public support of state parks and may encourage these users to visit other state parks across Wisconsin.

Proposed Designation and Project Description

Proposed Designation: The proposed designation is Henry Aaron State Park Trail, under the provisions of Wisconsin State Statutes NR 23.175.

Description of Plan: The Henry Aaron State Park Trail would consist of an approximately eight-mile multi-purpose trail. Five miles will be developed by the Department, extending on the east end of the project boundary from the County’s bicycle trail on South 2nd Street (near the confluence of the Milwaukee and Menomonee rivers), west to Milwaukee County’s Doyne Park. The County is completing the trail for three additional miles from Doyne Park west to Hoyt Park. The non-motorized, multi-purpose trail would be paved and 10-feet wide on the off-road sections. The proposed trail adjacent to Canal Street (the only east-west arterial street in the Menomonee Valley) would be built in conjunction with the City’s street reconstruction and extension project, and would be separated from the street with a five-foot median. The trail would continue north from Canal Street on the west side of the river (along North 44th Street) or on the east side of the river (within the proposed conservation areas). The plans for this area will be further developed in conjunction with the plans for the Brewers Stadium. From the Valley Park area, the trail may be located on North 44th Street right-of-way to West Wells Street (near the city’s Conservation Project) and then west to Doyne Park.

The project would also include a riverwalk system along the lower river, on both the north and south banks. The riverwalk on the north side of the river would join the city of Milwaukee’s Riverlink system—along the Milwaukee River in downtown Milwaukee—near the confluence of the two rivers and continue west to the west side of The Falk Corporation (on the north side of the river, just north of Mitchell Park). The riverwalk on the south side would begin at South 2nd Street (near the confluence of the Menomonee and Milwaukee rivers) and continue west to South 27th Street (at Mitchell Park). The riverwalk would also extend south and west from the meeting of the Menomonee River with the Menomonee Canal to the Tannery mixed-use redevelopment project (just south of the Latino Sports Association Soccer Field). The walk is proposed to be a five-foot-wide paved path within a 25-foot vegetated corridor. A conservation area—with multi-purpose and pedestrian trails, and river access—and generally 50 feet wide along both sides of the river, would extend westward from 27th Street (at the west side of Mitchell Park) to the Wisconsin Avenue viaduct (at the city’s Conservation Project). The 25- and 50-foot widths for the trail and conservation areas along the river are desired widths. They may be narrower or wider in some areas. Landowners will be encouraged to
uphold the goals of the project by maintaining the existing vegetated bluff between the Wisconsin Avenue viaduct and the County-owned parking lot to the west to assist in controlling erosion and surface runoff.

The commercially navigable stretch of river from 25th Street (just west of the Marquette University athletic fields) east to the confluence of the Milwaukee and Menomonee rivers would be unofficially designated as a "Working Waterfront Area". River-based business owners requested that we represent their interests with this designation. This stretch of river is dredged and maintained by the United States Army Corps of Engineers for commercial shipping. Companies which use the river for shipping include St. Mary's Cement, Lone Star Industries, Tews Lime and Cement Company, Cramer Marine, WECO and Lower Lakes Marine. Approximately 13,000 linear feet of riverine land within the Working Waterfront would also be designated as Future Opportunity Area (FOA). The FOA designates an area on which it is not currently feasible to construct riverwalk because of current land uses or constraints from conducting a river-based business with a riverwalk in place. Because it may be feasible in the future, showing the riverwalk on the plan demonstrates the landowner's and community's long-range goal of a continuous riverwalk system.

The Department recognizes that there may be a future need for additional year-round recreational boat access to the lower river systems and harbor. The Department will work with the local fishing groups to further determine the need for and location of additional access.

The project includes the development of some green space and river access sites. The map on page 9 identifies a west-pocket park on the northeast corner of Ellmber Lane and Canal Street. The City owns the site and agrees with the recommendation to build a small park with picnic and toilet facilities along the river. The City may make available land adjacent to that site. If this occurs, the Department would have the opportunity to develop a larger park and possibly additional parking. Parking for the project will be available on Canal Street.

The development of river access sites with carry-in boat access and pedestrian trails to the river are recommended for Hoyt Park, Jacobus Park, 45th Street just east of Doyle Park, and at the Future Integrated Planning Area. The access sites will be for carry-in and -out boat access, and for access to the river for wildlife observation, nature study or fishing.

Cultural and Natural Interpretive Signage is recommended for areas within and outside of the project boundary. There are many historical cultural and nature features that will be highlighted. Examples include an interpretive sign about the development of the Veterans Ground and the Silurian Reef on the north side of the grounds. Other examples include signage explaining how the Wisconsin Electric Power Company generates electricity at their plant in the Menomonee Valley, how Falk Corporation makes gears which they sell to companies worldwide, and signage explaining the redevelopment of the Pfister-Vogel Tannery buildings from industrial to residential and office use.

A plan for the study area, along both sides of the river, between 35th Street and I-94 (the "Future Integrated Planning Area" on the map on page 9) will be integrated into the plans currently being developed by the Milwaukee Brewers and the Wisconsin Department of Transportation. Study staff will continue to work closely with representatives from both
organizations to ensure our goals of providing a trail system, parking (including handicapped stalls) and public access, and of preserving the riverine corridor are met. To provide adequate, safe access to all people, the bluffs will require either regrading or the development of a switchback trail. (See "Proposed Henry Aaron State Park Trail Map", Page 9 for the location of recommended facilities).

Proposed Goal

Due to the complexities of the Menomonee Valley and active participation of numerous community representatives, project goals have evolved during the study process.

Goal Statement: To restore, protect and enhance the natural, scenic, historical and cultural resources of the Menomonee River corridor while providing the public with recreational opportunities and access to the river.

Objectives:

1. Provide close-to-home recreational opportunities such as hiking, biking, canoeing, fishing and nature study, and provide access to the Menomonee River.

2. Establish a multi-purpose trail linkage from the city of Milwaukee to local and state trail systems, and to the Ice Age National Scenic Trail.

3. Enhance the Menomonee River Valley, encouraging environmentally sensitive economic development.

4. Reduce the impacts of nonpoint source pollution on the Menomonee River.

5. Interpret the cultural and natural resources of the Menomonee River Valley.

6. Provide parkland and open space opportunities for under-served inner-city neighborhoods.

7. Provide a linkage from the Menomonee River Valley to the Milwaukee Riverlink system.

8. Restore, preserve and enhance the scenic qualities and natural habitat of the Menomonee River corridor.

9. Provide equal access to a quality environment for all people.

10. Provide a continuous natural river corridor to enhance and integrate a variety of economic developments dispersed throughout the Menomonee River Valley.

A long-range goal identified by citizens who provided input at public forums was the importance of directing positive future growth in the valley and influencing land use practices adjacent to the Menomonee River. This involves encouraging environmentally sensitive economic development, enhancing vegetation along the river to reduce erosion and pollutants carried by surface runoff, and promoting water-dependent uses immediately adjacent to the river.
Numerous ongoing and planned valley improvements initiated by local efforts will provide the opportunity to integrate the greenway into the community. In turn, the greenway will interconnect many developments and cultural sites throughout the valley. A riverwalk in combination with the multi-purpose trail would connect the lower valley to sites adjacent to and in close proximity to the Menomonee River, such as the Historic Third Ward and the proposed walkways associated with the Milwaukee River and the Tannery—a residential and commercial complex to be realized through the adaptive re-use of historic structures. The City's Conservation Project north of Valley Park and the proposed construction of a new stadium for the Milwaukee Brewers in the river corridor—both significant enhancements for the western extent of the Valley—would also connect to the project facilities.

Land Classification

The Henry Aaron State Park Trail project will be classified under Chapter NR 44 - Master Planning for Department Properties as a Recreation Management Area with a Type 4 Recreational Use Setting. The management objective of a Recreation Management Area is to provide and maintain land and water areas and facilities for outdoor public recreation or education. The management objective for a Type 4 Recreational Use Setting is to provide areas offering opportunities for intensive recreational use activities and experiences. Facilities, when present, may provide a relatively high level of user comfort, convenience and environmental education.

Proposed Management

The Department should take the lead in all aspects of this project, including acquisition of land, development of facilities and operations. There is an initiative, both state- and nation-wide for more public/private partnership projects. The Henry Aaron State Park Trail project is no exception. Outlined below are potential implementation strategies and management options which should be considered—in the spirit of cooperation—in all aspects of completing this project. Developing these partnerships can also help ensure compatible land uses throughout the valley.

Implementation strategies and management options, which should be considered, but not mandated, include:

* Acquisition of Land
  Department (primary), County, City, Businesses, Private Landowners, Friends of the Menomonee River

* Donation of Land/Easements
  County, City, Private Landowners

* Development of Facilities
  Department (primary), County, City, Businesses, Private Landowners, Wisconsin Conservation Corp, Community Service Corp, Volunteers, Service Groups, Friends of the Menomonee River

* Operations
  Department (primary), County with State funds, Friends of the Menomonee River, Service Groups

* Security
  Department Ranger(s) (primary), County Sheriff, City of Milwaukee Police, Private Security Firm, Bike Patrols
Costs

There are various federal, state, and foundation funding options available to the Department (Appendix C - Funding Programs). Funding through these sources should be pursued before any specific development is considered. The estimated acquisition, development and operation costs, based on 1996 figures, and associated with this project are outlined below. These figures could increase with inflation and other economic factors.

