



RIVER RAISIN HERITAGE CORRIDOR-EAST MASTER PLAN

LEVERAGING COMMUNITY ASSETS
TO CREATE PLACE AND DESTINATION

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ACKNOWLEDGEMENTS



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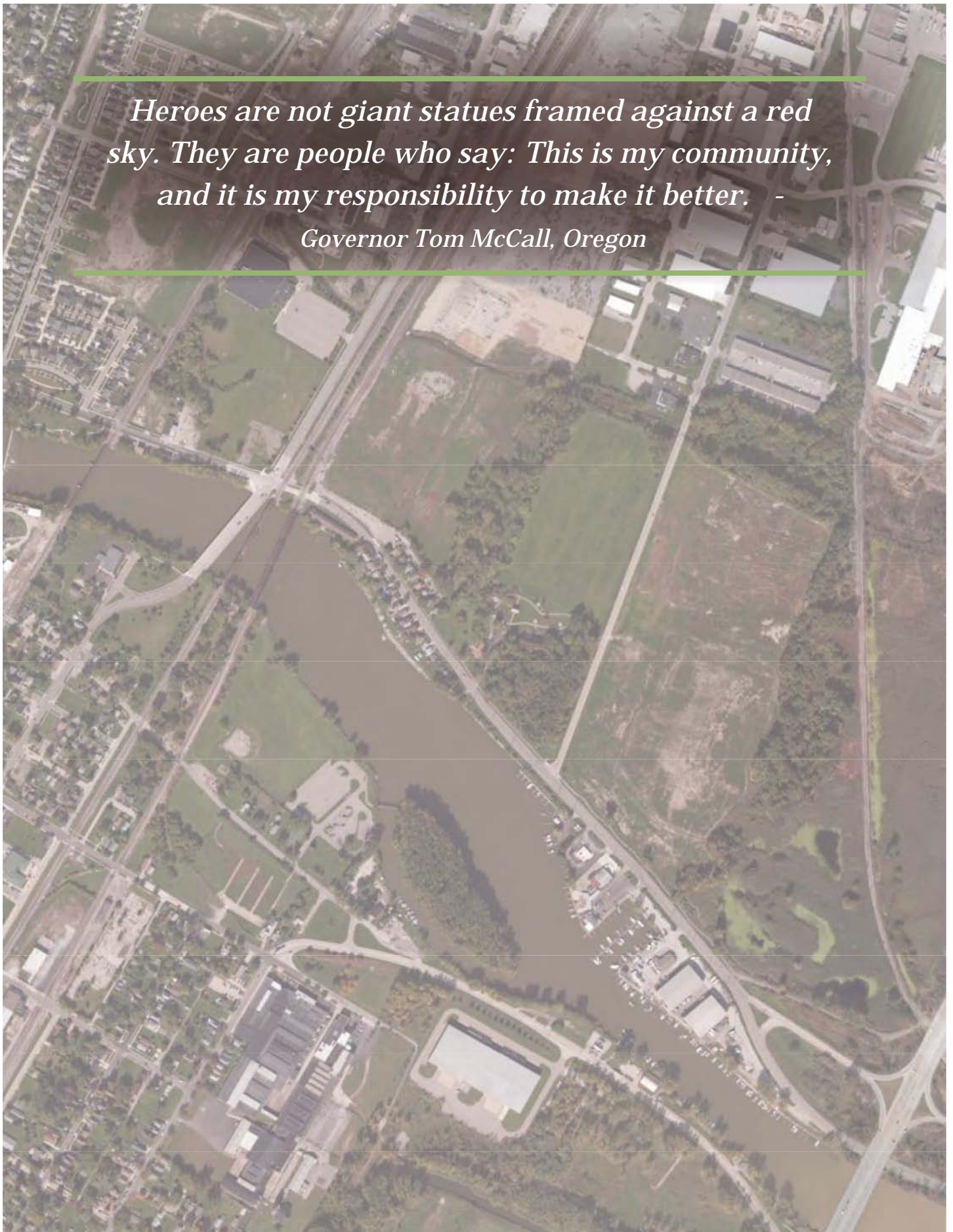
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Heroes are not giant statues framed against a red sky. They are people who say: This is my community, and it is my responsibility to make it better. -

Governor Tom McCall, Oregon





“The past is not the property of historians; it is a public possession. It belongs to anyone who is aware of it, and it grows by being shared. It sustains the whole society, which always needs the identity that only the past can give.”

-Carl Feiss in U.S. Conference of Mayors

Introduction

PURPOSE

Placemaking is a collaborative process by which a community can define its image and collective vision to capitalize on its assets. The recent designation of River Raisin National Battlefield Park (RRNBP) in the City of Monroe has given the community a unique opportunity to reinvent itself as a destination for historic, cultural, recreational, and ecological tourism. A recent assessment of area-wide resources commissioned by the National Park Service for the RRNBP resulted in a “placemaking” concept for the greater Monroe community. This concept envisions the River Raisin as a “History

Corridor” linking the RRNBP with Sterling State Park, U.S. Fish and Wildlife Eagle Island Marsh, the Michigan Department of Natural Resources wetlands and wildlife habitat east of I-75 and north of the River Raisin, properties south of the River Raisin including Hellenberg Field, Soldiers and Sailors Park, and historic and cultural resources in downtown Monroe. The placemaking process produced a master plan for the area surrounding RRNBP that emphasizes the unique qualities of Monroe and increases the capacity for residents and tourists to enjoy them.



SIGNIFICANCE

River Raisin National Battlefield Park is the site of the devastating January 1813 battles of Frenchtown that occurred during the War of 1812. The battles typified the conflicting interests that were central to the war, but in the end, the killing and ransom of unprotected U.S. prisoners galvanized the United States. The resulting rallying cry, “Remember the Raisin,” spurred the United States to successfully retake the Northwest Territories. The battlefield’s proximity to Lake Erie, and its strategic location about 38 miles south of Detroit and 20 miles north of Toledo, played a significant role in the historic events that took place along the banks of the River Raisin.

After the American Revolutionary War, much of the Old Northwest Territory (today the states of Ohio, Indiana, Illinois, Michigan, Wisconsin, and the northeastern part of Minnesota) experienced racial, economic, religious, ethnic, and cultural conflicts between the United States and Native Americans. These conflicts escalated

into a no-compromises cultural war in which both sides attacked noncombatants and destroyed homes to drive out the larger enemy populations. However, French settlers and Native Americans along the River Raisin established a peaceable coexistence and the beginnings of a blended culture. A fur trading and farming community called Frenchtown emerged from these new relationships and quickly transformed the way of life along the River Raisin.

The British, with their own agenda for the “Old Northwest Territory,” found allies in many of the Native American tribes. In January 1813, U.S. forces were recovering from a disastrous attempt to invade British Canada from the Michigan Territory – an attempt that ended in the loss of Detroit and exposed the frontiers of the Ohio Country and Indiana Territory to attack by the British and their Native American allies. In response to pleas for assistance from Frenchtown residents fearing British and Native American reprisals, General James Winchester sent a

detachment to the village. A force of around 1,000 U.S. troops recaptured Frenchtown on January 18, 1813.

The first Battle of the River Raisin was a major victory for the United States. In contrast, the second Battle of the River Raisin—four days later on January 22, 1813—was one of the most devastating battles for the U.S. Army during the entire war. After it ended in victory for the British, some of their tribal allies killed those Americans who remained in Frenchtown, too wounded to be taken by the British as prisoners to Fort Malden.





River Raisin National Battlefield Park preserves, commemorates, and interprets the January 1813 Battle of the War of 1812 and their aftermath.

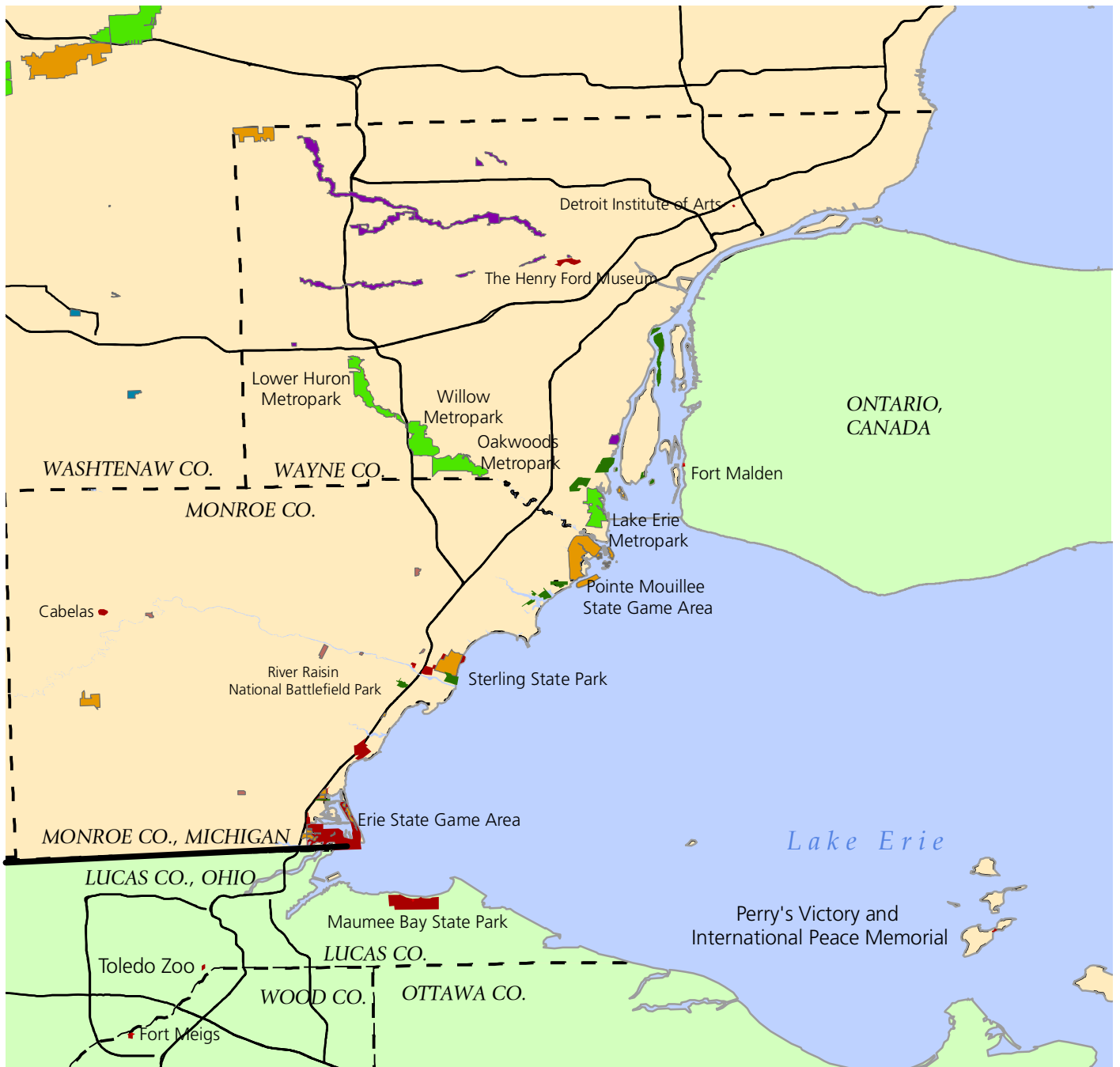
This incident, coupled with the failure of the British commanders to ensure the safety of prisoners of war, inspired the use of the phrase “Remember the Raisin” as a rallying cry for future engagements in the war and recruitment of soldiers. This rallying cry was used to incite U.S. forces, through patriotism and revenge, to victories against the British and their Native American allies. The battle on January 22, 1813, was the last major victory for the movement led by Chief Tecumseh, and it ultimately led to the Chief’s death a few months later.

RRNBP preserves, commemorates, and interprets the January 1813 battles of the War of 1812 and their aftermath. The battlefield:

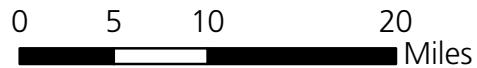
- Reflects the multinational battle for supremacy or survival in the Old Northwest during the War of 1812, which included French settlers, the United States, tribal nations, and the British Empire;
- Is the site of the largest number of American fatalities during the War of 1812. Following the battles and aftermath, “Remember the Raisin” became a rallying cry that galvanized the fledgling nation, helped unify the cause for war, and influenced U.S. policy regarding tribal nations;
- Reflects the many different cultures (including tribal nations, French habitants, American, and British)

involved in the land campaign of the Old Northwest during the War of 1812;

- Reflects the realization of the power of Chief Tecumseh’s Confederation. The combined forces of Tecumseh’s Confederation demonstrated their strength and power on the battlefield at the River Raisin, leading to recognition as a significant military force during the War of 1812. Tecumseh’s Confederation united many tribal nations in defending their lands and ways of life against Western expansion and the threat of change -- a struggle that continues to evolve; and
- Is in a strategic location along the River Raisin with abundant resources that resulted in Frenchtown becoming a battleground for national supremacy. The vast natural resources and transportation routes that lured past generations to the River Raisin region continue to attract people today. Adjoining RRNBP are William C. Sterling State Park and the Detroit River International Wildlife Refuge.



Regional Destinations



- Huron-Clinton Metroparks
- Washtenaw County Parks
- Wayne County Parks
- Monroe County Parks

- Other Regional Destinations
- Detroit International Wildlife Refuge
- MDNR

- Township Boundary
- Road

REGIONAL ASSETS

The River Raisin Battlefield’s strategic location between Detroit and Toledo remains an asset to it. Across Elm Avenue from the river itself and a half mile from I-75, the park is in the path of the 59,800 vehicles that use the Elm Avenue exit daily—1.8 million passers-by per month. Its nearest park neighbor, Sterling State Park on the east side of I-75, hosts an annual average of 587,000 day visitors and 91,000 campers.

Once in the area, the variety of regional destinations allows a visitor to craft entertainment schedules suiting a wide range of tastes.

Military enthusiasts may be interested in Fort Meigs of Perrysburg, OH (37 miles south), Fort Malden National Historic Site in Amherstburg, Canada (54 miles north), and Perry’s Victory and International Peace Memorial on South Bass Island, OH (72 miles east). Those looking for a traditional world-class attraction can find it in the Henry Ford Museum and Greenfield Village in Dearborn, 33 miles away. Both Detroit and Toledo offer excellent zoos, and the Detroit River International Wildlife Refuge sits along that waterbody’s last mile of undeveloped shoreline. Pointe Mouillee State Game Area is 14 miles to the north while the Erie State Game Area is 13 miles to the south, and the destination hunting and outdoor supply center Cabela’s is 17 miles west in Dundee. There are parks both on Lake Erie (Lake Erie Metropark and Maumee Bay State







Park as well as Sterling) and further inland (Huron-Clinton Metroparks along the Huron River to the north).

The River Raisin National Battlefield Park is easily accessible to visitors to any of these locations, and the venues’ proximity amplifies the battlefield’s attraction as a destination.

RIVER RAISIN HERITAGE CORRIDOR
 EAST MASTER PLAN
Overall Plan

April 2013



-  Parcel Boundary
-  Building
-  City of Monroe
-  City Boundary
-  Road
-  Railroad





Existing Conditions

SITE CONTEXT

This project focuses on the east portion of the Heritage Corridor, which extends east of the Norfolk Southern Railroad both north and south of the River Raisin to Lake Erie. The north boundary of the project area is the north portion of the City including Heck Park and properties along Dixie Highway to Exit 15 on I-75. The south project area is Plum Creek.

The City of Monroe has a long and rich history due to its strategic location along Lake Erie and the River Raisin. It was one of the first communities settled in Michigan (1784) when the main method of travel through the undeveloped territory was by water. Today, Monroe is situated between Detroit, Ann Arbor, and Toledo and has the potential to draw visitors from within this region. As of the 2010 census, Monroe had a population of 20,733. The impact of the RRNBP is much farther than the City of Monroe -- the combined population within a two-hour drive from Monroe is 8,522,000, and within a three-hour drive is 17,123,000.



LAND OWNERSHIP

Land in the project area is owned by a plethora of public and private entities from private developers all the way up to the Federal government. Federal property includes the RRNBP site and the Detroit River International Wildlife Refuge's Plum Creek Bay and Ford Marsh units. The State of Michigan owns Sterling State Park on Lake Erie. Monroe County owns Heck Park on North Dixie Highway. The City of Monroe owns an abundance of small and large parks within the project area, including Hellenberg Field and Park and the Monroe Multi-Sports Park. Private entities own the industrial and commercial sites in the project area, including DTE and several private marinas on the River Raisin. The Port of Monroe, a non-profit authority created by the Michigan Port Districts Public Act 234 of 1925, owns property primarily south of the River Raisin. However, as part of the land transfer arrangement when the current battlefield site was acquired through the efforts of the Monroe County Historical Society the Port of Monroe was asked and agreed to be the temporary land owner until the environmental issues and due diligence requirements were satisfied. Currently, the Port of Monroe owns property north of the River Raisin adjacent to the federal government (NPS) land holdings.

Existing Circulation Infrastructure

April 2013



-  Parcel Boundary
-  Building
-  City Boundary
-  Railroad
-  Interstates
-  Other Principal Arterials
-  Minor Arterials
-  Major Collectors
-  Local
-  Not a Certified Public Road
-  Existing River Raisin Heritage Trail





www.rtrail.com

CIRCULATION

Visitors to Monroe will most likely enter from I-75, east of downtown, on exits 11 (Laplaisance Road), 13 (Elm Avenue), 14 (Front Street), or 15 (North Dixie Highway). Other visitors enter from the west via Custer Street. From these entry points, automobile traffic has fairly direct access to both Downtown Monroe and the RRNBP. From Exit 11, visitors travel north on Laplaisance Road and then northeast on Kentucky Avenue, and then can take 1st or Front St into Downtown Monroe or to Winchester St and cross the bridge to the battlefield. Exit 14 and 15 are more direct routes; visitors can exit onto Elm Avenue or Front Street and easily access the battlefield. From Exit 15, visitors travel south on North Dixie Highway to the battlefield. Parking is available at the River Raisin National Battlefield visitor center on Elm Avenue, although parking is relatively limited.

The River Raisin Heritage Trail runs adjacent to Elm Avenue, connecting Sterling State Park and Detroit River International Wildlife Refuge to the battlefield and many historic monuments in Monroe.

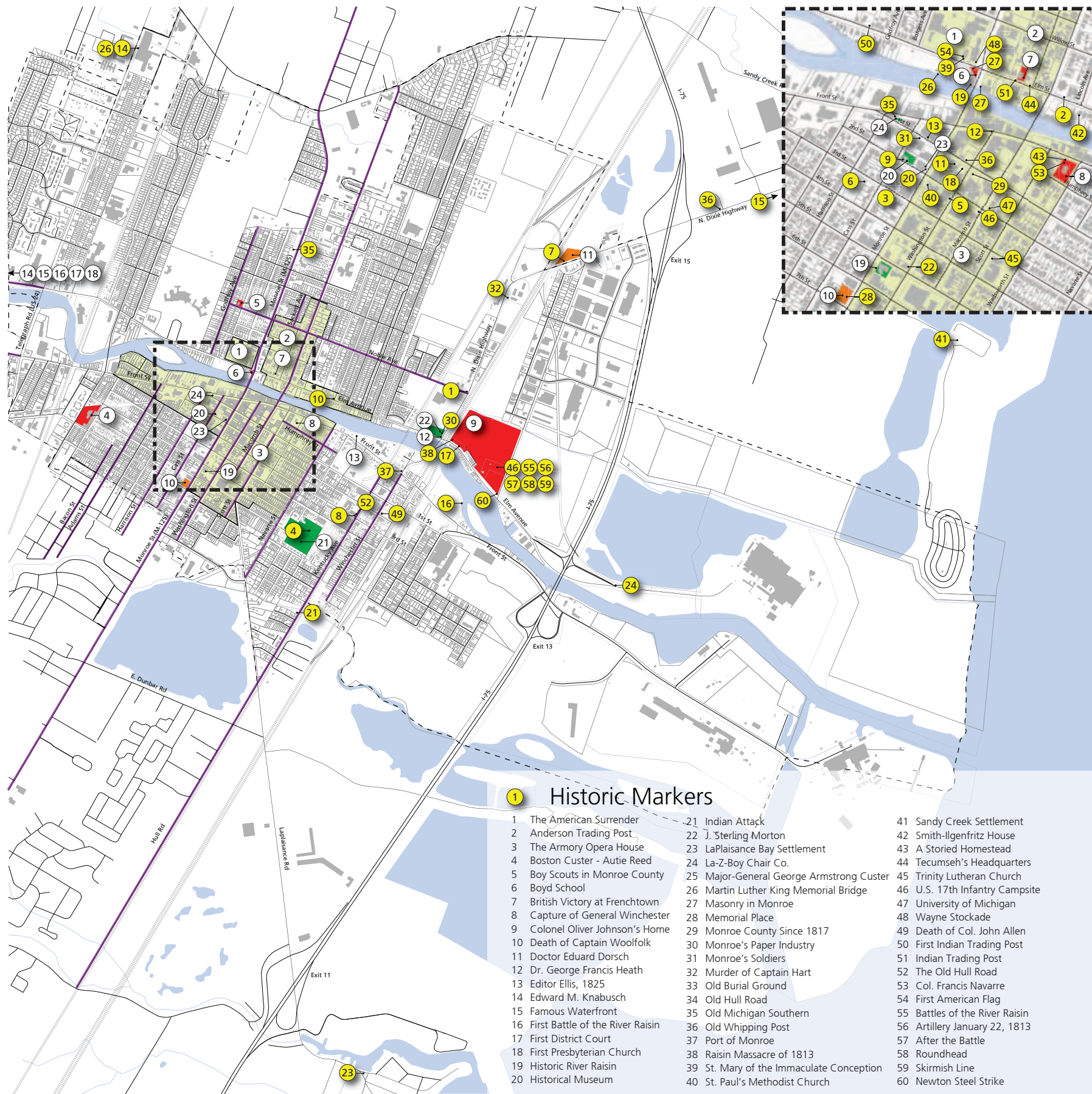
There are three rail systems that run from Detroit through Monroe, and two of them run directly adjacent to the RRNBP. Both Canadian National and Norfolk Southern

The River Raisin Heritage Trail runs adjacent to Elm Avenue, connecting... the battlefield and many historic monuments in Monroe.

lines run alongside Dixie Highway and cross over the River Raisin, continuing southwest to Toledo. This causes occasional traffic delays along Elm Avenue for east and westbound traffic.

