



Planning for the Future: A Reuse Planning Report for the Plainwell Paper Mill Property

March 2005

EPA Region 5
Superfund Redevelopment Initiative

funded by
United States Environmental Protection Agency

prepared for
The City of Plainwell
Plainwell, Michigan

prepared by
E² Inc.
Plainwell Mill Committee

Project Timeline

1990

EPA lists the Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site ("the site") on the National Priorities List (NPL). The Plainwell Paper Mill property is part of the larger Superfund site

February 2004

EPA Region 5 and EPA's Superfund Redevelopment Initiative provide the City of Plainwell with assistance for reuse planning

April 2004

Members of the project's consultant team visit the site and meet with Plainwell City Administrator Erik Wilson

June 2004

First Mill Committee meeting held to introduce the project, identify site opportunities and challenges, and establish reuse guidelines

August 2004

Second Mill Committee meeting held to discuss reuse strategy for the site

December 2004

Public meeting and third Mill Committee meeting held to discuss revised site reuse strategy and identify reuse resources

March 2005

Project report created to summarize the reuse planning process, present the site reuse strategy, and highlight next steps



City of Plainwell's Central Business District, East of the Plainwell Paper Mill Property, 2004

Project Overview

The U.S. Environmental Protection Agency (EPA)'s primary responsibility at Superfund sites is the protection of human health and the environment. Since 1995, it has also been EPA policy to consider reasonably anticipated future land uses when making remedy decisions at Superfund sites, so that the remediation of Superfund sites can allow the safe reuse of a site for commercial, recreational, ecological, or other purposes. Since 1999, EPA's Superfund Redevelopment Initiative has been helping communities and stakeholders plan for reuse at National Priorities List (NPL) sites across the country.

With forethought and planning, communities can return sites to productive use without jeopardizing the effectiveness of the remedy put into place to protect human health and the environment. Across the nation, approximately 400 former NPL sites are either in productive reuse or have reuse plans under development. The commercial and industrial use of these sites supports 15,000 jobs and a half-a-billion dollar increase in annual incomes. Other sites are providing more than 60,000 acres for ecological and recreational uses.

Reuse planning at NPL sites presents a unique set of obstacles, challenges, and opportunities. Superfund site designation represents a commitment that EPA will remediate a site's contamination and will make the site safe for human health and the environment. However, several factors can complicate reuse considerations at these sites, including the level and complexity of contamination, the regulatory and liability scheme used to enforce site remedies, and unclear or resistant site ownership, which can lead to a lengthy and contentious remediation process. Any successful reuse planning effort must be mindful of how a site's reuse and remediation will work together, must involve and expand the capacity of diverse stakeholders to meaningfully participate in the process, and must take into account the long time frames often involved in NPL site remediation.

The City of Plainwell, Michigan received assistance from EPA Region 5 and EPA's Superfund Redevelopment Initiative in 2004 to undertake a community-based planning process to develop future land use recommendations for the 35.75-acre Plainwell Paper Mill property, which is part of the larger Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site. During the reuse planning process, the community worked closely with environmental consultants E² Inc. (the project's consultant team), with support from EPA Region 5 and the Michigan Department of Environmental Quality (MDEQ), to develop reasonably anticipated future land use recommendations and a conceptual reuse strategy for the site. The recommendations and site reuse strategy are intended to inform the site's remedial design and implementation as well as future community planning efforts.

This report, prepared by the project's consultant team, presents the project's reuse guidelines and site reuse strategy, called a Conceptual Design Framework. It provides an overview of the community planning process and highlights key reuse considerations, opportunities, and challenges that the City of Plainwell, EPA, and MDEQ will need to keep in mind as additional site investigations are conducted, the need for potential for future remediation is determined, and the paper mill property is returned to use.

Acknowledgments

E² Inc. would like to thank the following people and organizations for their hard work in support of the reuse planning process and for their valuable contributions to this report.

Plainwell Mill Committee Members:

Jeff Arnesen, Plainwell Paper Inc. Representative
Mike Baker, Community Resident
Pamela Barker, Plainwell Paper Inc. Representative
Rick Brooks, Plainwell Mayor
David Brown, Community Resident
Judy Clark, Kalamazoo College
Cindi Cooper, Local Realtor
Jonathan Cramer, Community Resident
Jan De Boer, City of Plainwell
Joseph Dorgan, Plainwell Rotary Club
Phil Dussia, Local Business Owner
Ray Fuller, Plainwell City Council
Sue Cornell, Local Realtor
Cathy Green, Local Business Owner
Rhonda Harlow, Community Resident
Holly Harington, Plainwell School District
Nikki Hart, Local Business Owner
Jim Higgs, Plainwell Planning Commission
Debi Howe, Community Resident
Ruth Jaynes, Gun Plain Township Planning Commissioner
Jim Koestner, Local Business Owner
Joel LeFever, Community Resident
Bill Nelson, Allegan County Road Commission
Chris Nuyen, Community Resident
Brian Pennings, Plainwell DDA
Cheryl Pickett, City of Plainwell
Gary Sausaman, Plainwell Planning Commission

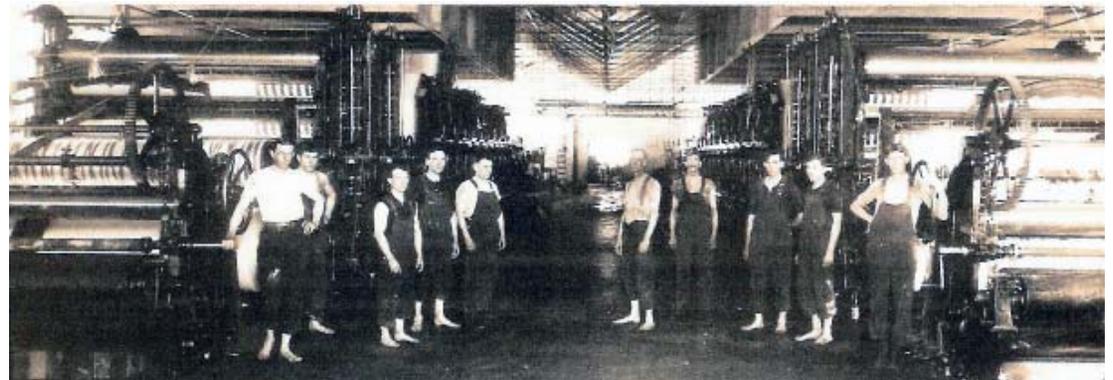
Jim Schaafsma, Community Resident
Sandy Stamm, Historian
Jerry Vilenski, Teacher
Erik Wilson, City Administrator
Esther Wyman, Community Resident

Resource Members:

Shari Kolak	EPA Remedial Project Manager
Don Deblasio	EPA Community Involvement Coordinator
Thomas Bloom	EPA Region 5 Reuse Coordinator
Mark DuCharme	MDEQ Environmental Quality Analyst
Paul Bucholtz	MDEQ Environmental Quality Analyst
Ken Dettloff	McKenna & Associates

Project Observer:

Linda Hicken Weyerhaeuser Company Representative



Workers at the Plainwell Paper Mill, then owned by the Michigan Paper Company of Plainwell, in the early 1900s

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June 2004 Mill Committee Meeting in Plainwell City Hall



Aerial Photograph of the Plainwell Paper Mill Property, 2004

Introduction

Today, planning for additional investigations and the potential remediation of the 35.75-acre Plainwell Paper Mill property is underway. EPA and the Michigan Department of Environmental Quality (MDEQ) are working with Weyerhaeuser Company, a former site owner and Potentially Responsible Party (PRP), to assess conditions at the paper mill property and determine whether remediation is needed.

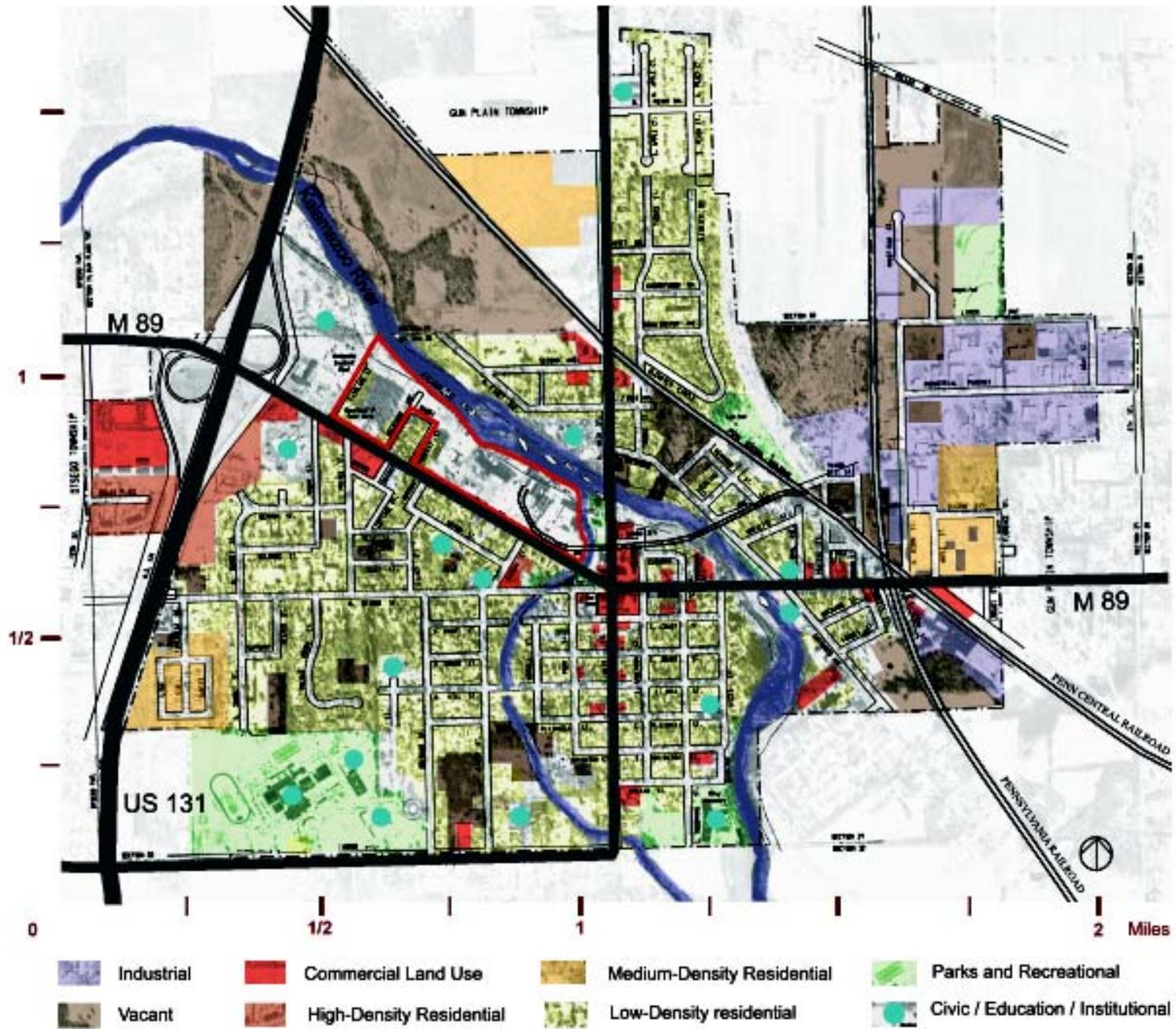
In the future, the paper mill property will be available for reuses that will help meet community needs and sustain the local economy. While portions of the paper mill property likely will not be available for reuse for several years, other areas, particularly the office building adjacent to the mill race, will likely be available for reuse in the shorter-term. Plainwell Paper Inc., the paper mill property's current owner, has indicated its intent to transfer ownership of the property to the City of Plainwell in 2005, allowing the City to move forward with planning for the property's return to use.

This report is the product of a seven-month community planning process conducted by the City of Plainwell to determine the community's reuse priorities for the Plainwell Paper Mill property, which is part of the larger Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site. A 32-member, community-based body called the Mill Committee has managed the reuse planning process. Composed of community residents, elected officials, business owners, City of Plainwell staff, site owner representatives, and representatives from community organizations like the Plainwell Rotary Club, the Mill Committee has met three times between June 2004 and December 2004 to discuss reuse opportunities and challenges at the site and to develop a reuse framework for returning the site to successful use.

Over the past seven months, the Committee has:

- researched the site's history, contamination, and current status;
- worked with the project's consultant team to assess local market conditions and the potential impacts of industrial, residential, civic, commercial, recreational, and ecological reuses at the paper mill property; and
- developed reuse goals and a reuse strategy for the paper mill property.

Based on these analyses, discussions, and community input, the members of the project's Mill Committee hereby present EPA, MDEQ, and Plainwell City Council with their reuse recommendations for the Plainwell Paper Mill reuse planning project. This report is intended to serve as a guidance document for future city planning efforts to return the property to use, once the the City of Plainwell acquires the property from Plainwell Paper Inc., the site's current owner. The Committee recognizes that these recommendations are an important step that will inform the remediation and eventual reuse of the Plainwell Paper Mill property. The Committee also recognizes that these recommendations represent a *first* step, which the City of Plainwell will need to follow with more detailed analyses of the property's features and buildings, as well as sustained community involvement, partnerships, and resources. Accordingly, this report includes a detailed assessment of key reuse considerations, resources, and next steps to ensure that this report serves as part of an active and ongoing community discussion and continues to inform EPA and MDEQ's remedial planning.



Composite Land Use Map:
 The Plainwell Paper Mill
 Property (highlighted with
 a red border) and the City
 of Plainwell

Project Reuse Guidelines

The following guidelines document the Mill Committee's reuse priorities and concerns and highlight community considerations that will need to be kept in mind as the Plainwell Paper Mill property is returned to use. The Plainwell Mill Committee believes that the reuse of the Plainwell Paper Mill property provides a unique opportunity to create an attractive and economically viable place for Plainwell residents to live and work. The property's reuse should:

- Promote community gathering;
- Provide a mix of residential, commercial, recreational, and civic uses and densities;
- Promote commerce and attract visitors to Plainwell;
- Provide access to the Kalamazoo River and protect the natural environment;
- Recognize and celebrate the Plainwell Paper Mill as an important part of the community's history and heritage;
- Employ an organizing structure that allows for flexibility; and
- Ensure the protection of the health and safety of community residents.

As the City of Plainwell works with interested parties, including developers, to return the Plainwell Paper Mill property to use, these general guidelines should serve as the principles that shape future development proposals. In addition, the Mill Committee has identified a set of detailed, use-specific guidelines.

Residential and Civic/Cultural Land Uses

- Residential development should be part of a mix of residential, commercial, civic, cultural, and recreational land uses at the property.
- Medium-density and high-density housing should be developed to cater to current and new residents, thereby providing an opportunity for area residents to live in downtown Plainwell.
- Civic and cultural opportunities at the property could include an auditorium, education facilities, museum space, and the relocation of city hall.

Commercial Office and Retail Land Uses

- Commercial land uses at the property will generate tax revenues and help sustain Plainwell as a unique "destination" location.
- Potential commercial office and retail land uses at the property could include an outlet mall, movie theater, microbrewery, riverside restaurant, office space, and banquet facility/meeting hall/conference center.