** Acquisition **

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fee simple acquisition of lands for trail, riverwalk and other facility</td>
<td>$3,537,600.00</td>
</tr>
<tr>
<td>development, engineering, relocation</td>
<td></td>
</tr>
<tr>
<td>- riverwalk, trail system, park, access sites, and conservation areas</td>
<td></td>
</tr>
</tbody>
</table>

** Development **

Development covers the cost of site preparation, vegetation, site amenities, kiosk/information stations, bank stabilization, archaeological studies, and other developments.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trails, Parks, Conservation Areas</td>
<td>$2,967,150.00</td>
</tr>
<tr>
<td>- riverwalk, multi-purpose trail, and a park site with restroom facilities</td>
<td></td>
</tr>
<tr>
<td>Access Sites</td>
<td>$79,950.00</td>
</tr>
<tr>
<td>- three canoe and fishing access sites</td>
<td></td>
</tr>
</tbody>
</table>

** Operations **

Staff recommends one FTE position be created and the responsibilities of that position include site planning, landowner negotiations, discussions and negotiations with local units of government and agencies, and overseeing development/construction. As project components are developed, the FTE position or LTE assistants would also be responsible for maintenance and operations. Three-year needs are outlined here, but needs will continue and may expand as the project is implemented.

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year One</td>
<td>$135,000.00</td>
</tr>
<tr>
<td>- staffing, supplies, capital</td>
<td></td>
</tr>
<tr>
<td>Year Two</td>
<td>$85,000.00</td>
</tr>
<tr>
<td>- staffing, supplies, capital</td>
<td></td>
</tr>
<tr>
<td>Year Three and Ongoing</td>
<td>$82,000.00</td>
</tr>
<tr>
<td>- staffing, supplies, capital</td>
<td></td>
</tr>
</tbody>
</table>

** Total Estimated Three-Year Operations Costs:** $302,000.00

** TOTAL ESTIMATED ACQUISITION, DEVELOPMENT & THREE-YEAR OPERATIONS COSTS:** $6,786,700.00
Environmental Remediation
Based on previous land uses and known contaminated sites in the Menomonee Valley (especially between South 44th Street (just west of the "Future Integrated Planning Area") and the South Menomonee Canal (on the east end of the project area), it is highly likely that land on which the riverwalk, parks and other proposed developments are shown on the plan is contaminated.

The department recognizes the importance of the Henry Aaron State Park Trail project to the overall goal of enhancing the Menomonee River Valley and providing increased recreational opportunities in the Milwaukee metropolitan area. The department also recognizes that based on previous land uses in the valley some lands proposed for acquisition within the approved project boundary may be contaminated. Therefore, the department proposes to acquire uncontaminated sites or sites in which cost-effective remedies may be implemented, in accordance with the NR 700 rules series, to achieve the project goals. The NR 700 series covers Environmental Protection and Investigation, and Remediation of Environmental Contamination Wisconsin Administrative Code. Phase One and Two site assessments of all sites considered for acquisition will be conducted. A Phase One assessment will identify sites with a history of documented contamination and land uses which would indicate potential contamination. A Phase Two assessment will include the sampling and analysis of areas of suspected contamination. Prior to acquisition of contaminated sites the department will work with the responsible party to achieve necessary remediation.

Outlined below is a cost estimate for conducting Phase I and Phase II investigative site assessments on land for which we are pursuing acquisition. The estimates cover drilling, lab tests, reports, and administrative costs. Actual remediation costs will be based on the investigation report. RUST Environment and Infrastructure consultants assisted in developing these cost estimates.

**Phase I:**
Identify sites with a history of documented contamination, and land uses which would indicate potential contamination.

<table>
<thead>
<tr>
<th>Previous and current industrial land; current recreation sites</th>
<th>Low-End Cost Estimate</th>
<th>High-End Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 36 sites with riverwalk development ($4,000 to $6,000 per site)</td>
<td>$152,000.00</td>
<td>$228,000.00</td>
</tr>
<tr>
<td>- 17,000 lineal feet of conservation area</td>
<td>$20,000.00</td>
<td>$40,000.00</td>
</tr>
<tr>
<td>- 3 river and canoe/kayak access sites ($2,000 to $3,000 per site)</td>
<td>$6,000.00</td>
<td>$9,000.00</td>
</tr>
<tr>
<td>- .5 acre park site ($4,000 to $6,000 per site)</td>
<td>$4,000.00</td>
<td>$6,000.00</td>
</tr>
</tbody>
</table>

**Total Estimated Phase I Costs:** $182,000.00 $283,000.00
Phase II:
The sampling and analysis of areas of suspected contamination. This work would be done before we acquire land.

<table>
<thead>
<tr>
<th>Previous and current industrial land: current recreation sites</th>
<th>Low-End Cost Estimate</th>
<th>High-End Cost Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>38 sites with riverwalk development (2 to 4 bollards; $6,500 to $10,500 per site)</td>
<td>$247,000.00</td>
<td>$390,000.00</td>
</tr>
<tr>
<td>17,000 linear feet of conservation area (15 to 30 bollards)</td>
<td>$90,000.00</td>
<td>$150,000.00</td>
</tr>
<tr>
<td>3 river and canoe/kayak access sites (2 to 4 bollards; $6,500 to $10,500 per site)</td>
<td>$19,500.00</td>
<td>$31,500.00</td>
</tr>
<tr>
<td>.5 acre park site (2 to 4 bollards; $6,500 to $10,500 per site)</td>
<td>$6,500.00</td>
<td>$10,500.00</td>
</tr>
<tr>
<td><strong>Total Estimated Phase II Costs:</strong></td>
<td><strong>$363,000.00</strong></td>
<td><strong>$591,000.00</strong></td>
</tr>
</tbody>
</table>

**TOTAL ESTIMATED PHASE I PHASE II ENVIRONMENTAL COSTS:**

|                             | $545,000.00 | $874,000.00 |

Subtotal Estimated Project Costs (Acquisition, Development, Operations and Phase i and ii Environmental Investigation):

|                             | $7,331,700.00 | $7,660,700.00 |

25% Contingency:

|                             | $1,832,925.00 | $1,915,175.00 |

**TOTAL ESTIMATED ACQUISITION, DEVELOPMENT, OPERATIONS AND ENVIRONMENTAL STUDY COSTS:**

|                             | $9,164,625.00 | $9,575,875.00 |

Description of the Study Area

The study area was larger than the proposed project boundary and included lands within an approximately 1/2-mile corridor on either side of the river. It encompassed an eight-mile long stretch of the Menomonee River from the confluence of the Milwaukee and Menomonee rivers in downtown Milwaukee west to Hoyt Park in the city of Wauwatosa. The study area included a variety of land uses and landscapes, including parks and environmental corridors, and institutional, industrial, commercial, and residential developments.

The 1990 census data indicates there were 13,352 families and 60,349 persons residing in the study area. Racial makeup of the area consisted of 4,846 African-Americans, 47,464 White, 884 Native Americans, 2,042 Asians and 8,218 Hispanics. More than 11,000 persons were classified into the 5-17 years age group, and 36,315 persons comprised the 18-64 years age group.
Cultural and Historical: Approximately 400 million years ago this part of the earth was located twenty degrees south of the equator and was covered by shallow tropical seas. A remnant of this ancient period is Soldiers' Home reef which was designated as a National Historic Landmark on November 4, 1983. The situlae reef, a prominent feature of the natural bluff at the Veterans Administration site, contains both an endangered plant species unique in Milwaukee County and Native American archeological sites.

The Menomonee Valley area provided an excellent home for Native Americans for several thousand years. The combination of extensive wetlands, rivers, lake and lake estuary, upland bluffs and woodlands above the Menomonee River allowed for fishing, hunting of a diversity of mammals and birds, and agricultural practice. Occupation of southeastern Wisconsin in the vicinity of the Menomonee River began approximately 10,000 years ago and continued through the mid-nineteenth century. There are a significant number of recorded mounds, prehistoric burial sites, and village and garden areas resulting from various Indian occupations located either within the study area itself or directly adjacent to the area. The Menomonee and Potawatome nations were the last major groups of Native Americans to occupy the study area. In 1832 the Ottawa and the Pottowatamie were forced to cede their lands to the United States government and were removed to lands west of the Mississippi. By the 1840s European and American settlers were farming in southeast Wisconsin.

With the construction of the Milwaukee Road Yards in 1880, the valley became a thriving center for imports and exports. Storage facilities and factories were constructed along the canals for coal, grain, building materials and food products. Major companies such as Pfister-Vogel, Falk Corporation, Red Star Yeast, Miller Brewery, Wisconsin Electric Power Company, Alfac Cement, Ziegler Company and Milwaukee Cold Storage (most of which still exist) defined the valley as a center for industry from the beginning of the Industrial Revolution through to the present day.

There are numerous areas of historical significance in the study area. The Historic Third Ward, Walker's Point Historic District, the South 1st and 2nd Streets Historic District (all on the west end of the project area), and the National Veterans' Home (on the Veterans Administration Center grounds) are listed on the National Register of Historic Places. The Calvary Cemetery Historic District and the Concordia Historic District, both adjacent to the study area, are listed as locally designated districts by the Milwaukee Historic Preservation Commission. The Mitchell Park Horticultural Conservatory, the National Soldiers Home and the Washington Highlands (adjacent to the study area) are designated as Milwaukee County Landmarks. In addition, there are several hundred buildings and structures within the study area that are listed in the Historic Structures Inventory completed by the city of Milwaukee. These cultural, historical and natural sites, such as the situlae reef at the Veterans Administration grounds, will be highlighted along the trail with interpretive exhibits and signage.