Historic Assets

April 2013



- Parcel Boundary
- Building
- City Boundary
- Road
- Railroad
- Street Named after Historic Figure

Historic Districts

- 1 St. Mary's Church Complex Historic District
- 2 East Elm - North Macomb Street Historic District
- 3 Old Village Historic District

National Historic Sites

- 4 Weis Manufacturing Company
- 5 Rudolph Nims House
- 6 George Armstrong Custer Equestrian Monument
- 7 Governor Robert McClelland House
- 8 Sawyer House
- 9 River Raisin National Battlefield

War Memorials

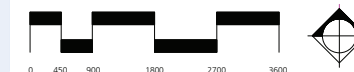
- 10 Kentucky Memorial Place
- 11 Vietnam War Memorial
- 12 Battlefield Obelisk
- 13 Civil War Memorial
- 14 World War I Memorial
- 15 World War II Memorial
- 16 Gulf War Memorial
- 17 War on Terror Memorial
- 18 Korean War Memorial

State Historic Sites

- 19 Saint John the Baptist Catholic Church
- 20 Johnson-Phinney House
- 21 Woodland Cemetery
- 22 Monroe Paper Industry
- 23 Monroe County Informational Designation (Inside Museum)
- 24 Michigan Southern Railroad

Historic Markers

- | | | |
|-------------------------------------|------------------------------------------|--------------------------------|
| 1 The American Surrender | 21 Indian Attack | 41 Sandy Creek Settlement |
| 2 Anderson Trading Post | 22 J. Sterling Morton | 42 Smith-Ilgenfritz House |
| 3 The Armory Opera House | 23 LaPlaisance Bay Settlement | 43 A Storied Homestead |
| 4 Boston Custer - Autie Reed | 24 La-Z-Boy Chair Co. | 44 Tecumseh's Headquarters |
| 5 Boy Scouts in Monroe County | 25 Major-General George Armstrong Custer | 45 Trinity Lutheran Church |
| 6 Boyd School | 26 Martin Luther King Memorial Bridge | 46 U.S. 17th Infantry Campsite |
| 7 British Victory at Frenchtown | 27 Masonry in Monroe | 47 University of Michigan |
| 8 Capture of General Winchester | 28 Memorial Place | 48 Wayne Stockade |
| 9 Colonel Oliver Johnson's Home | 29 Monroe County Since 1817 | 49 Death of Col. John Allen |
| 10 Death of Captain Woolfolk | 30 Monroe's Paper Industry | 50 First Indian Trading Post |
| 11 Doctor Eduard Dorsch | 31 Monroe's Soldiers | 51 Indian Trading Post |
| 12 Dr. George Francis Heath | 32 Murder of Captain Hart | 52 The Old Hull Road |
| 13 Editor Ellis, 1825 | 33 Old Burial Ground | 53 Col. Francis Navarre |
| 14 Edward M. Knabusch | 34 Old Hull Road | 54 First American Flag |
| 15 Famous Waterfront | 35 Old Michigan Southern | 55 Battles of the River Raisin |
| 16 First Battle of the River Raisin | 36 Old Whipping Post | 56 Artillery January 22, 1813 |
| 17 First District Court | 37 Port of Monroe | 57 After the Battle |
| 18 First Presbyterian Church | 38 Raisin Massacre of 1813 | 58 Roundhead |
| 19 Historic River Raisin | 39 St. Mary of the Immaculate Conception | 59 Skirmish Line |
| 20 Historical Museum | 40 St. Paul's Methodist Church | 60 Newton Steel Strike |



HISTORIC ASSETS

Monroe is filled with history. Since Frenchtown first sprang up along the banks of the River Raisin in the late 1700s through the battles of the War of 1812, the days of industry, and beyond, Monroe has been shaped by the events that took place here. These events are commemorated by historic sites and markers throughout the city.

Monroe has three National Register of Historic Places historic districts: St. Mary's Church Complex Historic District, built between 1835 and 1839; the East Elm – North Macomb Street Historic District, with houses dating from the 1820s to the 1920s; and the Old Village Historic District, which was platted in 1817. The Old Village Historic District contains many street names with historical significance, from early settlers in Monroe to figures of the War of 1812 to U.S. Presidents.

Monroe also boasts six National Historic Sites: Weis Manufacturing Company, Rudolph Nims House, the George Armstrong Custer Equestrian Monument ("Sighting the Enemy"), the Governor Robert McClelland House, the Sawyer House, and the River Raisin National Battlefield.

War memorials in Monroe include the Kentucky Memorial Place, Vietnam War Memorial, the Battlefield Obelisk (War of 1812), the Civil War Memorial, WWI and WWII Memorials, the Gulf War Memorial, War on Terror Memorial, and the Korean War Memorial. All of these war Memorials, except for the Vietnam War Memorial and the Kentucky Memorial Place, are accessible via the River Raisin Heritage Trail.

Monroe has six sites in Michigan's State Register of Historic Places: Saint John the Baptist Catholic Church, the Johnson-Phiney House, Woodland Cemetery, the Monroe Paper Industry, the Monroe County Informational Designation, and the Michigan Southern Railroad.

In addition to the historic sites and war memorials, there are 60 historic markers in the project area. Each historic marker contains a description of the historical significance of the site. The Battles of the River Raisin, Tecumseh's Headquarters, the Capture of General Winchester, and more can all be found on these markers. The bulk of the markers are located within Downtown Monroe, but they can be found as far out as LaPlaisance Bay and Sterling State Park.



Historic Street Names

April 2013



- Parcel Boundary
- Building
- City Boundary
- Road
- Railroad
- Street Named after President
- Street Named after War of 1812 Figure
- Street Named after Monroe Settler



Phillip Toll



Joseph Smith or ancestor



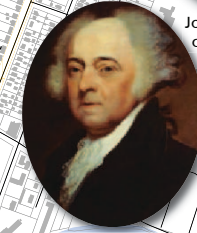
James Monroe



Leander Sackett or ancestor



Alexander Macomb



John Adams



George Armstrong Custer



Charles Noble



W. Addison Noble



Kentucky Militia



Lewis Cass



Winfield Scott



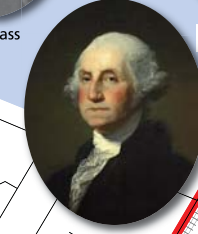
James Winchester



Daniel Bacon



Henry Harrison



George Washington



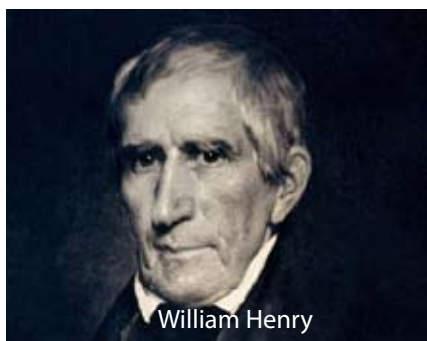
William Hull



HISTORIC STREET NAMES

When Monroe was first platted, many of the streets were named after notable figures. These figures include participants in the War of 1812, early settlers of Monroe, and Presidents of the United States, as is common in many cities. Although we cannot be sure which person the streets are named after, the following are short biographies of likely candidates.

WAR OF 1812 FIGURES



William Henry Harrison

General William Henry Harrison commanded troops to support Hull's plans to take Canada from the British, and planned to do so in the winter. Harrison's army was at Frenchtown during the Second Battle of the River Raisin, where a third of his army was lost in one battle. The massacre of the wounded American troops galvanized the western settlements against the British, and many volunteers came to help defeat the British in the Battle of the Thames.

Kentucky Militia

Many of the troops that fought and died in the Battle of the River Raisin were volunteers in the Kentucky Militia. The Kentucky Memorial at the intersection of Monroe Street

and Seventh Street commemorates their service and is the burial place of some of the unidentified remains of Kentucky militiamen.



James Winchester

General James Winchester commanded 1,500 American troops comprising volunteers from Kentucky and the 17th U.S. Infantry Regiment. He led them up to the Miami Rapids, now known as Maumee, Ohio, in January 1813. Messengers from Frenchtown told Winchester about the British force assembling there, and Winchester moved 660 men toward Frenchtown, defying his orders to wait until all forces were assembled and ready to advance to Detroit and Ontario. Winchester dispersed his troops at Frenchtown and left many scattered and exposed as the British advanced from the north.

Alexander Macomb

General Alexander Macomb was a commander of the Fifth Military Department in Detroit. General Macomb received a congressional medal for his leadership in the Battle of Plattsburg in September 1814, where he led 3,400 troops to victory over a force of 11,000 British troops.



William Hull

In 1812, General William Hull built a road from Monroe to Detroit in preparation for battles to defeat the British and gain control of Canada. In August of 1812, Hull surrendered Detroit and Frenchtown to the British.



Winfield Scott

Winfield Scott's contributions to the War of 1812 include showing leadership that won him a promotion to brigadier general and taking charge of troops in Buffalo, where his reformations to military tactics and sanitary conditions remarkably improved those troops. This improved army seized Fort Erie from the British in 1814.



Lewis Cass

Lewis Cass was born in Exeter, New Hampshire on October 9, 1782. Cass volunteered for service in the War of 1812 and was made a Colonel. He was captured when General Hull surrendered at Detroit, but then was released in 1813. Cass was appointed to Brigadier General under Henry Harrison, and received special mention for his service in the Battle of the Thames. Brigadier General Lewis Cass was appointed the second Governor of the Michigan Territory from 1813-1831 and established Monroe County in July 1817, then the Township of Monroe in September of 1817.

George Armstrong Custer

On December 5, 1839, George Armstrong Custer was born in New Rumley, Ohio. George attended New Dublin primary school in Monroe, and eventually met his wife Elizabeth

Bacon, the daughter of Judge Daniel S. Bacon, in Monroe. Custer fought bravely in the Civil War, but died in the Battle of Little Bighorn in 1876. A statue of Custer designed by Edward C. Potter called "Sighting the Enemy" still stands at the corner of Elm Avenue and Monroe St.

EARLY MONROE SETTLERS

Philip R. Toll

Philip R. Toll was born near Schenectady, New York, in 1793. He was made a captain during the War of 1812 at the age of 19 and served in a light infantry company. He lived in New York and then Sturgis, Michigan, before moving to Monroe in 1852. He died at the age of 70 on August 21, 1862.

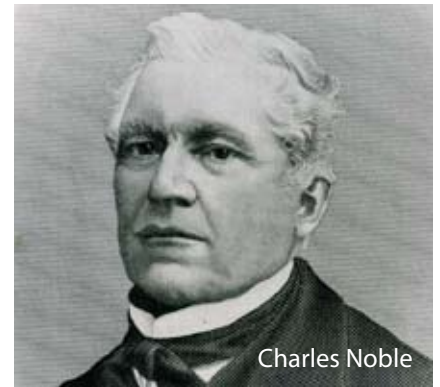
Joseph R. Smith

Brigadier General Joseph R. Smith was a dedicated military

man who resided in Monroe in the 1800s. He was born in Washington County, New York in 1802. After graduating from West Point Military Academy in 1832, he was assigned to Mackinaw and Sault Saint Marie until 1835. He served in the Florida War and the Mexican War and was wounded in the left arm. He continued to serve in whatever capacity he was able and later died in 1868 in Monroe.

Leander Sackett

Leander Sackett was born in April 1794 in Windham, Connecticut. He moved to Monroe in 1832 or 1833 with his wife, Eliza Conant, and lived there until 1836. He owned the Mansion House hotel, and was a delegate to the Buffalo Convention in 1852. Leander Sackett died at the



Charles Noble

age of 76.

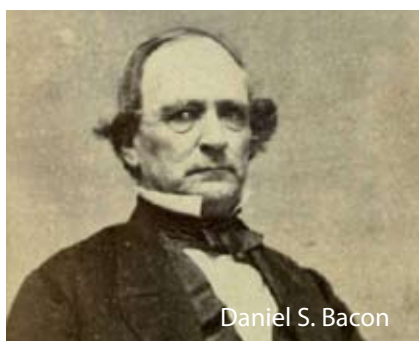
Charles Noble

The Honorable Charles Noble was born on July 4, 1797, in Williamstown, Massachusetts. He moved to the area in 1820 and was appointed the Indian Agent of Southern Michigan by General Lewis Cass. As such he visited many tribes in west Michigan. Noble held many public offices, including Register of Deeds, Justice of the Peace, and Surveyor General of Ohio, Illinois, Wisconsin, and Michigan. He lived in Monroe for almost 50 years before

moving to Detroit in 1867.

Daniel S. Bacon

The Honorable Daniel S. Bacon was born in Onondaga, New York, in 1798 and moved to Michigan when he was 24. Daniel Bacon held several public offices: he was a member of the Legislative Council of the Territory of Michigan, a member of the State Legislature, and a Judge of the Monroe County Court. Judge Bacon was the father of Elizabeth Bacon, who married General Armstrong Custer. Daniel S. Bacon died in Monroe in May of 1866, having lived there for almost



Daniel S. Bacon

50 years.

Nathan Hubble

Nathan Hubble was born in 1800 and lived in Monroe for 44 years. He served as the Sheriff of the county and the County and City Surveyor. He died in Monroe on August 3, 1864.

Francois Navarre

Colonel Francois Navarre was born in Detroit in 1767 and is known as the first permanent white settler of Monroe. In 1785, the Potawatomi gave him approximately 1600 acres of land on which he made his homestead. He was the first person to create military and government establishments in the county, and at one time served as the Justice of the County Court. Francois Navarre's

house was used by General Winchester as the army headquarters during the Battles of the River Raisin.

Levi S. Humphrey

General Levi S. Humphrey was born in Vermont and moved to Monroe in 1823. Humphrey was a business man; he kept a hotel in Wayne and was one of the contractors who built the Wayne & Monroe Railroad. He was a Monroe County Representative from 1841-1842, and was also the father of Nettie Humphrey, who acted as the go-between for Elizabeth Bacon and George Custer.

James J. Godfroy

James J. Godfroy was born in Detroit in 1824. He spoke French, English, and native languages, and traded with those parties. He married Victoria Navarre, the daughter of Colonel Francis Navarre. Godfroy was a representative from Monroe County from 1835-1836. He died on May 20, 1847.

James Monroe

James Monroe was the fifth President of the United States and was in office from 1817-1825. Monroe County and Monroe Township are both named after James Monroe in honor of his visit to the Michigan Territory and assistance in recovering from the war of 1812.



James Monroe

PRESIDENTS

George Washington

George Washington was the first President of the United States, serving two terms in office from 1798-1797.

John Adams

John Adams served as the first Vice President to George Washington from 1789-1797 and was the second President of the United States from 1797-1801.

Recreational and Environmental Assets

April 2013



- City Boundary
- Road
- Railroad
- River Raisin Heritage Trail

- Parcel Boundary
- Building

🚤 Boat Launch

① City of Monroe

- | | | |
|-------------------|------------------------------|----------------------------------|
| 1 Oak Forest Park | 10 Memorial Cemetery | 20 Riviere Aux Raisin |
| 2 Calgary Park | 11 Altrusa Park | 21 River Raisin Memorial |
| 3 James Park | 12 Arbor/Lorain Park | 22 Rauch Park |
| 4 Lavender Park | 13 Median Park | 23 Hellenberg Park |
| 5 Veterans Park | 14 Elliot Park | 24 Arthur Lesow Community Center |
| 6 Mill Race Park | 15 Central Park | 25 Labor Park |
| 7 St. Mary's Park | 16 Crescent Park | 26 Plum Creek |
| 8 Carins Field | 17 Cappuccilli Park | 27 Gateway Park |
| 9 Boyd Park | 18 Sawyer Homestead | 28 Monroe Multi-Sports Complex |
| | 19 Soldiers and Sailors Park | 29 Woodland Cemetary |

① Monroe Public Schools

- 30 Roessler Field
- 31 Navarre Field
- 32 Cantrick School
- 33 MLK School

① Monroe County

- 34 Heck Park

① State

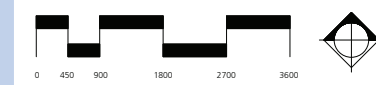
- 35 Steling State Park

① Federal

- 36 Detroit International Wildlife Refuge - Ford Marsh Unit
- 37 Detroit International Wildlife Refuge - Plum Creek Bay Unit
- 38 River Raisin National Battlefield Park

① Private

- 39 Noble Park
- 40 River Raisin Golf Course
- 41 Links at Lake Erie Golf Course



RECREATIONAL AND ENVIRONMENTAL ASSETS

The Monroe area has plentiful recreational and environmental assets owned by various entities. The map to the left shows the location and ownership entity of the recreational lands in the project area. Of the 2,230 acres of recreational and environmental assets on the map, the largest portion is owned by the state of Michigan - 58.2%. Figure 1 shows the breakdown of other land ownership in the project area.

The two federal land-owning entities in Monroe are the National Parks Service (RRNBP) and the U.S. Fish and Wildlife Service (Detroit International Wildlife Refuge). The battlefield currently consists of the visitor center and land between Detroit Avenue and Dixie Highway. There are two units of the Detroit River International Wildlife Refuge in Monroe – the Ford Marsh Unit located on Lake Erie and the Plum Creek Bay Unit. The Detroit River International Wildlife Refuge was established to protect the sensitive marsh, waterway, and coastal ecosystems along the Detroit River and adjacent waterways.

Sterling State Park is the only state-owned land in the project area. It is also the only state park on Lake Erie and has many opportunities for recreational activities such as a fishing pond, trails, picnic areas, campgrounds, and a boat launch.

The only county-owned park in the project area is Heck Park. The park includes both memorial and recreational elements: play equipment, basketball courts, walking trails, shelters and grills, and a sledding hill. A Vietnam Veterans Memorial is located at the entrance of the park.

There are many city-owned public spaces throughout the project area that range in size from the 15.3 acre Monroe

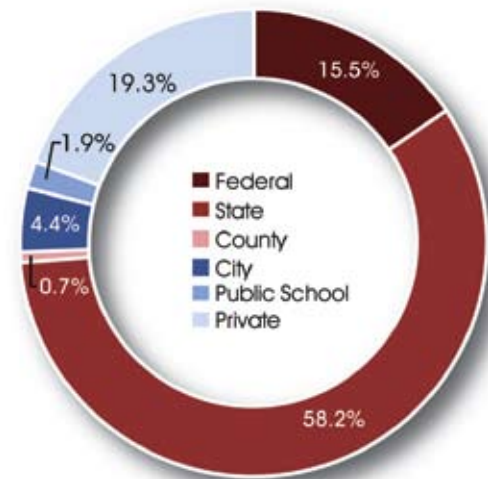
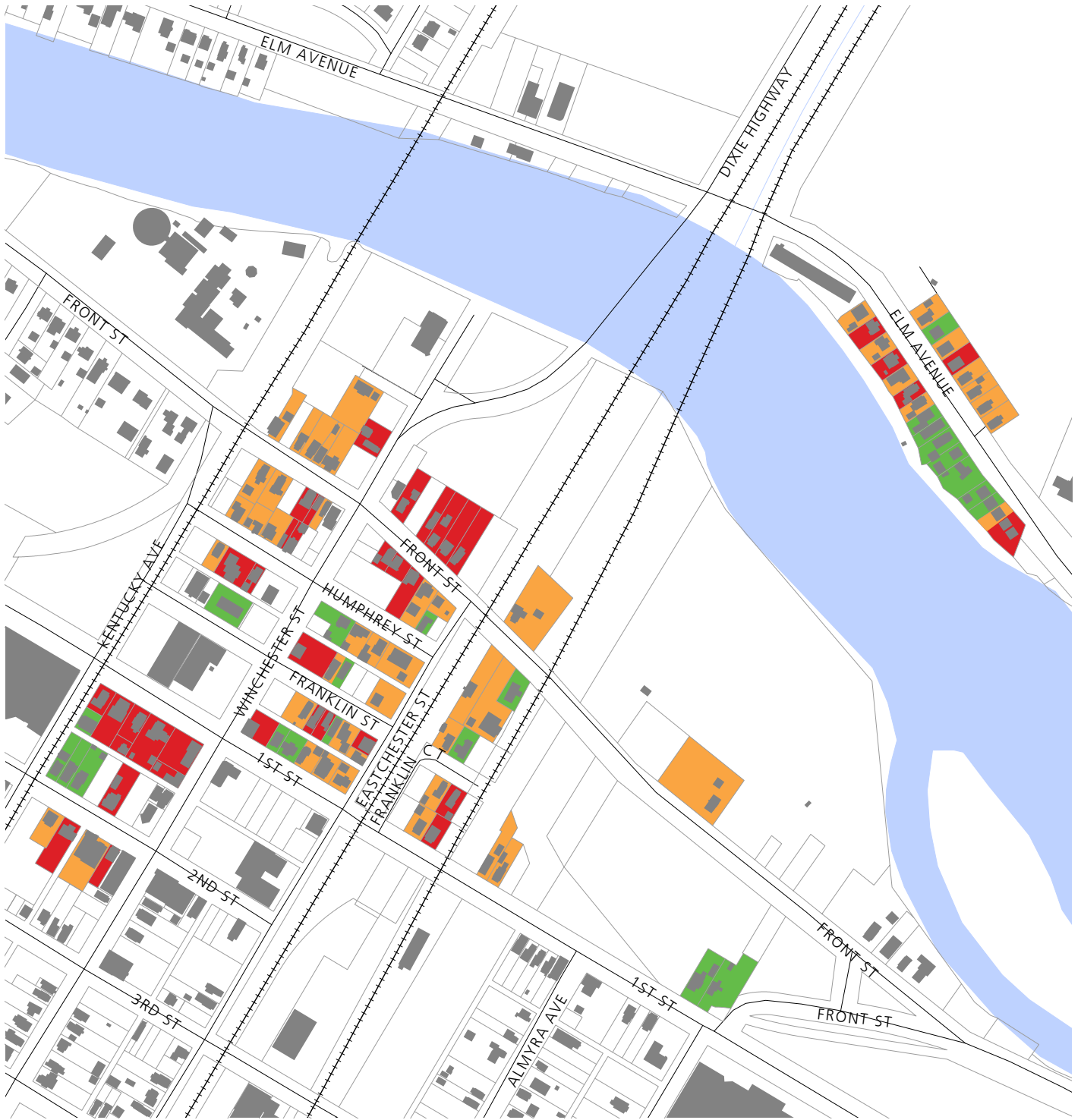


Figure 1: Percent of Recreation Lands in Project Area By Owner

Multi-Sports Park to the .05 acre Gateway Park at the intersection of Front and First Streets. Hellenberg Park, the second largest city park in the project area at 13 acres, contains amenities such as a boat launch, a baseball diamond, and access to Sterling Island. Public school grounds make up 42 acres of land in the project area, including Roesler Field, Navarre Field, Cantrick School, and MLK School.

Private ownership of recreational lands in the project area is limited to two golf courses, The Links at Lake Erie and the River Raisin Golf Course, and Noble Park, a small neighborhood park within the Mason Run development. Other facilities exist within Monroe such as bowling alleys and private campgrounds, but they are not included on this map.





Monroe County Historical Society
 Monroe, Michigan
 HISTORY CORRIDOR - EAST MASTER PLAN

Housing Condition Assessment

Data Sources: State of Michigan Geographic Data Library, Bing Maps

- | | | |
|-----------------|-------------------|----------------|
| Parcel Boundary | Township Boundary | Good Condition |
| Building | Road | Fair Condition |
| | Railroad | Poor Condition |



HOUSING QUALITY

A visual assessment of housing stock quality was performed in the area of Monroe bordered by Kentucky Avenue on the West, 2nd Street and 1st Street to the South, the intersection of 1st and Front Street to the East, and including the properties on East Elm Avenue on the north side of the River Raisin between Dixie Highway and the RRNBP Visitor Center. Houses were classified as Good, Fair, or Poor based on their apparent condition and need for repairs such as roof replacement, and structural integrity. Out of the 109 properties that were assessed, 23 were identified to be in good condition, 48 were identified to be in fair condition, and 38 were identified to be in poor condition.

The neighborhood on the south side of the River Raisin within the study area has been a neighborhood in decline for many years. Over the past 20 to 30 years it has slowly migrated from an owner-occupied neighborhood to renter-occupied. Several homes have been removed due to blight, neglect and abandonment and there are few signs of reinvestment.

Properties on the north side of the River Raisin are a mix of owner and renter properties. Two properties under review for potential acquisition by the MCHS appear in the City database as owner occupied as a "Principal Residential Exemption," but according to the owner they are rental properties. It is estimated that at least 20% of properties with the "PRE" designation are actually rentals which is common for many communities based on the turnover in abandoned, foreclosed real estate.

