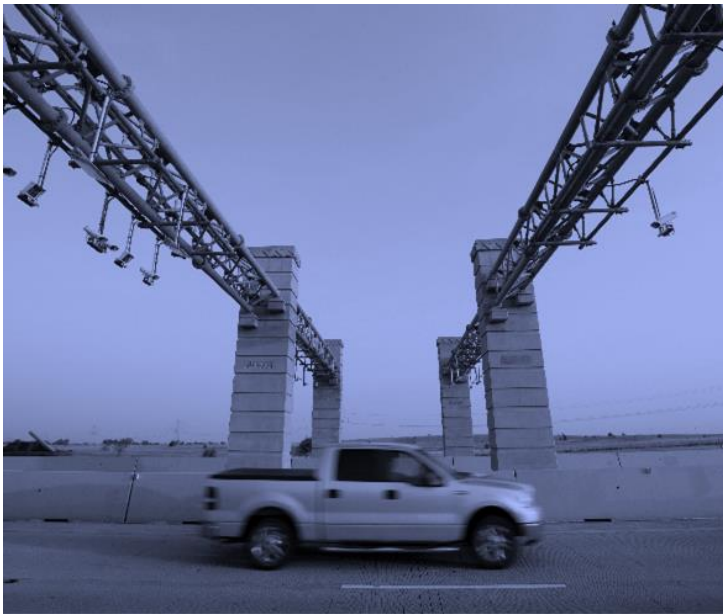


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Michigan Statewide Tolling Strategic Implementation Plan Appendix C. Environmental Screening

IN ACCORDANCE WITH
PUBLIC ACT 140 OF 2020
AND PUBLIC ACT 73 OF 2022



December 21, 2022

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1. Introduction

The Michigan enrolled Public Act No. 140, effective July 8, 2020, and amended by Public Act No. 73 of 2022, required the Michigan Department of Transportation to conduct a feasibility study and strategic implementation plan on tolling highways in Michigan. As a part of that process, this environmental screening and analysis will inform the strategic implementation plan.

Environmental screenings are intended to identify any factors that may substantially impact the scope of work, schedule, or cost of a project. This process considers the natural environment, cultural, historic, and social resources. To complete this screening Geographic Information Systems (GIS) data was collected from various sources. The data and information included in this memorandum do not replace or supersede a more detailed environmental review as required by the National Environmental Policy Act (NEPA). This analysis will inform and lead to those next steps in the process.

2. Methodology

Each corridor was divided into approximately 10-mile-long segments for the environmental screening. Inset maps of the State of Michigan are also included to provide context of the segment location. Specific map details are located within the legend of the map and segment termini and lengths are included later in this section.

2.1. Project Area

A total of eight corridors, called “Tier One Corridors”, are being considered in this study, shown in [Table 1](#). These were identified through two screening phases, which are further detailed in the *Michigan Statewide Tolling Feasibility Study*. [Table 1](#) provides the length of the eight corridors that are included in this study.

Table 1: Tier One Corridors

Corridor	Interstate/Highway	Length (miles)
Corridor 1	I-94	201.6
Corridor 2	I-196	64.2
Corridor 3	I-75	20.3
Corridor 4	I-275	36.8
Corridor 5	I-69	94.2
Corridor 6	M-14	4.7
Corridor 7	I-696	28.9
Corridor 8	I-75	94.3

2.1.1. Phase 1 Corridor Screening

The following criteria were used when screening potential corridors as detailed in the *Michigan Statewide Tolling Feasibility Study*:

1. Existing limited access highway: These are any roads that are defined as an interstate (1) or other freeway (2) according to the National Functional Classification data.
2. Future limited access highway: routes planned to be converted to free access roadways in the future were removed.
3. Minimum length of five centerline miles.
4. Minimum total Average Annual Daily Traffic (AADT) of 30,000.
5. Minimum commercial Average Annual Daily Traffic (AADT) of 2,500.
6. Routes must connect two or more other limited access highways.
7. Routes must connect two or more counties that have a total 2030 employment forecast of greater than 68 jobs per square mile.
8. Less than 50% of the route was/will be reconstructed between 2015 and 2025.

2.1.2. Phase 2 Corridor Screening

The phase 2 screening focused more on developing a feasible system for tolling and considered other phase 2-specific criteria in combination with each other. The corridors were broken down into tiers based on their readiness for tolling deployment, based on potential financial performance, road condition, bridge condition, and geographic equity. This specific screening covers those corridors that were classified in “Tier One”. The phase 2 screening is further detailed in the *Michigan Statewide Tolling Feasibility Study*. [Figure 1](#) displays the Tier One Corridors.