Milwaukee County Park and Open Space. Several county parks are within the study area boundary: Hoyt Park (35.1 acres), Jacobus Park (31.2 acres) and Doyne Park (35.1 acres) are adjacent to the Menomonee River in the western portion of the study area. The Menomonee River Parkway extends from Jacobus Park northward along the river for approximately eight miles. Mitchell (60.8 acres), Valley (1.7 acres), and Bluff (6.7 acres) parks are all located within the study area. Although outside the study boundary, Washington Park (135
acres) is within close proximity to the area and an on-road trail linkage is planned through the park.

These parks fulfill some of the recreational needs in this area. Their facilities range from outdoor basketball and tennis courts and baseball, football and soccer fields to picnic areas, hiking trails and outdoor swimming pools. There is also an approximately 97-mile on- and off-road bicycle trail which follows the perimeter of the County. The proposed multi-purpose trail would link with the County’s trail on the east end of the study area at South 2nd Street and on the west end at North 70th Street.

Environmental Corridors. Primary environmental corridors (areas which contain the best natural resource features and designated as such by the Southeastern Wisconsin Regional Planning Commission) encompass approximately three miles of riverine land, on both sides of the Menomonee River. All of the environmental corridor land is in Milwaukee County ownership.

Water Resources. The Menomonee River watershed is one of six drainage areas in the 850 square mile Milwaukee River Basin which was designated as a "priority watershed" in 1984 under the Wisconsin Nonpoint Source Water Pollution Abatement Program. The Menomonee River watershed, which encompasses 136 square miles, is drained by perennial and intermittent streams heavily impacted by increasing population and development. Although more than half of its area is devoted to urban land uses, the Menomonee watershed has more miles of river parkway than any other watershed in the basin. The Menomonee River is 36 miles in length and is the principal perennial stream in the watershed.

In the western reaches of the study area from Hoyt Park to Hart Park the average stream width is approximately 40 feet and depth ranges from 1.0 to 2.0 feet. Riffle run complexes and gravel and rubble substrates characterize this portion of the stream. Water quality is degraded by upstream pollutant factors including combined and storm sewer overflows and bypasses, industrial discharges, and rural and urban nonpoint source runoff. Habitat suitability for most fish species is low due to excessive fluctuations in stream flow, inadequate pool habitat and limited cover. The marginal fish populations consist primarily of blacknose and redbelly dace, common shiner, white sucker, creek chub and green sunfish.

The stretch of river from Hart Park to a concrete drop structure just east of Doyne Park is characterized by a masonry-lined channel with steep banks ranging from 10-60 feet high. From this drop structure downstream approximately 1.0 mile, to an area just south of Valley Park, the river is lined with concrete and channelized. Approximately 3.8 miles downstream of the concrete channel the river meets with the Milwaukee River near the Milwaukee harbor. Average stream width downstream of the concrete channel is 50 feet with depths from 1.0 foot near I-94 to navigation depths (12 feet) from the 25th Street bridge to the harbor.

Water and habitat quality in this stretch of river is classified as "poor to very poor", with the poorest found in the estuary area and the concrete channel portion of the river. Water quality impacts include streambank erosion, channel ditching and straightening, urban runoff, discharges from combined and stormwater overflows, industrial point sources, and spills from adjacent rail yards and material storage facilities.
Fisheries. The Department is currently stocking Lake Michigan with Chinook and Coho Salmon, and Rainbow, Brown and Brook Trout. These species, as well as Northern Pike and Walleye, potentially will go into the Menomonee River from Lake Michigan. The lower three miles of the river are used regularly by Lake Michigan species as flows and water quality conditions permit, and sport fishing for Steelhead is popular even though access to the river is very limited. The virtual absence of riparian vegetation or natural woody cover, primarily because of the commercial waterfront development, is a significant limiting factor for northern pike, yellow perch, walleye, black crappie, and other species known to inhabit the harbor area. The lack of natural features, in conjunction with the installation of steel pilings, concrete channelization, high sediment input, and urban and rural runoff causes poor habitat for fish foraging and spawning. Many resident fish species, such as the abundant Gizzard Shad and Common Carp, are pollution tolerant organisms that can survive under conditions indicative of poor water quality. Periodic low dissolved oxygen concentrations and contaminant spills have resulted in periodic fish kills. For the Menomonee River, the Department's sport fish health guide lists six species that it advises not be consumed—Crappie, Northern Pike, Carp, Redhorse, Smallmouth Bass and White Sucker.

If the Menomonee River water quality and habitat improved, there would be several benefits to stocking Chinook and Coho Salmon, and Rainbow, Brown and Brook Trout directly into the lower reaches of the river. By starting out in the river, imprinting can take place and fish will more readily return to the river for spawning. Streambank improvements would improve habitat and cover, fish would have habitat in which to spawn, and food would be increasingly available. These factors would ultimately increase the survival rate of young fish. Improvement in the water quality may also decrease the possibility of fish becoming contaminated for eating.

Soils. As the city developed into a major port and industrial center in the early 1870s, marsh areas were filled with dredging spoils, household and industrial waste, and material from adjacent bluffs. While detailed soil data are not available, recent test borings (1983) indicate the existence of five principle sediments types: humannmade fill, marsh deposits, alluvium, and glacial deposits of outwash and till. Fill mantles the entire area and ranges in depth from six inches to 30 feet. Marsh deposits were found throughout the eastern portion of the study area where they were either covered directly by fill or by fill and alluvium (deposited by meanderings of the river).

Vegetation and Woodlands. Historically, the Milwaukee area was predominantly covered by mixed hardwood forests with a large estuary and wetland area in the lower Menomonee Valley. Downstream from the city of Wauwatosa, the Menomonee River was bordered by wooded bluffs, rising 50-70 feet above the valley floor. Within the Menomonee Valley, the river flowed through wild rice, tamarack swamps, black ash and other wetland plant species. The valley lowland consisted of sugar maple, black oak, red oak, ash, ironwood (baswood), American elm, and red elm. North of the valley was a forest of predominantly sugar maple and beech. To the south of the valley and extending up the Menomonee River the forest consisted of maple and basswood.

Within the County-owned Menomonee River Parkway, 65% of the area consists of scattered pockets of woodland, including swamp hardwoods, providing abundant gray squirrel and songbird habitat. Urbanization of the remaining portions of the Menomonee River greatly limits

17
opportunities for wildlife habitat enhancement. Downstream from the parkway are very narrow bands of tenacious box elder, willow and cottonwood growing along channeled banks. Remaining areas are predominately covered with panic grass, wild grape, virginia creeper, sumac, red raspberry and poison ivy.

Wildlife. The Menomonee Valley with its diversified landscape of wetlands, lowland hardwood forests and wooded bluffs supported a wide range of riparian-associated woodland animals. Mammals such as the mink, fisher and river otter used the river as its habitat, while muskrat, beaver and raccoon were found along the riverbanks. In upland forest areas, animals such as deer, red fox, coyote, flying squirrels, gray squirrels and four species of bats occurred before European settlement. Today the upper portion of the study area still has red fox, whitetailed deer and weasel as well as more common species such as raccoon, opossum, squirrels, skunk, muskrat, cottontail rabbit and bat. The lower section of the river has tolerant "urban" species such as raccoon, opossum, Norway rat and squirrel.

Due to the combination of the lake, estuary and woodland habitat, bird life in the valley was very diverse with shorebirds, waterfowl, raptors and songbirds. The study area was within the range of blue and green herons, wood ducks, golden and bald eagles, marsh and red-tailed hawks, pileated woodpecker, belted kingfisher and a variety of owls. There are still an estimated 241 bird species that either breed or migrate through the Menomonee River watershed. The most commonly occurring birds are mallard duck, American kestrel, pigeons, sparrows, robins, crows and belted kingfisher. Common birds in the upper stretches of the river system include great blue heron and American bittern.

A pair of falcons was reintroduced in the area and osprey are occasionally sighted in the lower valley during migration. Upstream from 50th Street there is adequate habitat for heron, wood ducks, kingfishers, redtailed hawks and owls. There are a large number of shorebirds remaining in the area including gull, migratory terns and sandpipers. In addition the short-eared and snowy owls, peregrine falcon, Harlequin duck, purple sandpiper, hooded merganser, mute swan, American coot, American wigeon, and glaucous gull occur irregularly and in small numbers within the area.

Endangered Resources. The hop tree (Ptelea trifoliata)—a shrub associated with lowland forests and Lake Michigan is a special concern species present in several riverbank locations. Rare, threatened and endangered plant species in the study area include hemlock parsley (Contoselinum chinense), harbinger-of-spring (Eringia bulbosa), forked aster (Aster furcatus), dwarfed lake iris (Iris lacustris) and purple milkweed (Asclepias purpurascens).

Endangered and threatened animal species that may possibly still appear in the study area include the queen snake (Regina septemvittata) and the greater redhorse (Moxostoma valenciennesi). Also, Butler's Garter Snake (Thamnophis butleri) is a watch status species that may be present. The least darter (Etheostoma microperca), American eel (Anguilla rostrata) and the redside dace (Cinostomus elongatus) are all Wisconsin Special Concern fish occurring in the project area.
Environmental Impacts of the Proposed Plan

Environmental Analysis and Decision on the Need for an Environmental Impact Statement (EIS)

Southeast District, Bureau of Property Management
Type List Designation - NR 150.02(6)(a)(a.8.a.

This document is a Department environmental analysis that evaluates probable environmental effects of the recommendations in the Henry Aaron State Park Trail feasibility study and decides on the need for an EIS. This assessment includes a description of the proposal and the affected environment.