Plainwell Paper Mill Textures



Up-Close Photographs of the Existing Facilities and Natural Environment at the Plainwell Paper Mill Property

Recreational and Ecological Land Uses

- Recreational and ecological land uses at the property should serve as a “ribbon” that connect portions of the property together and connect the property with its surroundings, including the city’s downtown district and adjacent neighborhoods.
- Potential recreational and ecological land uses at the property could include a rock wall, neighborhood park, skate park, ice arena, bike trails, river walk, river access points, and the adaptive reuse of paper mill structures for recreation and educational purposes.

Historic Preservation

- Portions of the property’s historic mill building and other structures should be preserved, following detailed architectural and engineering studies to evaluate their condition.
- Permanent facilities could include a museum or a dedicated space that recognizes the paper mill’s history and significance as part of the community’s heritage.

Industrial Land Uses

- Industrial land uses at the property would be incompatible with surrounding land uses, including the city’s downtown and adjacent neighborhoods.
- Industrial land uses likely would need to be supported by local market conditions and industrial development would preclude the opportunity to create an innovative mixed-use development at the property.

Project Design Guidelines

After the Mill Committee established the reuse guidelines, the project’s consultant team developed additional guidelines to be taken into consideration when the paper mill property’s next uses are actually designed and built. These include:

- The property’s infrastructure – roads, utilities, circulation, connections, and natural systems – should serve as a flexible framework that allows for the phased, multi-use redevelopment of the property over time. Access to the property from M-89 should be given particular consideration.
- The redevelopment of the paper mill property should emphasize a sustainable approach that integrates natural and human systems and minimizes environmental impacts. Approach components could include innovative stormwater management, minimized impervious areas, habitat creation and restoration, energy efficiency and sustainable materials selection, the reuse of remaining on-site materials and conditions, and a pedestrian-friendly design.
- The history of the site should be preserved and celebrated through the reuse and preservation of key structures and remnants as a means of creating places for the community to gather, recreate, and work.
- The natural riparian habitat of the Kalamazoo River watershed should be restored, protected, and enhanced by the redevelopment of the paper mill property. Local drainage and topographic patterns should be respected and built upon.
- Architectural forms and material palettes should be derived from existing historic paper mill structures and should build on the warehouse structure as a type. Other building types, such as row houses, apartment blocks, and duplexes should be explored in reference to the scale, material, and density of the mill and surrounding neighborhoods. Neighborhood grid patterns and setbacks and the former organization of the mill operation should provide direction for the layout of streets and circulation and in determining density in the property’s redevelopment.



Conceptual Reuse Framework for the Plainwell Paper Mill Property

Conceptual Reuse Framework for the Plainwell Paper Mill Property

The project's consultant team worked with the Mill Committee to develop a reuse strategy, called a Conceptual Reuse Framework, based on the Committee's reuse guidelines, as well as ongoing analysis of the site's physical characteristics, contamination, and land use and market conditions in the City of Plainwell and Allegan County. The resulting document is called a "framework" because it represents an early plan, a flexible structure able to incorporate additional detail and information as additional information on property conditions is gathered and potential remedial options, if needed, are evaluated and implemented. The remediation of Superfund sites like the larger Allied Paper Inc. / Portage Creek / Kalamazoo River site can take years, rather than months, so plans for the future use of the Plainwell Paper Mill property must be flexible enough to incorporate new information over time. The framework is also designed to allow the phasing of reuses on different portions of the site over time, so that site reuses can benefit the community as soon as possible.



The conceptual reuse framework for the Plainwell Paper Mill property outlines opportunities to locate innovative commercial, residential, civic, and recreational land uses at the site. The framework recognizes the property's central location within Plainwell, the importance of linking the property with surrounding neighborhoods, the city's downtown district, and the Kalamazoo River, and the paper mill's role as an important part of the community's history and heritage.



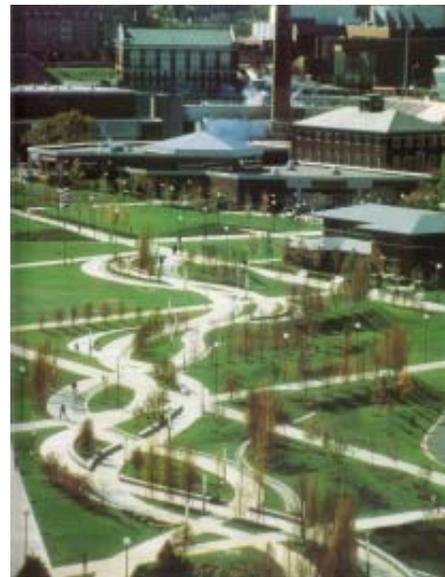
Recreational & River Park Areas (highlighted in green)



Riparian Habitat



Walking and Biking Trails



Walking and Biking Trails

Recreational Areas: River Park and Pedestrian Buffer Park

Kalamazoo River Park

The Mill Committee expressed interest in using portions of the site for recreational programs that could also highlight the Kalamazoo River as a community resource. The river park proposed for the northern portion of the Plainwell Paper Mill property will provide an opportunity for city residents and visitors to enjoy the area's natural beauty and views of the Kalamazoo River within an urban park setting. The river park would extend along the Kalamazoo River from the property's north-western boundary, adjacent to the city's water treatment facility, to the mill race and Hicks Park on the property's northeastern edge, linking the river park with Plainwell's Central Business District and existing river walk east of Main Street.

Walking and Biking Trails

The northern portion of the Plainwell Paper Mill property offers a secluded and quiet area for walking, biking, and other recreational activities. The reuse design extends paths from the river park throughout the paper mill property, looping and connecting residential, civic, and commercial areas within the property, and connecting the property with the city's Central Business District, adjacent residential neighborhoods, and local roads, including Allegan Street (M-89) and Main Street (County Road 45).

Allegan Street Pedestrian Buffer Park

Mill Committee members indicated interest in creating an open space pedestrian buffer area along the paper mill property's southern boundary along Allegan Street. The buffer area, which could be approximately 10-20 feet wide, would include walking paths and benches. The buffer area would create a community amenity connected both to existing local land uses and future land uses on the paper mill property, including the river park. The buffer area would also provide a location for innovative stormwater management approaches and enhance the paper mill property's access points along Allegan Street. During later phases of reuse, the buffer area could also be adapted as additional space for buildings and parking areas, depending on market demand and other factors.

Adaptive Recreational Reuse

Several former paper mill facilities, including rail lines and wastewater lagoons, are located within the proposed river park portion of the Plainwell Paper Mill property. Mill Committee members expressed interest in the adaptive reuse of portions of the property as a way to recognize and preserve local landmarks that reflect the community's history and heritage. The images on the following pages illustrate how the rail lines and wastewater lagoons located within the river park could be reused as a skatepark, park and informal gathering space, and as walking and biking trails.



Existing Wastewater Lagoon



Adaptive Reuse of the Wastewater Lagoon as a Skatepark Garden



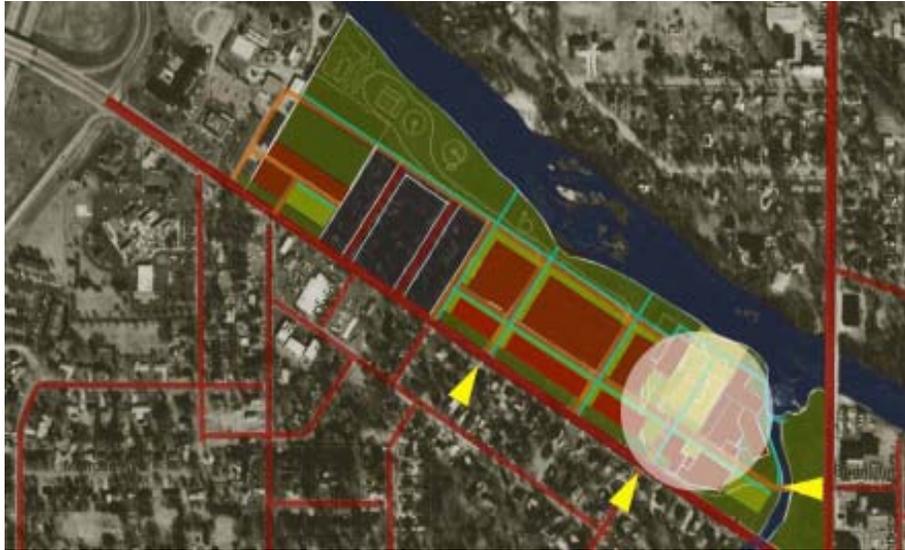
Adaptive Reuse of the Wastewater Lagoon as a Park and Informal Gathering Space



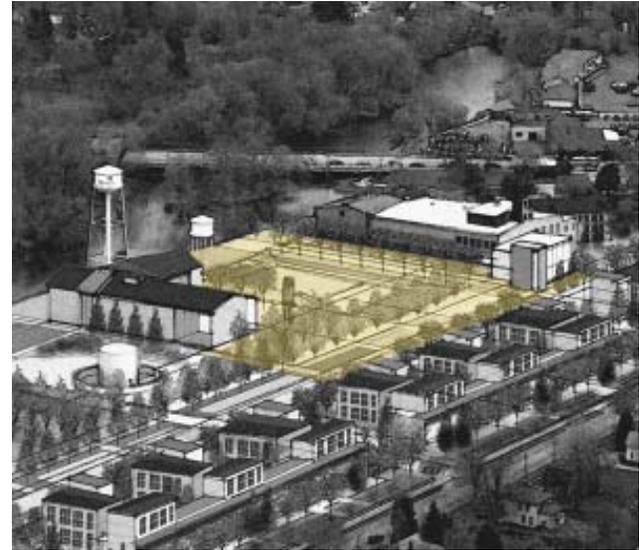
Existing Rail Line Extending Across Northern Portion of Plainwell Paper Mill Property



Adaptive Reuse of Existing Rail Line as a River Park with a Biking and Walking Trail



Civic Square and Mill Redevelopment (highlighted in white)



Aerial View #1 of the Proposed Civic Square and Mill Redevelopment Area



Example of Civic Gathering Space in Grand Rapids, Michigan



Aerial View #2 of the Proposed Civic Square and Mill Redevelopment Area

Civic Square and Mill Redevelopment

Located adjacent to the mill race and Plainwell's Central Business District, the northeastern portion of the Plainwell Paper Mill Property is well-situated to serve both as a highly valued community gathering space and the focal point for the initial redevelopment of the paper mill property for mixed civic, commercial, and residential land uses.

Civic Square

The civic square would serve as an all-season gathering area that would link together the property's river park, restored mill buildings, and the property's mixed civic, commercial, and residential land uses. The civic square would extend south from the Kalamazoo River into the central portion of the property, allowing opportunities for both pedestrian and vehicular access.

Paper Mill Redevelopment

From the outset of the reuse planning process, the Mill Committee emphasized the importance of reusing the property's existing paper mill buildings, particularly the renovated former warehouse, and office building adjacent to the mill race. These structures are a unique, historic community resource that can serve as the first-phase catalyst for the redevelopment of the paper mill property. While structural and engineering analyses will be required to determine the reuse capacity of other paper mill structures on the property, the renovated mill building adjacent to the mill race in particular provides opportunities for a range of commercial, civic, and cultural land uses.

Potential commercial land uses identified by the Mill Committee for the paper mill include shopping areas, a movie theater, microbrewery, riverside restaurant, office space, conference center, and banquet facility. Civic and cultural land uses identified by the Mill Committee include the relocation of city hall into the renovated mill building, an auditorium, educational facilities, teen center, and a museum or dedicated space recognizing the paper mill's history and significance as part of the community's heritage.

City Hall

Following the Mill Committee's suggested relocation of Plainwell City Hall into the paper mill property's renovated mill building, the City of Plainwell confirmed its interest in the relocation proposal as an anchor for the redevelopment of Plainwell Paper Mill property.

Civic Square and Mill Redevelopment Conceptual Reuse Design: Looking to the Northeast from the Edge of the Civic Square



Existing View



Proposed View

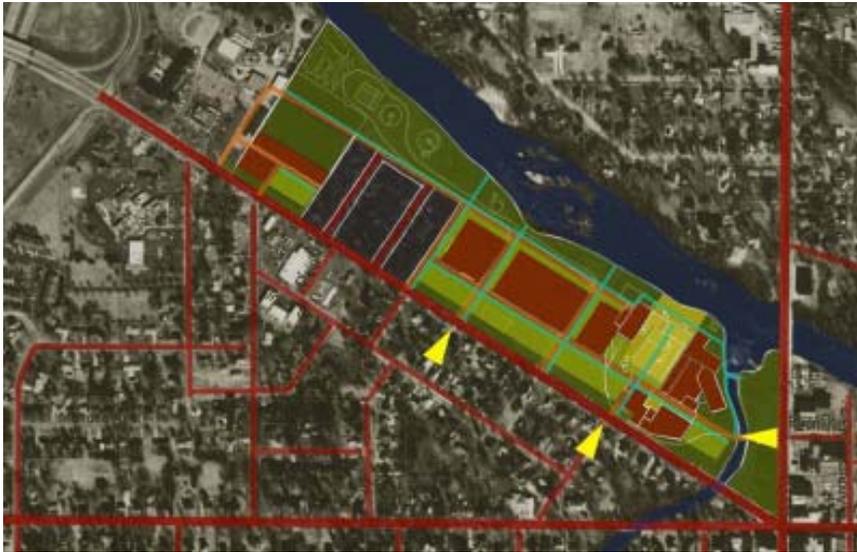
Civic Square and Mill Redevelopment Conceptual Reuse Design: Looking Across the Civic Square to the Southwest from the Kalamazoo River



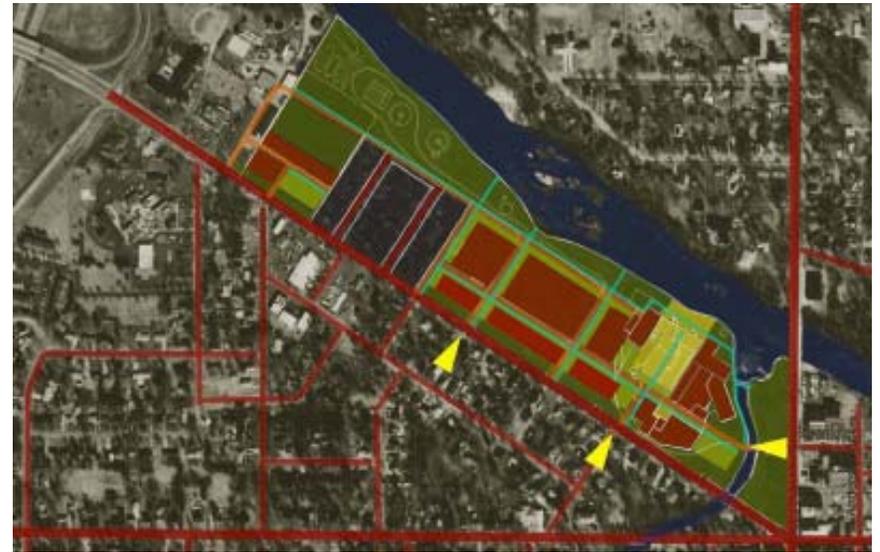
Existing View



Proposed View



Primary Development Zones (highlighted in red)



Secondary Development Zones (highlighted in red)



Example of Mixed-Use Commercial and Residential Development



Example of Mixed-Use Commercial and Residential Development

Development Zones

With the reuse of the renovated mill building anchoring the redevelopment of the Plainwell Paper Mill property, the Mill Committee emphasized the importance of incorporating mixed commercial office and retail and residential land uses at the paper mill property. The property's development zones would be located adjacent to the civic square and extend westward across the central portion of the paper mill property, with an additional development area located along the property's southwestern edge.