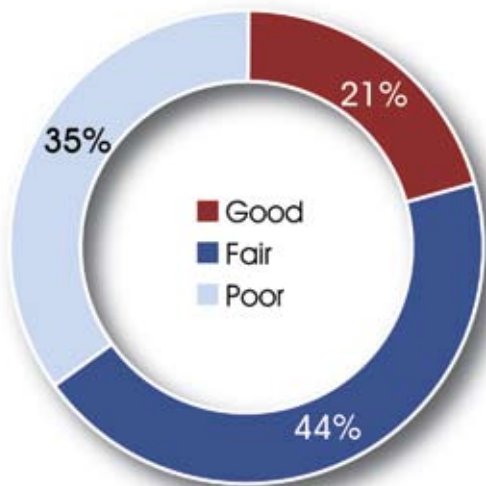
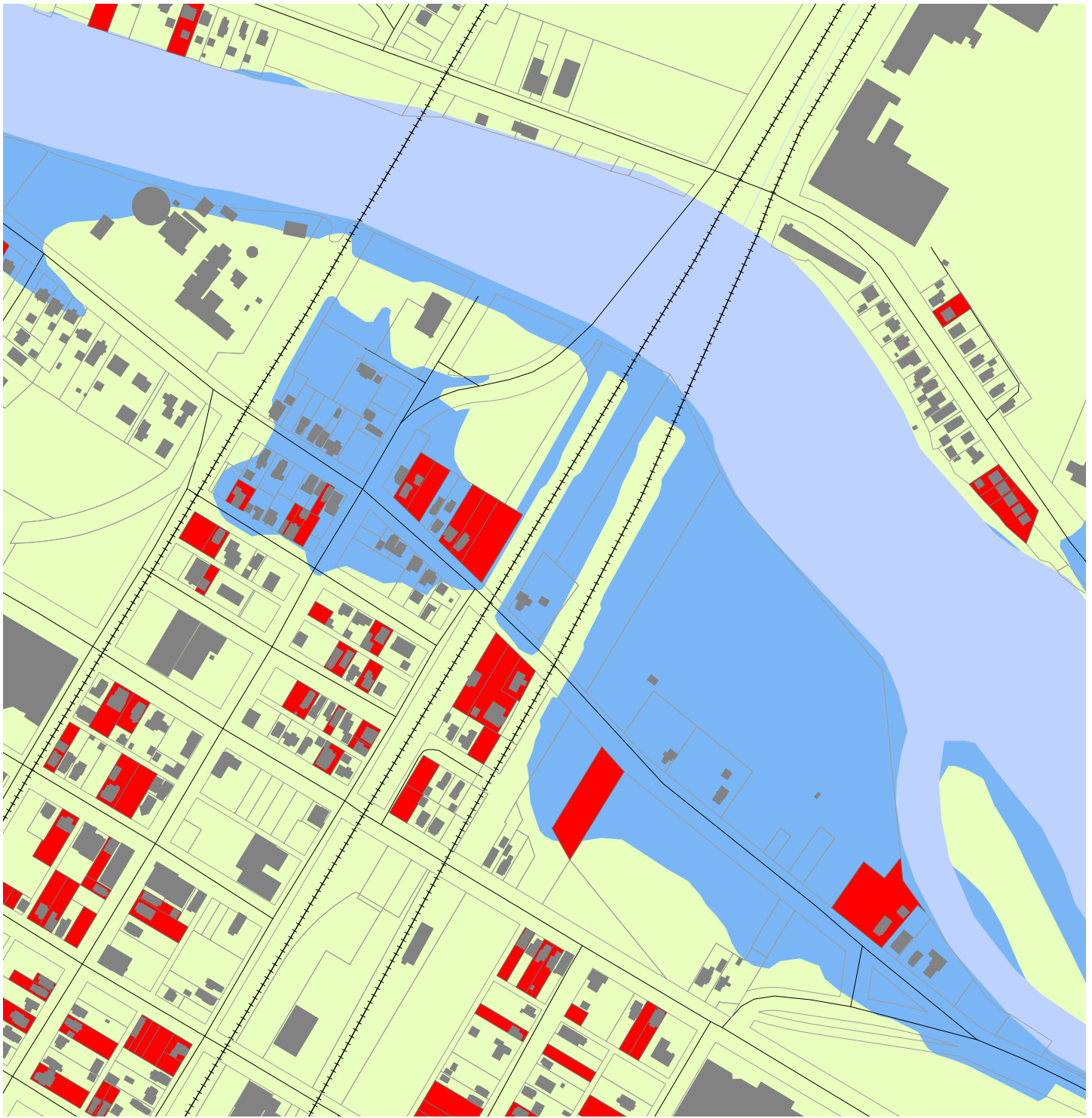


Figure 2: Housing Condition

POOR



Monroe County Historical Society
City of Monroe
HISTORY CORRIDOR - EAST MASTER PLAN

Rental Housing and Floodplain

Data Sources: State of Michigan Geographic Data Library, Bing Maps

- Rental Property
- 100 Year Floodplain
- Building
- Parcel Boundary
- City of Monroe
- Road
- Railroad





RENTAL ASSESSMENT

In the same region in which housing quality was assessed, each property was classified as either owner-occupied or rental property. The graphic to the left, "Rental Housing and Floodplain," shows all rental properties in red.

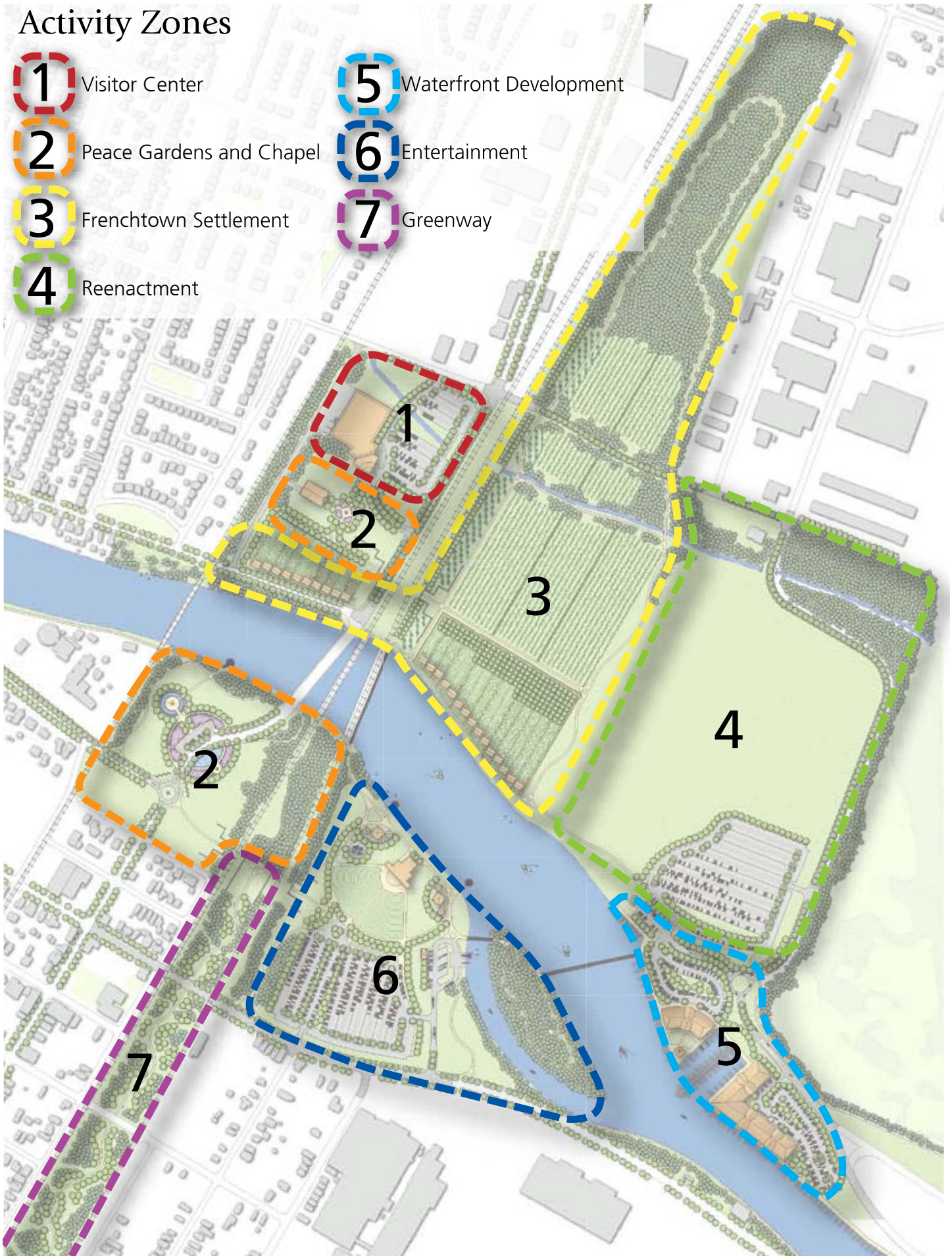
Out of the 109 units in the study area, 63 units, or 58%, are classified as owner occupied and 46 units, or 42%, are classified as rental property.

FEMA

This graphic shows the 100-year floodplain of the River Raisin in the area of the RRNBP. The floodplain is overlaid on the rental housing map to show which rental properties are within the 100-year floodplain. These properties could be acquired with FEMA grant dollars. Ten rental properties fall in the floodplain on the west side of the railroad corridor, where the proposed South Peace Garden would be located. East of the railroad, two rental properties are within the 100-year floodplain near the proposed amphitheater site.

Activity Zones

- 1** Visitor Center
- 2** Peace Gardens and Chapel
- 3** Frenchtown Settlement
- 4** Reenactment
- 5** Waterfront Development
- 6** Entertainment
- 7** Greenway



Framework

The Heritage Corridor East - Master Plan can be broken up into five unique activity zones, each zone containing multiple elements. Together, these elements create an unforgettable recreation experience steeped in history.

ACTIVITY ZONES

Zone 1: Visitor Center

The visitor center activity zone is where most guests enter the park and become oriented with all that the park offers. This zone includes the new Visitor Center and the Visitor Center Parking Lot.

Zone 2: Peace Gardens And Chapel

This zone has an air of reflection and ceremony. It is both a space for quiet contemplation of the battles that occurred and also a place where ceremonies may take place, both of celebration and homage. The Chapel and North Peace Garden are the two elements included in this zone, as well as the pedestrian underpass, which connects this zone to the Frenchtown Settlement.

Zone 3: Frenchtown Settlement

The Frenchtown Settlement is where history will come alive in the form of the re-created Frenchtown village. Here, visitors will immerse themselves in the sights, sounds, and activities of Frenchtown in the early 1800s. Visitors can visit the buildings in the village, wander the ribbon farms, orchards, and vineyards, and meet the villagers as they go about their daily activities.

Zone 4: Reenactment

With the relocation of Detroit Avenue, the area for battle reenactments is much larger and united with the Frenchtown Settlement as it was in 1812. The large parking lot has plenty of spaces for reenactors and spectators, as well as overflow parking for events at the Amphitheater.

Zone 5: Waterfront Development

Situated just down the river from the battlefield and historic Frenchtown Settlement, an evening in the Waterfront Development zone is the perfect complement to a day experiencing the history of the RRNBP. Here, visitors can dine, shop, and enjoy nightlife activities while strolling along the boardwalk. A concert in the amphitheater is only a short walk across the pedestrian bridge over the River Raisin. This is also an opportune destination for a ferry between the RRNBP and Perry's Victory and International Peace Memorial in Put-In-Bay, Ohio or water tours of the Detroit River International Wildlife Refuge.

Zone 6: Entertainment

The Entertainment Zone is a hub for community gathering and recreation. The centerpiece of this zone is an outdoor amphitheater that can hold concerts with attendance of up to 10,000 people. The amphitheater is flanked by picnic pavilions, river overlooks, trails, and a playground for daily recreation and enjoyment on the riverside. Adjacent to the amphitheater is the existing boat launch where boats, kayaks, and canoes can launch into the River Raisin.

Zone 7: Greenway

When the Americans retreated from the Battle of the River Raisin, they traveled southwest to Plum Creek. The proposed greenway re-imagines the industrial zone between the two rail lines as a greenway that follows this historic path from the battlefield to the place of the Americans' last stand.



Master Plan Key

- A. Battlefield Area Entrance
- B. Traffic Circle with Monument
- C. Entrance to Downtown Monroe
- D. South Peace Garden
- E. Detroit Avenue Realignment
- F. French Ribbon Farms
- G. Frenchtown Settlement (Re-Created Village)
- H. Stockade Fence
- I. RRNBP Visitor Center and Parking
- J. Events and Re-Enactment Areas
- K. River Overlook and Interpretive Park
- L. Pedestrian Bridge Addition to Rail Trestle
- M. French Chapel and North Peace Garden
- N. Waterfront Dining, Shopping & Entertainment
- O. Front Street Realignment
- P. Heritage Trail
- Q. Trail Head for Heritage Trail
- R. Elm Avenue cul-de-sac
- S. Relocated Recreation Amenities in Neighborhood
- T. Sterling Island / Interpretive Area and Major Muskrat's Lodge
- U. Visitor Parking
- V. Amphitheater, Playground and Pavilions
- W. Pedestrian Tunnel under Rail Lines
- X. Orchard and Vineyard Buffer along Rail Lines
- Y. Dixie Highway Corridor Beautification
- Z. Greenway to Plum Creek

RIVER RAISIN HERITAGE CORRIDOR
EAST MASTER PLAN

Overall Master Plan

April 2013



Master Plan

OVERALL MASTER PLAN

The Master Plan for the RRNBP is a threshold to a different and sustainable economy for Monroe. It is transformative. It is an economic strategy based on a celebration of the past and leverage of the future. The Master Plan is designed to reinvent Monroe as a national destination on par with Jamestown, Williamsburg, Charleston, Harpers Ferry, and Gettysburg. If implemented quickly it will help revitalize Monroe's neighborhoods

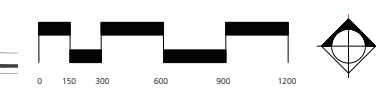
and struggling downtown. The success of the plan will be measured by successful leadership, collaboration, and adherence to a grand vision of what the city should be. Lastly, the Heritage Corridor-East Master Plan adds to the legacy of the city of Monroe and the county.

Proposed Circulation Infrastructure

April 2013



- Parcel Boundary
- Building
- Existing Recreation Amenities
- Proposed Recreation Amenities
- City Boundary
- Railroad
- Existing Roads
- Existing River Raisin Heritage Trail
- Removed Roads
- Proposed Blueway
- Proposed Greenway
- Proposed Roads
- Proposed Realigned Roads
- Proposed Boulevard with Median
- Existing One-Way
Converted to Two-Way



PROPOSED VEHICULAR AND NON-MOTORIZED CIRCULATION

In the master plan for the Heritage Corridor, several key changes to circulation infrastructure take place to draw visitors into the downtown and the National Park in a more economically beneficial way than the existing circulation scheme.

Currently, visitors to RRNBP might exit I-75 at the Front Street / Elm Avenue Exit, stop in the park, and then get back on the expressway to return home without ever driving into Downtown Monroe. In this proposed circulation scheme, exits from I-75 at Dixie Highway and Laplace Road can become the main exits for Monroe.

When traveling to RRNBP from the Laplace Road exit, visitors travel northwest along Laplace Road and turn right onto Kentucky Avenue. A new connection between Kentucky Avenue and Winchester Street will allow visitors to smoothly transition onto the wider Winchester Street as they continue north before arriving at the proposed traffic circle at the intersection of Winchester and Front Street. With the removal of Front Street to the east, the two directions to travel from the traffic circle are north to RRNBP or east into downtown Monroe.

From the Dixie Highway exit off I-75, visitors travel west and then south down Dixie Highway before reaching the RRNBP. From the battlefield, visitors can quickly cross the river and travel west into Downtown Monroe.

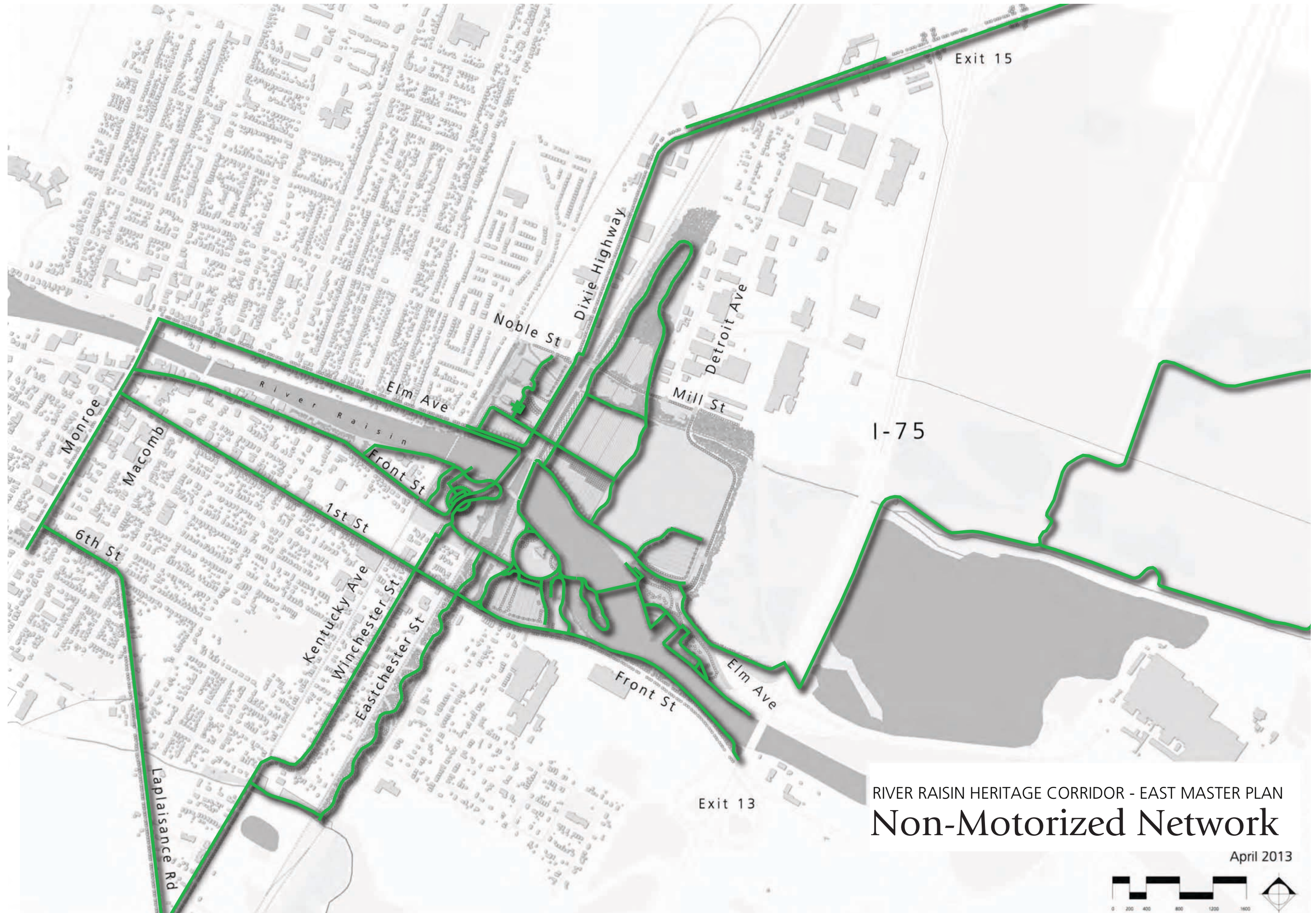
If visitors choose to exit I-75 at Front Street, the realignment of Front street to connect into 1st Street further reinforces the connection into downtown Monroe. Once visitors have entered the downtown, the conversion of Front and 1st Streets creates greater revenue opportunity for downtown businesses as well as ease of travel for guests. The original intent of the one-way nature of Front and 1st Streets was to efficiently move traffic associated with the paper industry. This is no longer needed.

In Marquette, Michigan, Third Street, the connecting street between downtown and Northern Michigan University was converted from one-way to two-way. As part of the

trial, merchants were asked to monitor their sales for a six-month period to determine any increase or decline in sales. After the six-month trial period many of the Third Street commercial district merchants noted sales increases of 20% or more. The street remains two way today.

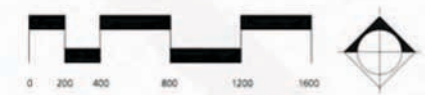
If visitors exit I-75 at Elm Avenue, the removal of Elm Avenue between Detroit Avenue and Dixie Highway reduces the level of traffic by directing it around a new configuration of Detroit Avenue to Noble Avenue. A new connection between Detroit and Noble Avenue will be created and named Battlefield Parkway. From Battlefield Parkway, visitors can then turn left onto Dixie Highway and head down the improved boulevard to the proposed Visitor Center or into downtown Monroe via Elm Avenue or Front Street.

Between the railroad tracks lies a non-motorized transportation opportunity. The removal of industrial buildings makes way for the implementation of a paved trail with benches and plenty of trees. This greenway would connect the historic site of the battles of the River Raisin with the historic site of the Americans' retreat at Plum Creek. Another non-motorized transportation opportunity lies in the River Raisin itself. The improved boat launch with an accessible canoe and kayak launch, a kayak beaching area near the Multi-Sports Park, and the improved marina at the waterfront development will enhance water travel opportunities for recreational blueway users.



RIVER RAISIN HERITAGE CORRIDOR - EAST MASTER PLAN
Non-Motorized Network

April 2013



NON-MOTORIZED NETWORK

Creating an interconnected network of non-motorized transportation options is critical to achieve an immersive visitor experience and to draw visitors from adjacent activity areas. The combination of existing city sidewalks, the existing and proposed sections of the River Raisin Heritage Trail, and pedestrian tunnels and bridges, a visitor can access all areas of the Master Plan by foot or bike. Another type of visitor experience can be gained by those who chose to travel by canoe or kayak down the River Raisin. All of these options allow the user to arrive to the area in whatever mode of transportation they wish and then enjoy all the park has to offer without requiring a vehicle to travel between amenities.

The existing and proposed segments will eventually connect the River Raisin National Battlefield Park with ecological and historic sites including the Detroit River International Wildlife Refuge, Sterling State Park, several National Register of Historic Places historic districts, a number site-specific historic sites, and several City of Monroe waterfront parks along the River Raisin.

This is significant because the River Raisin Battlefield National Park is the only National Park that is adjacent to an International Wildlife Refuge and State Park facility.



Core Area Master Plan

April 2013

Core Area Plan Key

- A. Battlefield Area Entrance
- B. Traffic Circle with Monument
- C. Entrance to Downtown Monroe
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- Q. Trail Head for Heritage Trail
- R. Elm Avenue cul-de-sac
- S. RRNBP Visitor and Trail Parking
- T. Sterling Island / Interpretive Area and Major Muskrat's Lodge
- U. Visitor Parking
- V. Amphitheater, Playground and Pavilions
- W. Pedestrian Tunnel under Rail Lines
- X. Orchard and Vineyard Buffer along Rail Lines
- Y. Dixie Highway Corridor Beautification
- Z. Pedestrian Scale Historic Lighting on Bridge



CORE AREA MASTER PLAN

Entering from Dixie highway onto a tree-shaded boulevard entrance, guests park their vehicles in the expanded visitor center parking lot that bridges over Mason Run. The lot accommodates school bus and car parking and features a drop-off zone under a porte-cochere.

The existing Multi-Sports Complex can be renovated to become the new Visitor Center for the RRNBP with room to share with various potential uses, such as a Lay-Z-Boy museum. At around 53,700 square feet, the visitor center will have ample room for historic exhibits, group activities, receptions, and meetings. The addition of a viewing platform and outdoor café space allows visitors to look out over the battlefield and Frenchtown settlement, putting history into perspective and acquainting visitors with the layout of the park.

Situated south of the Visitor Center and north of the west Frenchtown Settlement, the chapel provides around 9,500 square feet of event space. A chapel of this size could hold around 500 people for sizable weddings and other functions. Receptions could be held outside the chapel or in the Visitor Center.



Guests have an easy walk to the Visitor Center parking lot, and a service drive at the rear of the chapel provides access for deliveries. Adjacent to the chapel, visitors can enjoy the beautiful colors and textures of the North Peace Garden.

Accessing the east side of the Battlefield Park is made easy by a pedestrian underpass that travels underneath the railroad tracks, where visitors emerge in a historic re-created village. Visitors to the re-created village of Frenchtown will witness history brought to life. This living-history exhibit will feature traditional French-Canadian structures in an arrangement similar to that which existed at Frenchtown before the destruction of the Battles of the River Raisin.