This is an environmental assessment of a feasibility study and master plan report. The Department will prepare more specific and comprehensive assessments with implementation of each study recommendation.

Overview

The proposed Henry Aaron State Park Trail project would encompass an eight-mile corridor along the Menomonee River that would connect Lake Michigan shoreline parks and downtown Milwaukee with the western suburbs; with state and county trails between Milwaukee, Madison and Dodgeville, and with the Ice Age National Scenic Trail. The greenway corridor would also provide an important linkage among many cultural, historic, and natural sites in the county through the acquisition of lands for the development of recreational facilities such as a multi-purpose trail, riverwalk system, river access sites and interpretive signage.

An approximately five-mile multi-purpose trail (three additional miles are being developed and will be managed by Milwaukee County with assistance from federal transportation and Department Stewardship grants); approximately six miles of riverwalk, a .5-acre vest-pocket park, a .5-acre access site along the river and east of Doyne Park, approximately six miles of riverine conservation areas, and two fishing and carry-in boat access sites along the Menomonee River in the County-owned Hoyt and Jacobus parks are proposed. The acquisition of land is required for parts of the multi-purpose trail and riverwalk system. The remainder of the land on which facilities would be developed is in public ownership.

Environmental Effects and Their Significance

This project will enhance the quality of the environment. It is anticipated that there will be an increase in wildlife habitat and that endangered resources will be protected. It is also anticipated that environmentally contaminated sites will be remediated. Recreational facilities (such as trail and riverwalk systems, and fishing and boating access sites) will be expanded and improved upon and we should see an improvement in air and water resources. The Menomonee River and its environs will provide a continuous wildlife corridor, native vegetation will be reintroduced, recreational facilities will be added. an improvement in air quality is
promoted, sedimentation should be reduced, and the river should be further protected from nonpoint source pollution with the addition of vegetative buffer strips along the river's edge. The environmental quality of the land resources may also be improved through the remediation of contaminated soils.

Wildlife. The proposed project will protect existing vegetation, protect existing wildlife habitat and establish new contiguous travel corridors along the Menomonee River through the creation of conservation areas. The conservation areas and proposed vegetation-lined riverwalks will join with the Menomonee River Parkway system already in place along the mainstem Menomonee River, the Little Menomonee River, and Honey and Underwood creeks.

Recreation. Improved recreational facilities will include an eight-mile, off-road, multi-purpose trail system; more than six miles of riverwalk; canoe, kayak, and fishing access sites; and interpretive sites which will highlight the natural, cultural, and historical resources along the Menomonee River. These facilities will provide an opportunity to improve the environmental quality and aesthetics of the lands along the river through the associated planting of native vegetation. In addition, these recreational facilities will focus user awareness of the Menomonee River as a significant natural resource. This awareness should, in turn, foster improved water quality. New development will be constructed in a manner that respects and is sensitive to the natural resources it showcases.

Fisheries. The Wisconsin Department of Natural Resources is currently stocking Lake Michigan with Chinook and Coho Salmon, and Rainbow, Brown and Brook Trout. All species potentially will go into the river from Lake Michigan. This project would provide improved access to the river, improve the quality of the shoreline and could potentially improve the water quality of the river. There is public interest in providing additional fishing access sites to the Menomonee River.

Sport fishing is partially restricted because of the lack of river shoreline access to anglers, degraded habitat from channel modifications, extreme flow variations due to urbanization, the lack of stormwater management in urbanizing areas and the extent of fish tissue contamination. If the Menomonee River water quality and habitat improved there would be several benefits to stocking directly into the river. By starting out in the river, imprinting can take place and fish will more readily return to the river for spawning. Streambank improvements would improve habitat and cover, increasing insects available for food for young fish. This would ultimately increase the fish survival rate. Improvement in the water quality would also decrease the possibility of fish becoming contaminated for consumption by humans and wildlife.

Sport fishing is also restricted because of the build-up of polychlorinated biphenyls (PCBs) in the fat of fish. Research shows PCBs impair reproduction in some animals and are a suspected carcinogen. PCBs stay stored in body fat for many years and may pose a health risk for years after exposure. They have been linked to developmental and growth problems in children born to women who regularly ate Great Lakes fish. To minimize exposure, fish advisories should be consulted and followed.

Air Quality. According to the 1991 Air Quality Data Report by the Department, the most widespread pollution problem affecting the greatest population in Wisconsin is high ozone
concentrations. Periodic high ozone levels occur almost always in summer and are usually associated with hot, humid weather and southerly winds. The total number of days with ozone exceedances in 1991 was 10, as compared to three days in 1990 and eight days in 1989. An updated study shows no ozone exceedances in Milwaukee County in the summer of 1992—the first time this occurred since 1973.

Heavy industrial sources contribute only 16 percent of ozone forming pollutants. The larger sources of air pollutants are contributed by automobiles, trucks and boats, and small machinery. On hot days, cars contribute nearly 80 percent of the pollutants that form ozone in southeastern Wisconsin. New federal and state programs that will help to improve air quality in southeastern Wisconsin include enhanced emissions testing for motor vehicles, the use of reformulated gasoline, clean-fuel fleet requirements for businesses, and installation of vapor recovery equipment at gasoline stations. The development of alternative transportation systems, such as bicycle trails, will also help to improve air quality. The Federal Highway Administration recently introduced transportation enhancement grants for the development of trail systems and the beautification of transportation corridors.

Total suspended particulates (TSP) are also an air quality problem. Exceedances in the study area have been declining due to stricter controls on smoke stack emissions and fugitive particulate emissions from foundries and landfills. One incidence of note is a TSP exceedance in October of 1991 monitored at the Department's air monitoring station at 1540 W. Canal Street. The TSP is listed as fugitive dust with a probable source at scrap metal processing and storage.

At times, odors have been a problem in the industrial valley. Information collected from the City Health Department showed a significant decrease in odor complaints for this area between January 1992 and June 1993. Possible explanations for the decrease may be improvements in odor control equipment and a decrease in hot summer days where air inversion takes place over the valley and the lack of air movement holds emissions in place. In 1989 the Health Department investigated 12 locations that were suspected cause of odor complaints. Complaints ranged from the smell of rotting meat, animal wastes, garbage and flat. Information from the January, 1992 through June, 1993 telephone log shows only two calls in January of 1992 regarding nosie odors.

The proposed project promotes improved air quality because it will provide the opportunity for an increased number of people choosing to ride bikes or walk, for both commuting and recreational purposes, rather than use automobiles for their transportation needs. There is considerable potential in Milwaukee County for a reduction in automobile use. The multi-purpose trail system will provide a direct link between the densely populated residential areas in the county—especially those in the city of Wauwatosa and the central part of the city of Milwaukee, and employment centers such as downtown Milwaukee, the County Institution, Grounds and the Menomonee Industrial Valley. There will also be a direct link between the residential neighborhoods and recreational lands such as the County lakefront parks, Milwaukee County Stadium, and the Menomonee River Parkway system. And the trail will provide an off-road linkage with existing煞s and municipal trails between the cities of Milwaukee, Madison, and Dodgerville, Wisconsin.
According to the 1992 Wisconsin Highway Traffic Volume Data reports, 22,000-23,000 cars travel along Wisconsin Avenue and State Street (just two of the main arterial roads in the project) per day. The typical projection for the number of persons commuting by bicycle in a given population is 1%. Experience has shown that this amount doubles or triples when a new trail facility is developed. As a result, it is estimated that a minimum of 290 persons would use the trail for commuting purposes.

**Water Resources.** According to the Remedial Action Plan (RAP) for the Milwaukee River Estuary, the high bacteria and pollutant levels of the Menomonee River downstream of 35th Street limit full-body contact recreational uses such as swimming and wading. Recreation in the Surnham and South Menomonee Canals is limited to boating.

Water quality in the Menomonee River, including the portion within the RAP’s Area of Concern (AOC), is diminished by both conventional and toxic pollutants. Eutrophic conditions prevail and high levels of chemical contaminants, both organics and metals, are found in the water column. Eutrophic conditions caused by conventional pollutants in the AOC induce excessive algal blooms which contribute to low dissolved oxygen levels and fish kills. Excessive runoff and high velocities also cause poor habitat for fish foraging and spawning. According to A Nonpoint Source Control Plan For The Menomonee River Priority Watershed Project (NPS), the predominance of urban land uses and construction erosion are the most significant factors affecting the amount of sediment washing into streams.

Poor physical habitat in the AOC may also limit benthic quality. Dams and impoundments, concrete-lined channels, sheet piling, concrete walls, eroding streambanks lack of shoreline vegetation, excessive sedimentation, and loss of wetlands all may negatively affect the biotic community. Looking at the Menomonee Watershed as a whole, the amount of both conventional and potentially toxic contaminants (heavy metals, oil, greases) associated with urban runoff increases downstream as more acres of urban land use are included. The most important urban land uses impacting these pollutants are industrial and commercial areas, freeways and high density residential development. Storm sewer discharges, from urban land uses with mainly impervious surfaces and the resulting vehicular traffic, are the primary sources of pollutants.

The creation of conservation areas 50 feet wide, and the planting of vegetation (10' to 20' wide beds) along the riverwalks will provide a slight buffer system between impervious surfaces, nonpoint source pollution, and the river—even though the existing stormwater discharge situation is unchanged. Some pollutants carried in runoff and entering the river as sheet flow may be filtered out by these green spaces.

**Environmental Contamination.** Based on previous land uses and known contaminated sites in the Menomonee Valley (especially between South 4th Street (just west of the “Future Integrated Planning Area”) and the South Menomonee Canal (on the east end of the project), it is highly likely that land on which the riverwalk, parks and other proposed developments are shown on the plan is contaminated.