Commercial Development

Commercial office and retail land uses would generate tax revenues, provide jobs, and help sustain Plainwell as a unique "destination" location. The initial market analysis conducted by the project's consultant team confirmed that, based on local demand for area land uses and Plainwell's proximity to several metropolitan areas, including Kalamazoo and Grand Rapids, the property should be able to attract significant interest for mixed commercial and residential development. The western portion of the property could be particularly well-suited to new commercial development, given its proximity to existing commercial development and M-89 and US-131.

Residential Development

The development of medium- and high-density housing at the Plainwell Paper Mill property that would cater both to current and new city residents, providing expanded opportunities for community members to live downtown. Residential development at the property should be part of a mix of commercial, civic, cultural, and recreational land uses at the property. In addition, residential development should be pedestrian-friendly, higher-density, with a mixture of housing types that relate to the Kalamazoo River.

Development Design

The design of mixed commercial and residential land uses at the Plainwell Paper Mill property should reflect the architecture, street network, and spatial layout of the property's mill structures, the City of Plainwell's Central Business District, and adjacent residential neighborhoods.

Primary and Secondary Development Zones

Building on the reuse of the paper mill property's renovated mill building, primary development zones extend westward across the site. The Conceptual Reuse Framework's emphasis on flexibility as the property is redeveloped highlights opportunities for the southern areas of the property adjacent to Allegan Street to be targeted as secondary development zones. These secondary development zones could meet demand for additional buildings or parking facilities as the redevelopment of the Plainwell Paper Mill property progresses over time.



Potential Pedestrian and Vehicular Access Points at the Plainwell Paper Mill Property

Access and Parking

Pedestrian and Vehicular Access

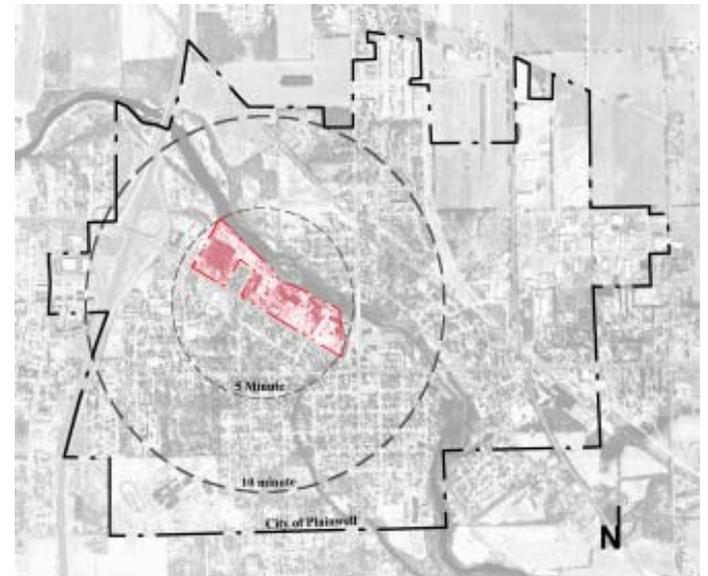
The Mill Committee recognizes that the successful reuse of the Plainwell Paper Mill property will require the careful integration of pedestrian and vehicular traffic flows both within the property and at access points between the property and surrounding roads and land uses. As illustrated by the map on the facing page, Allegan Street offers multiple potential access points to the property. The rehabilitation and conversion of the rail trestle that extends across the mill race to Bannister Street and the city's Central Business District could also enable vehicular and pedestrian access to the property to the east.

Internal Circulation

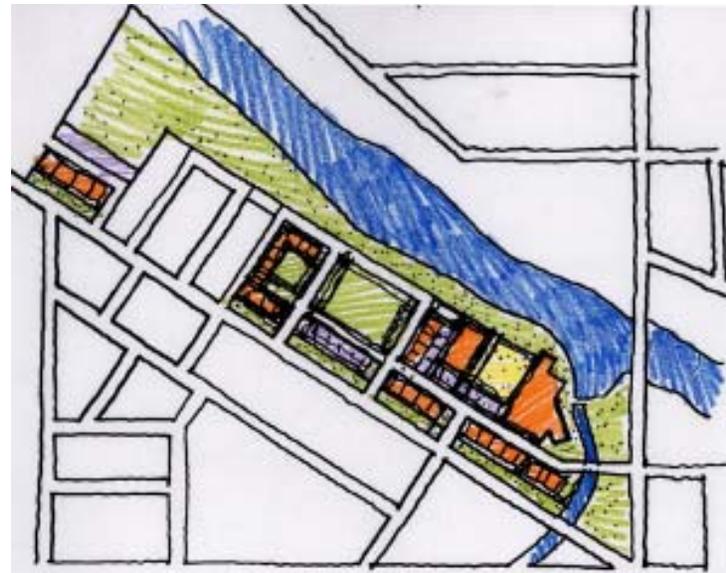
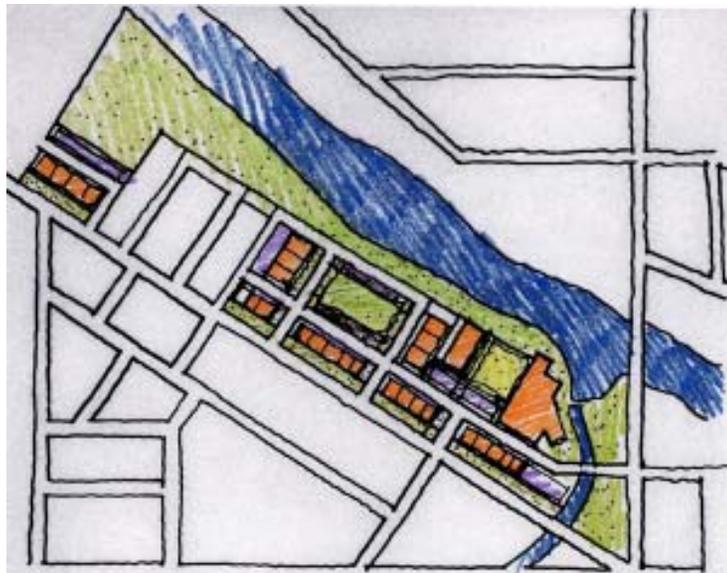
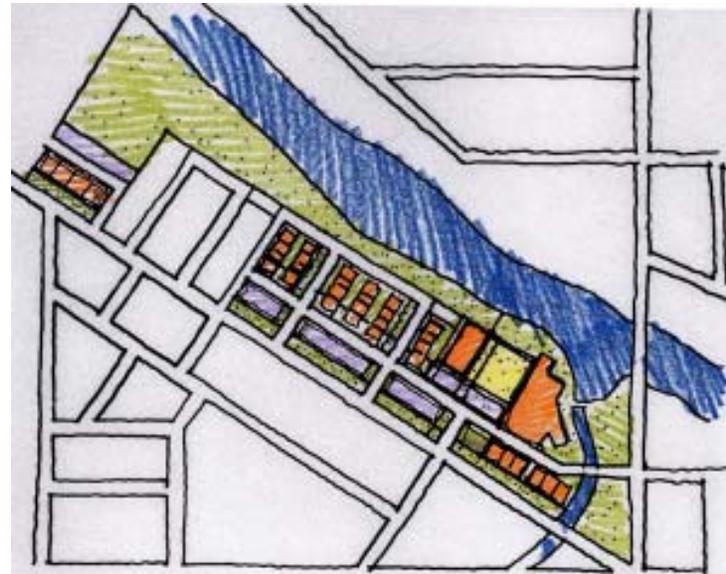
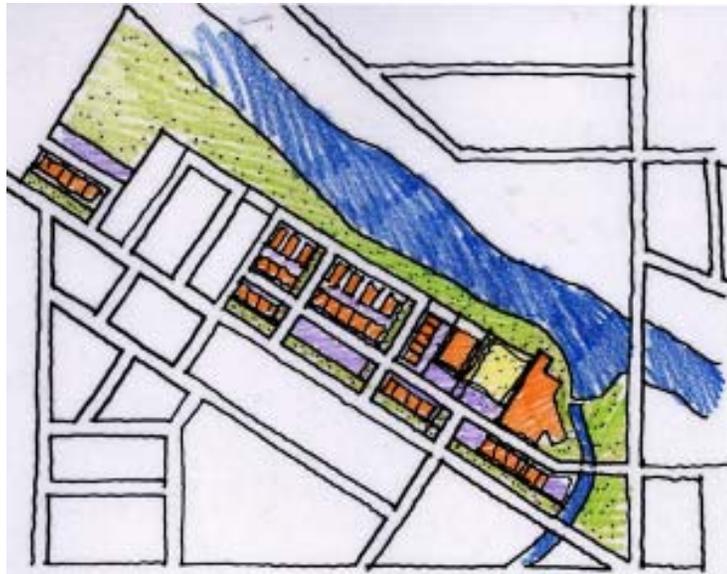
Within the paper mill property, the Reuse Framework highlights opportunities to extend the area's existing neighborhood street and sidewalk network and scale as the primary means to manage internal circulation of cars and pedestrians. Three streets that intersect with Allegan Street – Prince Street, Warrant Street, and Church Street – could be extended into the property from their present locations. Two other streets in the center of the property – Cedar Street and Scott Street – were removed during earlier paper mill expansions and could be reinstated to strengthen the local street grid and enable multiple points of access to the property for both pedestrians and vehicles. Within the property, several roads could extend from east to west. These roads would serve as the primary internal circulation routes that would also interconnect with the north-south streets extended into the property.

Parking

The Reuse Framework creates space for on-street parking along each of the internal circulation routes that extend across the site. As the property is redeveloped, additional parking resources could be developed, including underground parking, the conversion of pedestrian buffer areas along Allegan Street, and off-property parking areas. Parking is an important consideration; however, appropriate care should be taken during the property's redevelopment to ensure that both pedestrian and vehicular circulation and the needs of future residents, business owners, visitors, and city agencies are taken into account.



Five- and Ten-Minute Walk Distances Around the Paper Mill Property

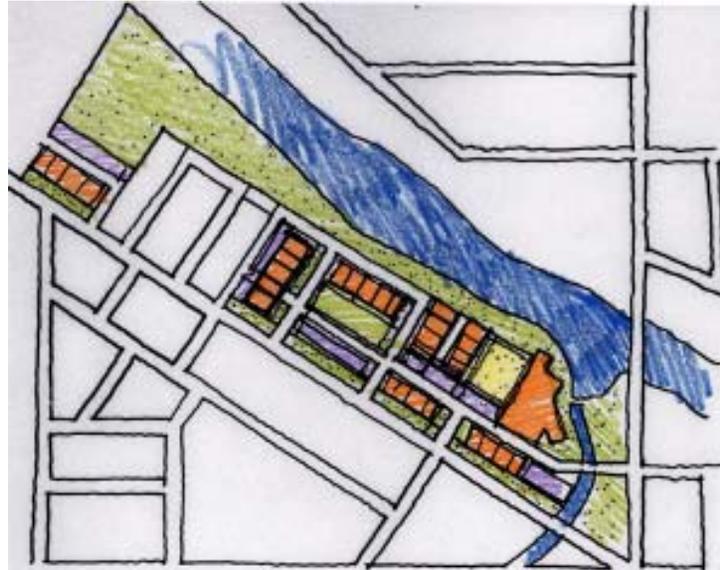


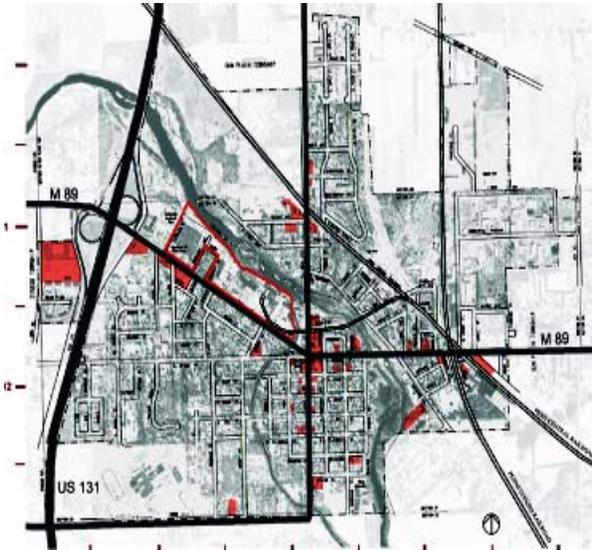
Diagrams of Phasing Opportunities at the Plainwell Paper Mill Property

Superfund Site Status and Remedial Considerations at the Plainwell Paper Mill Property

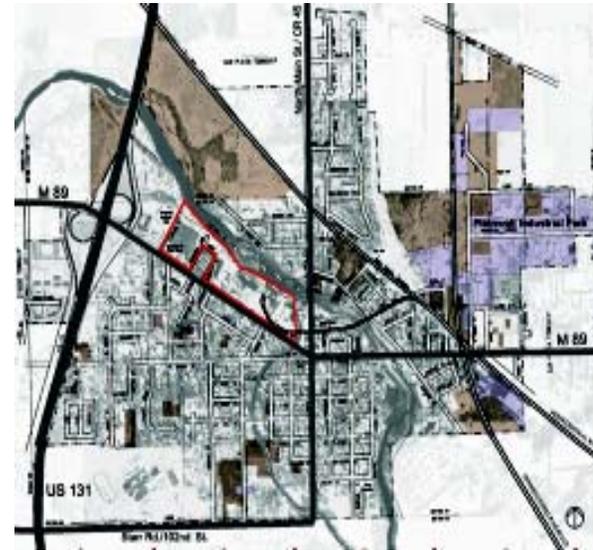
The Mill Committee recognizes that, given the paper mill property's status as part of the larger Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site, additional testing will be needed to determine if any remediation will be required. Former site owner Weyerhaeuser Company signed a Consent Decree with EPA in January 2005 that requires the company to review existing site information and conduct additional testing at the Plainwell Paper Mill property (and the 12th Street Landfill) to determine if any remediation will be necessary. Weyerhaeuser Company will be responsible for any remediation required at the paper mill property.

Accordingly, the Conceptual Reuse Framework is designed to be sufficiently flexible that new information can be incorporated over time, as additional tests are conducted and potential remedial needs are identified. The illustrations on these pages highlight how, within each of the Framework's redevelopment areas, uses could be laid out in different ways to accommodate ongoing investigations and remedial activities. The Framework is also designed to allow the phasing of reuses on different portions of the property over time, starting from today, so that future uses can benefit the community as soon as possible.





Commercial Land Uses in Plainwell



Industrial Land Uses and Vacant Land in Plainwell



Residential Land Uses in Plainwell



Parks, Recreation, Civic, and Cultural Land Uses in Plainwell

Land Use and Market Analysis

Ongoing analysis of land use and market conditions in the City of Plainwell and surrounding Allegan County informed the development of the Conceptual Reuse Framework for the Plainwell Paper Mill property. The project's land use and market analyses helped ensure that the Mill Committee's identification of reuse guidelines, opportunities, and challenges were grounded in an understanding of the property and its local and regional surroundings.

