



ms consultants, inc.
engineers, architects, planners



GIRARD

Mahoning River Corridor Plan

Prepared by ms consultants, inc.



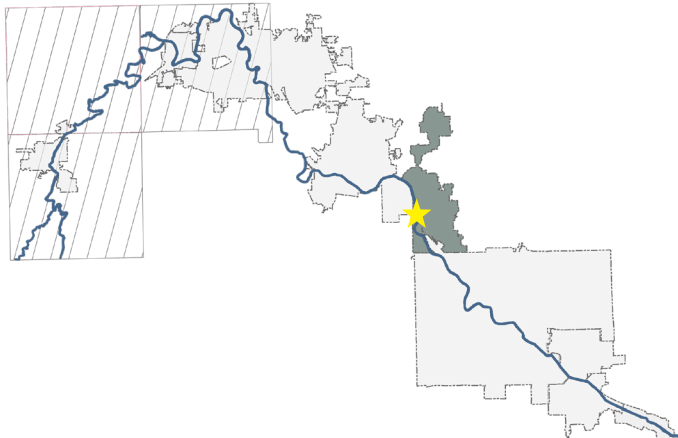
GIRARD: EXISTING CONDITIONS

Overview

The following chapter explores how the corridor-wide objectives may be specifically applied to the Girard river section with an emphasis on the identified opportunity sites. Each community presents its own challenges and potential for revitalization and river restoration. The Community Implementation Toolkits outline these unique traits, provide context on existing conditions, and offer recommendations for the future. The recommendations are supported by action items and potential funding sources to support feasibility and help ensure implementation. The Community Implementation Toolkits should not serve as a stand-alone guide for the local community, but as an additional, specialized resource to the Mahoning River Corridor Revitalization Plan as a whole.

The Girard Community Implementation Toolkit includes the following sections:

- Existing Conditions
- Primary Opportunity Site
- Secondary Opportunity Site
- Implementation Guide



Existing Conditions

OPPORTUNITIES

The City of Girard features natural beauty and a rich history in manufacturing. The community has made great strides in the remediation and redevelopment of former industrial sites, including vacant and underutilized riverfront properties. In addition to its development potential, Girard includes multiple community parks and is conveniently located off major highways.

CHALLENGES

Given the community's role in the leather production industry throughout last century, the development opportunities in Girard require due diligence and clean-up. Industrial sites also prevent public access to the waterway and contribute to the Mahoning River's environmental challenges.

MAHONING RIVER CORRIDOR RIVERFRONT COMMUNITIES

TRUMBULL COUNTY		MAHONING COUNTY
Newton Township		Youngstown
Newton Falls		Campbell
Braceville Township		Struthers
Leavittsburg		Lowellville
Warren Township		
Warren		
Niles		
McDonald		
Girard ★		



2.33	River Miles
SMALL TOWN CHARM	Character
9,227	People
1	Launch
0	Trail Miles

Dam Removal & Riverbank Restoration in Girard

Removal of the remaining lowhead dams along the Mahoning River will be a monumental leap forward toward the environmental and recreational goals of the Region. Lowhead dams, though small, significantly disrupt the natural flow of water, negatively affecting the river’s ecosystem and recreational opportunities.

These dams break the Mahoning River into segments requiring river-goers to have to spot and avoid these dams which are often almost impossible to see and are notoriously dangerous drowning hazards. Removal of these dams will also open to Mahoning to safer kayaking, fishing, and light boating and could create an economic spark for the communities along the River’s banks.