The Department has various programs which keep records of known soil and groundwater contamination. The programs are Hazardous Substance Spill (Spills); Superfund - Comprehensive Environmental Response, Compensation and Liability Act (CERCLA); and...
Leaking Underground Storage Tanks (LUST). The Remediation and Redevelopment program is responsible for administering the various response authorities. Those authorities are Hazardous Substance Spills, Abandoned Container, Environmental Repair (ERP), Land Recycling, and Federal and State Hazardous Waste Rules as applied to corrective actions and closures.

There are five recordings of spills in the study area, seven potential CERCLA sites, 13 Environmental Repair sites, 13 LUST sites, and four waste disposal sites identified in the Waste Disposal Registry. The soil and groundwater contamination includes, but is not necessarily limited to, lead oxide, ethyl benzene, diesel fuel, gasoline range organics, and volatile organic compounds. The proposed project developments impact only one ERP site, which the Department has recommended further testing on.

Components of this project will be integrated into the plans for the proposed Milwaukee Brewers Stadium complex and the Wisconsin Department of Transportation's plans for I-94 and the Stadium interchange. Potential contamination issues of this segment will be further considered during the site planning stage.

Significance of Cumulative Effects

The project should have minimal impact on regional land values. The cumulative effect of protecting resources, providing additional recreational facilities, and enhancing the river corridor contributes to the commitment of resource protection and management in the urban environment.

The proposed project will enhance an existing corridor which encompasses natural and industrial land uses, will provide an opportunity to improve the existing landscape and will improve recreational opportunities near and along the Menomonee River. The project could also serve as a catalyst for further greening of the Menomonee River corridor and focus attention on the Menomonee River as a natural and recreation resource and community asset. The project promotes full use of the existing urban infrastructure.

Significance of Risk

Without the inclusion of a trail through the Menomonee Valley, we risk continued degradation of the Menomonee River and its adjoining lands, the loss of opportunities to develop green space and recreational facilities along the river, the potential loss of endangered resources and the loss of educational opportunities regarding the cultural heritage of Native Americans and Europeans who settled here and the natural resources of the region. If the habitat along the Menomonee River is not improved there is an increased risk that the river and fisheries therein will be damaged further by nonpoint source pollution caused by urban development and the excessive use of impervious surfaces. The recommended 50-foot-wide conservation areas and vegetated riverwalks will help to make a slight improvement to water quality.

Additionally, there is a risk of the industrial valley becoming even further abandoned and degraded. This could have a negative affect on property values in the valley, neighboring residential neighborhoods and the adjacent downtown area.
There is the risk of exposure to the environmental contamination previously noted, however, remediation efforts would take place before project facilities would be developed on contaminated sites.

Significance of Precedent

Developing trail and riverwalk systems, providing river access sites and enhancing educational opportunities of our natural and cultural resources is not precedent setting.

This project is consistent with goals presented in the City of Milwaukee's 1990 "A Plan for the Menomonee Valley"; the 1992 Milwaukee County "A Park and Open Space Plan for Milwaukee County"; the Southeastern Wisconsin Regional Planning Commission's 1992 "A Regional Land Use Plan for Southeastern Wisconsin-2010 and 1994 "A Regional Bicycle and Pedestrian Facilities System Plan for Southeastern Wisconsin-2010; and the Wisconsin Department of Natural Resources' 1992 "Menomonee River Watershed Integrated Resource Management Plan".

In addition, this project will contribute to the well established Milwaukee and Waukesha County parkway and trail systems, the state of Wisconsin established trail systems and the National Park Service's Ice Age National Scenic Trail system.

Significance of Controversy Over Environmental Effects

Citizen Participation: There has been considerable emphasis on gathering citizen input during the feasibility study process. The Department held six public forums between March, 1993 and July, 1996. Individual meetings were also held with various neighborhood groups, businesses, landowners and environmental and recreation organizations. In addition, numerous meetings were held with the Menomonee Valley Business Association. The initial forums and meetings were held to determine issues the public wanted addressed and to provide information on the study. The remaining forums provided the public an opportunity to comment on various conceptual plans.

The Department formed a 21-member Citizen's Advisory Committee to provide direction and review study products. The committee will also facilitate implementation of the study recommendations. The committee formally met seven times. Three associated Work Groups (concept development, environment, and finance) identified and provided resource data, further developed plan concepts generated by the Advisory Committee, and provided information on environmental concerns and funding options.

Riverwalk Proposal: Some river-based business and land owners were concerned that they would not be able to conduct their business, or that future use of their land would be impacted with a riverwalk in place. A resolution to designate some lands as Future Opportunity Area has been endorsed by the Menomonee Valley Business Association. The lands designated as such are not currently available for riverwalk construction because of the current land use or other constraints. Because it may be feasible in the future, showing the riverwalk on the plan demonstrates our long-range goal of a continuous riverwalk system.
Changes in Land Ownership and Land Use. It is the policy of the Natural Resources Board to acquire land within a project boundary from willing sellers or through donations. The use of scenic and conservation easements are important additions to fee acquisition. Lands purchased for state trail, riverwalk, river access sites, or other Henry Aaron State Park Trail project purposes will be removed from the tax role and the Department will make a payment in lieu of taxes. The payment in lieu of taxes will be made on an Ad Valorem basis to be distributed to the various taxing jurisdictions. There will be no noticeable loss of revenue to the local School District, City or County, nor will any land acquisitions have a negative impact on regional land values.

When a landowner agrees to consider selling their land, the Department will obtain one or more appraisals depending on the complexity of the acquisition. Appraisals will consider the fair market value of the property based on its most probable highest and best legal use. The valuation considers market sales between private parties and real estate activities in the area. Landowners will be presented with an offer which they may accept or decline.

Safety. During meetings with various neighborhood groups and organizations, a concern about the personal safety of users was raised. The recommended project developments were planned and will be implemented with ultimate regard for user safety. Study staff worked with representatives from the Milwaukee Police Department to ensure a well-designed and safe trail system. In addition, the use of security phones along, and lighting and policing of the multi-purpose trail and riverwalk system is recommended.

The Menomonee River can also present safety problems and potential hazards to canoeists, kayakers, anglers and other river recreationists. These potential safety problems include river navigational hazards: low and high water volumes; inadequate depth for safe operation of canoes, boats and other small watercraft; steep limestone-walled banks; exposed rocks, boulders and other channel obstructions; and flash flooding. We recommend proper signage at each formal river access site to make recreationists aware of the potential for these hazards.

Liability. Landowners and business owners expressed some concern about their liability associated with people recreating close to their land or on land which the Department has acquired an easement from them. Wisconsin has a recreational liability law which makes landowners immune from liability for any damages incurred by someone engaged in a recreational activity.

Alternatives to the Proposed Project and Their Impacts

Smaller Boundary Modification. A smaller project area would allow some of the proposed developments to occur, but the advantages of having a continuous trail system linking with existing trail systems could be lost. A non-contiguous green corridor would not provide the recreational opportunities recommended in the study and would not provide the habitat corridors required for wildlife to survive in the urban environment.

Larger Boundary Modification. The proposed boundary represents a plan that best serves industry, the community and the environment. There is a recognized need, however, for more green space in the urban center of the city of Milwaukee. Milwaukee’s urban core suffers
greatly from a lack of open green space and natural areas suitable for recreating. Additional green space and recreational facilities were considered during the development of the study. The Department and the Advisory Committee, after hearing a negative response from landowners who would have been affected by the larger project area, determined not to pursue this option. Expansion of the project boundary and the recreational opportunities offered with this project, therefore, is not a viable option at this time. The need for additional recreational opportunities can be pursued by local units of government in the future.

If the Milwaukee Brewers stadium project does not encompass all of the State of Wisconsin-owned land within the project boundary, the Department could acquire additional land for parking, green space, trails and other amenities.

No Action. No action at this time would allow the area to continue to be degraded, polluted and abandoned, and negate action of the Advisory Committee. While a trail may be more easily accommodated along an abandoned railroad corridor or within a rural setting, it would not have as great of an impact nor would it serve as large a population. The potential use of the trail as a commuter option linking large western suburbs to the downtown business and industry hub is also a unique advantage that will be lost if the proposed facilities are not developed.
Compliance with the Wisconsin Environmental Policy Act

Decision

In accordance with s.1.11, Stats., and Ch. NR 150, Adm. Code, the Department's authorized and required to determine whether it has complied with s.1.11, Stats., and Chapter NR 150, Wis. Admin. Code.

EIS Process Not Required

The attached analysis of the expected impacts of this proposal is of sufficient scope and detail to conclude that this is not a major action which would significantly affect the quality of the human environment. In my opinion, therefore, an environmental impact statement is not required prior to final action by the Department on this project.

Signature of Evaluator

Date Signed

Noted: Bureau Director

Date Signed

Number of responses to news release or other notice: 46

Certified to be in Compliance with WEPA

Date Signed

Notice of Appeal Rights

This notice is provided pursuant to section 227.48 (2), Stats. If you believe that you have a right to challenge this decision, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. For judicial review of a decision pursuant to sections 227.52 and 227.53, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. Such a petition for judicial review shall name the Department of Natural Resources as the respondent.
To request a contested case hearing pursuant to section 227.42, Stats., you have 30 days after the decision is mailed, or otherwise served by the Department of Natural Resources. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the 30-day period for filing a petition for judicial review.

Note: Not all Department decisions respecting environmental impact, such as those involving solid waste or hazardous waste facilities under sections 144.43 to 144.47 and 144.60 to 144.74, Stats., are subject to the contested case hearing provisions of section 227.42, Stats.