When French settlers first came to the area around the River Raisin, they divided the land in a pattern called ribbon farms or long lots. As the name implies, the properties were divided into long strips of land perpendicular to the river, which provided each land owner access to water, area for a homestead in the village near the river with a kitchen garden, land for growing crops, and finally woods for hunting and gathering on the far end of the property. These farms, along with vineyards and orchards adjacent to the rail lines, will be re-created in partnership with Monroe County Community College, showing what life was like for a villager in Frenchtown. The area along the River Raisin between Elm Avenue and the



riverbank will be transformed into a mixed-use waterfront entertainment hub. Ample parking is provided adjacent to the proposed buildings and across the street. This area will be the perfect place to enjoy a meal or entertainment complementing a day spent in RRNBP. This area is easily accessible from the re-created village, events and reenactment areas, and the amphitheater park across the river. The parking lot also acts as a trail head for the River Raisin Heritage Trail and the marina is an access point for the River Raisin waterway. The proximity to RRNBP makes this waterfront development the ideal location for

a ferry service between the battlefield and Perry's Victory and International Peace Memorial in Put-In-Bay, Ohio, or even the jumping off point for tours of the Detroit River International Wildlife Refuge.

The amphitheater can be used by the daily visitor even when a concert is not in session as a place to relax and enjoy the views across the river to the Frenchtown Settlement and waterfront development. Events with up to 10,000 attendees can gather here, easily parking at the adjacent lot or in overflow parking across the river.



The waterfront development and parking can be easily accessed via the pedestrian bridge across the River Raisin. Families can enjoy the playground, picnic pavilions, and river overlooks. The existing boat launch at Hellenberg Park can be improved with the addition of an accessible canoe and kayak launch and reconfigured parking area. On the south side of the River Raisin is the South Peace Garden. Like the North Peace Garden, this area commemorates the sacrifices of those who fought in the Battles of the River Raisin. On the northwest terminus of the park is a large monument surrounded by plantings

and trees with a sidewalk leading to a peaceful river overlook. Walkways with pergolas overhead circle around the parking area, leading the visitor to the southeastern side of the park. Here, a smaller monument is set off by a reflecting pool with fountains and flanked by stately flagpoles. The entire garden is surrounded by trees that define the edge of this tranquil space.





PALACE

RESTAURANT

DRUGS
BUY THEM FROM
WEISEL

DIAMOND'S
CANDY SODA
LUNCHEES

GEORGE HERMAN & SON

EXELE & MARTIN

GEORGE BERRYMAN

Program

A well-developed plan is the first step to achieving a vision. The success of the History Corridor - East Master Plan will be determined by how much of that plan is brought to fruition. Using estimates of land acquisition and construction costs, stakeholders can follow a planned sequence of project implementation and take actions that create place and destination within the community.

Each activity area has been cost estimated for site and building construction and associated land acquisition costs. These estimates are based on 2013 construction costs and property valuations and provide a snapshot of the probable dollar estimate to fully execute the vision. Because implementation will extend over multiple years there will be fluxuations in these numbers based on the relative cost of materials and market conditions which influence property values.

There are benefits associated with providing initial estimates including having information needed for fundraising and procurement of grants and establishing a quantitative benchmark to evaluate the cost of the facilities to economic rate of return to the community, regional and state.



Activity Zone 1: Visitor Center
Opinion of Probable Cost

BUILDING AND SITE IMPROVEMENTS		
Component	Description	Total
Site Preparation	Soil erosion control measures, traffic control, fencing, and other site preparation measure	\$20,850
Visitor Center Renovation	Includes partial demolition (7,173 sf), renovation (27,150 sf), and a three-story addition (26,595 sf) to the existing Multi-Sports Complex and a 314 space parking lot	\$7,723,625
Beautification of Dixie Highway	Includes roadway reconstruction as a boulevard with median, street trees, and sidewalks	\$862,500
Beautification of Elm Avenue	Includes new sidewalks and additional street trees	\$120,920
North Pedestrian Underpass	Pedestrian tunnel under the railroad tracks between the proposed Frenchtown Settlements	\$2,228,316
Kayak Beach	Construction of a beach area for kayakers to enter and exit the River Raisin	\$19,500
Subtotal (not including soft costs)		\$10,975,711
Soft Costs		
General Conditions (5%)		\$548,785
Design Contingency (10%)		\$1,152,449
Subtotal		\$12,676,946
Soft Costs (25%)		\$3,169,236
Building and Site Total		\$15,846,182
LAND ACQUISITION		
	Parcels	Total
	1	\$0
ACTIVITY ZONE TOTAL		\$15,846,000

Note: See Appendix B for Detailed Estimate

COST ESTIMATES AND LAND ACQUISITION

Activity Zone 1: Visitor Center

Activity Zone 1 includes the Visitor Center renovation, the beautification of Dixie Highway and Elm Avenue, a pedestrian underpass connecting the two sides of the Frenchtown Settlement, and the Kayak Beach.



Activity Zone 2: Peace Gardens and Chapel

Opinion of Probable Cost

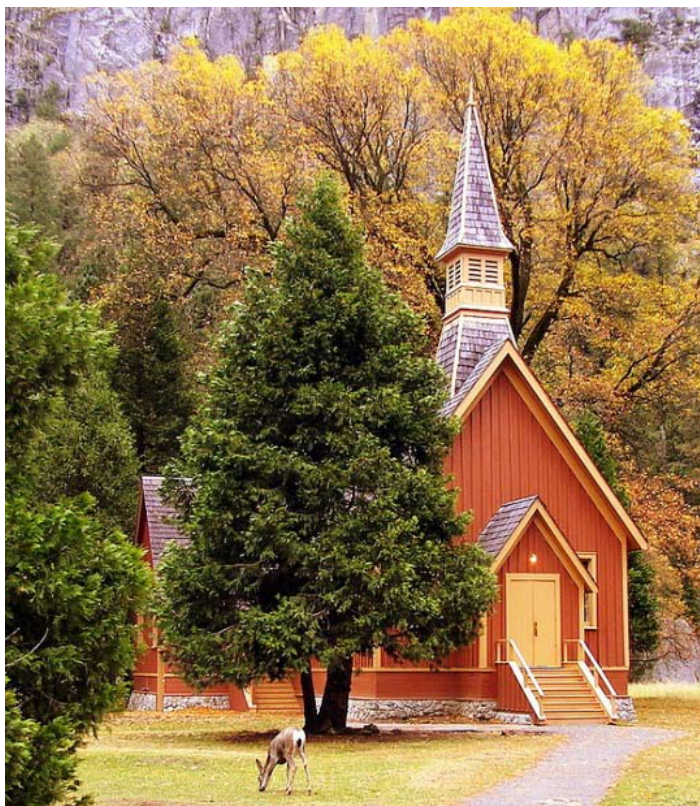
BUILDING AND SITE IMPROVEMENTS		
Component	Description	Total
Site Preparation	Soil erosion control measures, traffic control, fencing, and other site preparation measure	\$17,700
North Peace Garden and Chapel	A French Chapel and formal Peace Garden	\$2,134,000
South Peace Garden and Overlook	A formal garden with reflecting pools, monuments, and a river overlook	\$2,394,711
Beautification of Front St West of Railroad	Street trees to line Front Street	\$92,000
Traffic Circle at Winchester and Front	Removal of Front Street and addition of a single lane compact roundabout	\$302,400
Subtotal (not including soft costs)		\$4,940,811
Soft Costs		
General Conditions (5%)		\$247,040
Design Contingency (10%)		\$518,785
Subtotal		\$5,706,636
Soft Costs (25%)		\$1,426,659
Building and Site Improvements Total		\$7,133,295
LAND ACQUISITION		
Parcels		Total
46		\$3,248,000
ACTIVITY ZONE TOTAL		\$10,381,000

Note: See Appendix B for Detailed Estimate



Activity Zone 2: Peace Gardens And Chapel

This zone contains the construction of a 500-person French Chapel and an adjacent formal North Peace Garden, the South Peace Garden, and the adjacent roundabout. The chapel and garden elements can be used for weddings and other events in combination with outdoor space and reception space within the visitor center. The South Peace Garden is just across the river and requires some demolition of existing structures. Monuments, reflecting pools and a river overlook complete the space.



Activity Zone 3: Frenchtown Settlement

Building and Site Preliminary Opinion of Probable Cost

BUILDING AND SITE IMPROVEMENTS		
Component	Description	Total
Site Preparation	Soil erosion control measures, traffic control, fencing, and other site preparation measure	\$53,100
Historic Village West	A recreation of the Frenchtown Settlement west of the railroad tracks	\$1,349,300
Historic Village East	A recreation of the Frenchtown Settlement east of the railroad tracks	\$2,083,050
North of Puncheon Fence	The area north of the puncheon fence that surrounds the west Frenchtown Settlement is a recreation of the French Ribbon Farms with crop lands, woods, and paths running through them	\$1,160,800
Orchards and Vineyards Adjacent to Railroad	Orchards and vineyards between the railroad tracks and the French Ribbon Farms	\$98,300
Battlefield Parkway	A new roadway connection between Noble Avenue and Mill Street with a planted median	\$882,350
Subtotal (not including soft costs)		\$5,626,900
Soft Costs		
General Conditions (5%)		\$281,345
Design Contingency (10%)		\$590,824
Subtotal		\$6,499,069
Soft Costs (25%)		\$1,624,767
Building and Site Improvements Total		\$8,123,836
LAND ACQUISITION		
Parcels		Total
44		\$2,237,000
ACTIVITY ZONE TOTAL		\$10,360,000

Note: See Appendix B for Detailed Estimate

Activity Zone 3: Frenchtown Settlement

The village of Frenchtown can be re-created in its original location and become a living history experience for visitors to RRNBP. Here, visitors can see what life was like in the early 1800s around the time of the Battles of the River Raisin. Homesteads, gardens, orchards, and vineyards could all be part of these re-created French Ribbon Farms.



Activity Zone 4: Reenactment

Opinion of Probable Cost

BUILDING AND SITE IMPROVEMENTS		
Component	Description	Total
Battlefield Visitor Parking	A parking lot adjacent to the battlefield area with 940 spaces	\$2,820,000
Detroit Avenue Removal and Realignment	The removal of the existing Detroit Avenue and relocation to the east as a boulevard with a planted median	\$1,902,500
Battlefield / Festival Area	Includes the removal of Elm Avenue west of the Waterfront Development and improvements to the battlefield	\$454,350
Trailhead	A parking lot with 32 spaces for parking near the River Raisin Heritage Trail	\$204,800
Subtotal (not including soft costs)		\$5,381,650
Soft Costs		
General Conditions (5%)		\$269,082
Design Contingency (10%)		\$565,073
Subtotal		\$6,215,805
Soft Costs (25%)		\$1,553,951
Building and Site Improvements Total		\$7,769,757
LAND ACQUISITION		
	Parcels	Total
	5	\$310,000
ACTIVITY ZONE TOTAL		\$8,080,000

Note: See Appendix B for Detailed Estimate

Activity Zone 4: Reenactment

The relocation of Detroit Avenue and the partial removal of Elm Avenue creates a larger, contiguous area for Battles reenactments and festivals that is in the historical location of the battle of the River Raisin. Ample parking is provided in an adjacent lot, though visitors can also reach this area by parking at the Visitor Center and walking through the re-created Frenchtown Settlement.

Due to National Park Service regulations regarding the discharge of weapons on dedicated parks, the reenactment area will likely be under the ownership of another entity so the full experience of a military reenacted engagement can be experienced.



Activity Zone 5: Waterfront Development

Opinion of Probable Cost

BUILDING AND SITE IMPROVEMENTS		
Component	Description	Total
Waterfront Complex	Includes a 88,600 sf waterfront complex with a riverfront boardwalk and a parking lot with 379 spaces	\$16,587,850
Sterling Island and Pedestrian Bridge	Includes a 500 linear feet pedestrian bridge across the River Raisin and trails through Sterling Island	\$1,450,000
Elm Avenue Realignment	Includes the reconstruction of Elm Avenue into a three-lane road with bike lanes and a single-lane compact roundabout	\$1,155,750
Subtotal (not including soft costs)		\$19,193,600
Soft Costs		
General Conditions (5%)		\$959,680
Design Contingency (10%)		\$2,015,328
Subtotal		\$22,168,608
Soft Costs (25%)		\$5,542,152
Building and Site Improvements Total		\$27,710,760
LAND ACQUISITION		
Parcels		Total
6		\$1,920,000
ACTIVITY ZONE TOTAL		\$29,630,000

Note: See Appendix B for Detailed Estimate

Activity Zone 5: Waterfront Development

A waterfront development on the banks of the River Raisin creates opportunities for visitors to dine and stay overnight in close proximity to RRNBP. Marine, automobile, and non-motorized traffic would all have access to this amenity. In addition, this waterfront complex provides an opportunity to conduct ferry service to Put-In-Bay to visit Perry's Victory and International Peace Memorial and water tours of the Detroit River International Wildlife Refuge.



Activity Zone 6: Entertainment

Opinion of Probable Cost

BUILDING AND SITE IMPROVEMENTS		
Component	Description	Total
Site Preparation	Soil erosion control measures, traffic control, fencing, and other site preparation measure	\$17,350
Amphitheater	A bandshell with a large-capacity (around 10,000) amphitheater with restrooms, picnic pavilions, a playground, and river overlooks	\$5,105,989
Boat Launch and Parking Lot	Improvements to the Hellenberg Field boat launch and parking lot including an accessible kayak / canoe launch	\$702,000
Front Street Removal and Realignment	The removal of the existing Front Street and realignment connecting to 1st Street as a three-lane roadway	\$976,520
Subtotal (not including soft costs)		\$6,801,859
Soft Costs		
General Conditions (5%)		\$340,092
Design Contingency (10%)		\$714,195
Subtotal		\$7,856,147
Soft Costs (25%)		\$1,964,036
Building and Site Improvements Total		\$9,820,184
LAND ACQUISITION		
	Parcels	Total
	26	\$745,000
ACTIVITY ZONE TOTAL		\$10,565,000

Note: See Appendix B for Detailed Estimate

Activity Zone 6: Entertainment

Hellenberg Field can be transformed into a waterfront entertainment and gathering zone with the addition of a large amphitheater, picnic pavilions, a playground, and an improved boat launch featuring an accessible canoe and kayak launch. The realignment of Front Street into First Street will create a large, contiguous area and also ease the transition of traffic into downtown Monroe.

Hellenberg Field's location on the River Raisin and its ease of access to I-75 strategically makes this location suitable for performances catering to a regional audience.



Activity Zone 7: Greenway

Opinion of Probable Cost

BUILDING AND SITE IMPROVEMENTS		
Component	Description	Total
South Pedestrian Underpass	Pedestrian tunnel under the railroad tracks between the proposed South Peace Garden, Greenway, and Amphitheater	\$1,498,000
Greenway to Plum Creek	A 3/4 mile asphalt path along the route of the retreat of the American soldiers to Plum Creek	\$639,227
Pedestrian Bridge along Railroad Tracks	A pedestrian bridge addition to the rail trestle across the River Raisin	\$600,000
Kentucky Ave / Winchester St Connection for Coastal Loop	A new roadway connection that connects Kentucky Avenue to Winchester Street near Plum Creek	\$393,500
Subtotal (not including soft costs)		\$3,130,727
Soft Costs		
General Conditions (5%)		\$156,536
Design Contingency (10%)		\$328,726
Subtotal		\$3,615,990
Soft Costs (25%)		\$903,997
Building and Site Improvements Total		\$4,519,987
LAND ACQUISITION		
Parcels		Total
30		\$1,035,000
ACTIVITY ZONE TOTAL		\$5,555,000

Note: See Appendix B for Detailed Estimate

Activity Zone 7: Greenway

The Kentucky Trail Greenway transforms derelict industrial properties between the two rail lines into a non-motorized transportation route and linear greenway park that guides visitors along the path of the Kentucky Militia's retreat from the Battles of the River Raisin to Plum Creek. In addition to its interpretive and recreational benefits the park will also connect the adjacent neighborhoods and provide much needed recreation and open space.

The Dequindre Cut in Detroit similarly transformed the rail line in the City of Detroit into a linear park with a shared pathway.



The Dequindre Cut
Detroit, MI
www.m-bike.org

SEQUENCING PLACEMAKING STRATEGIES

In October 2010 the City of Monroe was given an incredible gift: River Raisin National Battlefield Park.

The City of Monroe enjoys a status which makes other communities envious. It is the third-oldest established settlement in the State of Michigan, the focus of a major battle of the War of 1812, the home of General George Custer, contributor to the Civil War effort, epicenter to the organized labor movement, and the site of numerous residential and commercial historic structures. Its greatest unappreciated and underutilized asset is its history. Historic preservation has never been considered an economic generator of revenue and jobs for the community. On the contrary, as exhibited in other historic towns and public/private studies, historic preservation can be used to increase property values, create jobs, and establish an attractive and viable community to live in and conduct business. If implemented correctly, historic preservation can create a sense of place, a regional destination, and serve as a local generator of wealth.

Once a hub for the automotive and paper industries, the City of Monroe, like other cities in the midwest, has lost its post World War II employment base. As middle income jobs declined and residents either found work in adjacent communities or relocated to other regions, Monroe's neighborhoods and downtown began to change. The neighborhoods, especially those south of the River Raisin, have slowly evolved from bastions of home ownership to rental communities and the downtown, once the retail service center for Monroe County, is now a collection of first-floor offices for companies dependent on the Monroe County Courthouse. Although the City has several large National Register of Historic Places districts and an enviable collection of historic commercial structures, little has been accomplished from a public policy standpoint to preserve and protect these irreplaceable assets.

In today's New Economy, those communities that maximize their assets and enact public policies to leverage those assets are the communities that are sought



after by employers, families and young professionals. Governor Snyder agrees, saying, “I don’t separate placemaking from economic development. They are intertwined.”

To capture the full potential of the RRBNP, the City will need to fully leverage the value of its historic assets and the real economy they can harness for the future. The economic impact at the local level is significant, but if local businesses fail to increase their “visitor appeal” by providing a well-designed, historic appropriate atmosphere with a diversity of retail and restaurant venues, then the added dollars that should have come to the area will be lost.

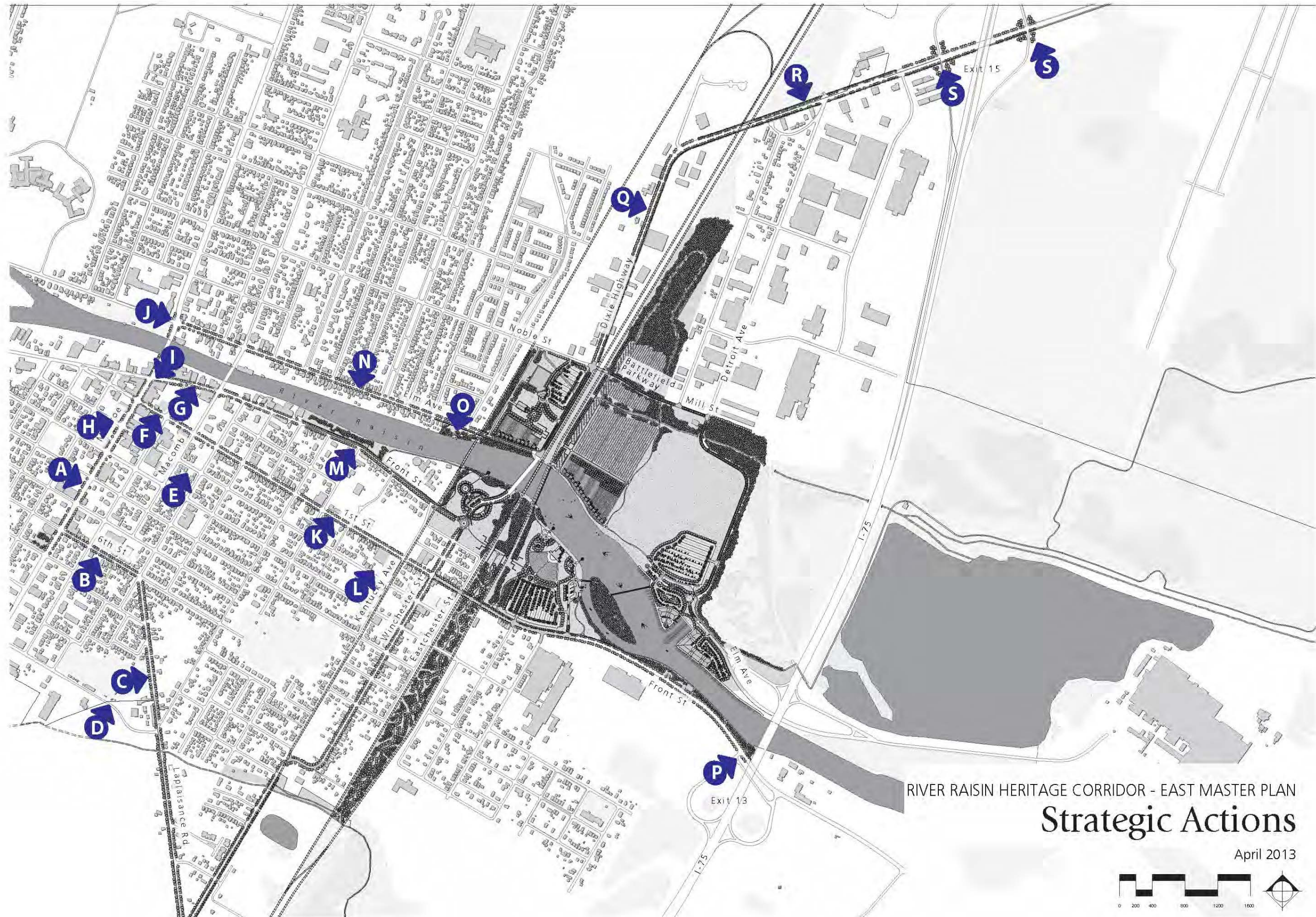
Because the master plan as envisioned is transformative in nature the public sector will need to take the appropriate measures to position the community to take advantage of the added dollars flowing into the economy. This will require a fundamental shift in public policy, planning and zoning, downtown revitalization and capital improvement financing. The goals of the 2010 City Council of Monroe call for the integration of historic preservation into the city’s overall economic development strategy. However, to be truly effective, this goal needs to permeate through the various authorities, commissions, committees and departments that operate under the City’s organizational umbrella. This municipal organizational structure is referred to as “community alignment” where all of the parts and pieces work toward the implementation of a common goal.

For example, there are several projects identified that require Monroe Citizen Planning Commission involvement and these include zoning modifications to either incorporate building design guidelines in the current zoning ordinance or create a form-based code for the downtown, as well as, regulate land uses and signage adjacent to battlefield area. Likewise, the Downtown Development Authority (DDA) needs to require all facade grant recipients to follow local

or national standards applicable to the renovation and rehabilitation of historic structures. This merger between planning initiatives and DDA funding is an example of community alignment.

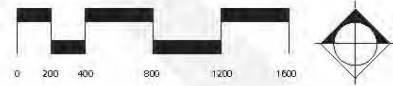
Lastly, discretionary capital improvements funding should be prioritized to implement local projects that support the plan. Successful execution of multiple small projects over time have a large impact on the full build-out and realization of the program.

The map entitled “Strategic Actions” highlights a variety of projects that would support the notion that the City should become a historic destination-city with a National Park versus a National Park adjacent to a city.



RIVER RAISIN HERITAGE CORRIDOR - EAST MASTER PLAN
Strategic Actions

April 2013



ACTIONS THAT CREATE PLACE AND DESTINATION

	Project	Description
A	South Monroe Street Tree Planting	Install trees along South Monroe with uniform spacing and 3" to 3 1/2" caliber to create a defined corridor.
B	6th Street Tree Planting	Install trees along East Sixth Street with uniform spacing and 3" to 3 1/2" caliber to create a defined corridor.
C	LaPlaisance Road Tree Planting	Install trees along LaPlaisance Road with uniform spacing and 3" to 3 1/2" caliber to create a defined corridor.
D	Jones Avenue Beautification	Implement a streetscape program with sidewalks, trees and uniform lighting to transform this "industrial" looking corridor into a primary entrance to the City.
E	Old Village Plat Historic District	Enact a district-wide historic district to preserve and protect this historic residential neighborhood.
F	First Street One-Way Conversion	Convert First Street from Monroe Street to Macomb Street back to two-way traffic
G	Front Street One-Way Conversion	Convert Front Street between Monroe Street to Macomb Street back to two-way traffic.
H	South Monroe Street Streetscape	Extend the downtown streetscape from First Street to Second Street in order for the RRCA and Museum.
I	Downtown Facade Guidelines and Form Based Code	Enact a form-based code for the downtown to regulate uses by floor and design elements on the exterior facades.
J	North Monroe Street and Elm Avenue District Improvements	Improve this key intersection with consistent landscaping and pedestrian lighting on all corners. In addition, extend the downtown streetscape along the east side of North Monroe Street from Elm Avenue to Willow.
K	First Street Streetscape	Implement a program to install pedestrian lights and uniform street trees.
L	In-Fill Redevelopment	Prepare a redevelopment plan for new infill development to replace the former industrial buildings. Consider using the former Lincoln School site as a building location for a new elementary school.
M	Front Street Streetscape	Implement a program to install pedestrian lights and uniform street trees. In addition, enlarge the sidewalk to 12' to 14' as a shared pathway to connect with the downtown Riverwalk.
N	Elm Avenue Streetscape	Implement a program to install pedestrian lights and uniform street trees.
O	C.D. Cappuccilli Park	Improve the park with overlook, pathways and pedestrian lights.
P	I-75 / Front Street Interchange	Landscape the interchange and install welcome sign.
Q	North Dixie Corridor Improvements	Enact a beautification and design plan to mitigate the industrial and "back yard" atmosphere of this corridor.
R	North Dixie Overlay District	Enact an overlay district which regulates land uses and prohibits freestanding pole signs.
S	I-75 / North Dixie Interchange	Landscape the interchange.