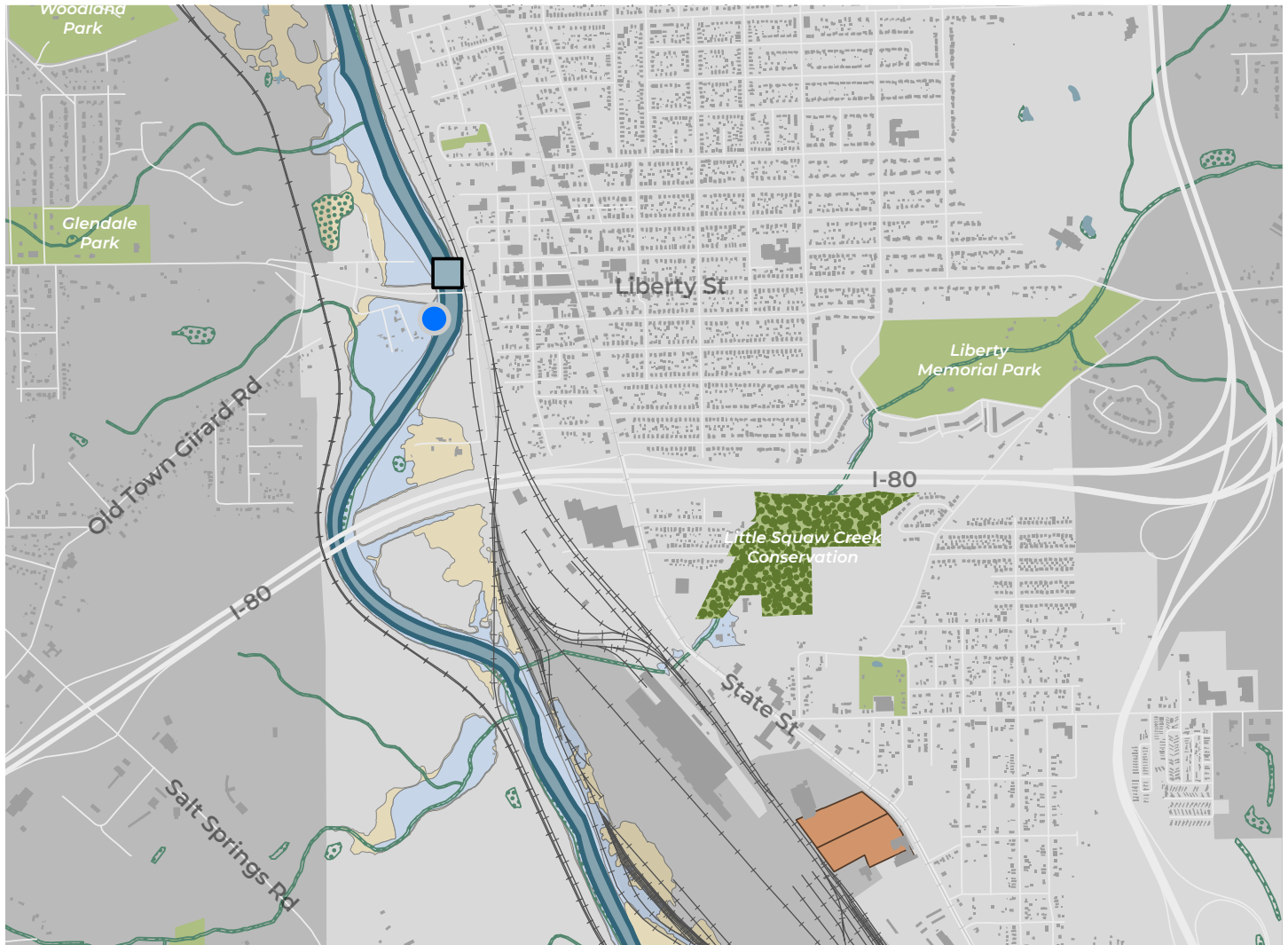
Girard’s remaining lowhead dam, the Girard Mills (Liberty Street) Dam, is not currently planned for removal. Upstream from the dam are existing industrial facilities that intake water from the river to cool machinery and continue operations. An engineering study was performed to evaluate how a potential removal may impact industrial facilities downstream. The dam is currently being considered for removal but not yet approved.