Figure 1: Project Area



2.2. Corridor Segment Limits

Tables 2 through 9 describe the breakdown of Tier One Corridors by segment, which corresponds with the findings maps and tables in Appendix A.

Table 2: I-94 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
1-01	State Border - Indiana	Sawyer Rd	12.0
1-02	Sawyer Rd	South Lakeshore Dr interchange	11.4
1-03	South Lakeshore Dr interchange	US-31 Interchange/East Napier Ave	10.8
1-04	US-31 Interchange/ East Napier Ave	South Center St	11.6
1-05	South Center St	M-51	10.5
1-06	M-51	Van Buren/Kalamazoo County Border	10.6
1-07	Van Buren/Kalamazoo County Border	South Westnedge Ave	9.3
1-08	South Westnedge Ave	35th St South	9.0
1-09	35th St South	Helmer Rd South	10.0
1-10	Helmer Rd South	East Michigan Ave	8.5
1-11	East Michigan Ave	Partello Rd	8.4
1-12	Partello Rd	Calhoun/Jackson County Border	11.4
1-13	Calhoun/Jackson County Border	North Dearing Rd	9.3
1-14	North Dearing Rd	US-127 (eastern interchange)	9.3
1-15	US-127 (eastern interchange)	Mt Hope Rd	8.1
1-16	Mt Hope Rd	M-52	9.3
1-17	M-52	North Zeeb Rd	9.8
1-18	North Zeeb Rd	US-12 (western interchange)	12.1
1-19	US-12 (western interchange)	Belleville Rd	9.0
1-20	Belleville Rd	US-24/Telegraph	11.7

Table 3: I-196 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
2-01	I-94	44th Ave	9.3
2-02	44th Ave	M-140	8.3
2-03	M-140	111th Ave	9.7
2-04	111th Ave	130th Ave	10.1
2-05	130th Ave	M-40	11.2
2-06	M-40	Byron Rd	6.9
2-07	Byron Rd	Paul Henry Fwy	9.1

Table 4: I-75 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
3-01	Ohio/Michigan Border	South Otter Creek Rd	8.6
3-02	South Otter Creek Rd	I-275/I-75 Interchange	11.7

Table 5: I-275 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
4-01	I-75	Willow Rd	9.1
4-02	Willow Rd	Hannan Rd	9.0
4-03	Hannan Rd	Joy Rd	8.9
4-04	Joy Rd	I-696	9.4

Table 6: I-69 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
5-01	I-94	M-78	10.1
5-02	M-78	Shepherd St/East Clinton Trail	11.3
5-03	Shepherd St/East Clinton Trail	Lansing Rd	10.7
5-04	Lansing Rd	West Grand River Ave	9.1
5-05	West Grand River Ave	US-127	8.9
5-06	US-127	Woodbury Rd	9.1
5-07	Woodbury Rd	South Morrice Rd	9.5
5-08	South Morrice Rd	Grand River Rd	5.4
5-09	Grand River Rd	Shiawassee/Genesee County Border	10.0
5-10	Shiawassee/Genesee County Border	I-75	10.2

Table 7: M-14 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
6-01	I-94	Western US-23 Interchange	4.0

Table 8: I-696 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
7-01	I-96/M-5/I-696 Interchange	US-24	7.9
7-02	US-24	I-75	9.4
7-03	I-75	I-94	10.3

Table 9: I-75 Segments

Segment	Terminus 1	Terminus 2	Length (miles)
8-01	I-675	M-13	8.5
8-02	M-13	East Linwood Rd	9.7
8-03	East Linwood Rd	Bay/Arenac County Border	12.0
8-04	Bay/Arenac County Border	West Sterling Rd	9.1
8-05	West Sterling Rd	Arenac/Ogemaw County Border	10.3
8-06	Arenac/Ogemaw County Border	M-76	10.4
8-07	M-76	M-55	11.8
8-08	M-55	North Roscommon Rd/M-18	12.1
8-09	North Roscommon Rd/M-18	US-127	10.2

2.3. Data Sources

Data that was collected for this screening was categorized into one of the following based on the type of resource:

- Physical and Environmental Resources
- Mobility, Access, and Safety
- Cultural and Historic
- Social and Economic

Each dataset is identified and detailed in the following sections, including what the dataset is, where it is from, the date of the data, and a brief explanation of what the data include.