Economic Impact

Estimating the economic impact of the current configuration of the River Raisin National Battlefield Park and how this would change with implementation of the Master Plan.

INTRODUCTION

Many communities across the United States have effectively leveraged their historic assets to create place and increase wealth within the local economy. Midwest communities are accustomed to competing for industrial and manufacturing plants because of job creation and tax base appreciation. However, these proposals sometimes require the offer of sizeable tax abatements and other incentives to anchor the proposed plant to the community. Because manufacturing facilities can be mobile there is competition between communities and states to secure their placement. On the contrary, historic assets are not mobile and therefore attract little attention as economic generators for jobs and wealth. Improvements proposed in this master plan will increase the number of visitors coming to the City to visit the battlefield and other associated facilities. Each visitor has the propensity to spend money on food, gasoline,

lodging, retail goods, and/or admission fees, which in turn is churned through the local economy. The community will then have the opportunity to capture potential expenditures. For example, if a family visits the National Park and decides to find a location to eat, will they decide to visit a vibrant downtown with a collection of eateries, eat at an interchange fast food restaurant or decide to eat somewhere on the way home. There are choices within the market, and the Monroe community will need to decide how large a piece of the expenditure pie they wish to consume. As a result, potential local expenditures available from visitors are discretionary expenditures and can be lost if the marketplace is not positioned to capture those expenditures.

ESTIMATING THE ECONOMIC SIGNIFICANCE OF VISITS TO RECREATIONAL AREAS

Input-Output Models

Visitors drawn in by recreational public spaces spend money that has a financial effect on predictable segments of the local economy. Some examples of the economic segments of the economy associated with recreational visitors are: Restaurants and Bars, Hotel/Motel and B&B, and Recreation and Entertainment.

Several layers of economic effects must be taken into consideration when modeling and estimating the economic significance of recreational areas. The *direct effects* of visitor expenditures are those that result from actual purchases made by visitors. *Indirect effects* are said to occur when suppliers to the local businesses must order more stock to meet increased demand, and in turn the suppliers to those business must increase their stock as well, and so on. The direct and indirect effects of increased economic activity are expected to cause an increased job effect to meet the capacity of increased demand. New jobs create new labor income, which in turn is partially spent on goods and services in the economy. These *induced effects* are captured as part of the total effects of increased visitor spending when aggregated with direct and indirect effects. *Secondary effects* are the sum of indirect and induced effects.¹

Estimating the total direct, indirect, and induced effects done using multipliers. A multiplier is a ratio of the total effects divided by the direct effect. Multipliers are often expressed in decimal form, such as 1.2, which would suggest \$1.20 of total economic impact would be produced for every dollar that resulted from the direct impacts of visitor spending. In essence, multipliers capture the interdependency between sectors in a regional economy, and therefore vary considerably between different economic regions.²

1 Estimating the Effects of Spending: Economic Impacts of Rivers, Trailways and Greenway Corridors. National Park Service. On the web: <http://www.nps.gov/pwro/rtca/econ6.pdf>

2 Stynes, D.J., Propst, D.B., Chang, H., and Sun, Y. 2000.

Input-output models are used to derive the multipliers for local, regional, state, and national economies. Therefore, the inter-relationships between different economic sectors reside in large matrices within these models. When practitioners have a query about the value of an element of the economy, or in our case, the value of annual recreational visitation to a park, the value of these visits and the sectors they impact can be estimated and then plugged into an input-output model that estimates multipliers and produces the estimated economic impact of visits.

Specialized input-output models have been specifically produced for measuring the impact of visitation on federal lands.³ Large investments have been made to build out this software as well as annual survey

Table 1

National avg. visitor spending profiles for high spending area historical sites (2011)	
Local Day User	\$62.21
Non-Local Day User	\$83.10
Events Overnight	\$155.59
Other Overnight	\$287.55

techniques that create estimates of different types of users and their respective spending behavior.⁴ Table 1 provides a summary of the national average of daily visitor spending for the four primary visitor typologies at historical sites in a high spending (population dense) area.

Estimating National Park Visitor Spending and Economic Impacts: the MGM2 Model. On the web: <http://mgm2impact.com/files/MGM2.pdf>

3 Stynes, D.J., Propst, D.B., Chang, H., and Sun, Y. 2000. Estimating National Park Visitor Spending and Economic Impacts: the MGM2 Model. <http://mgm2impact.com/files/MGM2.pdf>

4 Link to NPS Visitor Use Statistics and Data: <https://irma.nps.gov/Stats/>

Table 2

EXISTING ECONOMIC IMPACT ASSESSMENT					
VISITOR SEGMENTATION	Local Day User	Regional Day User	Events Overnight	Motel / Hotel Overnight	
National Average of Visitor Segment	20%	40%	10%	30%	
River Raisin Battlefield National Park	30%	20%	15%	35%	
RRNBP VISITOR SPENDING BY SEGMENT					
	YEAR 2011				
Motel, Hotel and B&B	\$-	\$-	\$-	\$77.00	
Camping Fees	\$-	\$-	\$29.92	\$-	
Restaurants and Bars	\$19.51	\$23.25	\$22.19	\$59.82	
Recreation and Entertainment	\$6.09	\$6.09	\$6.09	\$6.09	
Groceries	\$9.52	\$8.51	\$28.16	\$10.11	
Gas and Oil	\$13.93	\$24.89	\$41.16	\$24.29	
Local Transportation	\$-	\$0.36	\$41.81	\$0.87	
Retail Purchases	\$13.16	\$16.57	\$20.50	\$27.51	
Total	\$62.21	\$79.67	\$149.22	\$205.69	
TOTAL SPENDING 2011	\$270,284	\$253,825	\$347,318	\$591,288	\$1,462,715
RRNBP VISITOR SPENDING BY SEGMENT					
	YEAR 2012				
Motel, Hotel and B&B	\$-	\$-	\$-	\$77.00	
Camping Fees	\$-	\$-	\$30.73	\$-	
Restaurants and Bars	\$20.20	\$24.07	\$22.98	\$61.93	
Recreation and Entertainment	\$6.09	\$6.09	\$6.09	\$6.09	
Groceries	\$9.85	\$8.81	\$29.14	\$10.46	
Gas and Oil	\$15.54	\$27.78	\$46.67	\$27.11	
Local Transportation	\$-	\$0.38	\$0.57	\$0.91	
Retail Purchases	\$14.20	\$18.25	\$23.86	\$31.37	
Total	\$65.88	\$85.38	\$160.04	\$214.87	
TOTAL SPENDING 2012	\$339,350	\$379,452	\$519,643	\$861,697	\$2,100,142

Money Generation Model – Version 2 (MGM2)

The primary input-output model that has been utilized by the National Park Service for over a decade is Version 2 of the Money Generation Model, or MGM2.⁵ Currently, the model is being refurbished to a new GIS-capable web-version. That said, the major conceptual elements of the model remain the same. In essence, annual NPS surveys at select parks provide default measurements of visitor counts and spending profiles for different visitor segments in different parks types (historical and national) that are in different metropolitan/rural environments.

As shown in Table 1, four major segments of visitors are shown to have different spending profiles within the local economy: local day users; non-local day users; events overnight or campers; and other overnight or hotel/motel visitors. This table also references a high spending area and a historical site – two more identifiers that build into specification of the segmented spending profiles due to relative metropolitan location and park activity offerings, respectively. The updated MGM2 input-output model used for this analysis takes all of these measures into account when estimating the economic significance of park visitation.

CUSTOMIZED DATA AND BASELINE ECONOMIC SIGNIFICANCE FOR THE RRNBP

Building Localized Spending Profiles

The challenge for RRNBP was to take the default spending profiles offered by the National Park Service (NPS) and build customized spending profiles that more closely matched true visitor expenditures by visitor segment type. This refinement using local data is a critical adjustment for specialized recreational visitor analysis of any one park using input-output models.

As shown in Table 2, the default relative share of user types by user segment at historical sites is 20% local day users, 40% non-local day users, 10% campers, and 30% overnight hotel/motel users.

The administration at RRNBP collected zip code data in a localized park survey that identified the home location of more than 12,000 park visitors. This data

allowed researchers to identify estimates of the actual percentages of user segments. Given that overnight campers primarily during warmer months, the survey data was used to further refine the relative percentages of overnight visitors by weighting out-of-town visitors more heavily as hotel/motel visitors during winter months. All other measurements related to party size, re-entry rate, and group size remained the same as default except average group size for hotel/motel overnight visitors. Default group size is 2.7, but was rounded down to 2.3 because winter visitors were shown to be heavily weighted towards 2 visitors only, drawing the estimate down. Table 2 provides the customized local results for RRNBP spending profile percentages by segment. A copy of the survey used to gather critical location information can be found in Appendix A.

The next critical step in producing a customized local estimate of the economic significance of RRNBP requires an update of the local spending profile segments using some local knowledge. Ultimately, the default estimates were quite reasonable with a few changes. Primarily, changes to the “admissions and fees” segment and the “hotel/motel” segments were updated to reflect the local economy. Admissions and fees were changed due to a fixed offering of activities that both cost \$5, and the hotel/motel expense was updated to reflect federal overnight hotel reimbursement levels for the Monroe, Michigan area. Table 2 reflects the customized local spending profile by visitor segment for 2011 and 2012, Note that the difference between the two years is inflation as shown in the Consumer Price Index.⁶

Total Visitation, Total Expenditures and Geographic Multipliers

2011 visitation was estimated at 36,206 visitors total, and 2012 visits are estimated at 50,507. Visit and trip characteristics in Table 2 are used in the input-output model along with relevant spending profiles and total visitation estimates. Using trip characteristics, relevant spending profiles, and total visitation estimates, total expenditures by visitor segment can be estimated. Table 2 also shows total expenditures at RRNBP by visitor segment for 2011 and 2012.

Plugging visitor spending into the input-output model

⁵ Link to MGM2 Website: <http://mgm2impact.com>

⁶ Bureau of Labor and Statistics Consumer Price Index Calculator: <http://data.bls.gov/cgi-bin/cpicalc.pl>

Table 3

MARGINAL CHANGE IN TOTAL EFFECTS FROM 1% INCREASE IN 2012 VISITS TO RRNBP				
CHANGE IN SALES				
	Local	Regional	MI/OH	National
Total Effect - Baseline 2012	\$2,177,058	\$2,918,965	\$3,137,333	\$4,957,400
Total Effect - 1% Increase from Baseline 2012	\$2,198,828	\$2,948,155	\$3,168,707	\$5,006,974
Marginal Change from 1% Increase in Visits	\$21,771	\$29,190	\$31,373	\$49,574
CHANGE IN JOBS				
	Local	Regional	MI/OH	National
Total Effect - Baseline 2012	30.1	33.5	36.1	44.0
Total Effect - 1% Increase from Baseline 2012	30.4	33.8	36.4	44.4
Marginal Change from 1% Increase in Visits	0.3	0.3	0.4	0.4
CHANGE IN LABOR INCOME				
	Local	Regional	MI/OH	National
Total Effect - Baseline 2012	\$676,049	\$964,598	\$1,014,036	\$1,524,596
Total Effect - 1% Increase from Baseline 2012	\$682,809	\$974,244	\$1,024,177	\$1,539,842
Marginal Change from 1% Increase in Visits	\$6,760	\$9,646	\$10,140	\$15,246
CHANGE IN VALUE ADDED				
	Local	Regional	MI/OH	National
Total Effect - Baseline 2012	\$1,264,539	\$1,867,515	\$1,751,733	\$2,663,045
Total Effect - 1% Increase from Baseline 2012	\$1,277,184	\$1,886,190	\$1,769,250	\$2,689,675
Marginal Change from 1% Increase in Visits	\$12,645	\$18,675	\$17,517	\$26,630

that estimates geographic multipliers at the local, regional, statewide and national scales is critical to learn the comprehensive economic significance of RRNBP. Therefore, four runs of the model must be performed for each year that total visits available. Local models represent the economic significance of the park to Monroe County alone. Regional models represent the economic significance of the park to all counties within one hour driving distance, including Washtenaw, Wayne, Lenawee, Fulton, Lucas, Wood, Ottawa, and Monroe counties. Statewide models represent the economic significance of the park to Michigan and Ohio economies in total. Finally, national models for 2011 and 2012 represent the total economic significance of the park to the entire U.S. economy.

IMPACT ESTIMATES FROM MARGINAL INCREASES IN VISITATION AND PROPOSED DEVELOPMENTS

Estimating the Economic Significance of Marginal Increases in Visitation

Marginal increases in visitation are a critical measurement to show how incremental change in visitation is valued. For every 1% increase in visitation from the 50,507 baseline visits in 2012, there will be a \$21,771 increase in total effects in the local economy, a \$29,190 increase in the regional economy, a \$31,373 increase in the Michigan/Ohio economies, and a \$49,574 increase in the national economy. For every 1% increase in visitation from the 2012 baseline there will be roughly 0.3 local jobs created, meaning that every time RRNBP increases visitation by about 1,500 per year, one new local job is created. For every 1% increase in visitation there are roughly 3.4 jobs created regionally, 6 jobs created in the Michigan and Ohio economies, and 14 jobs created nationally. Every incremental increase in visitation also has an associated positive change in labor income and value-added at the hyper-local, regional, statewide and national level. The 5% and 10% marginal increases are simply marginal increases that are 5 and 10 times larger.



CASE STUDIES

Comparable parks around the country were studied in an attempt to forecast the amount of visitation the RRNBP might receive.

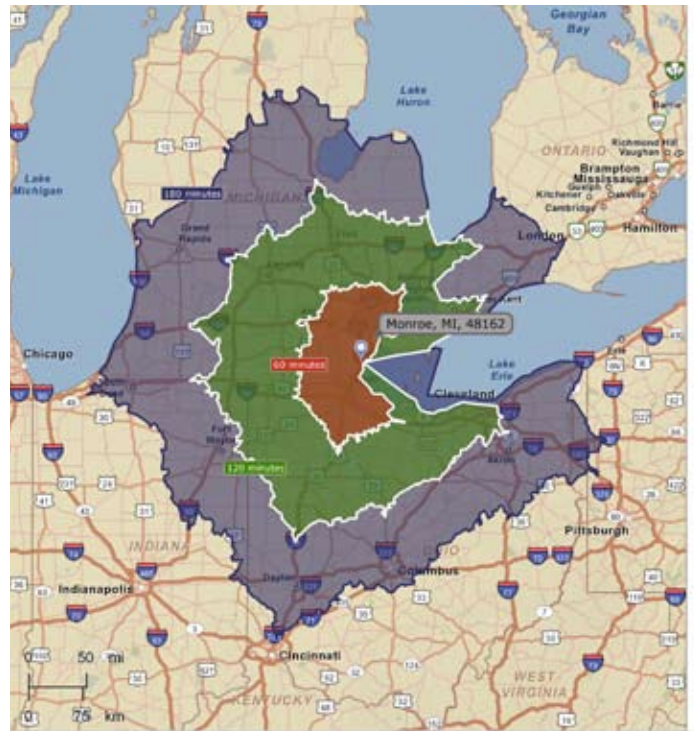
River Raisin National Battlefield Park

Subject Site



- **LOCATION:** Monroe, Michigan
- **SIZE:** 42 acres
- **VISITOR CENTER:** 139,000 square feet
- **ANNUAL VISITORS:** 50,507 (2012)

The River Raisin National Battlefield Park was established as the 393rd unit of the United States National Park Service under Title VII of the Omnibus Public Land Management Act, which was signed into law on March 30, 2009. The park is located in the city of Monroe in Monroe County, Michigan. It was designated as a Michigan Historic Site on February 18, 1956 and was added to the National Register of Historic Places on December 10, 1982. It officially began operation as a national park unit on October 22, 2010 and is the only national battlefield park from the War of 1812.



Key Statistics	
1 Hour Drive Time	
Population	4,323,522
Households	1,713,525
2 Hour Drive Time	
Population	9,076,009
Households	3,580,602
3 Hour Drive Time	
Population	18,968,772
Households	7,468,682

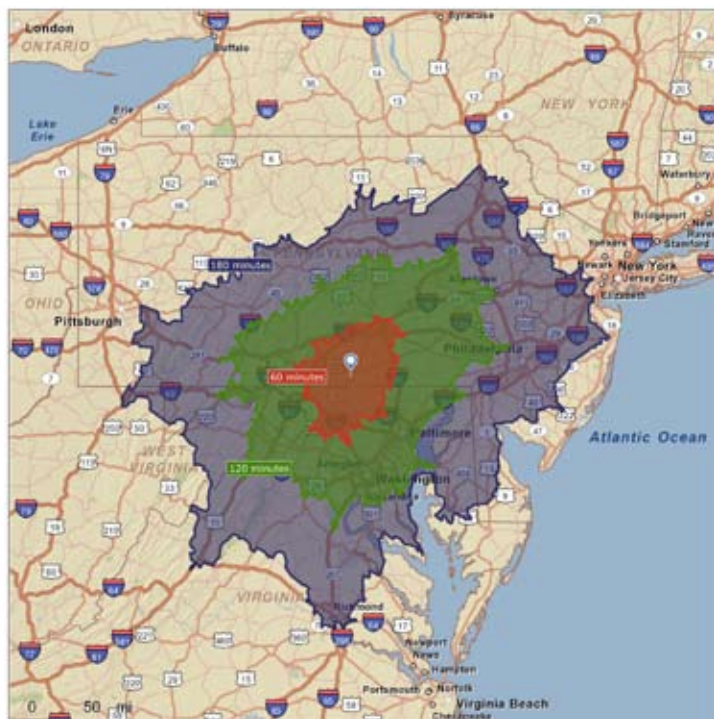
*Gettysburg National Military Park
High Range*



Photo by Bill Dowling

- LOCATION: Gettysburg, Pennsylvania
- SIZE: 5,989 acres
- VISITOR CENTER: 139,000 square feet
- ANNUAL VISITORS: 1.2 Million

The newly built museum and visitor center at Gettysburg National Military Park was a public-private partnership between the Gettysburg National Battlefield Museum Foundation and the National Park Service. The facility replaced the previous 87-year-old visitor center, and features a cyclorama painting, gallery collections storage, education spaces, and food service amenities. According to the Gettysburg Convention and Visitors Bureau, the 5,898 acre Gettysburg National Military Park receives 1.12 million visits annually.



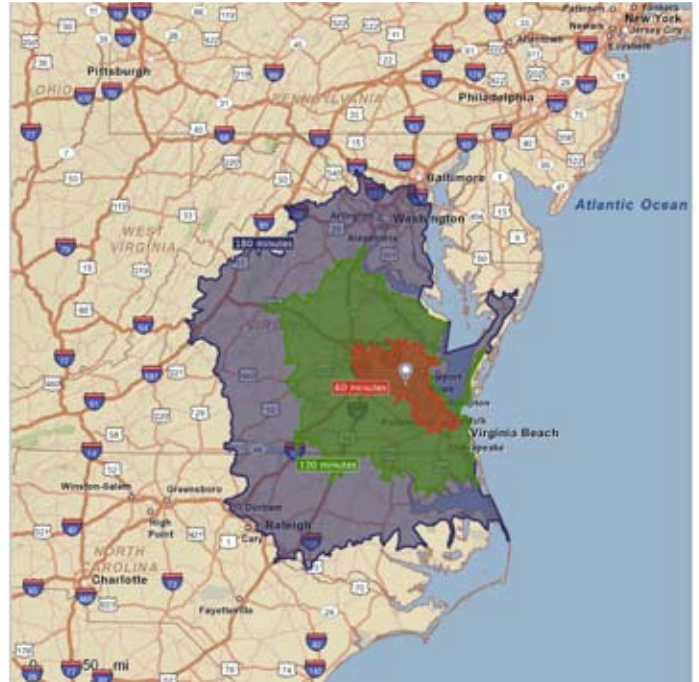
Key Statistics	
1 Hour Drive Time	
Population	1,594,427
Households	616,452
2 Hour Drive Time	
Population	11,710,056
Households	4,456,443
3 Hour Drive Time	
Population	24,965,732
Households	9,458,638

Jamestown Settlement
Mid Range



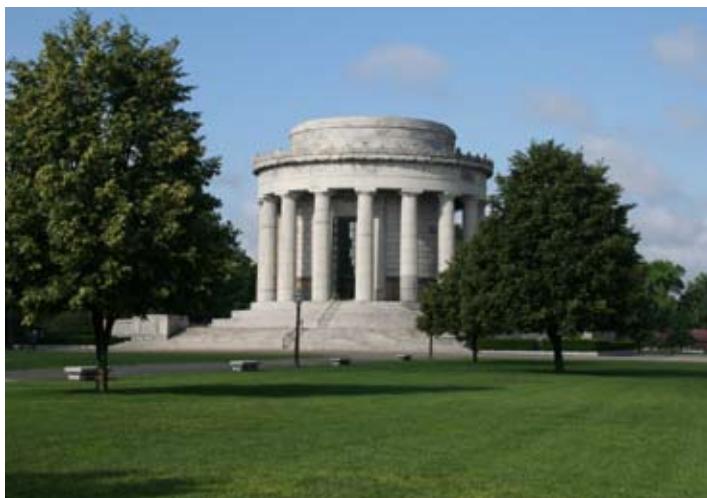
- LOCATION: Williamsburg, Virginia
- SIZE: 46 acres
- VISITOR CENTER: 89,000 square feet
- ANNUAL VISITORS: 461,274

Adjacent to Historic Jamestown, the archeological site on Jamestown Island, is Jamestown Settlement – a 46 acre living history experience. Jamestown Settlement includes a re-created Powhatan village, a re-created colonial fort, a visitor center and museum, and three ships that are replicas of those that sailed to Virginia in 1607. According to paid ticket sales, visitation to Jamestown Settlement was 402,318 in 2012. In addition, there were 58,956 complimentary admissions to the site.

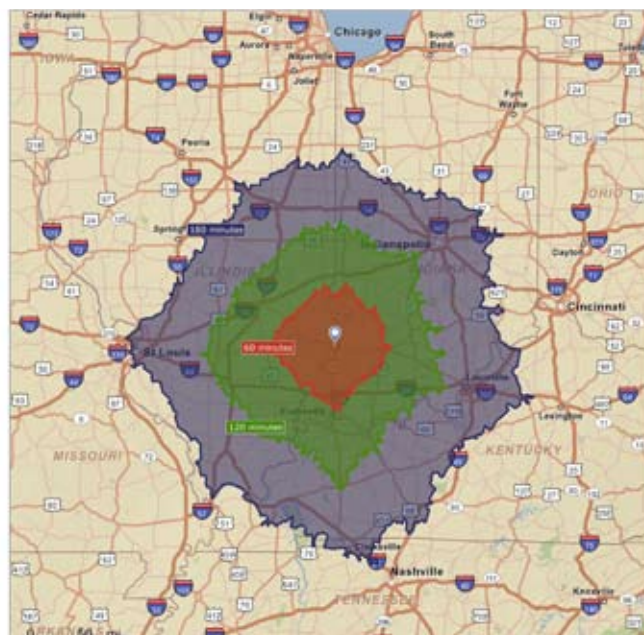


Key Statistics	
1 Hour Drive Time	
Population	2,081,653
Households	802,186
2 Hour Drive Time	
Population	3,860,996
Households	1,454,999
3 Hour Drive Time	
Population	11,690,993
Households	4,411,857

George Rogers Clark National Historic Park
Low Range



- LOCATION: Vincennes, Indiana
- SIZE: 26 acres
- VISITOR CENTER: 4,000 square feet
- ANNUAL VISITORS: 125,972



The “conqueror of the Old Northwest Territory” is celebrated in this 26-acre park. The George Rogers Clark Memorial rotunda, undergoing reconstruction to address leakage problems that have been ongoing almost since the memorial’s completion in 1933, displays a 28-foot tall bronze statue of Clark surrounded by seven oil on canvas murals depicting his expedition. Almost 126,000 visitors are admitted annually.