Key findings included:

- The Plainwell Paper Mill property is located in the north-central portion of the City of Plainwell and is zoned M-2 (General Manufacturing), which allows for manufacturing and assembly operations, including large-scale or specialized industrial operations. The City's 2002 *Land Use Plan* lists the property as a vacant property. The site's zoning reflects historical land uses at the site; the property's zoning will need to be updated to allow for the mixture of civic, cultural, recreational, commercial, and residential land uses identified as reuse opportunities for the property by the *Land Use Plan* and as part of the reuse planning process.
- The City of Plainwell's close proximity to several metropolitan centers, including Kalamazoo and Grand Rapids, combined with the larger region's sustained economic and population growth, indicate that the paper mill property could likely support significant market interest in a range of different land uses, including commercial and residential land uses.
- The significant potential amenities offered by the Plainwell Paper Mill property – Kalamazoo River access, historic paper mill buildings, sizable acreage and downtown location, availability of existing infrastructure, and direct highway access – enhance the likelihood of significant market interest in the reuse of the paper mill property for multiple purposes.
- The property is currently owned by Plainwell Paper Inc. Representatives from Plainwell Paper Inc. have participated in the reuse planning process and have indicated interest in transferring ownership of the Plainwell Paper Mill property to the City of Plainwell in 2005.
- Based on a review of city planning documents, realtor information, and Census data, the demand for different types of land use in Plainwell can be described as variable by type of land use, with limited commercial office and location-specific commercial retail, industrial, and residential growth.
- Industrial land uses at the paper mill property would likely be incompatible with surrounding residential land uses, the City of Plainwell's Central Business District, and the adjacent Kalamazoo River.
- Significant amounts of land are available for industrial development in the region – including the 300-acre Wayland Industrial Park, acreage in the city's industrial park, and industrial acreage along the US-131 corridor. As a result, there appears to be minimal market demand for the industrial reuse of the Plainwell Paper Mill property.
- Residential land uses are the predominant land use in the city and surround the property's southern boundary. Accordingly, future land uses at the paper mill property will need to be integrated with these adjacent residential areas.

The maps on the adjacent page highlight the Plainwell Paper Mill's central location and proximity to the city's Central Business District. Industrial land uses and vacant land are highlighted in purple and brown, commercial land uses are highlighted in red, residential land uses are highlighted in yellow and orange, and parks, recreation, civic and cultural facilities are highlighted in green and blue. The composite land use map on page 8 of this report overlaps the existing land uses in the City of Plainwell.

Key Reuse Considerations and Project Next Steps

1. *Institutionalize and sustain the community's reuse planning capacity for the Plainwell Paper Mill property over the long-term.*

The reuse planning process for the Plainwell Paper Mill property represents an important first step that will inform future site investigations, potential remedial activities at the property, and the property's eventual reuse. In the months to come, as EPA and MDEQ work with Weyerhaeuser Company to determine the need for additional site investigations and potential remediation at the paper mill property, the city's ongoing reuse planning process will need to focus on updating and implementing the project's reuse guidelines and Conceptual Reuse Framework and beginning to attract development interest in the property.

The project's Mill Committee requests that the City of Plainwell incorporate the project's findings into the City's planning documents, including the city's *Land Use Plan* and zoning ordinance, as the city moves towards the acquisition and eventual redevelopment of the paper mill property. The Mill Committee also requests that the City of Plainwell coordinate with EPA and MDEQ on an ongoing basis to ensure that the latest available site information is incorporated into the City's ongoing reuse planning efforts. The Mill Committee also indicated at the project's December 2004 meeting that Mill Committee members will be available as resources and to provide additional input and feedback in the future.

2. *Transfer the ownership of the Plainwell Paper Mill property to the City of Plainwell's designated brownfields redevelopment authority and pursue opportunities to update the zoning of the paper mill property to facilitate the site's reuse.*

Plainwell Paper, Inc. currently owns the Plainwell Paper Mill property and has consistently indicated its interest in transferring ownership of the paper mill property to the City of Plainwell in 2005. Concurrent with pursuing opportunities to take ownership of the paper mill property in 2005, the city should research opportunities to rezone the paper mill property to reflect the mixed civic, commercial, residential, cultural, and recreational reuse opportunities identified by the Mill Committee and the city's 2002 *Land Use Plan*. The city may determine that the creation of a new zoning district may best suit the property's redevelopment requirements. Alternately, the city's existing Planned Unit Development zoning district may be well-suited to facilitate the redevelopment of the paper mill property. As stated in Article 17 of the City of Plainwell's zoning ordinance:

"Compatible residential, commercial, and public uses may be combined in PUD districts ... It shall be the policy of the City of Plainwell to promote progressive development of land and construction thereon by encouraging planned unit developments to achieve ... A maximum choice of living environments by allowing a variety of housing and building types and permitting an increased density per acre ... A more useful pattern of open space and recreation areas and, if permitted as part of the project, more convenience in the location of accessory commercial uses and services ... A development pattern which preserves and utilizes natural topography and geologic features, scenic vistas, trees and other vegetation, and prevents the disruption of natural drainage patterns ... A more efficient use of land than is generally achieved through conventional development resulting in substantial savings through shorter utilities and streets ... [and] a development pattern in harmony with land use density, transportation facilities, and community facilities objectives of the City's *Land Use Plan*" (Sec. 1700 - 1731).

3. *Pursue redevelopment opportunities for the Plainwell Paper Mill Property that address the entire property, that phase the property's development appropriately over time, that integrate mixed civic, commercial, residential, cultural, and recreational land uses, that blend the property with its surroundings, and that respect the property's history as an important part of the community's heritage.*

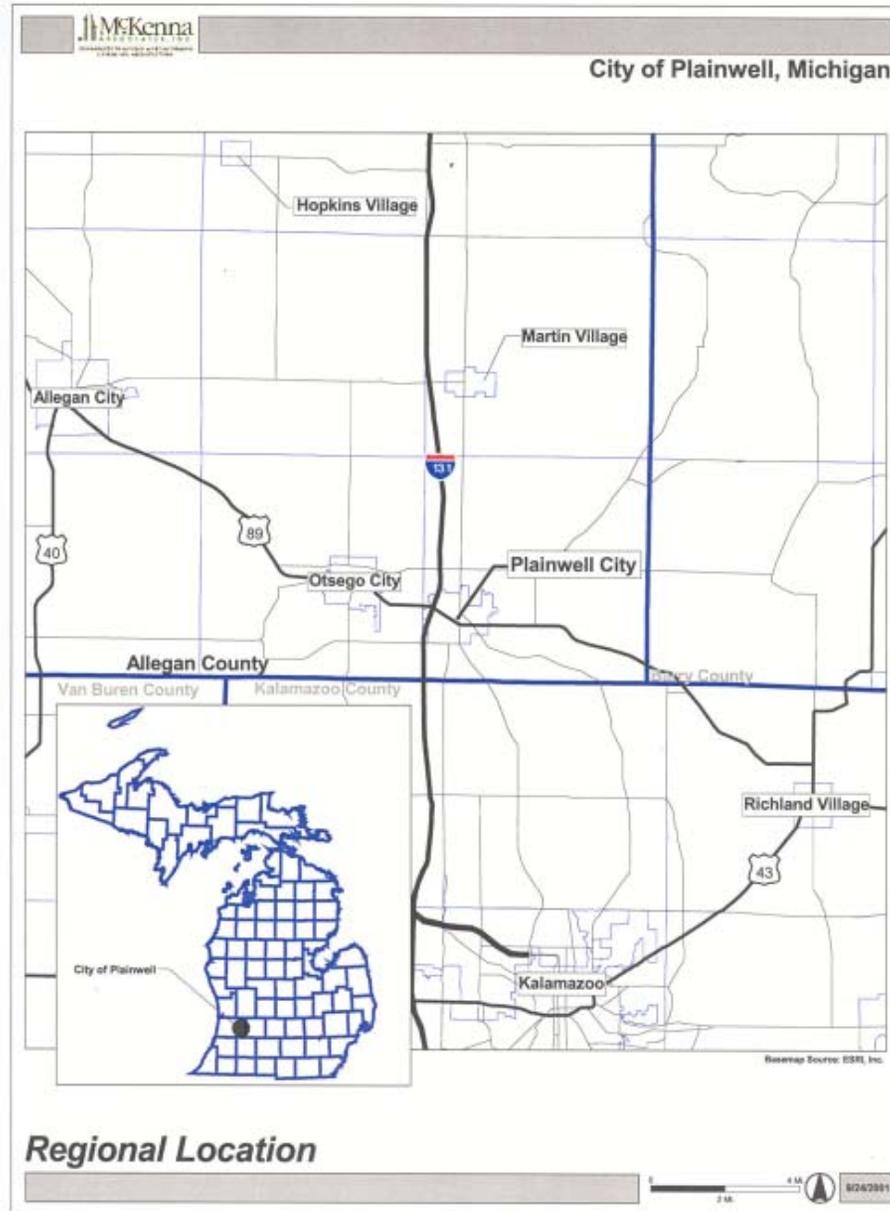
The City of Plainwell should seek out interested developers with an established track record of working on innovative, multi stage, urban adaptive reuse development projects. The redevelopment of the Plainwell Paper Mill property is a long-term process and will require a coordinated and detailed long-term plan that may involve multiple developers with specialized areas of expertise. The initial stages of the property's redevelopment will require detailed architectural, engineering, traffic, and infrastructure studies. The city may be able to work with interested developers to fund these studies as part of the property's redevelopment. Appendix A of this report also identifies additional local, state, federal, and private-sector resources that can support the city's efforts to redevelop the Plainwell Paper Mill property.

4. *Prioritize opportunities for the community to engage with the Plainwell Paper Mill property and, to the extent possible, phase site investigations and potential future site remediation activities so that portions of the property can be returned to use sooner rather than later.*

Mill Committee members indicated strong interest in the reuse of the Plainwell Paper Mill property in as timely a fashion as possible. The phased reuse of portions of the property as site investigations are completed will provide opportunities for the city to work with interested developers and for community residents to enjoy new amenities in the shorter-term. If remediation is required at the property in the future, portions of the property could provide opportunities for community members to learn about ongoing remedial activities. Educational materials could include wall panels, maps, and photographs highlighting the paper mill property's history, the status of the property's remediation, and potential future uses at the property.

5. *Ensure active engagement among the community, EPA, and MDEQ as the site's remedy is developed and implemented.*

In the months ahead, EPA and MDEQ will be responsible for integrating the Committee's reuse guidelines and Conceptual Reuse Framework with additional site investigations and potential future remediation. The potential for different future uses at the site depends on the agencies' innovative analyses and capacity, if remediation is needed, to consider multiple remedial alternatives. The project's Mill Committee recommends the creation of a communication link among the City of Plainwell, EPA, and MDEQ to ensure ongoing information-sharing and community outreach. The communication link could take the form of conference calls, designated Committee contacts, email updates, or other means.



Regional Context Map (from City of Plainwell's 2002 *Land Use Plan*)

Community Profile: City of Plainwell, Michigan and Surrounding Region

The Kalamazoo River played a significant role in the development of the territory surrounding Plainwell and Allegan County. Powatami Indian tribes were documented as some of the first inhabitants by early European fur traders in the 1700s. Settlement along the river provided not only access to water as a resource for daily life, but a way to easily transport people and goods. The area was first claimed by the British and ceded to France in 1763. The region changed hands several times, eventually being ceded to the United States around 1784.

By the early 1800s, several small communities had developed along the river. The Scottish first arrived just north of Plainwell to settle the Oak Openings, pockets of prairie and oak savanna nearly surrounded by forests of the Great Black Swamp, formed under the influence of post-glacial lakes. Land in this region, from Michigan through Ohio, was particularly fertile and became famous for successful crop cultivation. Settlement of the area expanded in the 1830s, when lumbering tradesmen came to harvest the state's large timber reserves. Harvested lumber was easily shipped via river. By the mid 1800s, steamboats were traveling the Kalamazoo River from Saugatuck to Allegan, transporting lumber and farm crops to Lake Michigan for national and international shipping. The arrival of the railroad in the 1840s lessened the importance of the river as a transportation resource.

By the late 1800s, Michigan was a national leader in lumber production, and several communities along the river, including Plainwell, had grown up as mill towns and commercial centers. In 1852, a plank road from Kalamazoo to Grand Rapids was built by the governor of Michigan, with a branch extending from Plainwell to Allegan. Plainwell, located at the junction of this plank road, grew steadily. In 1886, the Michigan Paper Company of Plainwell was established. Materials for the company's operations were hauled by horse and wagon until 1905, when the Grand Rapids & Indiana Railway installed the first spur track. The Village of Plainwell was incorporated in 1869; Plainwell became a city in 1934.

Following the Civil War, various industries, including agriculture, cereal production, pharmaceuticals, and automobile parts manufacturing, flourished in the region. Several communities, like Plainwell, became sites for paper production along the Kalamazoo River because it enabled water intake and waste discharge for the mills. In the early 1900s, the area along the Kalamazoo River had the largest concentration of paper mills in the world. The Michigan Paper Company of Plainwell, which operated in Plainwell between 1886 and 1956, was among those early mills. Today, the region retains much of its agricultural heritage, while the region's economy is also largely based around manufacturing, retail, and service sector jobs.

The Plainwell Paper Mill: History, Ownership, Contamination, and Current Status

Mill History

For more than a century, prior to the facility's closure in 2000, paper mill operations on the property were a vital part of the community's history and heritage, providing jobs and helping to sustain the local economy. Looking to the future, the reuse of the Plainwell Paper Mill property offers opportunities to recognize the property's important role in the community's history and meet current community needs.

Paper mill operations on the property began in 1886, when the Michigan Paper Company of Plainwell built a mill adjacent to the Kalamazoo River. The first paper was produced on-site in August 1897. Paper production grew rapidly during the late 1890s and early 1900s, as the company invested in new equipment and extended a rail spur from the Grand Rapids & Indiana Railway onto the site. In 1910, the Michigan Paper Company built a new paper mill on the property, with paper mill operations focused on recycled paper manufacturing.

Sanborn Fire Insurance Maps from the early and mid-1900s (facing page) illustrate the paper mill's rapid expansion and the mill's close proximity to the city's Central Business District and growing residential neighborhoods. By 1927, the paper mill was producing 70 tons of paper per day.

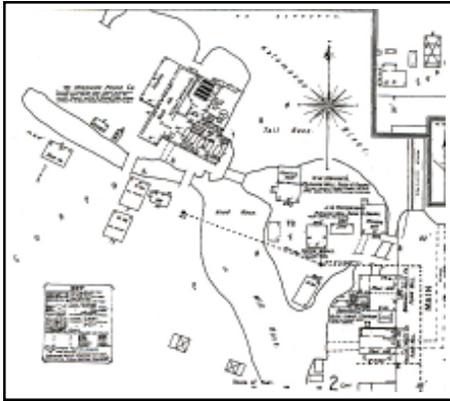
Site Ownership

Beginning in 1956, ownership of the paper mill changed hands several times (see timeline), when Michigan Paper Company of Plainwell merged with parent company Hamilton Paper after more than 70 years of operation. Subsequent property owners built new mill buildings and renovated other mill facilities. In 1969, the Weyerhaeuser Company built a new office addition and converted the mill's former office area into a finished goods warehouse. In 1975, the Phillip Morris Company restored one of the mill's former pulp cooking rooms and warehouse areas as a research and reception facility overlooking the mill race and Kalamazoo River. This beautiful brick facility, which ultimately housed the company's administrative offices, remains in excellent condition. New wastewater treatment facilities were also built on-site between 1984 and 1985.