2.3.1. Physical and Environmental Resources

Table 10 outlines physical and environmental resources data. A 500-foot buffer was used to identify and clip natural resources and features near the corridor. The maps and tables for this data are located in [Appendix A](#).

Table 10: Physical and Environmental Resources Data Sources

Data Set	Data Source, Year
<p>Air Quality Includes information at the county level about nonattainment and maintenance counties for each criteria pollutant standard. The Clean Air Act (CAA) was passed in 1970, which outlines National Ambient Air Quality Standards (NAAQS) for the following six criteria pollutants:</p> <ol style="list-style-type: none"> 1. Carbon monoxide 2. Particulate matter 3. Ozone 4. Lead 5. Sulfur Oxides 6. Nitrogen oxides¹ 	<p>United States Environmental Protection Agency, 2022</p>
<p>Commercial Forest Act Lands Areas of land that are devoted to commercial forest management and are open to the public for foot access to hunt, fish, and trap.²</p>	<p>Michigan Department of Natural Resources Commercial Forest Program, n.d.</p>

¹ (U.S. Department of Transportation, 2017)

² (Michigan Department of Natural Resources, 2022)

Data Set	Data Source, Year
<p>Federal Lands Land managed by federal government departments/agencies</p>	<p>ESRI – U.S. Bureau of Land Management, Bureau of Reclamation, Department of Defense, National Park Service, U.S. Fish and Wildlife Service, and U.S. Forest Service³, 2021</p>
<p>Federally Threatened and Endangered Species An informal list of federally threatened and endangered species that are protected under Section 7 of the Endangered Species Act that are known or expected to be within a half-mile from the corridors.</p>	<p>U.S. Fish and Wildlife Service Information for Planning and Consultation (IPaC) tool⁴ Accessed June 7, 2022</p>
<p>Floodplains Delineated areas with a 100-year or 1% annual chance flood risk</p>	<p>Federal Emergency Management Agency (FEMA) National Flood Hazard Layer, 2020</p>
<p>Mussel Protocol Streams This map contains federal and state-listed mussel species from the MNFI Heritage Database of rare species and high-quality natural communities. Streams are categorized into groups based on their status: 1) State Special Concern; 2) State Threatened; or 3) Federally Listed.</p>	<p>Michigan Mussels Web App by Michigan Natural Features Inventory (MNFI)⁵, 2022</p>
<p>Natural Rivers The Michigan Natural River Program is a river protection effort that protects the natural quality of select river systems by regulating their use and development through zoning rules⁶.</p>	<p>Michigan Open GIS Data Portal – MI DNR, 2022</p>
<p>Navigable Waterways Navigable waterways are waters that are, have been, or could be used for transportation of commerce. Projects that impact these waterways may require additional permits and coordination with the U.S. Army Corps of Engineers⁷.</p>	<p>U.S. Department of Homeland Security, Homeland Infrastructure Foundation-Level Data (HIFLD), 2018</p>

³ (ESRI, 2021)

⁴ (U.S. Fish and Wildlife Service, 2022)

⁵ (Michigan State University Extension, n.d.)

⁶ (Michigan Department of Natural Resources, 2022)

⁷ (United States Department of Transportation, 2015)