Key Statistics	
1 Hour Drive Time	
Population	263,576
Households	102,864
2 Hour Drive Time	
Population	1,591,100
Households	628,890
3 Hour Drive Time	
Population	7,622,928
Households	3,013,378

Table 4

TABLE 4: COMPARISON OF THE RRNBP TO CASE STUDIES							
	Data Gathered				Comparables ¹		
	River Raisin National Battlefield Park Monroe, MI	Gettysburg Battlefield and National Park Gettysburg, PA	Jamestown Settlement Williamsburg, VA	George Rogers Clark National Historic Park Vincennes, IN	RRNBP to Gettysburg Battlefield and National Park	RRNBP to Jamestown Settlement and Yorktown Victory Center	RRNBP to George Rogers Clark National Historic Park
Population							
1-Hour Drive	4,323,522	1,594,427	2,081,653	263,576	271%	208%	605%
2-hour Drive	9,076,009	11,710,056	3,860,996	1,591,100	78%	235%	736%
3-Hour Drive	18,968,772	24,965,732	11,690,993	7,622,928	76%	162%	328%
Households (Hhld)							
1-Hour Drive	1,713,525	616,452	802,186	102,864	278%	215%	599%
2-hour Drive	3,580,602	4,456,443	1,454,999	628,890	80%	246%	709%
3-Hour Drive	7,468,682	9,458,638	4,411,857	3,013,378	79%	169%	314%
Entertainment / Fees							
1-Hour Drive	\$ 969,000,000	\$ 417,000,000	\$490,000,000	\$ 39,000,000	232%	198%	1069%
2-hour Drive	\$1,900,000,000	\$3,700,000,000	\$946,000,000	\$ 254,000,000	51%	201%	1457%
3-Hour Drive	\$3,900,000,000	\$7,300,000,000	\$3,500,000,000	\$1,400,000,000	53%	111%	521%
Entertainment / Fees/per Hhld							
1-Hour Drive	\$561	\$676	\$611	\$379	84%	93%	178%
2-hour Drive	\$531	\$830	\$650	\$404	64%	82%	206%
3-Hour Drive	\$522	\$772	\$793	\$465	68%	66%	166%
Visitors							
Visitors		1,126,577	461,274	125,972	Sources: ESRI Business Analyst Gettysburg Visitor Center (2012) Jamestown Settlement Visitor Data (2012) NPS Park Statistics		
Acreage of Facility	42	5,989	46	26			
Visitor per Acre	-	188	10,01128	4,814			
Visitor Center Size (sq. ft.)	53,745	139,000	89,000	4,000			
Visitors per Sq.Ft. of Visitor Center	5.500	8.105	5,183	31.493			
Visitor Forecast							
Existing Visitor Center w/mod Improvements							60,000
New Visitor Center							295,598
Frenchtown Settlement							115,319
Performance Area							45,000
Parks & Trails							54,000

1: Note: Percentage greater than 100% indicates that the RRNBP compares more favorably than case studies.

IMPACT ESTIMATES FROM POTENTIAL VISITOR INCREASES ASSOCIATED WITH PROPOSED DEVELOPMENTS

Visitor Forecast Methodology

To determine the number of visitors that might travel to the renovated River Raisin National Battlefield Park in the first year that each improvement becomes available to the public, a series of calculations was performed. Data from the case studies was compared to the proposed improvements at the RRNBP and some conservative assumptions were made to attempt to forecast future visitation rates. For an overview of the sites selected as comparables, see the next page, "Case Studies".

The forecasted visitation rates by activity area were then applied to the multipliers derived from the MGM2 Model. to estimate the built-out economic development impacts. Because the actual timing of the activity areas is not known the economic impact was not phased over a period of years and was estimated based on its full build-out using the 2012 multiplier.

It is important to note that if the facilities and properties affiliated with the RRNBP remain static and the master plan is not implemented, the annual visitor rate will likely plateau around 60,000 visitors.

New Visitor Center

To determine the visitor forecast for the first year of the new visitor center's operation, the floor area of the proposed visitor center at the RRNBP (53,745) was multiplied by the estimated visitors per square foot (5.5). The estimated number of visitors per square foot was determined by comparing the number of visitors per square foot of the Gettysburg Visitor Center (8.1 visitors per square foot) and the Jamestown Settlement visitor center (4.5 visitors per square foot) and using a visitor per square foot multiplier of 5.5. Using these calculations, an estimated 295,000 visitors might travel to the new visitor center in its first year of operation.

Frenchtown Settlement

To determine the estimated visitation to the proposed Frenchtown Settlement (re-created village), the proposed village was compared to Jamestown Settlement. In 2012, Jamestown Settlement received 402,318 paid visits. In addition, there were 58,956 complimentary admissions to the site. The number of visitors per acre annually at Jamestown Settlement (10,028) was multiplied by the proposed area of the Frenchtown Settlement (11.5 acres) to calculate an estimated 115,000 visitors. The complimentary admissions were not included in this analysis.

Performance Area

Visitation to the amphitheater on the banks of the River Raisin will be determined by how many performances are held annually at the amphitheater and how many people attend each performance. To determine how many attendees will visit the performance area in its first year of operation, an estimated 70% occupied attendance was multiplied by an estimated nine annual performances which totals 45,000 visitors.

Parks and Trails

The proposed parks and trails in the RRNBP master plan total 9 miles. These trails will link Sterling State Park with the RRNBP, downtown Monroe, and all the recreation and historic assets the area has to offer. To determine the number of users these trails might have in the first year of operation, the number of miles of trail was multiplied by an estimated 6,000 users per mile of trail per year. This factor was based on a study performed for the Pere Marquette Trail between Saginaw and Midland which estimated 180,000 users over 30 miles of trail.

Table 5

FORECASTED ECONOMIC IMPACT ASSESSMENT				
VISITOR CENTER				
	Local	Regional	Michigan / Ohio	National
Sales	\$12,715,000	\$17,049,016	\$18,324,000	\$28,955,000
Jobs	175	195	210	256
Labor Income	\$ 3,948,000	\$ 5,634,000	\$ 5,922,000	\$ 8,904,000
Value Added	\$ 7,385,000	\$10,907,000	\$10,231,000	\$15,554,000
FRENCHTOWN SETTLEMENT				
	Local	Regional	Michigan / Ohio	National
Sales	\$4,956,000	\$6,646,000	\$7,143,000	\$11,287,000
Jobs	68	76	82	100
Labor Income	\$1,539,000	\$2,196,000	\$2,308,000	\$3,471,000
Value Added	\$2,879,000	\$4,252,000	\$3,988,000	\$6,063,000
PERFORMANCE AREA				
	Local	Regional	Michigan / Ohio	National
Sales	\$1,939,000	\$2,600,000	\$2,795,000	\$4,416,000
Jobs	26	30	32	39
Labor Income	\$ 602,000	\$ 859,000	\$ 903,000	\$1,358,000
Value Added	\$ 126,000	\$1,663,000	\$1,560,000	\$2,372,000
GREENWAYS, PATHS AND PARKS				
	Local	Regional	Michigan / Ohio	National
Sales	\$2,327,000	\$3,120,000	\$3,354,000	\$5,300,000
Jobs	32	35	38	47
Labor Income	\$ 722,000	\$1,031,000	\$1,084,000	\$1,630,000
Value Added	\$1,351,000	\$1,996,000	\$1,872,000	\$2,847,000
FULL BUILD OUT OF MASTER PLAN				
	Local	Regional	Michigan / Ohio	National
Sales	\$21,937,000	\$29,415,016	\$31,616,000	\$49,958,000
Jobs	301	336	362	442
Labor Income	\$ 6,811,000	\$ 9,720,000	\$10,217,000	\$15,363,000
Value Added	\$12,741,000	\$18,818,000	\$17,651,000	\$26,836,000

Findings from Potential Increase in Visits from Proposed Developments

The forecasted economic impact assessment is based on implementation of each of the main components of the RRNBP and build-out of all the primary and secondary components of the plan. One of the most pronounced attributes of RRNBP is its location within both the Detroit and Toledo Metropolitan Areas and the amount of population and households within an hour drive-time of the National Park. As a result, Table 6 does not include the national economic impact assessment in the breakeven analysis and only considers the regional and state economic impact assessment in this comparison. The breakeven analysis indicates that the Visitor Center would have the quickest impact on the local economy followed by the reconstruction of the Frenchtown Settlement. Even if the visitor attendance projections were adjusted lower, the Visitor Center would have a breakeven is less than 3 years.

Further, the breakeven analysis only accounts for “sales” and does not factor into the calculation “labor income” or “value-added” impact. The conclusion of the breakeven analysis suggests that the proposed improvements will leverage additional dollars into the local economy. Of course, where the added dollars are spent is a function of who provides the venue to capture the disposable income entering the Monroe market. Some of those dollars will likely remain within the general campus of the National Park, particularly at the waterfront development, which will include a variety of retail establishments and restaurants. If Downtown Monroe can evolve from an office center into a traditional retail downtown, some of those dollars will likely migrate there. In summary, dollars will flow to where there is a destination with an experience. This is known as experiential tourism.

CONCLUSION

Will the RRNBP have a favorable impact on the City of Monroe and the greater Monroe area? The answer is yes. Although the costs for each of the project components may seem high, the infusion of dollars into the economy will be significant. Coupled with collaboration, leadership, and focus toward a broader vision for how the City can be transformed into a national destination, the return on investment is very reasonable.

Lastly, the economic impact assessment is not compounded to reflect other residual economic impacts influenced by improving the perception and marketability of the Monroe community. For example, assuming that the master plan is fully built out and the City implements many of the projects outlined in the Placemaking Strategies Action Plan, the other impacts, such as increased market value of homes, added disposable income entering the market due to new families wishing to locate in the City, and the creation of a viable place that attracts younger professionals, etc. are not factored into the analysis. At this juncture, these residual impacts are considered intangible, but they are achievable and could be eventually added to the overall assessment.

The History Corridor East Master Plan leverages the historic, cultural, ecological, and recreational assets of Monroe to create a transformative and sustainable economy for the City for many years to come.

TABLE 6: BREAKEVEN ANALYSIS

Component	Cost	Regional Economic Impact	Breakeven / Years	Michigan/Ohio Economic Impact	Breakeven / Years
Visitor Center	\$15,846,000	\$17,049,016	0.93	\$18,324,000	0.86
Frenchtown Settlement	\$10,360,000	\$ 6,646,000	1.56	\$ 7,143,000	1.45
Performance Area	\$10,565,000	\$ 2,600,000	4.06	\$ 2,795,000	3.78
Greenways, Paths and Parks	\$ 5,555,000	\$ 3,120,000	1.78	\$ 3,354,000	1.66
Full Build Out of Master Plan	\$90,417,000	\$29,415,016	3.07	\$31,616,000	2.86

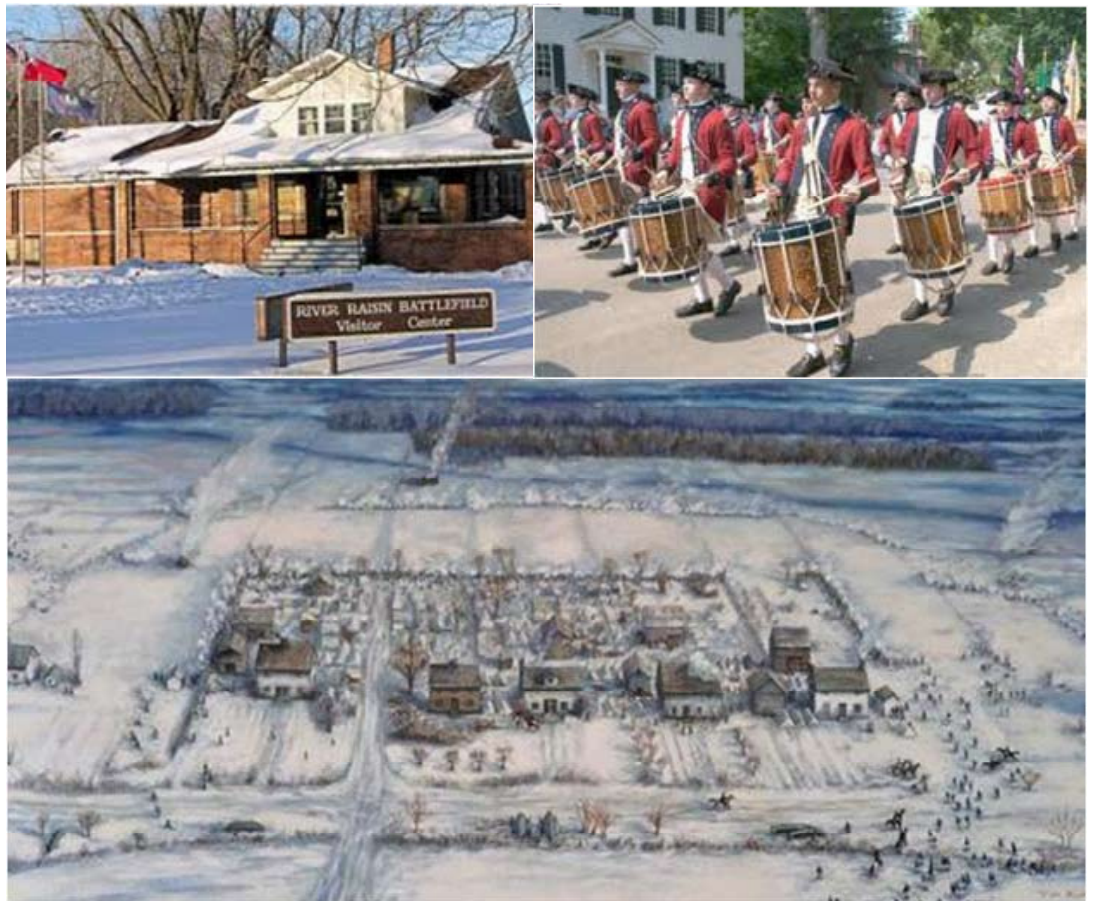
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Appendices

APPENDIX A: ECONOMIC IMPACT REPORT

The Economic Significance of River Raisin National Battlefield Park

Estimating the Baseline Economic Impacts of Visitation in a National Historic



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Dr. Dan Stynes, one of the original creators of the second version of the Money Generation Model, or “MGM2” for the National Park Service, passed away on March 20, 2012. Dan was a dear colleague, and the continuation of his work by Dr. Ed Mahoney and Dr. Yue Cui at Michigan State University is a testament to the depth of knowledge his legacy has passed on to recreation and tourism science. This work would not have been possible without Dan’s uncanny ability and passion to make statistics and economic impact analysis understandable and functional. A further thanks to Dr. Mahoney and Cui for their partnership in running estimations of the economic significance of River Raisin National Battlefield Park with their pilot version of the updated MGM2 modeling software.

Also, thanks to Scott Bentley, Dan Downing and the staff of River Raisin National Battlefield Park for their help in creating strong customized estimates of the economic environment surrounding the park and the place of origin of visitors who pass through their park. Thanks to John Iacoangeli, Dr. Cui and Caitlin Jackson at Beckett & Raeder, Inc. for their hard work, leadership and overall management of this project as well.

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INTRODUCTION

River Raisin National Battlefield Park (RRNBP) was taken under the wing of the National Park Service (NPS) in 2011. The historic site played a significant role in the War of 1812, and is thereby recognized as such. Estimated visitation increased at the park from around 36,000 in 2011 to around 50,000 in 2012. With a near 40% increase in visitation after its initial year of recognition by the NPS, the park expects to see continued increases in new visitors in the years to come through new programming with a leveling off if improvements are not made at the park. Beyond the current park infrastructure, park management is pursuing significant park developments requiring land acquisition, infrastructure, staff and capacity investments that are expected to significantly impact allure to park visitors.

Given current park circumstances and infrastructure, NPS has estimated the aforementioned annual park visitation. Estimated park visits and the spending profiles of those visitors bring economic activity to the City of Monroe, Monroe County and the surrounding region. The economic significance of the park to Monroe County and the surrounding region within a day trip distance bring further economic impact to both the State of Michigan and Ohio as well. The economic significance and impact of recreational visits can be estimated using economic input-output models and localized economic multipliers.

This report utilized state of the art economic input-output modeling software that is designed for recreational tourism in National Parks to estimate the economic significance and impact of visitation at RRNBP in 2011 and 2012. Michigan State University (MSU) researchers are in the process of updating the second version of the NPS Money Generation Model (MGM2). This new software is functional but not yet released. It was accessed for this specific application through partnership with MSU, and guided the data inputs into the economic findings for the park.

Survey data of visitors at RRNBP helped identify the percent of different spending profile types of actual visitors in the data inputs. Spending profiles were updated to reflect true expenses for lodging and other fees in the immediate area that visitors would pay. Findings reflect baseline economic significance of visitation to RRNBP in 2011 and 2012 at the hyper-local, regional, Michigan/Ohio and national scales. Inflation of the findings were made at the 1%, 5% and 10% levels and compared at the same geographic scales to baseline to create an understanding of potential value of marginal visitation increases. Beckett and Raeder, Inc. also devised a method of comparing RRNBP to other parks and the potential visitation increases associated with developments they are proposing in the RRNBP master plan - which will be included in their overall report. These estimated increases in visitation largely inflate baseline estimates and must be thoroughly analyzed for feasibility given the difficulty of measuring actual increases in recreational use from developme

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USING INPUT-OUTPUT MODELS TO ESTIMATE THE ECONOMIC SIGNIFICANCE OF VISITS TO RECREATIONAL AREAS

Visitors drawn in by recreational public spaces spend money that has a financial effect on predictable segments of the local economy. Table 1 provides an example of the economic segments of the economy associated with recreational visitors in the “Spending Category,” column. Several layers of economic effects must be taken into consideration when modeling and estimating the economic significance of recreational areas. The direct effects of visitor expenditures are those that result from actual purchases made by visitors. Indirect effects are said to occur when suppliers to the local businesses must order more stock to meet increased demand, and in turn the suppliers to those business must increase their stock as well, and so on. The direct and indirect effects of increased economic activity are expected to cause an increased job effect to meet the capacity of increased demand. New jobs

create new labor income, which in turn is partially spent on goods and services in the economy. These induced effects are captured as part of the total effects of increased visitor spending when aggregated with direct and indirect effects. Secondary effects are the sum of indirect and induced effects.¹

Estimating the total direct, indirect and induced effects are done using multipliers. A multiplier is a ratio of the total effects divided by the direct effect. Multipliers are often expressed in decimal form, such as 1.2, which would suggest \$1.20 of total economic impact would be produced for every dollar that resulted from the

¹ Estimating the Effects of Spending: Economic Impacts of Rivers, Trailways and Greenway Corridors. National Park Service. On the web: <http://www.nps.gov/pwro/rtca/econ6.pdf>

Table 1: National avg. visitor spending profiles for high spending area historical sites (2011)

Spending Category	Local Day User	Non-Local Day User	Events Overnight	Other Overnight
Motel, hotel cabin or B&B	\$-	\$-	\$-	\$146.55
Camping fees	\$-	\$-	\$29.92	\$-
Restaurants & bars	\$19.51	\$23.25	\$22.19	\$59.82
Groceries, take-out food/drinks	\$9.52	\$8.51	\$28.16	\$10.11
Gas & oil	\$13.93	\$24.89	\$41.81	\$24.29
Other vehicle expenses	\$0.81	\$1.08	\$1.66	\$2.64
Local transportation	\$-	\$0.36	\$0.55	\$0.87
Admissions & fees	\$6.09	\$9.52	\$12.46	\$18.40
Clothing	\$1.12	\$1.99	\$4.57	\$5.04
Sporting goods	\$1.18	\$1.05	\$1.60	\$1.31
Souvenirs and other expenses	\$10.06	\$12.44	\$12.67	\$18.52
Total	\$62.21	\$83.10	\$155.59	\$287.55

direct impacts of visitor spending. In essence, multipliers capture the interdependency between sectors in a regional economy, and therefore vary considerably between different economic regions.

Input-output models are used to derive the multipliers for local, regional, state and national economies. Therefore, the inter-relationships between different economic sectors reside in large matrices within these models. When practitioners have a query about the value of an element of the economy, or in our case, the value of annual recreational visitation to a park, the value of these visits and the sectors they impact can be estimated and then plugged into an input-output model that estimates multipliers and produces the estimated economic impact of visits.²

Specialized input-output models have been specifically produced for measuring the impact of visitation on federal lands.³ Large investments have been made to build out this software as well as annual survey techniques that create estimates of different types of users and their respective spending behavior.⁴ Table 1 provides the national average of daily visitor spending for the four primary visitor typologies at historical sites in a high spending (population dense) area.

GIS-capable web-version. That said, the major conceptual elements of the model remain the same. In essence, annual NPS surveys at select parks provide default measurements of visitor counts and spending profiles for different visitor segments in different parks types (historical and national) that are in different metropolitan/rural environments.

As shown in Table 1 above, four major segments of visitors are shown to have different spending profiles within the local economy: local day users; non-local day users; events overnight or campers; and other overnight or hotel/motel visitors. Table 1 also references a high spending area and a historical site – two more identifiers that build into specification of the segmented spending profiles due to relative metropolitan location and park activity offerings, respectively. The updated MGM2 input-output model used for this analysis takes all of these measures into account when estimating the economic significance of park visitation.

Money Generation Model – Version 2 (MGM2)

The primary input-output model that has been utilized by the National Park Service for over a decade is Version 2 of the Money Generation Model, or MGM2.

⁵ Currently, the model is being refurbished to a new

² Stynes, D.J., Propst, D.B., Chang, H., and Sun, Y. 2000. Estimating National Park Visitor Spending and Economic Impacts: the MGM2 Model. On the web: <http://mgm2impact.com/files/MGM2.pdf>

³ Stynes, D.J., Propst, D.B., Chang, H., and Sun, Y. 2000. Estimating National Park Visitor Spending and Economic Impacts: the MGM2 Model. On the web: <http://mgm2impact.com/files/MGM2.pdf>

⁴ Link to NPS Visitor Use Statistics and Data: <https://irma.nps.gov/Stats/>

⁵ Link to MGM2 Website: <http://mgm2impact.com>

Customizing Data for the Monroe Area

Building Localized Spending Profiles

Our challenge for RRNBP was to take the default spending profiles offered by the NPS and build customized spending profiles that more closely matched true visitor expenditures by visitor segment type. This refinement using local data is a critical adjustment for specialized recreational visitor analysis of any one park using input-output models.

As shown in Table 2, the default relative share of user types by user segment at historical sites is 20% local day users, 40% non-local day users, 10% campers (“events overnight”) and 30% overnight hotel/motel (“other overnight”) users.

Table 2: National avg. of visitor segments for historical sites

SEGMENT	SHARE
Local Day User	20%
Non-Local Day User	40%
Events Overnight	10%
Other Overnight	30%

Thankfully, the staff at RRNBP collected zip code data in a localized park survey (See Appendix 1) that identified the home area of more than 12,000 park visitors. This data allowed researchers to identify estimates of the actual percentages of user segments. Given that

overnight campers are primarily during warmer months, the survey data was used to further refine the relative percentages of overnight visitors by weighting out-of-town winter-time visitors more heavily as hotel/motel visitors during winter months. All other measurements related to party-size, re-entry rate and group size remained the same as default except average group size for hotel/motel overnight visitors. Default group size is 2.7, but was rounded down to 2.3 because winter visitors were shown to be heavily weighted towards 2 visitors during that time of year, drawing the estimate down. Table 3 provides the customized local results for RRNBP spending profile percentages by segment.