In the past two decades, the mill celebrated 100 years of papermaking, producing 226 tons of paper per day, and new warehouses and transportation facilities were added by the Simpson Plainwell Paper Company, which owned the property until 1997. From 1997 until 2000, the property was owned by the Plainwell Paper Company. Papermaking operations ended in 2000, when the Plainwell Paper Company filed for bankruptcy. Today, the site is owned by Plainwell Paper Inc. Representatives from Plainwell Paper Inc. have participated in the reuse planning process and indicated strong interest in transferring ownership of the paper mill property to the City of Plainwell in 2005.

Plainwell Paper Mill Property: Ownership Timeline

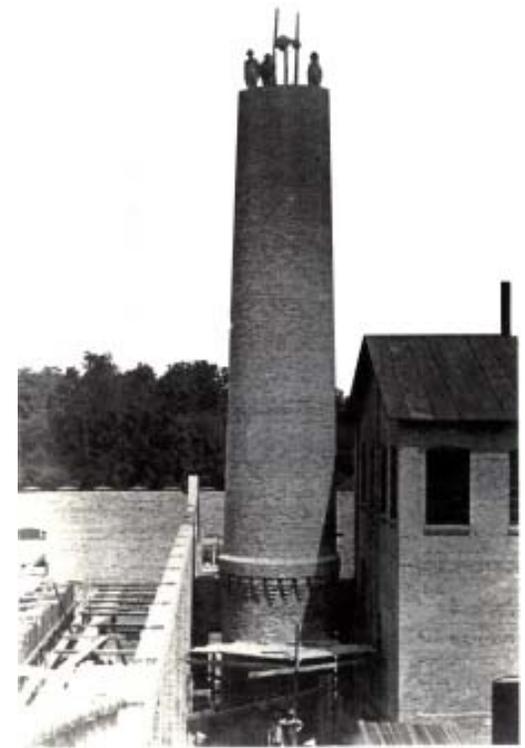
- 1886-1956:** Michigan Paper Company of Plainwell
- 1956-1960:** Hamilton Paper Company
- 1960-1970:** Weyerhaeuser Company
- 1970-1985:** Phillip Morris Company
- 1985-1987:** Chesapeake Paper Products Company
- 1987-1997:** Simpson Plainwell Paper Company
- 1997-2000:** Plainwell Paper Mill Company
- 2000-2005:** Plainwell Paper, Inc.

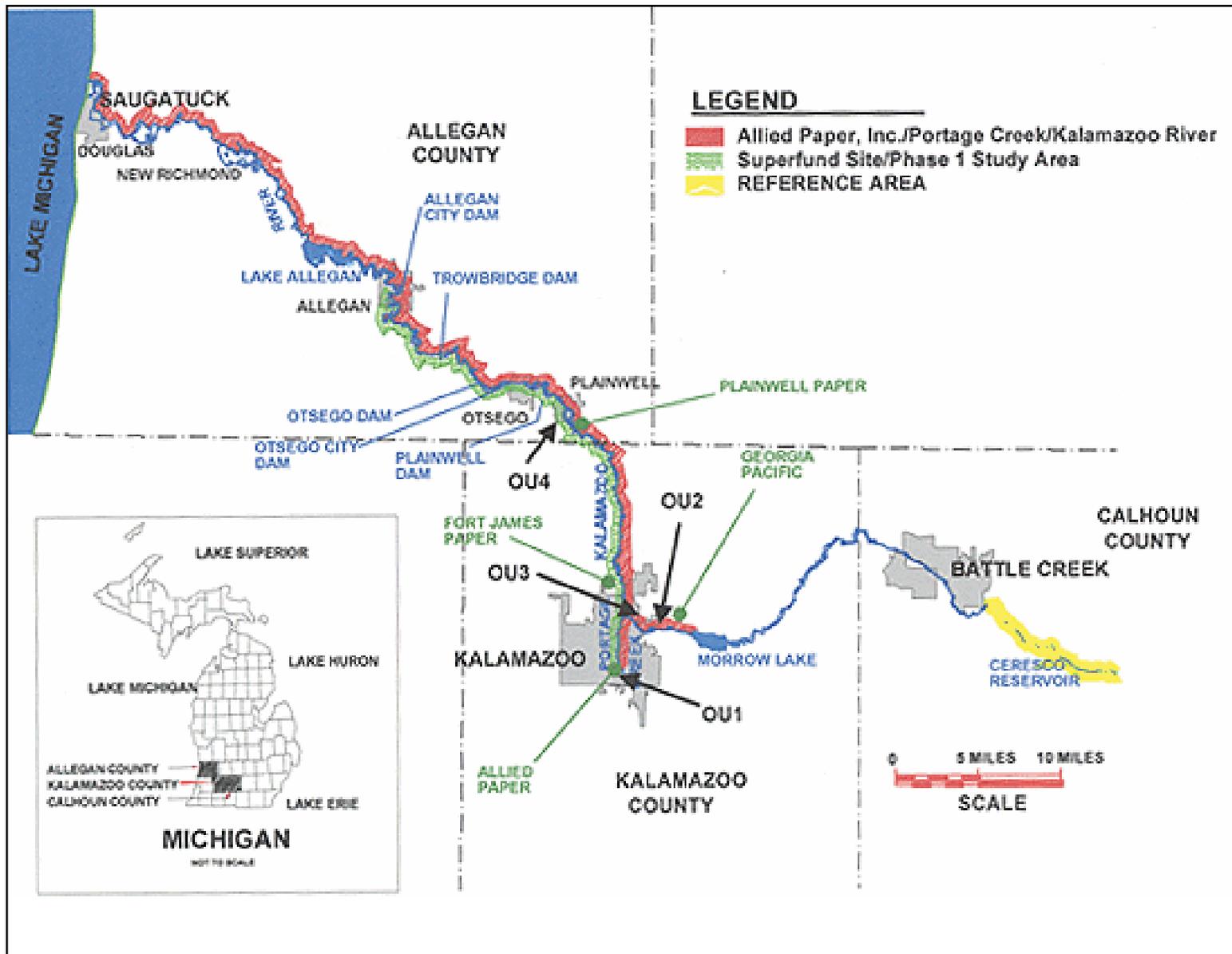


Images at left, top to bottom: 1904, 1928, and 1950 Sanborn Fire Insurance Maps of the Plainwell Paper Mill Property



Images at right, clockwise from top: Plainwell residents enjoy views of the city from the top of a new 150-foot brick chimney built by the Michigan Paper Company, 1906; Michigan Paper Company of Plainwell office, 1911; Restored interior of former paper mill warehouse, 1970s





The Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund Site

Contamination and Remediation

The Plainwell Paper Mill property is part of the larger Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site, which was listed on EPA's National Priorities List (NPL), the Agency's list of priority hazardous waste sites, in 1990.

In addition to the Plainwell Paper Mill property, the Superfund site includes five disposal areas, four other paper mill properties, an 80-mile segment of the Kalamazoo River from Morrow Dam to Lake Michigan, and a three-mile stretch of Portage Creek. Cities adjacent to the site (following the course of the Kalamazoo River) include Kalamazoo, Plainwell, Ostego, Allegan, and Saugatuck.

Wastewater from these paper mill operations, including operations at the Plainwell Paper Mill property, and the subsequent dismantling of dams on the Kalamazoo River resulted in the contamination of area soils and river sediments with polychlorinated biphenyls (PCBs), which can pose a threat to human health and the environment. The presence of PCBs in historic paper mill wastes stems from the use of PCBs in carbonless copy paper between 1957 and 1971. At the Plainwell Paper Mill property, the recycling of these papers between 1957 and 1962 may have resulted in the release of PCBs on-site and into the Kalamazoo River.

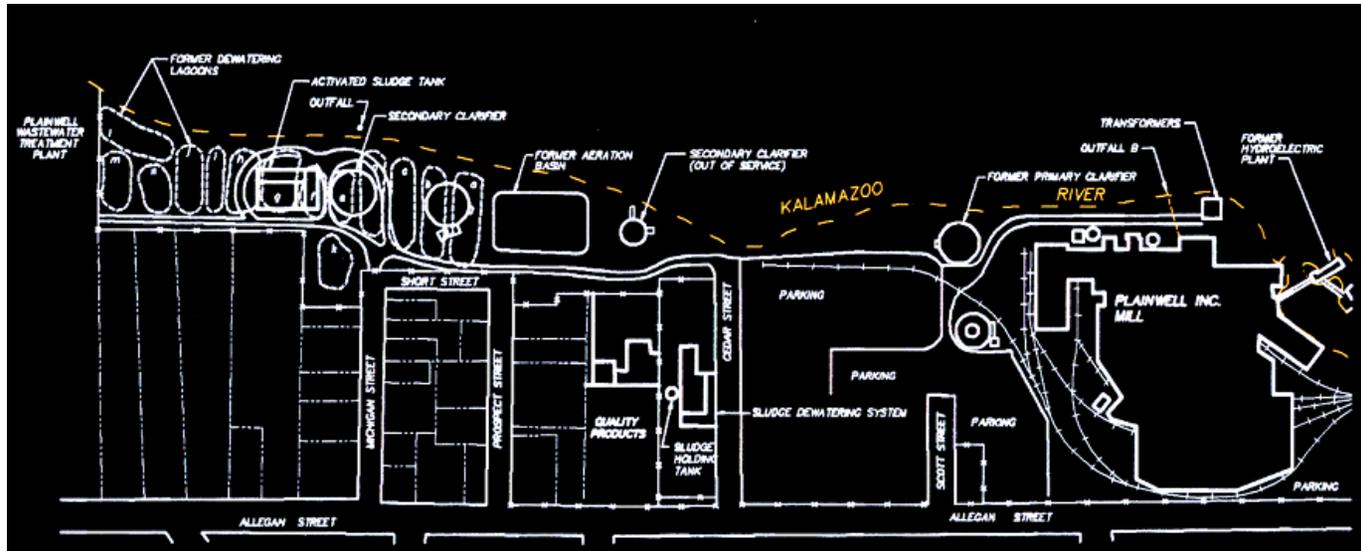
EPA, the City of Plainwell, and the site's potentially responsible parties (PRPs), under an administrative order with MDEQ, have conducted preliminary investigations at the Plainwell Paper Mill property. While the investigations have detected PCBs in several areas, including the wastewater system, wastewater lagoons, storm water system, warehouses, and the river floodplain, the contamination was not determined to pose an imminent risk to human health or the environment. Additional testing will be needed to determine whether the contamination will require remediation. Additional testing will also be needed to evaluate several other areas of the property, including storage tanks, area soils, storm sewers, and mill buildings.

Current Site Status (February 2005)

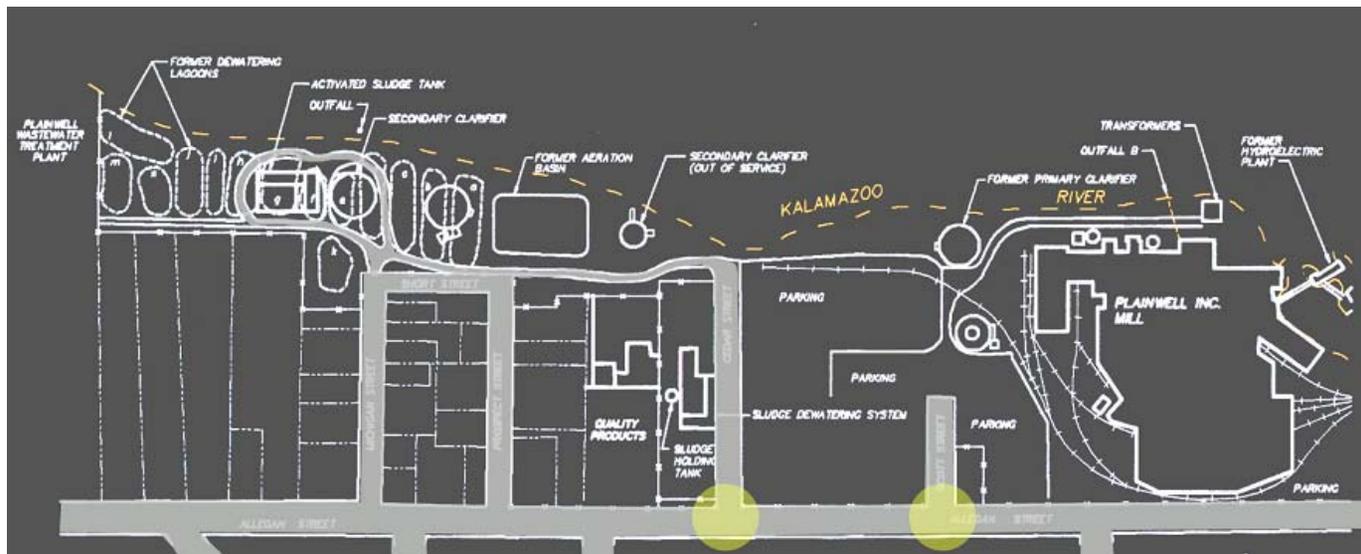
Former site owner Weyerhaeuser Company signed a Consent Decree with EPA in January 2005 that requires the company to review existing site information and conduct additional testing at the Plainwell Paper Mill property (and the 12th Street Landfill) to determine if any remediation will be necessary. Weyerhaeuser Company will also be responsible for any remediation required at the paper mill property.

Once Weyerhaeuser develops a work plan for site reviews and additional testing that is approved by EPA Region 5 in 2005, EPA's Remedial Project Manager (RPM) for the site has indicated that it will likely take approximately two-to-three years to conduct additional testing and, if needed, implement a remedy to address contamination at the paper mill property. EPA's site RPM also indicated that, if remediation is required at the paper mill property, it may be possible to phase the remedial activities to allow for the return of portions of the property to use in the shorter-term.