GIRARD



MAHONING RIVER
Corridor Revitalization
www.mymahoningriver.com

FIGURE1 EXISTING CONDITIONS - ENVIRONMENT



THE ENVIRONMENT

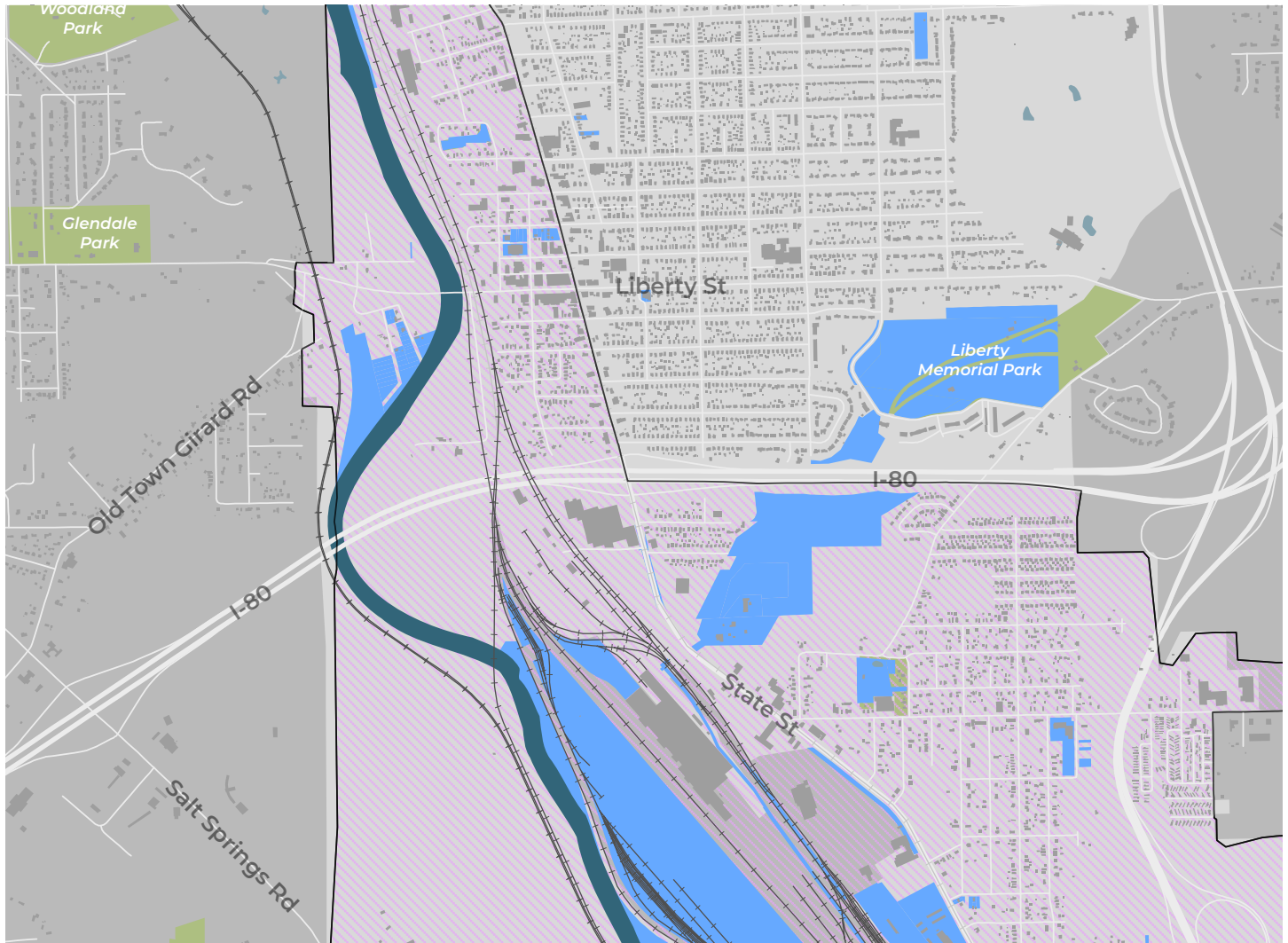
Existing Conditions

In Girard, the Mahoning River is home to industry. Along the western bank of the River the sites of TSM International and Liberty Iron & Metal remain core parts of Girard’s economy. With operation of industrial facilities so close to the River’s banks, utilizing best management practices for treating non point sources of pollution leaving the site will protect the river and its ecosystem. The city of Girard has outlined goals and steps to protect and preserve their riverbank with a strong riparian buffer. The buffer varies in width between 100 ft and 150 ft within Girard’s city limits. This is an excellent example for communities around the region to follow.

Two main creeks feed into the Mahoning River in Girard. Squaw Creek runs through David Tod Memorial Park and the former Girard Leatherworks Industrial site. Little Squaw Creek runs past the Girard City Sewage Plant and under the TSM International industrial site. Monitoring the effluent within these creeks and at their connections to the Mahoning River will help keep a high standard for the water quality of the Mahoning River.

LEGEND	
	Mahoning River
	Existing Dam
	Existing Launch
	Public Park
	Wetland
	Clean Ohio site
	100-year Floodplain
	500-year Floodplain
	Girard Boundary