The next critical step in producing a customized local estimate of the economic significance of RRNBP requires an update of the local spending profile segments using some local knowledge. Staff from RRNBP, Beckett and Raeder and Griswold Consulting Group met in person to perform this task. Ultimately, the default estimates were quite reasonable with a few changes. Primarily, changes to “admissions and fees” segment and the “hotel/motel” were updated to reflect the local economy. Admissions and fees were changed due to a fixed offering of two activities that both cost \$5, and the hotel/motel expense was updated to reflect federal overnight hotel reimbursement levels for the Monroe, Michigan area at \$77.

Table 3: River Raisin National Battlefield Park Visit/Trip Characteristics by Segment

Visitor Segments	Visitor segment share	Length of stay	Re-entry rate	Average visitor group size
	(park entries)	(days or nights)	(park entries per trip)	
Hyper Local Day Trip	30%	1	1	2.5
Regional Day Trip	20%	1	1.1	2.5
Motel/Hotel Overnight	35%	2.3	1.2	2.3
Events Overnight	15%	1	1.2	2.8

Table 4 below reflects the 2011 customized local spending profiles by visitor segment. Table 4 above provides spending profiles by user segment in 2011 and Table 5 below provides spending profiles by user segment for 2012. Note that the difference between the two years is simply a rate of inflation derived from the Bureau of Labor and Statistics Consumer Price Index between those two years. The spending profiles were derived from the default NPS spending profiles for a historic site in a highly metropolitan area given the status and geographic location of the park.

Table 4 below provides spending profiles by user segment in 2011 and Table 5 below provides spending profiles by user segment for 2012. Note that the difference between the two years is simply a rate of inflation derived from the Bureau of Labor and Statistics Consumer Price Index between those two years.⁶The spending profiles were derived from the default NPS spending profiles for a historic site in a highly metropolitan area given the status and geographic location of the park.

⁶ Bureau of Labor and Statistics Consumer Price Index Calculator: <http://data.bls.gov/cgi-bin/cpicalc.pl>

Table 4: River Raisin NPS Spending in the Local Area by Segment, 2011 (\$ per party per day/night)

Spending category	Visitor Segment			
	Local Day Trip	Regional Day Trip	Motel/Hotel Overnight	Events Overnight
Motel, hotel, B&B	0.00	0.00	77.00	0.00
Camping fees	0.00	0.00	0.00	29.92
Restaurants & bars	19.51	23.25	59.82	22.19
Recreation & entertainment	6.09	6.09	6.09	6.09
Groceries	9.52	8.51	10.11	28.16
Gas & oil	13.93	24.89	24.29	41.81
Local transportation	0.00	0.36	0.87	0.55
Retail purchases	13.16	16.57	27.51	20.50
Total	62.21	79.67	205.70	149.22

Table 5: River Raisin NPS Spending in the Local Area by Segment, 2012 (\$ per party per day/night)

Spending category	Visitor Segment			
	Local Day Trip	Non-local Day Trip	Motel-Outside Park	Camp-Outside Park
Motel, hotel, B&B	0.00	0.00	77.00	0.00
Camping fees	0.00	0.00	0.00	30.73
Restaurants & bars	20.20	24.07	61.93	22.98
Recreation & entertainment	6.09	6.09	6.09	6.09
Groceries	9.85	8.81	10.46	29.14
Gas & oil	15.54	27.78	27.11	46.67
Local transportation	0.00	0.38	0.91	0.57
Retail purchases	14.20	18.25	31.37	23.86
Total	65.89	85.37	214.89	160.04

Total Visitation, Total Expenditures and Geographic Multipliers

2011 visitation was estimated at 36,206 visitors total, and 2012 visits was estimated at 50,507. Visit and trip characteristics in Table 3 above are used in the input-output model along with relevant spending profiles and total visitation estimates. Using these data, total expenditures by visitor segment can be estimated. Tables 6 and 7 below show total expenditures at RRNBP by visitor segment for 2011 and 2012.

Plugging visitor spending into the input-output model that estimates geographic multipliers at the hyper-local, regional, statewide and national scales is critical to learn the comprehensive economic significance of River Raisin National Battlefield Park. Therefore, four runs of the model must be performed for each year that total visits are available. Hyper-local models represent

the economic significance of the park to Monroe County alone. Regional models represent the economic significance of the park to all counties within one hour driving distance, including Lenawee, Monroe, Washtenaw and Wayne Counties in Michigan and Fulton, Lucas, Ottawa and Wood Counties in Ohio. RRNBP impacts both states given its location in the Southeastern border area of Lower Michigan. The counties within 1-hour drive of RRNBP have a total population over 3 million, and this does not include Windsor, Ontario. Statewide models represent the economic significance of the park to Michigan and Ohio economies in total. Finally national models for 2011 and 2012 represent the total economic significance of the park to the entire U.S. economy.

Table 6: National Park Visitor Spending by Segment, 2011 (36,206 Total Visits)

Segment	Total Spending	Percent of Spending
Local day trip	\$270,284	18.48%
Regional day trip	\$253,825	17.35%
Motel/Hotel Overnight	\$591,288	40.42%
Events Overnight (Campers)	\$347,318	23.74%
Total	\$1,462,715	100.00%

Table 7: National Park Visitor Spending by Segment, 2012 (50,507 Total Visits)

Segment	Total Spending	Percent of Spending
Local day trip	\$399,350	18.49%
Regional day trip	\$379,452	17.57%
Motel/Hotel Overnight	\$861,697	39.89%
Events Overnight (Campers)	\$519,643	24.06%
Total	\$2,160,142	100.00%

Baseline Economic Significance of River Raisin National Battlefield Park

Baseline Estimates of RRNBP Economic Significance in 2011 and 2012

Estimates of the economic multipliers in Monroe County, the surrounding region, states and nation are now applied in the unreleased and updated version of MGM2 that resides at Michigan State University. Therefore, total spending estimates derived from each spending profile segment is pushed through the local economy with relevant multipliers and visitation counts and aggregated to arrive at the baseline economic significance of RRNBP. Please note that hyper-local is Monroe County alone, but that Monroe County is aggregated within the baseline estimates at the geographic estimations that are larger – i.e. the economic significance of Monroe County is included within the regional economic significance of the park which includes all of the surrounding counties as well.

RRNBP Baseline Economic Significance, 2011

2011 was the first year that NPS estimated visitation at RRNBP. The fact that RRNBP became a national historic site put the park on more people's radar. The 2011 runs represent the economic significance of 36,206 estimated visitors to the park. The findings from 2011 visitation can be utilized to show the value of a 40% increase in visitation between 2011 and 2012. This 40% jump cannot be expected for every year. It is expected that the initial boost came in part from being nationally recognized, and without significant infrastructure developments at the park, visitation is expected to level off over time.

Hyper-Local Significance - 2011

Table 8 provides the significance of 2011 RRNBP visitation to the hyper-local (Monroe County only) in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$1,483,154, jobs created by visits at 20.5, labor income from visits at \$460,095 and value added to the economy at \$862,684.

Table 8. Economic Significance of River Raisin NPS Visitor Spending to Hyper-Local Economies, 2011

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$221,343	2.8	\$44,524	\$112,091
Camping fees	\$69,646	1.5	\$23,856	\$42,774
Restaurants & bars	\$382,474	7.3	\$136,923	\$204,495
Recreation & entertainment	\$77,544	1.6	\$26,561	\$47,624
Other vehicle expenses	\$18,421	0.2	\$9,867	\$11,194
Local transportation	\$4,937	0.1	\$3,480	\$4,272
Grocery stores	\$43,548	0.8	\$20,852	\$31,234
Gas stations	\$15,346	0.3	\$6,282	\$10,734
Other retail	\$76,953	1.5	\$35,395	\$54,961
Wholesale trade	\$35,640	0.2	\$14,430	\$27,275
Local manufacturing	\$72,978	0.0	\$625	\$20,151
Total Direct Effects	\$1,018,829	16.3	\$322,796	\$566,806
Secondary Effects	\$464,325	4.2	\$137,299	\$295,879
Total Effects	\$1,483,154	20.5	\$460,095	\$862,684

Regional Significance – 2011

Table 9 provides the significance of 2011 RRNBP visitation to the regional economy (Lenawee, Monroe, Washtenaw and Wayne (MI) + Fulton, Lucas, Ottawa and Wood (OH) Counties) in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$1,977,973, jobs created by visits at 22.8, labor income from visits at \$657,031 and value added to the economy at \$1,638,697.

Table 9. Economic Significance of River Raisin NPS Visitor Spending to Regional Economies, 2011

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$221,343	2.8	\$72,028	\$221,343
Camping fees	\$69,646	1.5	\$23,856	\$58,647
Restaurants & bars	\$382,474	7.5	\$136,923	\$388,941
Recreation & entertainment	\$77,544	1.7	\$26,561	\$77,544
Other vehicle expenses	\$18,421	0.2	\$9,867	\$16,956
Local transportation	\$4,937	0.1	\$3,480	\$4,780
Grocery stores	\$43,548	0.8	\$22,934	\$37,469
Gas stations	\$15,346	0.3	\$6,468	\$13,433
Other retail	\$76,953	1.5	\$35,434	\$83,305
Wholesale trade	\$52,308	0.3	\$23,715	\$50,595
Local manufacturing	\$228,163	0.1	\$13,343	\$200,925
Total Direct Effects	\$1,190,682	16.7	\$374,609	\$1,153,938
Secondary Effects	\$787,291	6.1	\$282,423	\$484,759
Total Effects	\$1,977,973	22.8	\$657,031	\$1,638,697

Michigan/Ohio Significance - 2011

Table 10 provides the significance of 2011 RRNBP visitation to the Michigan/Ohio economies in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$2,129,645, jobs created by visits at 24.6, labor income from visits at \$692,283 and value added to the economy at \$1,194,598.

Table 10. Economic Significance of River Raisin NPS Visitor Spending to Michigan and Ohio Economies, 2011

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$221,343	2.8	\$72,028	\$128,944
Camping fees	\$69,646	1.6	\$23,856	\$42,774
Restaurants & bars	\$382,474	7.6	\$136,923	\$204,495
Recreation & entertainment	\$77,544	1.7	\$26,561	\$47,624
Other vehicle expenses	\$18,421	0.2	\$9,867	\$11,194
Local transportation	\$4,937	0.1	\$3,480	\$4,272
Grocery stores	\$43,548	0.8	\$22,934	\$32,366
Gas stations	\$15,346	0.3	\$6,468	\$10,825
Other retail	\$76,953	1.5	\$35,972	\$55,264
Wholesale trade	\$58,190	0.3	\$25,523	\$45,309
Local manufacturing	\$228,163	0.2	\$14,504	\$50,036
Total Direct Effects	\$1,196,565	17.2	\$378,115	\$633,103
Secondary Effects	\$933,080	7.4	\$314,167	\$561,495
Total Effects	\$2,129,645	24.6	\$692,283	\$1,194,598

National Significance - 2011

Table 11 provides the significance of 2011 RRNBP visitation to the national economy in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$3,364,874, jobs created by visits at 30, labor income from visits at \$1,037,878 and value added to the economy at \$1,812,401.

Table 11. Economic Significance of River Raisin NPS Visitor Spending to National Economies, 2011

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$221,343	2.8	\$72,028	\$128,944
Camping fees	\$69,646	1.6	\$23,856	\$43,568
Restaurants & bars	\$382,474	7.6	\$136,923	\$208,253
Recreation & entertainment	\$77,544	1.7	\$26,561	\$48,508
Other vehicle expenses	\$18,421	0.2	\$9,867	\$11,194
Local transportation	\$4,937	0.1	\$3,480	\$4,272
Grocery stores	\$43,548	0.8	\$22,934	\$32,366
Gas stations	\$15,346	0.3	\$6,468	\$10,825
Other retail	\$76,953	1.5	\$36,151	\$55,513
Wholesale trade	\$64,621	0.4	\$28,333	\$50,317
Local manufacturing	\$393,122	0.6	\$39,877	\$96,875
Total Direct Effects	\$1,367,955	17.6	\$406,478	\$690,635
Secondary Effects	\$1,996,919	12.4	\$631,400	\$1,121,766
Total Effects	\$3,364,874	30.0	\$1,037,878	\$1,812,401

RRNBP Baseline Economic Significance, 2012

Findings from the 2012 visitation estimate of 50,507 are used as the baseline from which all projections of inflated visitation are made in both the marginal increase in visitation section of this document as well as the visitation projections made by Beckett and Rader, Inc. in their calculations based on proposed developments to RRNBP. Therefore, Tables 12-15 are the foundational findings of this entire report, and are to be the backstop from which all inflated projections of visitation increases under any circumstances at the park are to be based on.

Hyper-Local Significance - 2012

Table 12 provides the significance of 2012 RRNBP visitation to the hyper-local (Monroe County only) in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$2,177,058, jobs created by visits at 30.1, labor income from visits at \$676,049 and value added to the economy at \$1,264,539.

Table 12. Economic Significance of River Raisin NPS Visitor Spending to Hyper-Local Economies, 2012

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$308,771	3.9	\$62,111	\$156,365
Camping fees	\$99,776	2.1	\$34,177	\$61,279
Restaurants & bars	\$552,372	10.5	\$197,745	\$295,333
Recreation & entertainment	\$108,173	2.3	\$37,053	\$66,435
Other vehicle expenses	\$26,398	0.3	\$14,140	\$16,042
Local transportation	\$7,191	0.1	\$5,068	\$6,222
Grocery stores	\$62,904	1.2	\$30,121	\$45,117
Gas stations	\$23,995	0.4	\$9,823	\$16,783
Other retail	\$140,793	2.7	\$62,703	\$95,686
Wholesale trade	\$51,147	0.3	\$20,709	\$39,143
Local manufacturing	\$113,534	0.1	\$970	\$31,315
Total Direct Effects	\$1,495,053	23.9	\$474,620	\$829,721
Secondary Effects	\$682,004	6.2	\$201,429	\$434,818
Total Effects	\$2,177,058	30.1	\$676,049	\$1,264,539

Regional Significance - 2012

Table 13 provides the significance of 2012 RRNBP visitation to the regional economy (Lenawee, Monroe, Washtenaw and Wayne (MI) + Fulton, Lucas, Ottawa and Wood (OH) Counties) in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$2,918,965, jobs created by visits at 33.5, labor income from visits at \$964,598 and value added to the economy at \$1,867,515.

Table 13. Economic Significance of River Raisin NPS Visitor Spending to Regional Economies, 2012

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$308,771	3.9	\$100,478	\$221,343
Camping fees	\$99,776	2.2	\$34,177	\$58,647
Restaurants & bars	\$552,372	10.8	\$197,745	\$388,941
Recreation & entertainment	\$108,173	2.4	\$37,053	\$77,544
Other vehicle expenses	\$26,398	0.3	\$14,140	\$16,956
Local transportation	\$7,191	0.2	\$5,068	\$4,780
Grocery stores	\$62,904	1.2	\$33,128	\$37,469
Gas stations	\$23,995	0.4	\$10,113	\$13,433
Other retail	\$140,793	2.7	\$62,703	\$83,305
Wholesale trade	\$75,067	0.4	\$34,033	\$50,595
Local manufacturing	\$354,732	0.1	\$20,486	\$200,925
Total Direct Effects	\$1,760,171	24.5	\$549,125	\$1,153,938

Michigan/Ohio Significance - 2012

Table 14 provides the significance of 2012 RRNBP visitation to the Michigan/Ohio economies in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$3,137,333, jobs created by visits at 36.1, labor income from visits at \$1,014,036 and value added to the economy at \$1,751,733.

Table 14. Economic Significance of River Raisin NPS Visitor Spending to Michigan and Ohio Economies, 2012

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$308,771	3.9	\$100,478	\$179,876
Camping fees	\$99,776	2.2	\$34,177	\$61,279
Restaurants & bars	\$552,372	11.0	\$197,745	\$295,333
Recreation & entertainment	\$108,173	2.4	\$37,053	\$66,435
Other vehicle expenses	\$26,398	0.3	\$14,140	\$16,042
Local transportation	\$7,191	0.2	\$5,068	\$6,222
Grocery stores	\$62,904	1.2	\$33,128	\$46,752
Gas stations	\$23,995	0.4	\$10,113	\$16,926
Other retail	\$140,793	2.7	\$63,339	\$96,161
Wholesale trade	\$83,509	0.5	\$36,628	\$65,023
Local manufacturing	\$354,732	0.3	\$21,372	\$77,539
Total Direct Effects	\$1,768,613	25.2	\$553,241	\$927,589
Secondary Effects	\$1,368,720	10.9	\$460,795	\$824,144
Total Effects	\$3,137,333	36.1	\$1,014,036	\$1,751,733

Nationwide Significance

Table 15 provides the significance of 2012 RRNBP visitation to the national economy in the relevant sectors of the economy impacted by recreational visits. Total sales within these sectors from RRNBP visitation is estimated at \$4,957,400, jobs created by visits at 44, labor income from visits at \$1,524,596 and value added to the economy at \$2,663,045.

Table 15. Economic Significance of River Raisin NPS Visitor Spending to National Economies, 2012

Sector/Spending category	Sales	Jobs	Labor Income	Value Added
Direct Effects				
Motel, hotel cabin or B&B	\$308,771	3.9	\$100,478	\$179,876
Camping fees	\$99,776	2.2	\$34,177	\$62,416
Restaurants & bars	\$552,372	11.0	\$197,745	\$300,760
Recreation & entertainment	\$108,173	2.4	\$37,053	\$67,669
Other vehicle expenses	\$26,398	0.3	\$14,140	\$16,042
Local transportation	\$7,191	0.2	\$5,068	\$6,222
Grocery stores	\$62,904	1.2	\$33,128	\$46,752
Gas stations	\$23,995	0.4	\$10,113	\$16,926
Other retail	\$140,793	2.7	\$63,900	\$96,948
Wholesale trade	\$92,738	0.5	\$40,661	\$72,210
Local manufacturing	\$596,180	0.8	\$58,604	\$144,926
Total Direct Effects	\$2,019,290	25.7	\$595,067	\$1,010,747
Secondary Effects	\$2,938,110	18.3	\$929,528	\$1,652,297
Total Effects	\$4,957,400	44.0	\$1,524,596	\$2,663,045

Impact Estimates from Marginal Increases in 2012 Baseline Visitation at RRNBP

Estimating the Economic Significance of Marginal Increases in Visitation

This section focuses on simply inflating 2012 baseline estimates to get a feel for what the value of marginal increases in visitation will look like in hyper-local, regional Michigan/Ohio and national economies. To be clear – this method is not forecasting. Forecasting involves a complete restructuring of the economy in the input-output model, and therefore, a re-estimation of the multipliers. We did not do this, as it is very laborious for a likely insignificantly different result. That said, it is safe to assume the economy will roughly look the same in the future, so basing marginal increases off of how the 2012 baseline economy looks in Monroe County and inflating visitation is a good method to get a reasonable estimate of the value of increased visitation in the future.

Findings from Marginal Increases in Visits: 1%, 5% and 10%

Marginal increases in visitation are a critical measurement to show how incremental change in visitation is valued. For every 1% increase in visitation from the 50,507 baseline visits in 2012 (i.e. increase of ~505 visits), total sales in the relevant sectors will see a \$21,771 increase in the hyper-local, a \$29,190 in regional, \$31,373 in Michigan/Ohio and \$49,574 in the national economies. In terms of jobs, for every 1% increase in visitation from the 2012 baseline there will be roughly 0.3 hyper local jobs created, 0.3 regional jobs created, 0.4 Michigan/Ohio jobs created and 0.4 national jobs created. This means that every time RRNBP increases visitation by about 1,500 visits per year, one new local job is created. Tables showing the total sales and jobs effect from a 1% increase in visits can be seen in Tables 16 and 17. Every incremental increase in visitation also has an associated positive change in labor income and value-added at the hyper-local, regional, statewide and national level, which are show in Tables 18 and 19. The 5% and 10% marginal increases are simply 5 and 10 times larger marginal impacts.

Table 17. Marginal Change in Total Effects in Jobs from 1% Increase in 2012 Visits

	Local	Regional	MI/OH	National
Total Effect - Baseline 2012	30.1	33.5	36.1	44.0
Total Effect - 1% Increase from Baseline 2012	30.4	33.8	36.4	44.4
Marginal Change from 1% Increase in Visits	0.3	0.3	0.4	0.4

Table 18. Marginal Change in Total Effects in Labor Income from 1% Increase in 2012 Visits

	Local	Regional	MI/OH	National
Total Effect - Baseline 2012	\$676,049	\$964,598	\$1,014,036	\$1,524,596
Total Effect - 1% Increase from Baseline 2012	\$682,809	\$974,244	\$1,024,177	\$1,539,842
Marginal Change from 1% Increase in Visits	\$6,760	\$9,646	\$10,140	\$15,246

Table 19. Marginal Change in Total Effects in Value Added from 1% Increase in 2012 Visits

	Local	Regional	MI/OH	National
Total Effect - Baseline 2012	\$1,264,539	\$1,867,515	\$1,751,733	\$2,663,045
Total Effect - 1% Increase from Baseline 2012	\$1,277,184	\$1,886,190	\$1,769,250	\$2,689,675
Marginal Change from 1% Increase in Visits	\$12,645	\$18,675	\$17,517	\$26,630

Hyper-Local Significance

Tables 20-22 provide the different total effects of hyper-local economic significance for 1%, 5% and 10% increases in base year visitation, respectively.

Table 20: 1% Increase from 2012 Visits – Hyper-Local

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,510,004	24.1	\$479,366	\$838,018
Secondary Effects	\$688,824	6.3	\$203,443	\$439,166
Total Effects	\$2,198,828	30.4	\$682,809	\$1,277,184

Table 21: 5% Increase from 2012 Visits – Hyper-Local

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,569,806	25.1	\$498,351	\$871,207
Secondary Effects	\$716,105	6.5	\$211,501	\$456,559
Total Effects	\$2,285,911	31.6	\$709,851	\$1,327,766

Table 22: 10% Increase from 2012 Visits – Hyper-Local

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,644,559	26.3	\$522,082	\$912,693
Secondary Effects	\$750,205	6.8	\$221,572	\$478,300
Total Effects	\$2,394,764	33.1	\$743,654	\$1,390,993

Regional Significance

Tables 23-25 provide the different total effects of regional economic significance for 1%, 5% and 10% increases in base year visitation, respectively.

Table 23: 1% Increase from 2012 Visits - Regional

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,777,773	24.8	\$554,616	\$1,165,478
Secondary Effects	\$1,170,381	9.1	\$419,628	\$720,713
Total Effects	\$2,948,155	33.8	\$974,244	\$1,886,190

Table 24: 5% Increase from 2012 Visits - Regional

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,848,180	25.7	\$576,581	\$1,211,635
Secondary Effects	\$1,216,733	9.4	\$436,247	\$749,256
Total Effects	\$3,064,913	35.2	\$1,012,828	\$1,960,891

Table 25: 10% Increase from 2012 Visits - Regional

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,936,189	27.0	\$604,037	\$1,269,332
Secondary Effects	\$1,274,673	9.9	\$457,021	\$784,935
Total Effects	\$3,210,861	36.8	\$1,061,058	\$2,054,267

Michigan and Ohio Statewide Significance

Tables 26-28 provide the different total effects of Michigan/Ohio economic significance for 1%, 5% and 10% increases in base year visitation, respectively.