This notice is provided pursuant to section 227.48(2), Stats.
APPENDIX A
Citizen Participation and Contacts

Staff met with and obtained input from the Menomonee Valley Business Association and the following businesses, groups and organizations outlined below. Numerous other land and business owners and residents of the Menomonee Valley Greenway study area were also contacted during the development of the study and plan.

Businesses
* A.L. Geibhardt Company, Inc.
* Aldrich Chemical Company
* Badger Railing
* Balco Metals, Inc.
* CP Rail System/Soo Line Railroad
* Cramer Marine
* Cerac
* Chicago-Milwaukee Corporation
* Cramer Marine
* Emmber Brand Foods
* The Falk Corporation
* Gebhardt-Vogel Tanning
* Giulfere Brothers
* Hamischfleger Inc.
* Lafarge Corporation
* Lake Shore Group
* Lake Shore Sand Division
* Lone Star Industries
* Lower Lakes Marine
* Menomonee Valley Business Association
* Miller Brewing Company
* Miller Compressing
* Milwaukee Hydraulic Products Corporation
* Milwaukee Tallow Company, Inc.
* Morton International, Inc.
* Potawatomi Bingo
* St. Mary's Cement Company
* Standard Electric
* Tews Lime and Cement Company
* The Lindsay Building
* The Tannery Urban Business and Living Center
* WHM Company
* Wisconsin Electric Power Company
Environment/Recreation Organizations
* 1400 Fishing & Hunting Club
* Bay View Bicycle Club
* Friends of the Menomonee River
* Friends of Riverside Nature Center
* Hawthorn Glen Environmental Education Center
* Hostelling International
* Izard-Walton League
* Keep Greater Milwaukee Beautiful
* Lake Michigan Federation
* League of American Wheelmen
* Mobilization for Survival
* Nature in the Parks
* News Pedalers Bike Club
* Rainbow Jersey Bicycle Shop
* Sierra Club
* Trout Unlimited - S.E. Wisconsin
* Wheel & Sprocket Bicycle Shop
* Wisconsin's Environmental Decade
* Wisconsin Go-Hiking Club

Neighborhood Groups
* Campus Circle
* Latino Sports Association of Wisconsin, Inc.
* Lao Family Community Center, Inc.
* Merrill Park Neighborhood Association
* Valley Park Civic Association
* Valley Citizens Advisory Committee
* WE Development, Inc.
* Westowne Association

Public/Private Agencies and Organizations
* City of Milwaukee
* City of Wauwatosa
* Hawley Environmental School
* Holy Cross School
* Marquette University High School
* Miller Brewing Retirees Organization
* Milwaukee Community Service Corps
* Milwaukee County
* Milwaukee County Grounds, Architect
* Milwaukee Public Museum
* Milwaukee Public Schools
* RUST E & I Consultants
* United States Post Office
* University of Wisconsin-Extension
* University of Wisconsin-Milwaukee, School of Architecture & Urban Planning
* Veterans Administration
APPENDIX B

Public Comments

The following list is a compilation of the comments received from meetings with the people outlined in Appendix A, and from the four public forums held between March, 1993 and February, 1994.

Passive Recreational Uses
* Bicycle Trail - recreation and commuter
* Biking and Hiking Trail Linkages to:
  - County Stadium
  - Neighborhoods (Merrill Park, Valley, near Norhside, near Southside, etc.)
  - State Fair Park
  - Marquette University
  - Existing Parks and Open Space
  - Downtown Milwaukee, Wauwatosa, and West Milwaukee
  - Summerfest Harbor Island
  - Hoan Bridge
  - County "76" Trail
  - County Grounds (Ronald McDonald House, research park, garden plots, County
    Hospital, and Mental Health complex)
  - Milwaukee County Zoo
  - Hawthorn Glen (Children's Museum)
* Community Garden Plots
* Canoe/Kayak Access and Trail
* American Youth Hostel Development
  - potential site: former Gas/Light Co. building at 26th and St. Paul
* Boat Taxis between Downtown Milwaukee and County Stadium
* Hiking Trails
* Exercise Course
* Fishing Access
* Dog Walking Area

Active Recreational Uses
* Camping Opportunities
* Campground for Boy/Girl Scout Groups and other Organizations
* BMX Bike Track/Course
* Soccer Facilities
* Basketball Courts
  - super basketball complex with "midnight courts"
* Baseball Fields
* Tennis Courts
  - currently no public indoor facility in city or county of Milwaukee
* Running Track
* Football Field
Habitat Improvements
* Improve Water Quality
  - vital to increasing recreational use
* Use Native/Indigenous Vegetation vs. Ornamental
* Provide wildlife habitat
* Recognize Urban Landscape
  - enhance existing landscape
* Wetland Botanical Garden

Education/Interpretive Programs
* Educational Programs in Association with a Trail and Greenway
  - integrate existing programs into a specific Menomonee River program
* Educational Programs on Recreational and Industrial Use of River
* Nature Center
* Create Access to Silurian Reef Geologic Area
* Interpretive Signage/Programs
  - economy and history of industrial valley
  - natural history
  - pre-white settlement history
  - geologic features
  - use taped program
* Educational Programs on Fishing Etiquette and Fly and Spin Fishing
* Potential for Heritage/Educational Center on VA Grounds
* Environmental Awareness Center
* Educational Facility Showing Types of Remediation Used on Contaminated Sites
* School Groups Need/Want Access to River
  - incorporate "Testing the Waters Program"
  - need a bridge across State Street and RR tracks near Hawthorn Glen
  - access should be within walking distance to schools
  - need associated restroom facilities and shelters
* Snowmobile/Boating Safety Training Center
* Railroad Museum

General Comments/Concerns
* Need an East-West Commuter Bike Trail
* Safety
  - use security phones along trail
* Crime
  - abuse of river area and adjacent residential areas
* Revitalize Valley Park in this process
  - need a moderate structure to accommodate meetings and children's activities
* Want Jobs that Provide Family Supporting Wages
* Toilets/Water Available at Hawthorn Glen
* Miller Brewing
  - open to discussing best possible route for trail and location of associated site amenities on
    their property
* Falk, WEPCO, Miller, etc
  - very interested in trail corridor concept
  - see potential for trail corridor to help them fulfill new Clean Air Act regulations regarding employee commuter trip reduction
  - businesses interested in opportunity their employees would have to access a trail, park, etc, during lunch break and before and after work hours
* Follow American Disabilities Act (ADA) in Development of Facilities
* Do Not Over-Develop
* Multi-use Conflicts

Forum Comments - March 18, 1993
1. Security an issue
2. Would like to see educational programs in association with a trail and greenway
3. Illegal fishing a problem (esp. in valley neighborhood)
4. Would like to see river use-related educational programs
5. Would like to see a nature center in the area (located so school children would not have to travel so far to other centers)
6. Would like to see children of the area involved in coming up with ideas for area
7. What provisions have been made or considered for pedestrian safety (ie, public phones to contact ER personnel, police patrols, …)
8. Bicycle trail is essential to promote bike commuting and recreational use
9. Link stadium and greenfield park along WEPCO r-o-w
10. Interpretive trails on historic/geologic attractions should perhaps be separate from biking trails
11. Canoe launch areas along the river to improve access
12. Bicycle path linking parks, state fair park, and the lakeway green spaces
13. Marquette spur linking to main trail
14. Incorporate/create access to silurian reef geologic area
15. Interpretive trails on historic, geologic and economic/historic topics of interest
16. Bike police should patrol for safety
17. Community garden plots
18. Create access to the trail from neighborhoods
19. Like trail concept
20. Like trail corridor concept
21. Spruce up river area
22. Expand fishery in Menomonee River
23. Remove 45th street drop structure
24. Need more access to river for fishing/viewing
25. Would like to see improved water quality
26. I currently fish on Milwaukee River (upstream of North Avenue dam - migratory fish)
27. Interested in compatibility uses
28. Menomonee River has the potential to be a world-class trout fishery (amount of water flow and availability of Lake Michigan)
29. Lake sustains fish and keeps constant movement of fish into Menomonee River (longer season Sept-May)
30. A developed fishery and better access will create a safer area, especially east of Hoyt Park.
Business and Landowner Forum Comments - February 4, 1994
1. All in favor of greenway; complete A.S.A.P.
2. Concerned about ability to continue business operations as usual
3. How will this trail system "fit" with future development?
4. Can this be the impetus for the long overdue and much needed development of the entire valley?
5. Concerned about security and safety, and daily business operations on the waterfront
6. There are currently 10-15 bicyclist commuters at Falk Corporation
7. Plan would fit in well with ECO/Clean Air Act goals
8. How will this affect current business operations in the Valley--will it negatively impact economic development?
9. Where will parking be located for the soccer fields (Latino Assoc. fields)?
10. Need proper barrier between businesses and public area
11. Concerned with ability to continue crane operations (business as usual)
12. Concerned about safety issues
13. Concerned about liability issues
14. Concerned about an increase in vandalism to surrounding businesses

Forum Comments - Wednesday, February 23, 1994
1. Want trail corridor/system
2. Like the plan
3. Major concept is great!
4. Expand wetlands, as possible, in the Menomonee Valley
5. Remove concrete retaining walls where possible
6. Have entrances to trail as often as possible
7. Promote idea/concept
8. Better access/linkage to Merrill Park Neighborhood -- use Falk/CMC border and bridge river
9. Off-street biking is important -- pedestrians/vehicles should be separate
10. Merrill Park Neighborhood Association endorses plan