FIGURE2 EXISTING CONDITIONS - ECONOMIC & COMMUNITY DEVELOPMENT



ECONOMIC & COMMUNITY DEVELOPMENT

Existing Conditions

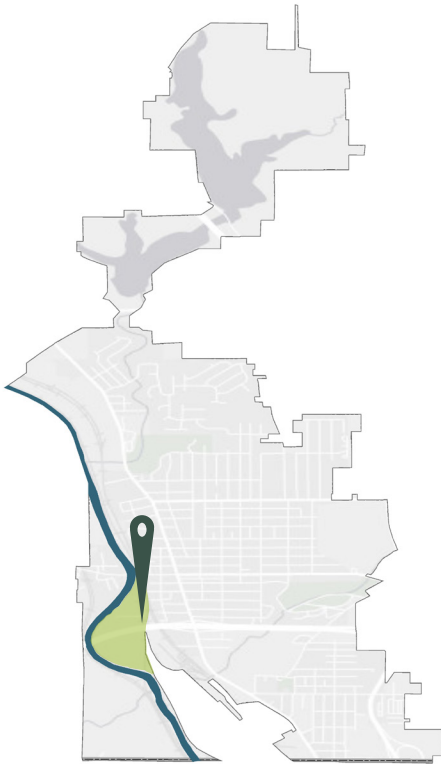
Economic development initiatives within the City of Girard are primarily concentrated in brownfield redevelopment and downtown revitalization. The community has excellent access with major thoroughfares (US-422, I-80, and OH-11) and is actively acquiring opportunity sites for future commercial development. Parcels owned by public entities demonstrate potential for acquisition, redevelopment, and leveraging of incentives. Including park property, the City owns several parcels on the riverfront which may act as catalyst projects for future growth. Similar to many other communities in the Mahoning Valley, remediation of contaminated industrial sites remains an issue for Girard, including the former Leatherworks site along a large portion of the Mahoning River.

LEGEND	
	Municipally-owned parcels
	Opportunity Zone
	Girard Boundary

GIRARD: PRIMARY OPPORTUNITY SITE

Adventure Park

FIGURE3 SITE LOCATION WITHIN GIRARD



EXISTING CONDITIONS

Ownership	City of Girard, Private
Current Use	Commercial, Industrial, vacant
Local Zoning	Commercial, Industry
River Access	Informal trail
Size	74.48 Acres

Additional Notes:

- There are businesses operating north of I-80
- South of I-80, the opportunity site is used as dumping grounds and private recreation (4-wheeling)
- The McDonald Steel plant utilizes the Girard Mills Dam north of the site

FIGURE4 PRIMARY OPPORTUNITY SITE: EXISTING IMAGERY



Primary Opportunity Site Overview

The vision for the future of the primary opportunity site on the Mahoning River in Girard is an adventure sports park with entertainment for all ages. Regional river restoration makes way for water sports, while zip lines, atv and dirt bike trails, and play structures bring endless opportunities for tourism. Locals and visitors alike can challenge their physical fitness or simply enjoy a family-friendly getaway. Nearby camping and commercial amenities accommodate the needs of travelers and generate further interest in all that the Mahoning River has to offer.



FIGURE5 PRIMARY OPPORTUNITY SITE: FUTURE RENDERING



GIRARD: PRIMARY OPPORTUNITY SITE

Adventure Park

FIGURE6 PRIMARY OPPORTUNITY SITE: PROPOSED





Proposed Character:

- A mix of commercial amenities, including shops and services cater to the needs of locals and adventure park visitors
- Pedestrian and cyclist connections are highly encouraged



Proposed Character:

- An adventure sports park brings new economic activity to the area and encourages active recreation for all age ranges



Proposed Character:

- Primitive camp sites adjacent to the Girard boat launch offer a peaceful getaway for residents and visitors



Proposed Character:

- A community garden beautifies and cleans the landscape along the river
- Allows residents to support sustainable food practices and environmental health

GIRARD: SECONDARY OPPORTUNITY SITE

Leatherworks

FIGURE7 SECONDARY OPPORTUNITY SITE: PROPOSED



Secondary Opportunity Site Overview

Girard's secondary site is situated on the former site of the Ohio Leatherworks Company, a leather processing plant which operated between 1900 and 1970. A longtime staple of the communities economy, the Leatherworks site has a long history with the City of Girard and with this plan reborn a half century after its closing operations.

Girard recently secured funding through the State of Ohio's 206 Brownfields Program and plans to use the funding to remediate the former industrial site and develop it to make the most of its access to the Mahoning River and US Route 422. The site plans will make the most of this access by focusing development around job creation and park recreation.