Table 26: 1% Increase from 2012 Visits – Michigan and Ohio

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,786,300	25.4	\$558,773	\$936,865
Secondary Effects	\$1,382,407	11.0	\$465,403	\$832,385
Total Effects	\$3,168,707	36.4	\$1,024,177	\$1,769,250

Table 27: 5% Increase from 2012 Visits – Michigan and Ohio

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,857,044	26.4	\$580,903	\$973,969
Secondary Effects	\$1,437,156	11.5	\$483,835	\$865,351
Total Effects	\$3,294,200	37.9	\$1,064,738	\$1,839,320

Table 28: 10% Increase from 2012 Visits – Michigan and Ohio

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$1,945,475	27.7	\$608,565	\$1,020,348
Secondary Effects	\$1,505,592	12.0	\$506,875	\$906,558
Total Effects	\$3,451,067	39.7	\$1,115,440	\$1,926,906

National Significance

Tables 29-31 provide the different total effects of national economic significance for 1%, 5% and 10% increases in base year visitation, respectively.

Table 29: 1% Increase from 2012 Visits - National

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$2,039,483	26.0	\$601,018	\$1,020,855
Secondary Effects	\$2,967,491	18.5	\$938,824	\$1,668,820

Table 30: 5% Increase from 2012 Visits - National

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$2,120,255	27.0	\$624,821	\$1,061,285
Secondary Effects	\$3,085,015	19.2	\$976,005	\$1,734,912

Table 31: 10% Increase from 2012 Visits - National

Effects	Sales	Jobs	Labor Income	Value Added
Total Direct Effects	\$2,221,219	28.3	\$654,574	\$1,111,822
Secondary Effects	\$3,231,921	20.1	\$1,022,481	\$1,817,527
Total Effects	\$5,453,140	48.4	\$1,677,055	\$2,929,349

Recommendations and Considerations

River Raisin National Battlefield Park is a clear asset to the City of Monroe, Monroe County and the surrounding region. Currently supporting over 33 jobs in the region, it brings in nearly 3 million in sales to regional recreation-related industries and almost 1 million in labor income to those involved in the jobs in those sectors. Given the recent NPS accreditation at RRNBP and a jump in visitation after the accreditation was granted, there seems to be momentum for increased use at the park. Given access to over 3 million people in the immediate area, there is a significant population that strategic marketing programs could focus on to increase use at the park. Potential marketing assets such as Sterling State Park and I-75 are in close proximity to RRNBP as well. as close proximity to

Sterling State Park is connected to RRNBP via bike trail, and updates to that trail system are being proposed. Sterling State Park (SSP) is roughly 1,300 acres in size and is the only state park on Lake Erie. The park boasts over a mile of beach, shoreline and lagoon fishing, lakefront camping, boating opportunities and over 6 miles of trails – as mentioned with connection to RRNBP. Over the past 5 years, day users and campers at SSP has fluctuated between roughly 550,000 to over 1 million according to the Michigan Department of Natural Resources. Clearly, through it's close proximity and trails connection, a big opportunity to increase visitation at RRNBP is available through relations with Sterling State Park. The primary issue will be to get visitors to stay an extra for RRNBP activities. Therefore, enough activities must be offered at RRNBP to take up an entire day.

Another clear low-hanging fruit for marketing opportunity to increase visitation to RRNBP is the extremely close proximity to Interstate 75. I-75 is known to travel millions of tourists into Michigan each year.⁷ Although a fraction of the total drivers are potential

visitors, this fraction could be estimated and pointed road sign marketing could be created, offering either day-trip or overnight opportunities associated with RRNBP. With overnight activities, the local offerings of the City of Monroe and other assets such as Sterling State Park will come into play that can slow down tourists to spend in the community while other marketing programs focus on the vast regional opportunities associated with the large nearby population.

RRNBP is poised to increase visitation, but it must be strategic. Identifying infrastructure investments that unlock regional and travel-tourism potential to optimize return on investment will be key. Identifying these measures pragmatically and strategically planning their feasibility and execution will also be essential.

⁷ MDOT Traffic Link for Monroe: http://www.michigan.gov/mdot/0,1607,7-151-9622_11033_11149---,00.html

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RRNBP VISITOR SURVEY

Visitor Survey – October 2011

Date: _____ Time: _____

River Raisin Heritage Trail, River Raisin National Battlefield Park and Wm. C. Sterling State Park

- How frequently do you visit the River Raisin Heritage Trail?
 First Time Daily 2-3 Times per Week 1 Time a Week 1 Time a Month
 1 Time a Year
- What is the main reason you visited the trail and parks today?
 Walk, Hike or Exercise Participate in Active Trails Event Enjoy the Outdoors
 Enjoy Nature Learn About History Picnic
 Volunteer Other: _____
- How important is it to you that the parks offer opportunities for healthy activities such as hiking, exercising, biking or walking?
 Extremely Very Somewhat Not Very Not at all Don't Know
- Have you ever visited any other National Park for healthy activities such as hiking, exercising, biking, boating, or walking?
 If so, how frequently?
- Have you heard any River Raisin Heritage Trail promotions? If so through what?
 Posters Fliers Newspaper Website Radio Television
 Brochure Other: _____
- Do you live within 100 miles of the River Raisin Heritage Trail?
 • What is your zip code?
- How likely are you to return to the heritage trail or parks for healthy activities such as walking, hiking, exercising, or biking?
 Definitely Likely Unlikely Will Not Don't Know
- How likely are you to go to another National Park for healthy activities?
 Definitely Likely Unlikely Will Not Don't Know
- Have you heard or seen anything today from the park about healthy activities and peoples health?
- How many people are with you today and what are their ages & gender?

Visitor #	Age	Gender	Visitor #	Age	Sex	Visitor #	Age	Gender
1			5			9		
2			6			10		
3			7			11		
4			8			12		

- How can we improve the trail or parks?
- What do you like best about the trail or parks?
- How important is the Heritage Trail to the community?
 Extremely Very Somewhat Not Very Not at all Don't Know

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APPENDIX B: COST ESTIMATES

Monroe County Historical Society
 City of Monroe
 History Corridor East - Master Plan I Activity Zone 1 - Visitor Center
 Preliminary Opinion of Probable Construction Cost
 April 2013



Qty	Unit	Description	Unit Cost	Unit Total	Total
Site Preparation					
2,500	lf	Filter Fabric Fence	\$ 3.50	\$ 8,750.00	
1,000	lf	Tree Protection Fence	\$ 3.50	\$ 3,500.00	
1	ls	Traffic Control	\$ 5,000.00	\$ 5,000.00	
3	ea	Stabilized Construction Entrance	\$ 1,200.00	\$ 3,600.00	
					\$ 20,850.00
Visitor Center Renovation					
7173	sf	Building Demolition	\$ 25.00	\$ 179,325.00	
26595	sf	3-Story Building Addition	\$ 135.00	\$ 3,590,325.00	
27150	sf	Building Renovation	\$ 62.50	\$ 1,696,875.00	
300	lf	Boulevard Entrance	\$ 700.00	\$ 210,000.00	
314	sp	Parking Lot	\$ 4,500.00	\$ 1,413,000.00	
900	lf	Drives	\$ 65.00	\$ 58,500.00	
1230	lf	Service Drive	\$ 120.00	\$ 147,600.00	
19500	sf	Service Parking Lot / Maintenance Yard	\$ 10.00	\$ 195,000.00	
830	lf	Concrete Sidewalks (10' width)	\$ 100.00	\$ 83,000.00	
1	ls	General Landscape & Restoration	\$ 150,000.00	\$ 150,000.00	
					\$ 7,723,625.00
Beautification of Dixie Highway					
1150	lf	Roadway Reconstruction as Boulevard	\$ 750.00	\$ 862,500.00	
					\$ 862,500.00
Beautification of Elm Avenue					
617	lf	Street Trees Only	\$ 40.00	\$ 24,680.00	
616	lf	Sidewalk and Street Trees	\$ 140.00	\$ 86,240.00	
100	lf	Sidewalk Only	\$ 100.00	\$ 10,000.00	
					\$ 120,920.00
North Pedestrian Underpass					
1	ls	Site Preparation & Demolition	\$ 100,000.00	\$ 100,000.00	
1	ls	N&S Railroad Detour (Allowance)	\$ 100,000.00	\$ 100,000.00	
1	ls	CN Railroad Temporary Reroute (Allowance)	\$ 250,000.00	\$ 250,000.00	
17763	cy	Cut & Haul	\$ 11.00	\$ 195,393.00	
3056	cy	Earthwork	\$ 6.00	\$ 18,336.00	
9167	sy	Fine Grading	\$ 1.00	\$ 9,167.00	
1	ls	Storm Water Management	\$ 100,000.00	\$ 100,000.00	
232	lf	Culvert Installation	\$ 4,310.00	\$ 999,920.00	
8310	sff	Retaining Walls	\$ 50.00	\$ 415,500.00	
1	ls	General Landscape & Restoration	\$ 40,000.00	\$ 40,000.00	
					\$ 2,228,316.00
Kayak Beach					
0.03	ac	Lawn Demolition & Earthwork	\$ 70,000.00	\$ 2,100.00	
1200	sf	Beach	\$ 2.00	\$ 2,400.00	
1	ls	General Landscape & Restoration	\$ 15,000.00	\$ 15,000.00	
					\$ 19,500.00
					\$ 10,975,711.00
General Conditions (5%)					\$ 548,785.55
Design Contingency (10%)					\$ 1,152,449.66
Subtotal					\$ 12,676,946.21
Soft Costs (25%)					\$ 3,169,236.55
Grand Total					\$ 15,846,182.76

Monroe County Historical Society
 City of Monroe
 History Corridor East - Master Plan | Activity Zone 2 - Peace Gardens & Chapel
 Preliminary Opinion of Probable Construction Cost
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Qty	Unit	Description	Unit Cost	Unit Total	Total
		Site Preparation			
2,000	lf	Filter Fabric Fence	\$ 3.50	\$ 7,000.00	
600	lf	Tree Protection Fence	\$ 3.50	\$ 2,100.00	
1	ls	Traffic Control	\$ 5,000.00	\$ 5,000.00	
3	ea	Stabilized Construction Entrance	\$ 1,200.00	\$ 3,600.00	
					\$ 17,700.00
		North Peace Garden and Chapel			
1.5	ac	Lawn Demolition / Earthwork	\$ 70,000.00	\$ 105,000.00	
9600	sf	Chapel (seats approx.150)	\$ 145.00	\$ 1,392,000.00	
1	ls	Utility Services	\$ 100,000.00	\$ 100,000.00	
15000	sf	Formal Garden	\$ 12.00	\$ 180,000.00	
2000	sf	Plaza	\$ 20.00	\$ 40,000.00	
530	lf	Concrete Sidewalks	\$ 100.00	\$ 53,000.00	
100	lf	Service Drive	\$ 120.00	\$ 12,000.00	
6	sp	Parking Lot	\$ 4,500.00	\$ 27,000.00	
1	ls	Site Lighting	\$ 125,000.00	\$ 125,000.00	
1	ls	General Landscape & Restoration	\$ 100,000.00	\$ 100,000.00	
					\$ 2,134,000.00
		South Peace Garden and Overlook			
37553	sf	Asphalt removal	\$ 1.00	\$ 37,553.00	
46672	sf	Building demolition	\$ 2.50	\$ 116,680.00	
400	lf	Removal of Front Street	\$ 50.00	\$ 20,000.00	
33	sp	Parking Lot	\$ 5,500.00	\$ 181,500.00	
4500	lf	Concrete Walks	\$ 75.00	\$ 337,500.00	
2300	sf	Overlook	\$ 30.00	\$ 69,000.00	
1	ls	Fountains & Water Features	\$ 250,000.00	\$ 250,000.00	
1100	lf	Masonry Walls	\$ 250.00	\$ 275,000.00	
23866	sf	Garden Plantings	\$ 8.00	\$ 190,928.00	
8	ea	Flagpoles	\$ 3,500.00	\$ 28,000.00	
1	ls	Sculpture, Monuments or Public Art Allowance	\$ 250,000.00	\$ 250,000.00	
268	lf	Pergola	\$ 500.00	\$ 134,000.00	
1	ls	Site Furnishings	\$ 25,000.00	\$ 25,000.00	
1	ls	Site Lighting	\$ 185,000.00	\$ 185,000.00	
99	ea	Trees	\$ 450.00	\$ 44,550.00	
1	ls	General Landscape & Restoration	\$ 250,000.00	\$ 250,000.00	
					\$ 2,394,711.00
		Beautification of Front St West of Railroad			
2300	lf	Street Trees	\$ 40.00	\$ 92,000.00	
					\$ 92,000.00
		Traffic Circle at Winchester and Front			
448	lf	Removal of Front Street	\$ 50.00	\$ 22,400.00	
1	ls	Single Lane Compact Roundabout	\$ 280,000.00	\$ 280,000.00	
					\$ 302,400.00
		General Conditions (5%)			\$ 4,940,811.00
		Design Contingency (10%)			\$ 247,040.55
		Subtotal			\$ 5,706,636.71
		Soft Costs (25%)			\$ 1,426,659.18
		Grand Total			\$ 7,133,295.88

Monroe County Historical Society
 City of Monroe
 History Corridor East - Master Plan I Activity Zone 3 - Frenchtown Settlement
 Preliminary Opinion of Probable Construction Cost
 April 2013



Qty	Unit	Description	Unit Cost	Unit Total	Total
Site Preparation					
4,500	lf	Filter Fabric Fence	\$ 3.50	\$ 15,750.00	
2,500	lf	Tree Protection Fence	\$ 3.50	\$ 8,750.00	
1	ls	Traffic Control	\$ 25,000.00	\$ 25,000.00	
3	ea	Stabilized Construction Entrance	\$ 1,200.00	\$ 3,600.00	
					\$ 53,100.00
Historic Village West					
3.7	ac	Lawn Demolition / Earthwork	\$ 70,000.00	\$ 259,000.00	
10	ea	Village Buildings (800 SF)	\$ 80,000.00	\$ 800,000.00	
8	ea	Village Sheds (156 SF)	\$ 15,600.00	\$ 124,800.00	
0	ls	Utility Services	\$ -	\$ -	
2.3	ac	Ribbon Farms Agricultural Land	\$ 5,000.00	\$ 11,500.00	
840	lf	Concrete Sidewalks	\$ 100.00	\$ 84,000.00	
400	lf	Stockade Fence	\$ 50.00	\$ 20,000.00	
1	ls	General Landscape & Restoration	\$ 50,000.00	\$ 50,000.00	
					\$ 1,349,300.00
Historic Village East					
46400	sf	Building Demolition	\$ 3.50	\$ 162,400.00	
33000	sf	Asphalt removal	\$ 1.00	\$ 33,000.00	
1209	lf	Elm Avenue Removal	\$ 50.00	\$ 60,450.00	
15	ea	Village Buildings (800 SF)	\$ 80,000.00	\$ 1,200,000.00	
12	ea	Village Sheds (156 SF)	\$ 15,600.00	\$ 187,200.00	
0	ls	Utility Services	\$ -	\$ -	
3.8	ac	Ribbon Farms Agricultural Land	\$ 5,000.00	\$ 19,000.00	
2.1	ac	Orchard	\$ 28,000.00	\$ 58,800.00	
1815	lf	Concrete Sidewalks	\$ 100.00	\$ 181,500.00	
1614	lf	Stockade Fence	\$ 50.00	\$ 80,700.00	
1	ls	General Landscape & Restoration	\$ 100,000.00	\$ 100,000.00	
					\$ 2,083,050.00
North of Puncheon Fence					
7760	lf	Paths & Trails (10' wide; asphalt)	\$ 80.00	\$ 620,800.00	
20	ac	Agricultural Lands	\$ 5,000.00	\$ 100,000.00	
22	ac	Woods	\$ 20,000.00	\$ 440,000.00	
					\$ 1,160,800.00
Orchards and Vineyards Adjacent to Railroad					
2.6	ac	Orchards	\$ 28,000.00	\$ 72,800.00	
1.7	ac	Vineyards	\$ 15,000.00	\$ 25,500.00	
					\$ 98,300.00
Battlefield Parkway					
385	lf	Road Removal	\$ 50.00	\$ 19,250.00	
1233	lf	Boulevard Roadway	\$ 700.00	\$ 863,100.00	
					\$ 882,350.00
					\$ 5,626,900.00
General Conditions (5%)					\$ 281,345.00
Design Contingency (10%)					\$ 590,824.50
Subtotal					\$ 6,499,069.50
Soft Costs (25%)					\$ 1,624,767.38
Grand Total					\$ 8,123,836.88

Monroe County Historical Society
 City of Monroe
 History Corridor East - Master Plan | Activity Zone 4 - Reenactment
 Preliminary Opinion of Probable Construction Cost
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Qty	Unit	Description	Unit Cost	Unit Total	Total
940	sp	Battlefield Visitor Parking Parking Lot	\$ 3,000.00	\$ 2,820,000.00	\$ 2,820,000.00
Detroit Avenue Removal and Realignment					
2600	If	Boulevard Roadway	\$ 700.00	\$ 1,820,000.00	
1650	If	Remove Detroit Avenue	\$ 50.00	\$ 82,500.00	
				\$ 1,902,500.00	
Battlefield / Festival Area					
34.5	ac	Battlefield Improvements	\$ 10,000.00	\$ 345,000.00	
612	If	Concrete Sidewalks	\$ 100.00	\$ 61,200.00	
963	If	Elm Avenue Removal	\$ 50.00	\$ 48,150.00	
				\$ 454,350.00	
Trailhead					
32	sp	Parking Lot	\$ 5,500.00	\$ 176,000.00	
288	If	Concrete Sidewalks	\$ 100.00	\$ 28,800.00	
				\$ 204,800.00	
					\$ 5,381,650.00
General Conditions (5%)					\$ 269,082.50
Design Contingency (10%)					\$ 565,073.25
Subtotal					\$ 6,215,805.75
Soft Costs (25%)					\$ 1,553,951.44
Grand Total					\$ 7,769,757.19

Monroe County Historical Society
 City of Monroe
 History Corridor East - Master Plan I Activity Zone 5 - Waterfront
 Preliminary Opinion of Probable Construction Cost
 April 2013



Qty	Unit	Description	Unit Cost	Unit Total	Total
Waterfront Complex					
64535	sf	Building Demolition	\$ 10.00	\$ 645,350.00	
275000	sf	Asphalt Demolition	\$ 1.00	\$ 275,000.00	
88600	sf	Retail/Restaurant Development	\$ 145.00	\$ 12,847,000.00	
1	ls	Utility Services	\$ 150,000.00	\$ 150,000.00	
379	sp	Parking Lots	\$ 4,500.00	\$ 1,705,500.00	
1550	lf	Boardwalk	\$ 300.00	\$ 465,000.00	
1	ls	Gazebo	\$ 100,000.00	\$ 100,000.00	
2500	lf	Concrete Walks	\$ 100.00	\$ 250,000.00	
1	ls	General Landscape & Restoration	\$ 150,000.00	\$ 150,000.00	
					<u>\$ 16,587,850.00</u>
Sterling Island and Pedestrian Bridge					
500	lf	Pedestrian Bridge	\$ 2,500.00	\$ 1,250,000.00	
1600	lf	Trails	\$ 125.00	\$ 200,000.00	
					<u>\$ 1,450,000.00</u>
Elm Avenue Realignment					
2800	lf	Elm Avenue Removal	\$ 50.00	\$ 140,000.00	
500	lf	Boulevard Roadway	\$ 700.00	\$ 350,000.00	
1	ls	Single Lane Roundabout	\$ 300,000.00	\$ 300,000.00	
750	lf	Bike Path	\$ 125.00	\$ 93,750.00	
850	lf	3-lane Roadway	\$ 320.00	\$ 272,000.00	
					<u>\$ 1,155,750.00</u>
					<u>\$ 19,193,600.00</u>
General Conditions (5%)					\$ 959,680.00
Design Contingency (10%)					<u>\$ 2,015,328.00</u>
Subtotal					\$ 22,168,608.00
Soft Costs (25%)					<u>\$ 5,542,152.00</u>
Grand Total					<u>\$ 27,710,760.00</u>

Monroe County Historical Society
 City of Monroe
 History Corridor East - Master Plan | Activity Zone 6 - Entertainment
 Preliminary Opinion of Probable Construction Cost
 April 2013



Qty	Unit	Description	Unit Cost	Unit Total	Total
Site Preparation					
1,500	If	Filter Fabric Fence	\$ 3.50	\$ 5,250.00	
1,000	If	Tree Protection Fence	\$ 3.50	\$ 3,500.00	
1	ls	Traffic Control	\$ 5,000.00	\$ 5,000.00	
3	ea	Stabilized Construction Entrance	\$ 1,200.00	\$ 3,600.00	
					\$ 17,350.00
Amphitheater					
17873	sf	Building Demolition (Res. Structures)	\$ 5.00	\$ 89,365.00	
1	ls	Bandshell & Restroom Building	\$ 1,500,000.00	\$ 1,500,000.00	
1	ls	Utility Services Allowance	\$ 150,000.00	\$ 150,000.00	
2471	If	Concrete Walks	\$ 100.00	\$ 247,100.00	
1.89247	ac	Seating Area (Open Lawn)	\$ 10,000.00	\$ 18,924.70	
1	ls	Playground	\$ 125,000.00	\$ 125,000.00	
1	ls	Pavilions (2 large; 4 small)	\$ 300,000.00	\$ 300,000.00	
1920	sf	Overlooks	\$ 30.00	\$ 57,600.00	
806	sp	Parking Lot	\$ 3,000.00	\$ 2,418,000.00	
1	ls	General Landscape & Restoration	\$ 200,000.00	\$ 200,000.00	
					\$ 5,105,989.70
Boat Launch and Parking Lot					
110000	sf	Asphalt Removal	\$ 1.00	\$ 110,000.00	
44	sp	Asphalt Parking Lot	\$ 3,500.00	\$ 154,000.00	
1	ls	Boat Launch Ramp, Piers, etc.	\$ 100,000.00	\$ 100,000.00	
1	ls	Restroom Building	\$ 200,000.00	\$ 200,000.00	
690	If	Driveway	\$ 200.00	\$ 138,000.00	
					\$ 702,000.00
Front Street Removal and Realignment					
3364	If	Remove Front Street	\$ 50.00	\$ 168,200.00	
2526	If	Replace Front Street (3 lanes)	\$ 320.00	\$ 808,320.00	
					\$ 976,520.00
					<hr/>
					\$ 6,801,859.70
General Conditions (5%)					\$ 340,092.99
Design Contingency (10%)					\$ 714,195.27
Subtotal					\$ 7,856,147.96
Soft Costs (25%)					\$ 1,964,036.99
Grand Total					<hr/> \$ 9,820,184.94

Monroe County Historical Society
 City of Monroe
 History Corridor East - Master Plan I Activity Zone 7 - Greenway
 Preliminary Opinion of Probable Construction Cost
 April 2013



Qty	Unit	Description	Unit Cost	Unit Total	Total
South Pedestrian Underpass					
214	If	Tunnel Beneath RR Tracks	\$ 7,000.00	\$ 1,498,000.00	
					\$ 1,498,000.00
Greenway to Plum Creek					
49291	sf	Building Demolition (Residential Structures)	\$ 2.50	\$ 123,227.50	
4100	If	Greenway Asphalt Path	\$ 80.00	\$ 328,000.00	
20	ac	General Landscape & Restoration	\$ 6,000.00	\$ 120,000.00	
1	ea	Vault Toilet	\$ 20,000.00	\$ 20,000.00	
350	sf	Overlook	\$ 30.00	\$ 10,500.00	
15	ea	Benches	\$ 2,500.00	\$ 37,500.00	
					\$ 639,227.50
Pedestrian Bridge along Railroad Tracks					
500	If	Pedestrian Bridge	\$ 1,200.00	\$ 600,000.00	
					\$ 600,000.00
Kentucky Ave / Winchester St Connection for Coastal Loop					
250	If	Road Removal	\$ 50.00	\$ 12,500.00	
1	ls	Railroad Detour & Crossing Mod (Allowance)	\$ 125,000.00	\$ 125,000.00	
800	If	Road Replacement	\$ 320.00	\$ 256,000.00	
					\$ 393,500.00
					\$ 3,130,727.50
General Conditions (5%)					\$ 156,536.38
Design Contingency (10%)					\$ 328,726.39
Subtotal					\$ 3,615,990.26
Soft Costs (25%)					\$ 903,997.57
Grand Total					\$ 4,519,987.83

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