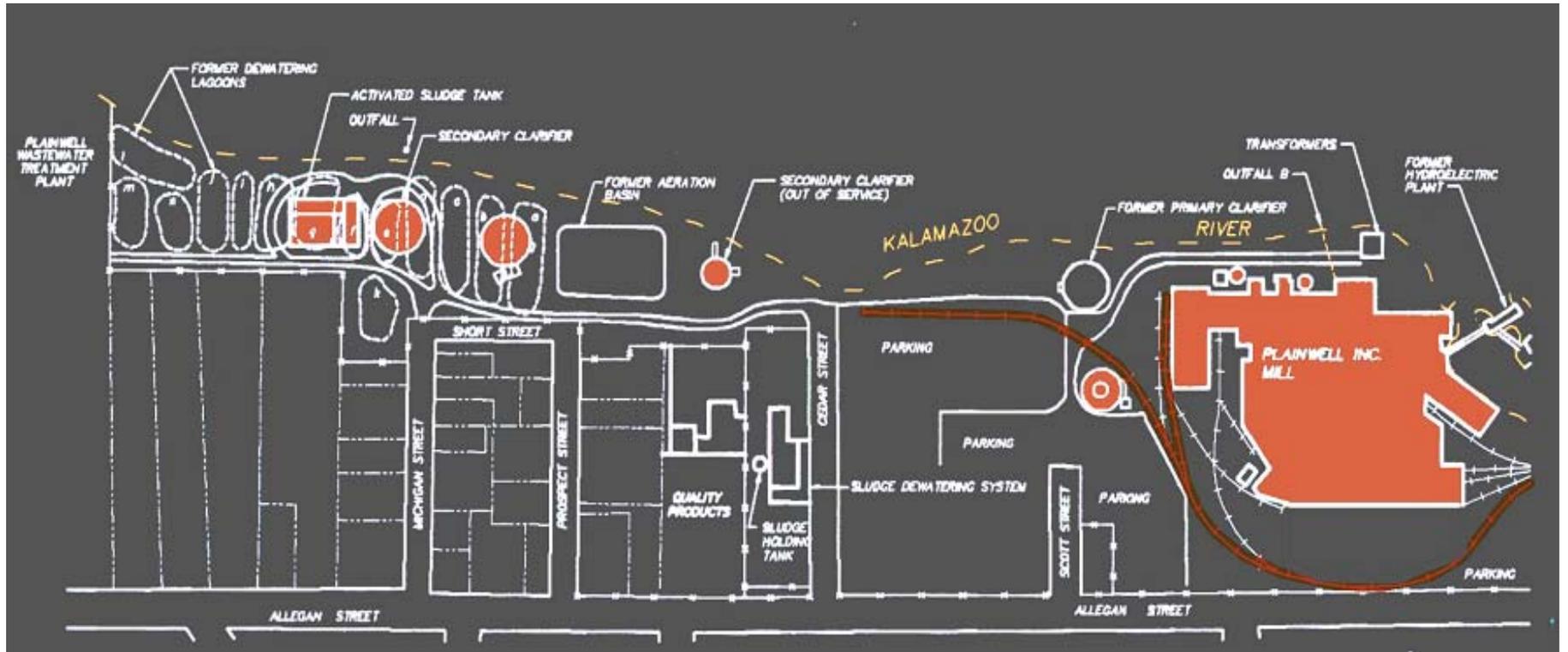
Existing Conditions at the Plainwell Paper Mill Property



Existing Circulation/Access



Key Historic Buildings / Landscape Features



The Plainwell Paper Mill Community Reuse Planning Process

The Plainwell Paper reuse planning process was established as a seven-month, community-based reuse planning process. The process was managed by the project's Mill Committee, a 31-member body that met three times and hosted a public meeting to share the project's findings with the larger community.

Funded by EPA's Superfund Redevelopment Initiative and EPA Region 5, the City of Plainwell served as the project's sponsor. The project's consultant team organized public outreach efforts; provided research, analysis, and design services; facilitated committee and public meetings; and developed and revised the project's site reuse framework.

This section of the report describes the project's structure and timeframe in greater detail.

The Mill Committee

The Mill Committee was created to represent the community's priorities and perspectives regarding potential future land uses at the Plainwell Paper Mill portion of the Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site. The Mill Committee also provided a forum for the community to learn about the larger site's history and contamination and, in turn, to provide EPA Region 5 and the Michigan Department of Environmental Quality with the community's guidance and reuse recommendations to inform future investigations and potential remedial options for the paper mill property.

The Mill Committee included a diverse range of interests. The Committee represented community characteristics such as age, race/ethnicity, and economic level. The following specific interest groups were also targeted:

- residents and property owners adjacent to the site;
- residents and property owners from across the City;
- site owners and potentially responsible parties;
- local business interests;
- local government officials; and
- local community organizations.

The project's structure included resource members that could provide expertise but did not have a stake in the project's outcome and were not involved in determining the Committee's reuse recommendations. Project resource members included representatives from EPA Region 5 and MDEQ.

Following design of the Mill Committee's structure, participation goals were developed for potential Committee members. In order to serve as a member of the Mill Committee, potential members were asked to be willing and available to:

- Participate in three Committee meetings and one community meeting over the course of the seventh-month process;
- Represent the interests of the City of Plainwell as a whole rather than any single specific interest; and
- Consider a wide range of potential uses for the site.

During the first Committee meeting in June 2004, the project's consultant team worked with the Mill Committee to clarify the group's roles and responsibilities. The Committee revisited these roles and responsibilities throughout the project; these served as guidance for the Committee's discussions and decision-making:

- Listening to the local community throughout the process and incorporating its perspectives into the Committee's discussions;
- Learning about the Superfund program, reuse opportunities, the Plainwell Paper Mill property and the Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site;
- Providing City of Plainwell, EPA Region 5, and MDEQ with future land use recommendation(s); and
- Serving as ambassadors and information resources for the community.

The Mill Committee also worked with the project's consultant team during the first two Committee meetings to establish ground rules and a decision-making structure for the Committee's discussions. Ground rules identified by the Committee include:

- Committee discussions should be an open, friendly process in which different opinions are welcome and respected;
- Clear, understandable language should be used in Committee discussions. Any time an acronym is used, it should be explained; and
- The project should be an interactive process that reaches into the community to provide information and to receive input.

The project was established as a consensus-based process, with Mill Committee members agreeing to work together to develop reuse recommendations for the Plainwell Paper Mill property. If full agreement was not possible, Committee members determined that an accurate description of group preferences, along with the pros and cons of various options and areas of agreement and disagreement, would be reported to the City of Plainwell, EPA, and MDEQ.

Conclusions: Future Roles and Responsibilities

Through this project report, the Mill Committee presents EPA Region 5, MDEQ, and Plainwell City Council with its reuse recommendations for the Plainwell Paper Mill community reuse planning project.

Beyond the publication of this report, the Committee intends that EPA Region 5 and MDEQ incorporate its reuse recommendations as the agencies work with the Weyerhaeuser Company as part of the site's January 2005 Consent Decree to evaluate existing site information, conduct additional testing, and, if necessary, remediate contamination at the Plainwell Paper Mill property.

The Mill Committee recognizes that the gathering and analysis of site data will be ongoing in the months ahead, that additional information about the paper mill property's contamination will be forthcoming, and that this information could impact the types of land uses allowed at the paper mill property in the future. In this case, the Committee requests that EPA Region 5 and MDEQ report back to the City and the community to discuss potential implications and updated approaches to facilitate the reuse of the Plainwell Paper Mill property.

The Committee also requests that EPA Region 5 and MDEQ continue to work closely with the City of Plainwell and community residents in the future to address community concerns, work with the community during the additional investigations and potential remediation of the Plainwell Paper Mill portion of the Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site, and return the site to successful use. In the months ahead, EPA Region 5 and MDEQ will be responsible for working with the Weyerhaeuser Company to integrate the Committee's reuse guidelines and Conceptual Reuse Framework with the potential selection and design of the property's remedy, if needed. If remediation is required at the paper mill property, the potential for different future uses at the site depends on the agencies' innovative analyses and capacity to consider multiple remedial alternatives.

The Committee also intends that Plainwell City Council endorse and incorporate its research and reuse recommendations into future city planning efforts and documents, including the city's *Land Use Plan* and zoning ordinance, and serve as the convening authority for ongoing reuse planning efforts. The Committee requests that the city continue to work closely with community residents, EPA Region 5, and MDEQ to ensure that the additional investigations and potential future remediation at the Plainwell Paper Mill portion of the Allied Paper Inc. / Portage Creek / Kalamazoo River Superfund site are completed and the property returned to successful use.

Appendices

Appendices

Appendix A: Reuse Resources

The project's consultant team has identified a range of public and private sector resources that can provide funding, technical assistance, and training to help facilitate the implementation of the reuse framework developed for the Plainwell Paper Mill property. This appendix lists the resources available to help the community return the site to successful use as a community resource.

Economic Development Resources

Federal-Level:

- **Economic Adjustment Program**
U.S. Department of Commerce Economic Development Administration

The Economic Adjustment Program assists state and local interests in designing and implementing strategies to adjust or bring about change to an economy. The program focuses on communities that have experienced or are under threat of serious structural damage to their underlying economic base. Such economic change may result from industrial or corporate restructuring, new federal laws or requirements, or depletion of natural resources. The program aids in the long-range development of public facilities and private enterprises to help create permanent jobs. The Economic Adjustment Program predominantly supports three types of grant activities: strategic planning, project implementation, and revolving loan funds. These grants must be used for the development of a Comprehensive Economic Development Strategy and the implementation of its components.

U.S. Department of Commerce Economic Development Administration

Chicago Region Office
111 North Canal Street, Suite 855
Chicago, IL 60606-7204
www.doc.gov/eda

Contact:
C. Robert Sawyer
Regional Program Contact
T: 312-353-8143
F: 312-353-8575

- **Local Technical Assistance Program**

U.S. Department of Commerce, Economic Development Administration

The Local Technical Assistance Program works to fill the knowledge and information gaps that may prevent leaders in the public and nonprofit sectors of local communities from making optimal decisions on local economic development issues. Grants often support feasibility studies on potential economic development projects, such as industrial or business incubators. The program is flexible; some communities and regional organizations have used Local Technical Assistance grants to develop revitalization plans, to prepare tourism development strategies, and sponsor economic development conferences or seminars. Eligible applicants include economic development districts, states, cities, or other political subdivisions of a state. Economic Development Administration programs are administered on a regional basis.

**U.S. Department of Commerce,
Economic Development
Administration**

U.S. Department of Commerce
Economic Development Administration
14th Street & Constitution Ave., N.W.
Washington, DC 20230

www.doc.gov/eda

State-Level:

- **State Economic Development Assistance**

Michigan Economic Development Corporation (MEDC)

The Michigan Economic Development Corporation is the State of Michigan's resource for businesses seeking to expand or relocate in the area. MEDC provides a wide variety of technical assistance and resources including a guide for starting new businesses in the state and *SelectSites*, a service produced in conjunction with local development agencies and private developers, that provides detailed information on sites primed for development.

**Michigan Economic Development
Corporation**

300 N. Washington Square
Lansing, MI 48913
medc.michigan.org/aboutus

Contact:

John Czarnecki
V.P., Community Services
T: 517-373-9808

Private Foundations / Trusts

- **Civic Progress and Community Capital Projects Programs**
Frey Foundation

The Frey Foundation is a family foundation committed to working together to make a difference in the lives of individuals, families, organizations and communities. The Foundation offers several programs that may be able to offer grant assistance to facilitate the reuse of the Plainwell Paper Mill property. The Foundation's Civic Progress program focuses on projects that encourage urban revitalization and smart growth. The program's goal is to foster civic action to improve the livability of existing urban centers and towns in western Michigan. The Foundation's Community Capital Projects program also focuses on community improvement opportunities located in city downtowns or older neighborhoods. While the Foundation focuses on the Grand Rapids area, grant applications for other jurisdictions are considered as well. Grant applications can be completed by both local government agencies and 501(c)(3) non-profit organizations. Submissions are accepted several times each year, on the 15th of February, May, August, and November. The Foundation recommends meeting with Foundation representatives prior to submitting proposals to the organization.

Nongovernmental Organizations

- **Community/Economic Development Assistance**
National Center for Small Communities (NCSC)

The National Center for Small Communities is a national nonprofit organization focused on serving the leaders of America's smaller communities. The NCSC's mission is to provide local elected officials with tools to govern effectively and the skills to expand local economies, protect natural resources, and preserve community character. The NCSC offers answers and how-to assistance on such issues as community capacity-building, economic development, environmental planning and regulatory compliance, local government management, financing and budget, grassroots fundraising, and technology.

Frey Foundation

40 Pearl Street, NW
Suite 1100
Grand Rapids, MI 49503
www.freyfdn.org

Contact:

Teresa Crawford
Grants Manager
T: 616-451-0303

National Center for Small Communities

444 North Capitol Street NW, Suite 397
Washington, DC 20001-1202
www.natat.org/ncsc

Contact:

Nancy Stark
Director, Community & Economic
Development
T: 202-624-3550
F: 202-624-3554

Resource Conservation and Recreation

Federal-Level:

- **Recreational Trails Program**

*The U.S. Department of Transportation, Federal Highway Administration
(administered by the Michigan Department of Natural Resources)*

The U.S. Department of Transportation's Federal Highway Administration provides matching funds to states to develop and maintain recreational trails and trail-related facilities for both motorized and non-motorized recreational trail users. Examples of trail uses include hiking, bicycling, in-line skating, equestrian use, cross-country skiing, snowmobiling, off-road motorcycling, all-terrain vehicle riding, four-wheel driving, or using other off-road motorized vehicles. In Michigan, the Department of Natural Resources administers the program and develops its own procedures to solicit and select projects for funding.

- **Rivers, Trails, and Conservation Assistance Program**

National Park Service

The National Park Service's Rivers, Trails, and Conservation Assistance Program works with community groups and local and State governments to conserve rivers, preserve open space, and develop trails and greenways. Technical assistance, provided by the program's national network of 90 conservation and recreational-planning professionals, includes assessing resources, developing concept plans, identifying potential sources of funding, and providing conservation and recreation information. The program is administered on a regional basis.

U.S Department of Transportation Federal Highway Administration

Stevens T. Mason Building
PO Box 30452
Lansing, MI 48909-7757
[www.fhwa.dot.gov/environment/
rectrails/rtbroch.htm](http://www.fhwa.dot.gov/environment/rectrails/rtbroch.htm)

Contact:

Jim Radabaugh
State Trails Coordinator
Michigan Department of Natural Resources
T: 517-373-1276

National Park Service

National Park Service
9922 Front Street
Empire, MI 49630
[www.nps.gov/ncrc/programs/rtca/
contactus/cu_offices.html](http://www.nps.gov/ncrc/programs/rtca/contactus/cu_offices.html)

Contact:

Barbara Nelson-Jameson
Rivers, Trails, & Conservation Assistance
T: 231-334-3130
F: 231-334-3135

- **Partners for Fish and Wildlife Program**

U.S. Fish and Wildlife Service

The U.S. Fish and Wildlife Service's Partners for Fish and Wildlife Program provides technical and financial assistance to private landowners who voluntarily restore wetlands and other fish and wildlife habitat on their land. It encourages funding from other organizations to help complete projects. Private landowners, often in partnerships with conservation groups and government agencies, are eligible for assistance. Landowners must sign an agreement to retain the restoration projects for at least 10 years, but otherwise maintain full control of their land.

U.S. Fish and Wildlife Service

2651 Coolidge Road
East Lansing, MI 48823
partners.fws.gov

Contact:
Jim Hudgins
State Coordinator
T: 517-351-4230
F: 517-351-5419

- **Resource Conservation & Development Program (RC&D)**

U.S. Department of Agriculture Natural Resource Conservation Service

The RC&D Program aims to accelerate the conservation, development and utilization of natural resources, as well as improve the general level of economic activity and standard of living in designated RC&D areas. The program works to enhance the capability of state, tribal, and local units of government, as well as local nonprofit organizations in rural areas to plan, develop, and carry out programs for resource conservation and development. Current program objectives focus on improvements in quality of life through natural resources conservation, sustainable community development, prudent resource use, and the management of natural resources. RC&D areas are locally sponsored regions designated by the Secretary of Agriculture for RC&D technical and financial assistance program funds. The City of Plainwell is located in the Sauk Trails RC&D Area.