Proposed Character:

- The remediated site provides quality skilled jobs
- Shared parking among office and recreation uses is encouraged



Proposed Character:

- Signage and wayfinding guide trail users off the path and into Girard; specifically Tod Park.
- Its central location along the river corridor creates an ideal launching point for recreation users

FIGURE8 LEATHERWORKS TRAILHEAD RENDERINGS



IMPLEMENT
DESIGN / GRAPHICS / LANDSCAPE

Source: IMPLEMENT (2020)

GIRARD: IMPLEMENTATION GUIDE

Preparing for the Future Now

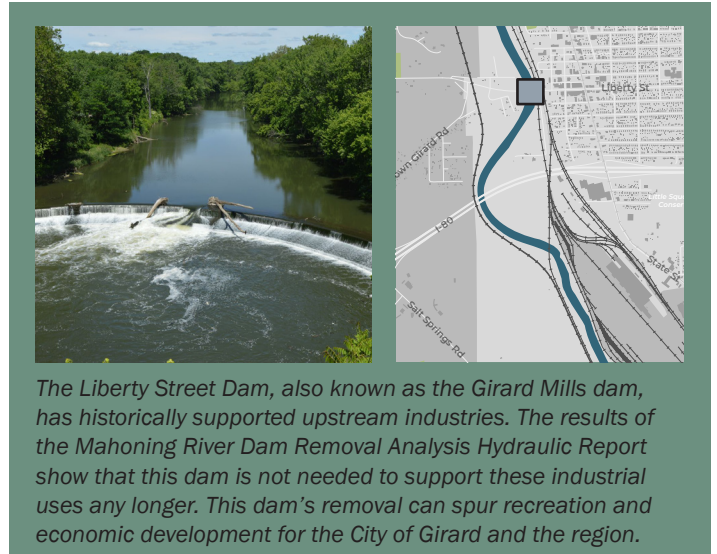
The recommendations provided within the Mahoning River Corridor Revitalization Plan represent goals for the region over the next few decades. The future vision for the Girard river segment should be pursued strategically by breaking down the ideal long-term state into manageable short-and immediate-term projects. The Implementation Guide provides further insight to assist local decision-makers in working together to achieve a revitalized downtown river district with best practices, industry standards, and potential funding sources. Though the guide is designed to be a simple and straightforward reference, these guidelines should not be treated so rigidly as to prevent adaptation should unforeseen circumstances arise during implementation. The Implementation Guide is not an exhaustive list and should be pursued in concert with the corridor-wide objectives identified in the larger Mahoning River Corridor Revitalization Plan. Regional collaboration and coordination is highly encouraged.

To learn more about funding opportunities, visit Chapter 05 Next Steps of the Mahoning River Corridor Revitalization Plan.

LIBERTY STREET DAM REMOVAL

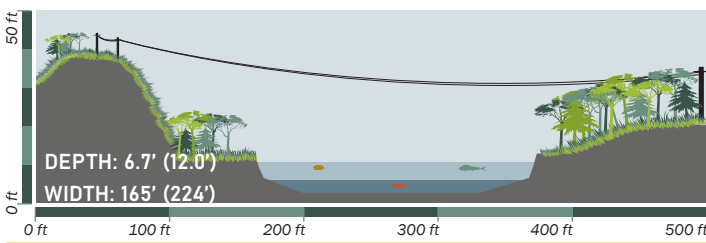
Projected Dam Removal Impacts

Although the benefits of lowhead dam removal are massive, the decision to remove a dam requires careful consideration of many factors. An engineering study of existing and future river conditions was performed to calculate how the river profile may change if dams were removed. A hydraulic engineering model was developed to evaluate the 21 mile stretch of the river between Leavittsburg and Lowellville. Based on the results of the model, the removal of the Liberty Street dam is not expected to negatively impact the river's ability to support a wide range of recreation, provide water to industrial facilities along its banks, or impact the river's capacity during storm events. To read more about the results of the hydraulic model and the potential impacts of dam removal on the flow of the Mahoning River, please refer to Chapter 2 of the Mahoning River Corridor Revitalization Plan and the Mahoning River Dam Removal Analysis Hydraulic Report.



Expected Changes Upstream

Currently, the Liberty dam is significantly impeding the natural flow of the Mahoning River, pooling water behind it and raising the existing water level. Currently, the river is 12.0 ft deep just upstream from the Girard Mills dam. If removed, it is projected that for an average day, the river's water depth will be 6.7 ft. This projected water depth is slightly deeper than the existing depth downstream due to variation in the river channel bottom. This change in water depth will also come with a reduced river width in the area immediately upstream from the existing dam which could become dedicated riparian space in the future. See the cross section below to see this expected change.



Expected Changes Downstream

Existing water levels downstream from the Girard Mills dam significantly lower than those upstream from the dam, at a water depth very close to the expected depth of an unimpeded Mahoning River. If removed, it is projected that for an average day, the river's water depth would be 5.5 ft, almost identical to the existing conditions. The river width in the area immediately downstream from the existing dam would stay very similar to the existing river width on an average day. Ultimately, the projected river conditions immediately downstream from the dam are strikingly similar to what we see in Girard today. See the cross section below to see this expected change.