Forum comments - Thursday, February 24, 1994
1. Combine nature and culture resources in greenway
2. Provide interpretation/education for entire family
3. History of valley very involved with type-setting--interpretive signage should reflect this legacy
4. "Provide environmental education opportunities at Jacobus Park at the canoe access site
5. Concerned about safety
6. Provide environmental education for 4th and 5th grades
7. At least four schools are close to river--Holy Cross, Hawley, Sacred Heart, Neesker
8. Highlight International Marketplace at 27th street and other businesses--provide signage to the centers along trail
9. Ice skating--look into area ice skating risks
10. Provide additional access to valley and greenway near 32nd street
11. Provide additional play facilities for area children
12. Mitchell Blvd/Parkway--owned by county or V.A.?
Forum Comments - Tuesday and Thursday, June 18 and 20, 1996

1. Commuter route is needed
2. Linkages to neighborhoods is important
3. Educate bicyclists on trail etiquette and how to safely ride on street linkages
4. Build it Now!
5. Demand that the Brewers not shut down the trail during baseball events or any event
6. It's a great idea
7. Could money be raised for this project by developing a program similar to the Endangered Resources tax write-off?
8. Like the idea of developing interpretive sites

Letters and calls in support of the project were received by sixteen others.
APPENDIX C
Funding Programs

Name of Program:
The Planning Assistance to States Program
(Section 22 Program)
United States Army Corps of Engineers

Eligible Types of Projects:
Water resource projects including hydraulic and hydrologic modeling, public use planning, and cultural resource studies

Eligible Applicants:
State and local government agencies
Indian tribes

Application Deadline:
May 21 for upcoming federal fiscal year

Funding Available:
$300,000 maximum to any state annually
50% of project cost provided by recipient

Special Conditions and Other Information:
The program was authorized by the Water Resources Development Act of 1974

Administering Agency and Contact:
Greg Hill
Great Lakes Unit Supervisor
State of Wisconsin
Department of Natural Resources
P.O. Box 7921
Madison, Wisconsin 53707
(608) 267-9352
Name of Program:
Great Lakes Protection Fund

Eligible Types of Projects:
Projects promoting the prevention of toxic pollution, identifying effective clean-up approaches in Areas of Concern, demonstrating natural resource stewardship, and studying the effects of toxic pollution on humans and wildlife

Eligible Applicants:
State agencies, non-profit organizations

Application Deadline:
July 1 – letters of intent
September 10 – application

Funding Available:
Funding ranged from $9,000 to $150,000 in 1992

Special Conditions and Other Information:
Grants are awarded based on their relation to the Fund’s goals and the following criteria:
- Relevance to the Great Lakes Water Quality Control agreement
- Regional Applicability
- Link to Direct Action
- Supplemental and Non-duplicative characteristics

Administering Agency and Contact:
Great Lakes Protection Fund
35 East Wacker Drive, Suite 1880
Chicago, IL 60601
(312) 201-0660
Name of Program:
Land and Water Conservation Fund Act Program (LAWCON)
U.S. Department of the Interior

Eligible Types of Projects:
Provides financial assistance for the acquisition and development of public outdoor recreation areas and facilities

Eligible Applicants:
State agencies, local units of government, and park districts authorized to provide public park and recreation facilities

Application Deadline:
May 1

Funding Available:
Project grants up to $5,450,000 with an average of $68,178
- 40% of available funds to local governments
- 40% to state agencies
- 20% to a contingency fund projects meeting high priority or emergency needs
- up to 50% reimbursement grants for state and local projects

Special Conditions and Other Information:
Rating takes into consideration:
- the acquisition of lands threatened by development
- the project provides for aquatic habitat protection or improves aquatic habitat for fish and wildlife
- the project acquires new park and recreational lands in urban centers for hiking, picnicking, trail and water uses
- the project serves a population of 10,000 or more
- this program enabling legislation states that properties acquired or developed with funds from this program must be used for recreation in perpetuity.

Administrating Agency and Contact:
Tom Bittz
Community Services Specialist
Department of Natural Resources
P.O. Box 12496
Milwaukee, WI 53212
(414) 263-9610 or 263-8713
Name of Program:
National Recreational Trails Program (NRTP)
U.S. Federal Highway Administration

Eligible Types of Projects:
Development and maintenance of recreational trails and trail related projects

Eligible Applicants:
State and local units of government

Application Deadline:
May 1

Funding Available:
Formula grants; project grants up to $398,564 with an average of $139,904
- funds are distributed by statutory formula
- 50% of funds are allocated equally among all states
- 50% of funds are allocated in proportion to the amount of off-road recreational use in each state during the preceding year

Special Conditions and Other Information:
The NRTP was included in the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA).
Trail projects must be identified in, further the specific goal of trail plans included in, or referenced in a Statewide Comprehensive Outdoor Recreation Plan (SCORP).

Administering Agency and Contact:
Tom Winkel
Department of Transportation
F.O. Box 649
141 NW Barstow St.
Waukesha, WI 53187
(414) 548-5942
Name of Program:
Trails
The Stewardship Program

Eligible Types of Projects:
For the planning and development of new trails and the maintenance of existing ones

Eligible Applicants:
DNR on existing properties only
Nonprofit conservation organizations

Application Deadline:
May 1

Funding Available:
$1,000,000 - provides 50% matching grants

Special Conditions and Other Information:
The goal is to enhance the statewide system of trails and to link existing trails where possible

Administering Agency and Contact:
Tom Blotz
Community Services Specialist
Department of Natural Resources
P.O. Box 12436
Milwaukee, WI 53212
(414) 283-6610 or 283-6713
Name of Program:  
General Land Acquisition  
The Stewardship Program

Eligible Types of Projects:  
Stewardship for DNR land acquisition within the state park and forest system

Eligible Applicants:  
DNR

Application Deadline:  
May 1

Funding Available:  
$6,700,000

Special Conditions and Other Information:  
To provide for future needs, 20% of the general acquisition funds will be spent on new conservation and recreation projects

Administering Agency and Contact:  
Tom Blotz  
Community Services Specialist  
Department of Natural Resources  
P.O. Box 12436  
Milwaukee, WI 53212  
(414) 263-8610 or 263-8713
Name of Program:
Streambank Protection
The Stewardship Program

Eligible Types of Projects:
Acquisition of land or easements along streambanks

Eligible Applicants:
DNR, local units of government

Application Deadline:
May 1

Funding Available:
$1,000,000 - 50% matching
$300,000 - 50% matching (local units of government)

Special Conditions and Other Information:
The acquired easements will serve as filters and buffers, preventing agricultural or urban runoff from ruining fish habitat; a plan is required

Administering Agency and Contact:
Tom Slotz
Community Services Specialist
Department of Natural Resources
P.O. Box 12436
Milwaukee, WI 53212
(414) 263-8610 or 263-8713
Name of Program:
Small Business Administration
Natural Resources Development Program

Eligible Types of Projects:
The planting of trees on publicly owned or controlled land

Eligible Applicants:
State agencies, local units of government

Application Deadline:
February of each year

Funding Available:
Grant requests may range from $2,000 to $15,000
This is a 50% match-grant program

Special Conditions and Other Information:
Purchased trees and supplies must be from small businesses; trees must be planted by a small business

Administrating Agency and Contact:
Wisconsin Department of Natural Resources
Kim Gorenc
Forestry
P.O. Box 12436
Milwaukee, WI 53212
(414) 263-8602
Name of Program:  
Intermodal Surface Transportation Efficiency Act (ISTEA)

Eligible Types of Projects:  
Transportation enhancement "activities" that "enhance" a transportation project or an area served by a project. The ten categories include:
- provision of facilities for pedestrians and bicycles
- acquisition of Scenic Easements and scenic or historic sites
- scenic or historic highway programs
- landscaping and other scenic beautification
- historic preservation
- rehabilitation and operation of historic transportation buildings, structures or facilities (including historic railroad facilities and canals)
- preservation of abandoned railway corridor (including the conversion and use thereof for pedestrian or bicycle trails)
- control and removal of outdoor advertising
- archeological planning and research
- mitigation of water pollution due to highway runoff

Eligible Applicants:  
State agencies, counties, and local unit of government as well as federal agencies

Application Deadline:  
June 4

Funding Available:  
The project sponsor must agree to finance the entire project until the federal share (up to 80%) is reimbursed by the Federal Highway Administration

Special Conditions and Other Information:  
The project has to meet at least one of these tests:
- the project has to be on or next to a highway eligible for federal aid
- it has to be a transportation facility
- it must be a historic transportation facility or a historic site that is significant to transportation
- it should provide a service related to transportation

Only projects costing between $10,000 and $500,000 will be considered. In addition, the project must be usable when it is completed and not staged so that additional money is needed to make it a useful project.

Administering Agency and Contact:  
Wisconsin Department of Transportation
Tom Winkel
P.O. Box 649
Waukesha, WI  53187
(414) 548-5942
Name of Program:
National Recreational Trails (SYMMS Act)
U.S. Department of Transportation
Federal Highway Administration

Eligible Types of Projects:
A variety of trail activities for non-motorized and motorized uses on recreational trails through block grants administered by DOT and also technical assistance; funds may be used for maintenance of existing trails, development of new trails or trailhead facilities, and the acquisition of easements or property for trail corridors

Eligible Applicants:
State agencies

Application Deadline:
May 1

Funding Available:
$30 million per year is authorized for 6 years, while none was available in the first year FY 92, $7.5 million will be available in FY 93

Special Conditions and Other Information:
Funds will be allocated based in part on the amount of non-highway recreational fuel receipts. The widening of trails now dedicated to non-motorized use cannot be widened to accommodate motorized vehicles, but innovative trail corridor sharing of joint-uses is encouraged.