**U.S. Department of Agriculture
Natural Resource Conservation
Service**

301 Commerce Dr.
Ithaca, MI 48847-1602
www.mi.nrcs.usda.gov/programs/rc&d.html

Contact:
Robert Baetsen
Sauk Trails RC&D Coordinator
T: (616) 372-8947

State-Level:

- **Michigan Natural Resources Trust Fund**
Michigan Department of Natural Resources (MDNR)

The Michigan Natural Resources Trust Fund provides assistance to local governments, school districts, and MDNR to purchase lands for outdoor recreation and/or the protection of natural resources and open space. The fund also assists in the appropriate development of land for public outdoor recreation. Local units of government (cities, villages, townships, counties) may apply for funds if they have an updated parks and recreation plan, and can provide a funding match of at least 25 percent of the appraised value of the property to be purchased. Grants range from \$15,000 to \$500,000. Applications are available each January for the current year's application cycle.

- **State and Local Recreation Trust Fund Program**
Michigan Department of Natural Resources

The program provides grants to local units of government and state agencies for the acquisition and development of lands and facilities for outdoor recreation or the protection of Michigan's significant natural resources. Applications are evaluated on established criteria such as resource protection, water access, and project need. At least a 25 percent match on either acquisition or development projects is required from local government applicants. Recommendations are made by the Michigan Natural Resources Trust Fund Board to the State Legislature for final approval. Criteria are spelled out in the "Recreation Grants Selection Process" booklet given to all applicants. Any local unit of government, including school districts, or any combination of units in which authority is legally constituted to provide recreation are eligible for funding. Local units of government, school districts, and local authorities must have a DNR-approved recreation plan to be eligible.

Michigan Department of Natural Resources

P.O. Box 30425
Lansing, MI 48909-7925
www.michigan.gov/dnr

Contact:
Jim Wood
Chief of Grants
T: 517-241-2480
woodjb@michigan.gov

Michigan Department of Natural Resources

P.O. Box 30425
Lansing, MI 48909-7925
www.michigan.gov/dnr

Contact:
Jim Wood
Chief of Grants
T: 517-241-2480
woodjb@michigan.gov

- **Recreational Trails Program Grants**

Michigan Department of Natural Resources

Recreational Trails Program Grants fund the maintenance and development of recreational trails and related facilities. State projects and State/local government partnership projects are eligible for funding. However, a Department of Natural Resources (DNR) division/bureau must always be the applicant. Local government-sponsored projects can be considered for funding if they contribute to Department program goals and they are located on DNR land or linked to a trail on DNR land. Local unit of government applications will not be considered unless the project is developed as a joint application with a DNR division/bureau prior to the application deadline (July 1 of each year).

Michigan Department of Natural Resources

P.O. Box 30425
Lansing, MI 48909-7925
www.michigan.gov/dnr

Contact:
Mark Mandenberg
T: 517-335-3037
mandenbm@michigan.gov

Private Foundations / Trusts

- **Bricks and Mortar Grant Program**

The Kresge Foundation

The Kresge Foundation is an independent, private foundation founded in 1924 by the S.S. Kresge Company, more widely known as Kmart. The foundation has several grantmaking programs and initiatives for nonprofit organizations. The foundation focuses on capital programs and giving to organizations for facility construction or improvement. The “Bricks and Mortar” program offers financial support for building facilities and challenges private giving. Projects that may receive funding include the construction of facilities, renovation of facilities, purchase of major equipment or an integrated system at a cost of at least \$300,000, and the purchase of real estate. The foundation predominantly provides high dollar grants (over \$750,000). Governmental agencies can apply for funding in order to purchase real estate. However, the likelihood of a locality receiving funding is lower than that of a nonprofit organization.

The Kresge Foundation

3215 W. Big Beaver Road
P.O. Box 3151
Troy, Michigan 48007-3151
www.kresge.org

Contact:
Tel. 248-643-9630
Fax 248-643-0588
webmaster@kresge.org

- **Sustainable Development Program**

Rockefeller Brothers Fund

The Rockefeller Brothers Fund promotes social change that contributes to a more just, sustainable, and peaceful world. Through its grantmaking, the Fund supports efforts to expand knowledge, clarify values and critical choices, nurture creative expression, and shape public policy. The Fund's programs are intended to develop leaders, strengthen institutions, engage citizens, build community, and foster partnerships that include government, business, and civil society. Respect for cultural diversity and ecological integrity pervades the Fund's activities.

Rockefeller Brothers Fund

437 Madison Avenue, 37th Floor
New York, New York 10022-7001
www.rbf.org

Contact:

Tel. 212-812-4200

Fax 212-812-4299

info@rbf.org

Non-Governmental Organizations

- **US Soccer Foundation Grants Program**

United States Soccer Foundation

The Mission of the US Soccer Foundation is to enhance, assist, and grow the sport of soccer. The Foundation's core program is the administration of its annual Grants process. Having just completed its ninth year, the Grants Program has awarded over \$17 million in cash and equipment to more than 265 grantees nationwide. Grantees cover the entire spectrum of soccer organizations, from small rural clubs looking to start a soccer program to the national programs of the US Soccer Federation, the National Governing Body for the sport of soccer in the United States. The Foundation's Grants Program is open to anyone with a soccer-specific program or a project that benefits a non-for-profit recreational purpose.

United States Soccer Foundation

1050 17th Street, NW
Suite 210
Washington, DC 20036
www.ussoccerfoundation.org

Contact:

Karen Irish

Manager, Proactive Initiatives

kci@ussoccerfoundation.org

T: 202-872-6656

F: 202-872-6655

- **Environmental Grants**

Ben & Jerry's Foundation

The Ben & Jerry's Foundation provides grants to non-profit organizations that seek to institute environmental or institutional change, foster new ways of thinking, address the root cause of social and environmental problems, as well as help ameliorate an unjust or destructive situation by empowering constituents. Grants of \$1,001 to \$15,000 are rewarded to non-profit organizations three times per year. Letters of intent may be submitted at any time and are reviewed on an ongoing basis, but should be received no later than ten weeks prior to a desired full proposal cycle deadline. If an application is chosen for further consideration, deadlines to submit a full proposal are: March 1, July 1, and November 1.

- **Environmental Programs**

The Conservation Fund

The Conservation Fund helps local, state, and federal agencies and nonprofit organizations acquire property from willing sellers to protect open space, wildlife habitat, public recreation areas, river corridors, and historic places. The fund also offers land advisory services, applying principles of sustainable development to real estate projects with sensitive ecological, visual, and historical resources. Additionally, the fund works to enhance, restore, and protect the nation's land and water resources through mitigation services that range from planning and negotiation to acquisition and implementation. The fund also provides services in natural resource damage mitigation, habitat/species mitigation, and wetland mitigation.

Ben & Jerry's Foundation

30 Community Drive
South Burlington, VT 05403
www.benjerry.com/foundation/index.html

Contact:

Lisa Pendelino
T: 802-846-1500

The Conservation Fund

1800 North Kent Street, Suite 1120
Arlington, VA 22209-2156
www.conservationfund.org

Contact:

Douglas R. Horne
Director, Land Advisory Services
T: 703-525-6300
F: 703-525-4610

- **Environmental Grant**
Unity Avenue Foundation

The Unity Avenue Foundation provides grants for specific projects that foster responsible, long-term human interaction with the natural environment, particularly those projects that can be replicated or adapted for broad application. Grant rewards are a minimum of \$5,000. A one-page proposal summary must be received by the second Friday in January each year. Full proposals for selected projects are due by March 15, 2005.

Unity Avenue Foundation

342 Fifth Ave N.
Bayport, MN 55003-1201
www.scenicriver.org/ua/index.html

Contact:
Sarah Andersen
Grants Consultant
T: 651-439-1557
F: 651-439-9480

- **Bicycle and Pedestrian Planning Technical Assistance**
National Center for Bicycling and Walking (NCBW)

The National Center for Bicycling and Walking provides information, training, and education on bicycle and pedestrian related issues, including facility planning, design, and engineering, public health and physical activity, and education and safety research and programs; effective advocacy techniques; and trails and greenway development. Additionally, the NCBW hosts the annual Pro Bike/Pro Walk Conference. Contact the National Center for Bicycling & Walking at info@bikewalk.org for further information about the Conference.

National Center for Bicycling and Walking

1506 21st Street NW, Suite 200
Washington, DC 20036
www.bikewalk.org

Contact:
Bill Wilkinson
Executive Director
T: 202-463-6622
F: 202-463-6625
bill@bikewalk.org

Appendix B: Plainwell Mill and 12th Street Landfill Settlement Press Release

Department of Justice

FOR IMMEDIATE RELEASE
MONDAY, JANUARY 3, 2005
WWW.USDOJ.GOV
ENRD (202) 514-2007
EPA (312) 353-5050
TDD (202) 514-1888



U.S. REACHES SETTLEMENT WITH WEYERHAEUSER COMPANY TO CLEAN UP PAPER MILL AND LANDFILL ALONG THE KALAMAZOO RIVER

WASHINGTON, D.C. - The Justice Department and U.S. Environmental Protection Agency today announced a settlement that will require Weyerhaeuser Company to clean up the Plainwell Mill and 12th Street Landfill in Plainwell, Michigan, which are portions of the Kalamazoo River Superfund site. The settlement will also require Weyerhaeuser to reimburse EPA for approximately \$138,000 in costs incurred in connection with the mill and landfill.

In addition to paying EPA's past costs, Weyerhaeuser will pay \$6.2 million which EPA will use to fund the cleanup of polychlorinated biphenyl (PCB) contamination in the Kalamazoo River. The settlement also requires Weyerhaeuser to withdraw its objections to a related settlement with Plainwell, Inc. , its corporate parent and several affiliated companies, which is now pending in bankruptcy court. Implementation of the Plainwell settlement will make additional cleanup funds available for cleanup and investigation of the site.

"This settlement demonstrates that even at big, complicated sites, with creative enforcement we can fashion settlements that are fair to all parties and keep the cleanup moving forward," said Thomas L. Sansonetti, Assistant Attorney General for the Environment and Natural Resources Division. "Not only does today's action signal the government's commitment to cleaning up the contamination, it means real benefits for the health and safety of the Weyerhaeuser site."

Weyerhaeuser is one of several companies responsible for PCB contamination at the Kalamazoo River Superfund Site, which includes the mill, the landfill, a portion of the Kalamazoo River, and other areas. The PCB contamination at the site resulted primarily from paper companies which produced and processed PCB-containing carbonless copy paper along the river between the 1950s and 1970s. EPA estimates that there are hundreds of thousands of pounds of PCBs in the soil and sediment at the Site. Investigations at the site indicate that PCB contamination has had an adverse impact on bird and fish populations. For several decades, fish consumption advisories have urged consumers to limit the type and amount of fish that they eat from the river.

"Cleaning up the mill and landfill are important steps to keeping additional PCBs from getting into the Kalamazoo River," said Richard Karl, Director of the Superfund Division for EPA Region 5, headquartered in Chicago. "And the money Weyerhaeuser will pay under the settlement will kick start the ongoing study of how best to clean up the river itself." The settlement does not resolve Weyerhaeuser's liability for the cleanup of PCBs at any part of the site other than the mill and landfill. Nor does it resolve Weyerhaeuser's liability for natural resource damages at the site.

The settlement agreement was filed with the U.S. District Court for the Western District of Michigan and is subject to a 15-day public comment period.

APPENDIX C: PAPER MILL REUSE DESIGN PRECEDENTS

MILL CITY MUSEUM

Minneapolis, MN

What is Adaptive Reuse?

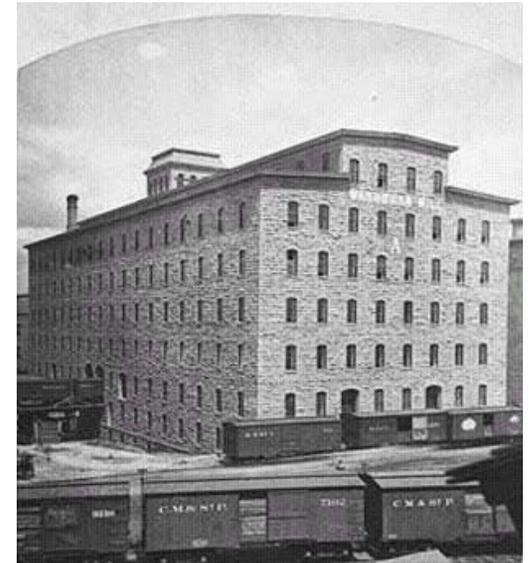
Communities across the country have been working to protect and restore historic industrial buildings and landscapes, recognizing the importance of preserving these local landmarks that reflect a community's history and heritage. Often, these facilities, once bustling with industrial activity, have been closed down and abandoned, creating significant challenges for their restoration.

In recent years, adaptive reuse has become an effective tool for communities interested in restoring former industrial facilities to active use. Adaptive reuse refers to the conversion of an old building or landscape into a new use, while preserving all or key portions of the building's historic features and infrastructure. Conversion can include the modification of a building's interior and exterior, or the construction of new building additions. Common forms of adaptive reuse include the transformation of former warehouse or factory buildings into apartments or condominiums. Adaptive reuse provides a powerful tool for communities to preserve and celebrate local history and memories, while also providing opportunities for new facilities and economic development.

At the Plainwell Paper Mill property, the buildings and infrastructure remaining on-site represent an important part of the community's heritage. The reuse planning process provides an opportunity for the community to learn about the property's former use and its potential future uses, based on the community's needs. Below, an overview of the adaptive reuse of the Washburn A Mill in Minneapolis, Minnesota, and Northside Park and Heron Pond Natural Area in Denver Colorado, illustrates how adaptive reuse can help restore local historic industrial resources and address current community priorities.

The Minneapolis Mill District

The City of Minneapolis is located in east-central Minnesota along the Mississippi River. With a population of 382,618 people, Minneapolis is the largest city in the Twin Cities Metropolitan Area. Between the 1870s and 1930s, Minneapolis was known as the "Flour Milling Capital of the World." During this period, flour milling was to Minneapolis what computers are now to Silicon Valley in California or finance is to Wall Street in New York City. Major food companies such as Pillsbury and General Mills began as milling companies in Minneapolis. Milling operations were concentrated in the City's Mill District, immediately adjacent to the Mississippi River's St. Anthony Falls. Water from the falls was diverted through canals under city streets to power the nearby mills. During its heyday, more than 26 flour mills were operating in the Mill District, including the Washburn A Mill, which was the world's largest flour mill in the early 1880s. The mill ground enough flour daily to produce 12 million loaves of bread.



Washburn A Mill, 1882
Source: Minneapolis Star Tribune

The Minneapolis flour boom ended in the 1930s, following shifts in production to Chicago, Kansas City, and Buffalo to take advantage of cheaper, more reliable hydroelectric power sources. Though production continued in Minneapolis, most of the City's mills were shuttered by the 1970s. The Washburn A Mill, for example, ceased milling operations in 1965 and was occasionally occupied by artists' studios and offices until a fire partially destroyed the building in 1991. In the 1980s and 1990s, Minneapolis began a slow process of revitalizing and redeveloping the Mill District to take advantage of its close proximity to the City's downtown and the Mississippi River. To date, redevelopment efforts have included the conversion of many of the remaining flour mills into new housing and offices, the development of a Mill Ruins Park (ongoing), which highlights the remains of the water infrastructure that once powered the City's mills, and the conversion of the remains of the Washburn A Mill into the Mill City Museum.