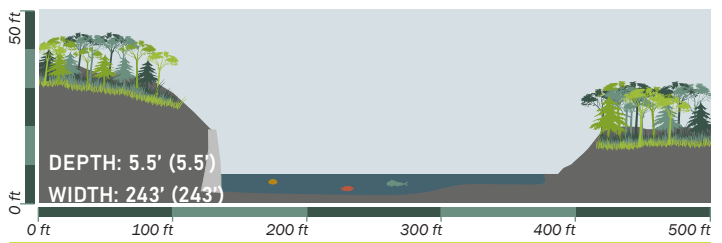
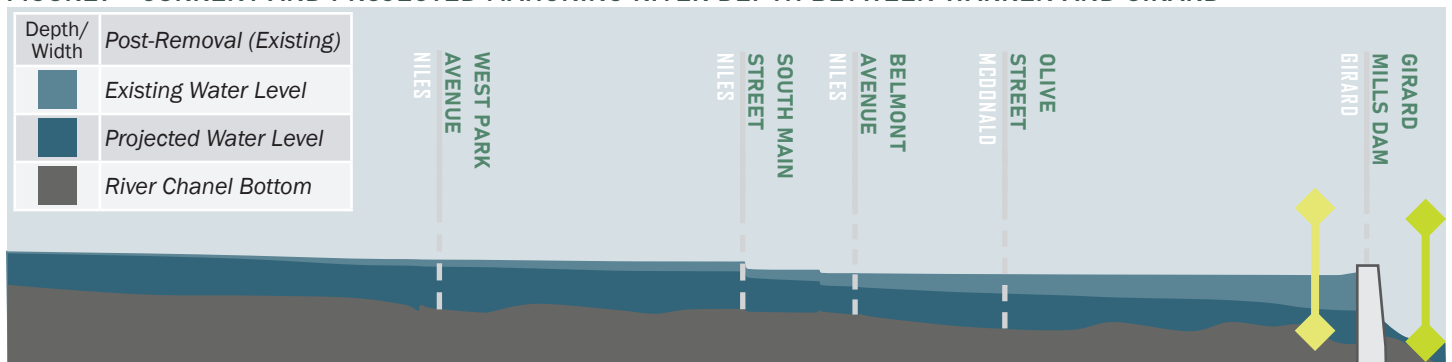


FIGURE9 CURRENT AND PROJECTED MAHONING RIVER DEPTH BETWEEN WARREN AND GIRARD



RECREATION TOURISM

Lowhead dam removal up/downstream and overall river restoration will create opportunities to promote the region's vast and improved recreation amenities. Girard can capitalize on regional advancement of recreation tourism by investing in unique outdoor attractions like the adventure park.

Recreational tourism strategies include marketing, branding, signage and wayfinding, and targeted business attraction and retention initiatives.

Recreational tourism as an economic development strategy must also include consideration of related businesses and industries that can further attraction to the area. Successful marketing and branding will bring tourists to the region - requiring support industries for lodging, hospitality, entertainment, arts, and food and beverage establishments. At the local level, Girard can help ensure adequate accommodation and entertainment options by reviewing zoning and development regulations for

recreational tourism support industries and engaging in local business attraction.

This may entail retail, restaurants, arts, and other entertainment. The ultimate goal is to provide additional things for visitors to do while using the recreation opportunities on the Mahoning River so that more visitors will come to the region and extend their stay.

According to the U.S. Bureau of Economic Analysis, the outdoor recreation economy in the state of Ohio is more than \$11 billion. While some of this figure is direct value added from outdoor activities such as camping, hiking, boating, and hunting, about \$5 billion comes from supporting activities (i.e. travel and tourism). Girard has the opportunity to think holistically about expanding commercial amenities in conjunction with park and recreation enhancements in order to capture the additional tax revenue, jobs, and private investment of support industries.

CASE STUDY:

NevilleBillie Adventure Park, Logan, OH

Located in the Hocking Hills region, the NevilleBillie Adventure Park offers a myriad of exciting activities for visitors of all ages. The facility includes a ropes course, paintball fields, all-terrain vehicle (ATV) rentals, special events, and the Mystery Shack - a nature-defying playground. A very unique experience, the Mystery Shack features several effects of gravity such as water flowing uphill and changes in height. The ropes course is the largest in the world, comprised of 64 challenges in three tiers and the ATV trails extend more than a dozen miles with an obstacle course.