Administering Agency and Contact:
Federal Highway Administration
Planning, Program and Research Section
37 Hopkins Plaza, Room 1633
Baltimore, Md 21201
(410) 862-0093
Name of Program:
Design Arts Program
National Endowment for the Arts

Eligible Types of Projects:
The program promotes excellence in design by funding activities which include urban design, historic preservation, planning, architecture, landscape architecture, etc. Grants may be used for initiating design projects, though funding is not available for capital improvement and construction.

Eligible Applicants:
Nonprofit organizations, local units of government, state agencies

Application Deadline:
Depends on the type of project

Funding Available:
Project grants, or direct payments for specified use; grants to organizations, with few exceptions, must be matched, at least dollar-for-dollar, with nonfederal funds. Individuals up to $15,000 and organizations up to $50,000

Special Conditions and Other Information:
Art applications are reviewed according to standards concerning:
- artistic ability
- merit of the project
- applicants capacity to accomplish it
- evidence of local support

This program was used to fund the urban design of the Colorado Riverfront in Grand Junction, Colorado in 1988.

Administering Agency and Contact:
Director
Design Arts Program
National Endowment for the Arts
1100 Pennsylvania, N.W.
Washington D.C. 20566
(202) 682-5437
Name of Program:
Cooperative Forestry Assistance
U.S. Department of Agriculture
Forest Service

Eligible Types of Projects:
Mostly forestry activities, but there are provisions for improvement and maintenance of fish and wildlife habitat and the planning and conduct of urban forestry programs, including trail project proposals

Eligible Applicants:
State forestry agencies or their equivalents

Application Deadline:
30 days after the state is advised by the United States Forest Service of the allotment authorized for Wisconsin

Funding Available:
Discretionary grants and formula grants with matching requirements of 50% by the applicant; the program provides funds on a reimbursement for project expenses basis: grants have previously ranged from $5,000 to $350,000, averaging $120,000

Special Condition and Other Information:
If pesticides are to be used as part of a project, an environmental impact statement will be required

Administering Agency and Contact:
Area Director
S. Radnor Corporate Center
100 Matsonford Road
P.O. Box 6775
Radnor, PA 19087-6775
(215) 975-4111

47
Name of Program:
Watershed Protection and Flood Prevention
(Small Watershed Protection)
U.S. Department of Agriculture
Soil Conservation Service

Eligible Types of Projects:
Projects may include watershed protection, flood prevention, sedimentation control, public water-based fish and wildlife, and recreation

Eligible Applicants:
Any agency, municipality, district, or nonprofit organization authorized to carry out, maintain, and operate watershed works of improvement

Application Deadline:
None

Funding Available:
Financial and technical assistance provided; share requirement is 50% for the public recreation and fish and wildlife purposes, there is no matching requirement for flood prevention projects

Special Conditions and Other Information:
Watershed area must not exceed 200,000 acres

Administering Agency and Contact:
Contact regional or local Soil Conservation Service office or state conservationist

Headquarters Office:
Deputy Chief for Programs
Soil Conservation Service
U.S. Department of Agriculture
P.O. Box 2890
Washington DC 20013
(202) 720-4527
Name of Program:
River Basin Surveys and Investigations
U.S. Department of Agriculture
Soil Conservation Service

Eligible Types of Projects:
This program provides planning assistance for the development of coordinated water programs and related land resources programs; priority is given to studies in which the degree of state or local participation is high

Eligible Applicants:
Federal, state, or local water resource agencies concerned with water and related land resource department

Application Deadline:
None

Funding available:
Provision of specialized services; each cooperating agency is to fund its own participation in accordance with a plan of work that establishes the basis for the cooperative effort

Special Conditions and Other Information:
Priority will be given to studies which:
- Contribute to achieving high priority objectives under the National Conservation Program
- Have a high likelihood of being implemented
- Will be implemented with no or relatively limited federal assistance
- Have state and local assistance in the study
- Are of short duration and low cost

Administering Agency and Contact:
Contact regional or local SCS office or state conservationist

Headquarters Office:
Deputy Chief for Programs
Soil Conservation Service
U.S. Department of Agriculture
P.O. Box 2890
Washington DC 20013
(202) 720-4527
Name of Program:
Economic Development - Grants for Public Works and Development Facilities
U.S. Department of Commerce
Economic Development Administration

Eligible Types of Projects:
Grants for public facilities, including port facilities, tourism facilities, etc.; public works projects can include trail developments and other recreational facilities

Eligible Applicants:
States, counties or cities designated as redevelopment areas by EDA

Application Deadline:
Applications must be submitted from 30-45 days after EDA requests them

Funding Available:
Project grants (up to $2,316,572.00 with the average at $742,831); there is a 50% matching requirement, except on Indian lands, where the rate can be 100% (no matching); severely distressed areas may receive supplementary grant assistance to bring the federal contribution up to 80% grants for FY 92 are estimated at $154,260,000

Special Conditions and Other Information:
Must provide opportunities and benefit conditions of long-term unemployment/underemployment; must have adequate local share of funding assuring commitment

Administering Agency and Contact:
Director
Economic Development Administration
U.S. Department of Commerce
Herbert C. Hoover Building, Room H7326
14th Street and Constitution Avenue, NW
Washington, D.C. 20230
(202) 482-9381
Name of Program:
American Greenways DuPont Awards Program

Eligible Types of Projects:
Projects such as mapping, conducting ecological assessments, surveying land, incorporating land trusts, building trails and trail facilities or other creative projects

Eligible Applicants:
Local, regional or statewide non-profit organizations
Individuals and public agencies

Application Deadline:
Applications are accepted between September 15 to December 31

Funding Available:
Maximum grant is $2,500, most grants range from $500 to $1,000

Special Conditions and Other Considerations:
Grant recipients are selected according to the following criteria:
- the importance of the project to local greenway development efforts
- the extent to which the grant will result in matching funds or other support from public or private sources
- likelihood of tangible results
- capacity of the organization to complete the project
- how the project serves as a model for planning and developing greenways

Administering Agency and Contact:
Ed McMahon
American Greenways
The Conservation Fund
1800 North Kent Street, Suite 1120
Arlington, Virginia 22209
(703) 525-6300
References

The following materials were referenced during the development of the Menomonee Valley Greenway/Henry Aaron State Park Trail Feasibility Study and Master Plan.

Barloga, R.
1989 Preliminary Vegetation Inventory, V.A. Bluff Slope South of Stadium in Milwaukee County

City of Milwaukee
1990 A Plan for the Menomonee Valley
1990 Riverlink Milwaukee

City of Wauwatosa
1973 Comprehensive Plan Report

Compuchem Laboratories
1984 Chemical Analyses of Soil Samples from Four Boeings in the Menomonee River

Little, C.F.
1990 Greenways for America

Milwaukee Public Museum
1994 Information and data regarding historical, cultural, and natural resources in the Menomonee Valley Greenway study area

Port of Milwaukee
1993 Data on barge and ship traffic on the Menomonee River
Data on depth of the Menomonee River

President’s Commission
1987 A Report of the President’s Commission on America’s Outdoors

RMT, Inc.
1992 Preliminary Summary of Phase I Environmental Investigations: East-West Freeway I-94 and SH 41, Brewes Stadium Infrastructure in Milwaukee County
1993 Technical Memorandum for the Phase II Investigation of Area B, State of Wisconsin Department of Health and Social Services Property in the Menomonee Valley

52
Rails to Trails Conservancy
1993 Trails for the Twenty-First Century; Planning, Design, and Management Manual for Multi-Use Trails

Real Estate Research Corporation
1988 Assessment of the Milwaukee Road Shops Site

State Historical Society of Wisconsin
1993 Data regarding significant cultural and historical resources in the Menomonee Valley Greenway study area

Southeastern Wisconsin Regional Planning Commission
1989 An Inventory of Vacant or Underutilized Lands in the Riverine Areas of Central Milwaukee County
1991 Preliminary Vegetation Survey - Jacobus Park Woods
1991 A Park and Open Space Plan for Milwaukee County, Community Assistance Planning Report No. 132
1993 Wisconsin's Original Survey Notes; rendered maps of the surveyed vegetation
1994 A Regional Bicycle and Pedestrian Facilities Plan for Southeastern Wisconsin: 2010; A Summary of the Preliminary Recommended Plan

Trust for Public Lands
1994 Cities Initiatives, Opportunities, and Strategies
1994 Healing America's Cities - Why We Must Invest in Urban Parks

United States Bureau of the Census and the Southeastern Wisconsin Regional Planning Commission
1990 Census and demographic data of the Menomonee Valley Greenway study area

United States Department of the Interior, National Park Service
1994 Guide to Federal Funding and Assistance for Rivers, Trails and Open Space Conservation

University of Wisconsin-Milwaukee, Department of Anthropology
1993 Information regarding significant cultural resources in the Menomonee Valley Greenway study area; information regarding the history of the Greenway study area

Wisconsin Department of Natural Resources
1990 Draft - A Nonpoint Source Control Plan for the Menomonee River Priority Watershed Project
1990 Registry of Waste Disposal Sites in Wisconsin

53
1991 Wisconsin Remedial Response Site Evaluation Report
Wisconsin Department of Health and Social Services; Camp Dresser & McKee, Inc.
1983 Draft Environmental Impact Statement, Menomonee Valley Correctional Institution
Wisconsin Legislative Council Staff