Transformation From Flour Mill to Mill City Museum

The road from flour mill to museum began with the 1991 fire that nearly destroyed the Washburn A Mill. Shortly after the fire was contained, Nina Archibal, the director of the Minnesota Historical Society (MHS), saw an opportunity to preserve the site as a local historic resource. The historical importance of the Washburn A Mill had previously been established more than 20 years earlier, when the building was listed on the National Register of Historic Places and declared a National Historic Landmark. Soon afterward, Meyer, Scherer & Rockcastle Ltd. (MS&R), a local architecture firm that had been working with the City on a riverfront redevelopment plan, produced a design that preserved the northern portion of the building as a ruin and redeveloped the rest of the building. The design ultimately evolved into the 80,000 square foot Mill City Museum, which highlights Minneapolis' mill history and processes, as well as 62,000 square feet of office space used by MS&R and the McKnight Foundation, a private philanthropic organization. The Mill City Museum (and accompanying office space) opened in September 2003 and became the first adaptive reuse project in the United States to incorporate an existing ruin into its development.

The adaptive reuse of historic buildings and landscapes often requires addressing pollution and contamination from prior land uses. Prior to its development as the Mill City Museum, the reuse of the Washburn A Mill required some remediation of existing pollution. The site's cleanup included the removal and disposal of asbestos, lead paint, and contaminated soil.

The new Mill City Museum closely integrates many of the Washburn A Mill's original building features and milling artifacts with modern facilities. The mill's old rail corridor—complete with an old boxcar—where grain used to be delivered for processing, now serves as the museum's school bus entrance. A freight elevator has been converted into the "Flour Tower," an eight-story multimedia exhibit on the mill's history. The mill's east engine house, which once held giant boilers, has been converted into modern classrooms. The remains of mill's north façade have been converted into a courtyard; a Roman-like ruin that highlights the building's historic outer walls and the remains of the two turbine pits that once powered the mill. One of the adapted building's most striking features is a new glass wall that separates the new museum and office facilities from the ruins courtyard. Printed on this glass wall is a full-scale diagram of the equipment that originally operated in the Washburn A Mill.



Flour Bagging, Washburn A Mill
Source: Minneapolis Star Tribune



The newly adapted Mill City Museum is also closely tied to its surrounding Mill District and Mississippi River context. The building acts as a bridge between downtown Minneapolis and the Mississippi River. Without going into the museum, people can walk through the building's lobby, into the ruin courtyard, and out through a gate in courtyard's north wall. This pedestrian thoroughway provides direct access to several Mill District amenities, including a recreation of the historic wood plank roads once common to the area, the Mill Ruins Park, and the St. Anthony Falls lock and dam.

For Further Information:

Mill City Museum (www.millcitymuseum.com)
Meyer, Scherer & Rockcastle, Ltd. Architects (www.msrltd.com)
Minnesota Historical Society (www.mnhs.org)

Sources:

Mill City Museum (www.millcitymuseum.org)
Meyer, Scherer & Rockcastle, Ltd. Architects (www.msrltd.com)
Architectural Record (February 2004)
Architecture Minnesota (November-December 2003)
Minneapolis Star Tribune (www.startribune.com)
Minneapolis Community Development Agency (www.mcda.org)



NORTHSIDE PARK AND HERON POND NATURAL AREA

Denver, CO

In Denver, Colorado, a 75-acre former sewage treatment plant is now the location of a 13-acre park with recreational fields, a 12-acre wildlife preserve, and a 10-acre armory, with 25 acres set aside for future mixed commercial and retail space. The new community park is located where the 1930s-era Northside Wastewater Treatment Facility once stood, in a relatively flat region at the foot of Denver's Rocky Mountains. This new park, now called Northside Park and Heron Pond Natural Area, is located between the ASARCO Globe Smelting Plant and the South Platte River, which originates at the Continental Divide in central Colorado and travels 400 miles eastwards across the Great Plains to Nebraska.

Industrial and Project History

For many years, industry has thrived along the South Platte River corridor, including smelting operations at the ASARCO Globe Plant, which began operation in 1886. Although this industry brought economic and subsequent population growth, pollution generated by these activities has had significant environmental impacts on the region's air, soil, and water quality. In 1993, US EPA placed the ASARCO Globe Plant on the National Priorities List due to high levels of contamination in ground water, surface water, and soil. Although the site was remediated by ASARCO, pollution had already negatively impacted the nearby Globeville neighborhood. The residents of Globeville sued ASARCO and were awarded \$1 million, which they invested to transform the South Platte River corridor into a riverfront park, including the Northside Wastewater Treatment Facility area, which is located adjacent to the Superfund site.

Recycling to Build a Park

The Northside Wastewater Treatment facility encompassed thirteen acres adjacent to the South Platte River that the landscape architects on the project considered ideal for linking the site to the larger river corridor. However, this area of the facility was heavily constructed, with a number of structures left in place. Initial plans for the area called for the complete demolition of all structures, as well as the removal of several canals and tanks, because of safety concerns. Demolition costs were determined to be prohibitively expensive.

To address the challenge, the design team thought strategically and recognized an opportunity to solve funding dilemmas while permitting new recreational and ecological benefits at the facility. The solution: selective demolition and rerouting of regional drainage through the park. This option allowed the community to retain some of the facility's industrial remnants, thereby preserving the area's history. The selective demolition also reduced the project's initial cost estimate by 30 percent, freeing funds for construction of the park. During the park's construction, the design team was able to coordinate demolition of the facility's existing structures with the remediation of the adjacent Superfund site. Almost 30,000 tons of concrete from demolition was crushed and used as fill in the creation of the park. Additional savings were achieved by reducing hauling and landfill costs.

Today, Northside Park is a model for the redevelopment and adaptive reuse of an urban site. The 10-acre National Guard armory shares access and parking with Northside Park, while school kids camp and explore the park's wetlands and ponds. The City of Denver hopes that the park will eventually bring new business to adjacent areas that have been zoned for light industry. The South Platte River, once little more than a muddy industrial ditch, now functions as a healthy river and wildlife habitat. When asked about the way in which the new park incorporates its industrial history, the Mayor's spokesperson stated, "I was a little surprised that it wasn't a little more controversial, but the community was very enthusiastic about leaving the skeleton to be able to show this to their kids and grandchildren."

Sources:

Leccese, Michael, "Enigma in the Garden: Wenk Associates Recycles Shards of a Wastewater Treatment Plant for a New Riverfront Park," *Landscape Architecture* 2001, May, v. 91, n. 5, p. 76-83.

Geirich, Brian and Wellborn, Bess, "Northside Park and Heron Pond Natural Area: Case Study in Emerging Technologies," Spring 2003.



Northside Wastewater Treatment Facility before (*above*) and after (*below*) redevelopment



Appendix D: List of Project-Related Acronyms

AR - (*Administrative Record*): List of all EPA documents used to develop a response action for a Superfund site. The AR culminates in the record of decision for remedial action or an action memorandum for removal actions.

ASTM - (*American Society for Testing and Materials*): ASTM International is a not-for-profit organization that provides a global forum for the development and publication of voluntary consensus standards for materials, products, systems, and services.

ASTSWMO - (*Association of State and Territorial Solid Waste Management Officials*): Association that focuses on the needs of state hazardous waste programs, non-hazardous municipal solid waste and industrial waste programs, recycling/minimization/reduction programs, Superfund/State cleanup programs, and underground storage tank and leaking underground storage tank programs.

ATSDR - (*Agency for Toxic Substances and Disease Registry*): Federal agency within the Department of Health and Human Services tasked to prevent exposure and adverse human health effects and diminished quality of life associated with exposure to hazardous substances from waste sites, unplanned releases, and other sources of pollution present in the environment.

CERCLA - (*Comprehensive Environmental Response, Compensation, and Liability Act (1980)*): The Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as Superfund, was enacted by Congress on December 11, 1980. This law created a tax on the chemical and petroleum industries and provided broad Federal authority to respond directly to releases or threatened releases of hazardous substances that may endanger public health or the environment.

CERCLIS - (*Comprehensive Environmental Response, Compensation, and Liability Information System*): The Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) is EPA's database management system, which maintains a permanent record of all information regarding all reported potential hazardous waste sites.

CIC - (*Community Involvement Coordinator*): EPA staff member responsible for Agency's community involvement activities at Superfund sites. The CIC coordinates community meetings, explains Agency activities, and works with communities to address local concerns and priorities.

EPA - (*Environmental Protection Agency*): Federal agency whose mission is to protect human health and safeguard the natural environment.

HAZMAT - (*Hazardous Materials*): Chemicals, usually the by-product of industrial processes, that pose a danger to human health and the environment.

HRS - (*Hazard Ranking System*): The HRS is the scoring system used by EPA's Superfund program to assess the relative threat associated with actual or potential releases of hazardous substances. The HRS is the primary screening tool for determining whether a site will be included on the National Priorities List

(NPL), EPA's list of priority sites identified for possible long-term remedial action under Superfund. The scoring system assigns each site reviewed with a value between 0 and 100. A score of 28.5 or higher means that the site is eligible for listing on the NPL.

MDEQ - (*Michigan Department of Environmental Quality*): MDEQ restores the quality of Michigan's air, land, and water resources and protects Michigan's natural heritage. MDEQ is working in partnership with EPA to evaluate site conditions and determine the need for additional remediation at the Plainwell Paper Mill property.

NCP - (*National Contingency Plan*): The National Oil and Hazardous Substances Pollution Contingency Plan, more commonly called the National Contingency Plan or NCP, is the federal government's blueprint for responding to both oil spills and hazardous substance releases.

NPL - (*National Priorities List*): The NPL is EPA's list of the most serious uncontrolled or abandoned hazardous waste sites identified for possible long-term remedial action under Superfund. The list is based primarily on the score a site receives from the Hazard Ranking System. EPA is required to update the NPL at least once a year. A site must be on the NPL to receive money from the Trust Fund for remedial action.

O&M - (*Operations and Maintenance*): Activities conducted after a Superfund site remedial action is completed to ensure that the site remedy remains effective in the future.

OSRTI - (*Office of Superfund Remediation and Technology Innovation*): Manages the Superfund program, which was created to protect citizens from the dangers posed by abandoned or uncontrolled hazardous waste sites. Congress established Superfund through the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

OSWER - (*Office of Solid Waste & Emergency Response*): The Office of Solid Waste and Emergency Response (OSWER) develops guidelines and standards for the land disposal of hazardous wastes and underground storage tanks. OSWER also implements a program to respond to abandoned and active hazardous waste sites and accidental releases, including some oil spills, and encourages the use of innovative technologies for contaminated soil and groundwater.

PA - (*Preliminary Assessment*): The PA is the first stage of EPA's site assessment process. It is a relatively quick, low-cost compilation of readily available information about a site and its surroundings. The PA emphasizes identifying populations and other targets that might be affected by a site's contamination. It includes a reconnaissance of the site and surrounding area, but not environmental sampling. The PA is designed to distinguish between sites that pose little or no potential threat to human health and sites that warrant further investigation.

PCOR - (*Preliminary Closeout Report*): EPA report that documents the completion of a site's remedy.

PRP - (*Potentially Responsible Party*): A group that has been identified by EPA as being liable for incurring the costs of remediation at a contaminated site.

RA - (*Risk Assessment*): Qualitative and quantitative evaluation of the risk posed to human health and/or the environment by the actual or potential presence and/or use of specific pollutants.

RCRA - (*Resource and Recovery Act of 1976*): The regulatory system that manages hazardous waste from its generation to final disposal. RCRA imposes standards for transporting, treating, storing, and disposing of hazardous wastes. It is designed to prevent the creation of new hazardous waste sites by authorizing EPA to take administrative, civil, and criminal actions against facility owners and operators who do not comply with RCRA requirements.

RD/RA - (*Remedial Design / Remedial Action*): Remedial Design (RD) is the phase in Superfund site cleanup where the technical specifications for remedies and technologies are decided. Remedial Action (RA) follows the remedial design phase and involves the actual construction or implementation phase of Superfund site remediation. The RD/RA is based on the specifications described in a site's record of decision (ROD).

RI/FS - (*Remedial Investigation / Feasibility Study*): After a site is listed on the NPL, an RI/FS is performed at the site. The RI serves as the mechanism for collecting data, while the FS is the mechanism for developing, screening, and evaluating alternative remedial actions. The RI and FS are conducted concurrently. Data collected in the RI influence the development of remedial alternatives in the FS, which in turn affect the data needs and scope of treatability studies and additional field investigations.

ROD - (*Record of Decision*): This EPA document represents the final remediation plan for a site. It documents all activities prior to selection of the remedy, and provides a conceptual plan for activities subsequent to the ROD. The purpose of the ROD is to document the remedy selected, provide a rationale for the selected remedy, and establish performance standards or goals for the site or operable unit under construction. The ROD provides a plan for site remediation, and documents the extent of human health or environmental risks posed by the site or operable unit. It also serves as legal certification that the remedy was selected in accordance with CERCLA and NCP requirements.

RPM - (*Remedial Project Manager*): EPA staff member responsible for the management of a site's evaluation and remediation. A site's RPM directs all investigations, planning, remedial activities, and manages technical, legal, and community relations issues at assigned sites. The RPM also directs contractual efforts to ensure proper allocation of funds and that contractor uses are effective and efficient.

SARA - (*Superfund Amendments and Reauthorization Act of 1986*): This legislation amended the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) in 1986. SARA's changes stressed the importance of permanent remedies and innovative treatment technologies in cleaning up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other state and federal environmental regulations; provided new enforcement authorities and settlement tools; increased state involvement in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in site remediation plan designs; and increased the size of the Trust Fund to \$8.5 billion.

SI - (*Site Inspection*): Part of EPA's site assessment pipeline. The SI is a dynamic process tailored to the specific circumstances of individual sites; it is not a standardized process to be repeated at every site. The objective of the SI is to gather information to determine if a site poses a threat to human health or the environment in order to support a site decision regarding the need for further Superfund action. The SI begins by verifying the hypothesis put forth in the PA by collecting and analyzing wastes and environmental media samples to determine whether hazardous substances are present at a site and are migrating into the surrounding environment. The SI data is used for removal actions, other response actions, and to determine if the site is eligible for inclusion on the NPL.

SRI - (*Superfund Redevelopment Initiative*): A national EPA program that focuses on the return of Superfund sites to productive use, the achievement of site remediations that are consistent with a community's anticipated land use, and the facilitation of the reuse of sites where appropriate. SRI and EPA Region 5 provided funding for the reuse planning process for the Plainwell Paper Mill property.

TRI - (*Toxic Release Inventory*): Database of toxic releases in the United States compiled from SARA Title III Section 313 reports containing information concerning waste management activities and the release of toxic chemicals by facilities that manufacture, process, or otherwise use such materials. Citizens, businesses, and governments can then use this information to work together to protect the quality of their land, air, and water.

VOCs - (*Volatile Organic Compounds*): VOCs are organic compounds (excluding carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate) that participate in atmospheric photochemical reactions.

For more information, please contact:

E² Inc.
2417 Northfield Road
Charlottesville, VA 22901
T: 434.975.6700 - F: 434.975.6701
www.e2inc.com