The adventure park is one component to a regional recreation tourism network including hiking and state park destinations.

The park is an attraction in and of itself, but also is part of a larger regional recreation industry which allows for longer trips and a greater mix of visitors. The Adventure Park is less than a 15-minute drive from Hocking Hills State Park and less than 30 minutes from Wayne National Forest.

The City of Girard is similarly positioned to attract its own entertainment uses while supporting overall Mahoning Valley nature and recreation tourism efforts.



The ropes course offers spectacular views of the region's natural beauty while tackling the challenging obstacles.

COMMUNITY GARDENS

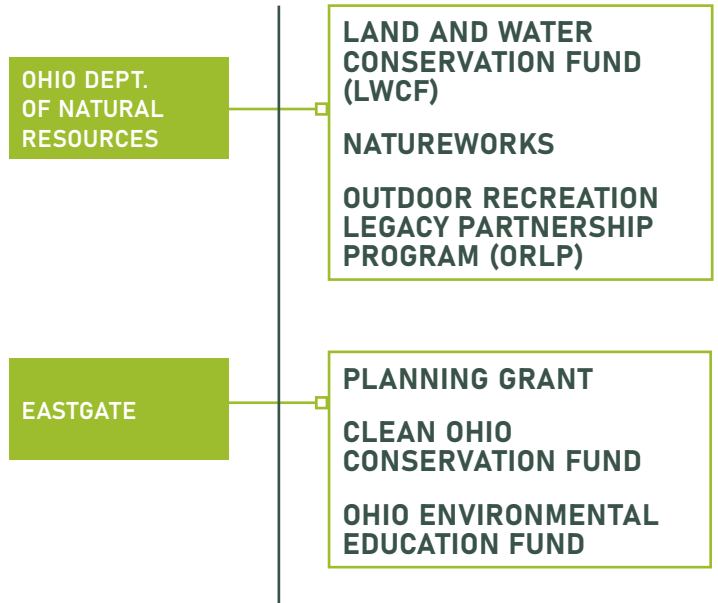
Defined Project(s)

Community gardens help foster a collaborative environment between experienced and novice gardeners while benefiting the greater community as a whole. Some of the benefits community gardens provide include open space, locally grown organic food, healing centers, recreation, exercise, and educational experiences. They are great at utilizing underused spaces in communities by revitalizing them into a prosperous positive environmental aspect.

Girard’s proposed community garden location is already used for these purposes, but can be expanded, improved, and supported by the City. The property has great riverfront access and is near recreational and commercial activities giving it convenient accessibility for individuals. Community gardens’ caretakers are typically residents which strengthens community pride and instills ownership in the protection of Girard’s land and natural resources.

Generational issues, such as food insecurity and health concerns, can be combated through community gardens. The community programming associated with community gardens helps to strengthen resident relationships and strives towards a more welcoming natural and built environment. Children in particular can benefit from community gardens by learning about responsibility, healthy habits, and more.

Funding Opportunities



Best Practices

- Site should receive at least 6 hours of sunlight a day, near a water supply, and accessible to gardeners
- Preparation of the site can be accomplished through tilling the soil or mowing the vegetation close to the ground
- Test the soil for its fertility and pH
- Invest in quality fertilizers including compost or manure



Community garden, Central Park New York, New York



Community garden, Halifax, Virginia



Community garden, Iowa City, Iowa

MULTI-USE CONNECTIONS

Defined Project(s)

CENTRAL CONNECTOR

Girard is a critical gap in the regional trail network. Investing in local infrastructure would connect Niles with Youngstown and ultimately support the goal for a continuous Mahoning River Greenway.

The Niles Greenway traverses the Mahoning River at Meander Creek before returning to the Western Reserve Greenway. A lack of east-west connector prevents safe, designated travel for cyclists and other trail users from Niles to the remainder of the Mahoning River corridor. The riverfront in its central segment, including Girard, is very industrial in nature, requiring careful attention to buffering and environmental remediation. Potential connections exist along both sides of the river in this segment, as shown by the conceptual pathways below.

Funding Opportunities

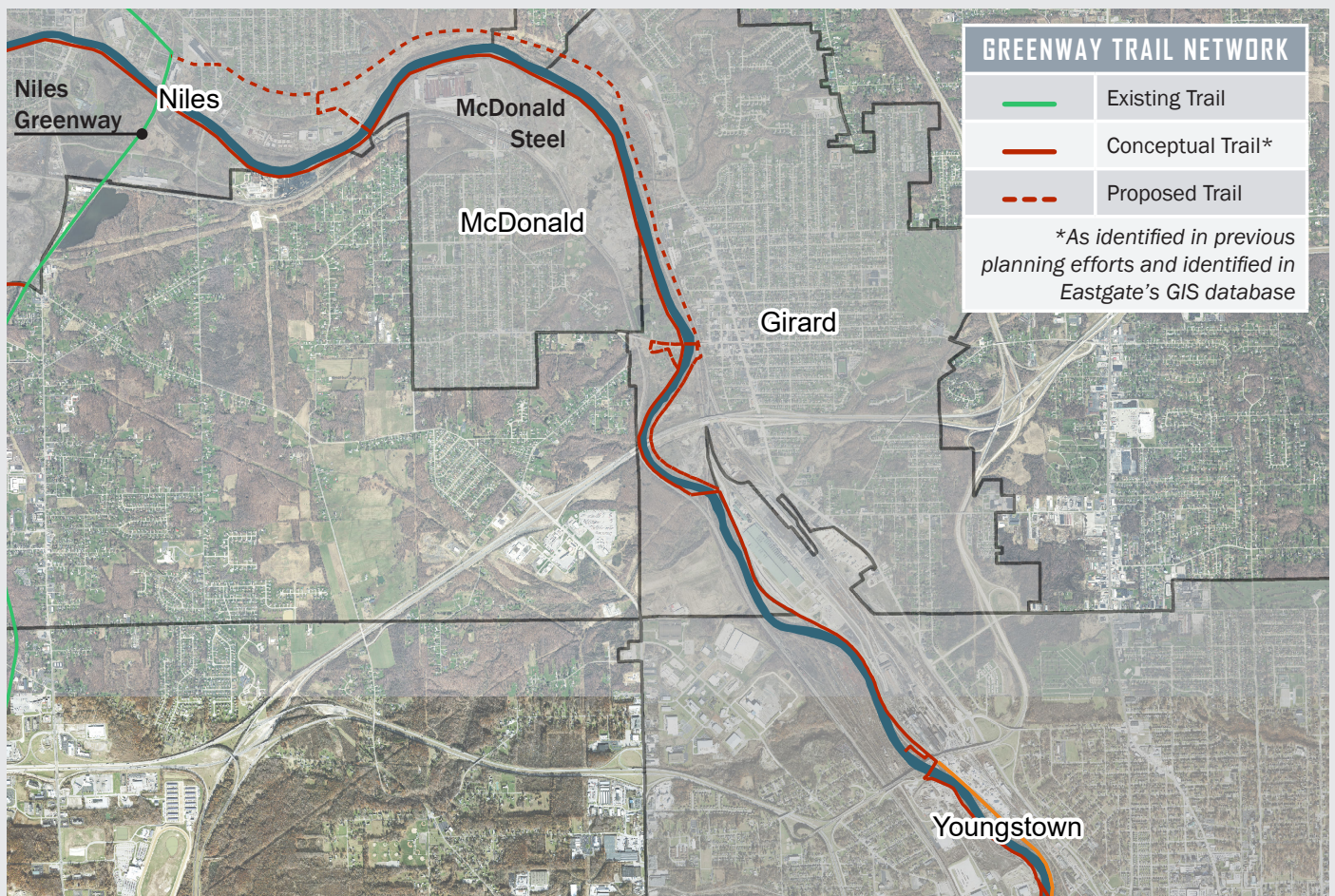
OHIO DEPT. OF NATURAL RESOURCES

CLEAN OHIO TRAILS FUND (COTF)
RECREATIONAL TRAILS PROGRAM (RTP)

EASTGATE

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM (CMAQ)

Girard's Mahoning River Greenway Segment



PRIORITY ACTIONS FOR IMPLEMENTATION

ENVIRONMENTAL & RECREATION

- A.1** Continue riparian zone protection.
- A.2** Establish a designated take-out north of the dam to safely guide paddlers off the river.
- A.3** Support community gardening through permissible zoning regulations and education.
- A.4** Conduct a feasibility study for proposed trail connections.



Girard's approach to riparian protection, as evidenced by the 2017 Comprehensive Plan, is a model for other communities. Removal of invasive species, planning of diverse native species, and monitoring the zone's health and biodiversity are all key to sustained success.

ECONOMIC & COMMUNITY DEVELOPMENT

- B.1** Update zoning regulations to support identified uses at the primary and secondary opportunity sites.
- B.2** Work with regional economic development partners to identify and attract desired business types on the river.
- B.3** Create lodging/camping opportunities to accommodate recreation tourism.