Data Set	Data Source, Year
<p>Water Quality</p> <p>Section 10 Waterways Section 10 of the <i>Rivers and Harbors Act of 1899</i> (33 U.S.C. 403) prohibits the unauthorized obstruction or alteration of any navigable water in the United States. Section 10 Waterways are under the regulatory jurisdiction of the Army Corps of Engineers (Corps).⁸ The DEGR utilizes the Public Land Survey System (PLSS) to delineate areas in which waterways may be under Corps regulatory jurisdiction. More coordination will be required to determine permitting requirements.</p> <p>Total Maximum Daily Load (TMDL) Total Maximum Daily Loads (TMDLs) are specified amounts that limit specific pollutants from being released into select lakes or streams that do not meet Water Quality Standards (WQS)⁹. TMDL pollutants in Michigan include E. coli, Dissolved Oxygen, Sediment and Biota, Phosphorus, Nitrate, and Polychlorinated Biphenyl's (PCBs).</p>	<p>Michigan Department of Transportation Dynamic Environmental GIS Resource (DEGR), accessed June 2022</p> <p>Michigan Department of Transportation Dynamic Environmental GIS Resource (DEGR), accessed June 2022</p>
<p>Wetlands The National Wetlands Inventory (NWI) data includes information regarding wetlands in the United States, including the location and type of wetlands.</p>	<p>U.S. Fish and Wildlife Service, 2022</p>
<p>Sensitive Landscapes</p> <p>Coastal Zone Management Area Detailed geographic representation of the coastal zone management boundary applied under the Coastal Zone Management Act of 1972 (P.L. 92-583). These zones are designated protected areas and projects that may impact these zones must show the project is consistent with the approved Coastal Zone Management (CZM) program.</p> <p>Critical Habitats Data for critical habitat for threatened and endangered species.</p> <p>Critical Dune Areas Critical dune areas (CDAs) include some dunes along the Lake Michigan shoreline. CDAs include public lands and private property where there are current regulations in place by Part 353, Sand Dunes Protection and Management, of the Natural Resources and Environmental Protection Act (NREPA), 1994 PA 451 as amended.</p> <p>High Risk Erosion Zones The purpose of the High Risk Erosion Area program is to prevent structural property loss in an area of the shoreland that is susceptible to erosion as required by Part 323 of the Natural Resources and Environmental Protection Act, 1994 PA 451 as amended. These areas are those shorelands where recession of the landward edge of active erosion has been occurring at a long-term average rate of one foot or more per year, over a minimum period of 15 years. An Environment, Great Lakes, and Energy (EGLE) permit is required prior to construction within a High Risk Erosion area.</p>	<p>Michigan Open GIS Data Portal – DNR, 2019</p> <p>U.S. Fish and Wildlife Service Environmental Conservation Online System , 2022 Michigan Open GIS Data Portal – EGLE, 2021</p> <p>Michigan Open GIS Data Portal – EGLE, 2021</p>

Potential Environmental Contamination*	
<p>Brownfields Locations of brownfields, which is a property whose redevelopment/reuse may be complicated by the presence of or perception of contamination.¹⁰</p>	Michigan Open GIS Data Portal – EGLE, 2021
<p>Part 115 Solid Waste Disposal Sites Sites/areas of land that receive solid waste, including municipal solid waste disposal areas, construction and demolition disposal areas, fossil fuel combustion ash disposal areas, industrial disposal areas, delisted hazardous waste disposal areas, and land application units for repeated disposal or treatment of special wastes.¹¹</p>	Michigan Department of Transportation Dynamic Environmental GIS Resource (DEGR), accessed June 2022
<p>Per- and Polyfluoroalkyl Substances (PFAS) Sites PFAS are chemicals that are used often and take a long time to break down. Exposure to some of these substances may lead to harmful health effects.¹² These specific site locations are source properties that EGLE has a valid groundwater monitoring well sample result that exceeds one or more of Michigan’s seven PFAS groundwater cleanup criteria:</p> <ol style="list-style-type: none"> 1. Hexafluoropropylene oxide dimer acid (HFPO-DA); 2. Perfluorobutane sulfonic acid (PFBS); 3. Perfluorohexane sulfonic acid (PFHxS); 4. Perfluorohexanoic acid (PFHxA); 5. Perfluorononanoic acid (PFNA); 6. Perfluorooctanoic acid (PFOA); and 7. Perfluorooctane sulfonic acid (PFOS).¹³ 	Michigan Open GIS Data Portal – EGLE, 2022
<p>Superfund National Priority List (NPL) Sites National Priority List (NPL) sites are locations where there was a known release or threatened release of hazardous substances. The NPL is a list of properties that need more investigation into the contamination.¹⁴</p>	U.S. Environmental Protection Agency Hazard Ranking System, 2022
<p>Treatment Storage Disposal Facilities Contains the Resource Conservation and Recovery Act Subtitle C facilities that manage(d) hazardous wastes onsite. These facilities are associated with the treatment, storage, and disposal (TSD) of hazardous wastes in compliance with Part 111 of Hazardous Waste</p>	Michigan Open GIS Data Portal – EGLE, 2022

⁸ (U.S. Department of Energy Office of NEPA Policy and Compliance, n.d.)
⁹ (Michigan Department of Environment, Great Lakes, and Energy, 2022)
¹⁰ (Michigan Department of Environment, Great Lakes, and Energy, 2022)
¹¹ (Michigan Department of Environment, Great Lakes, and Energy, 2022)
¹² (U.S. Environmental Protection Agency, 2021)
¹³ (Michigan Department of Environment, Great Lakes, and Energy, 2022)
¹⁴ (U.S. Environmental Protection Agency, 2022)

**In this analysis, potential environmental contamination does not include locations of underground storage tanks or leaking underground storage tanks. These are prevalent throughout the corridors and should be identified and addressed in more detailed environmental screenings.*

Management, of the Natural Resources Environmental Protection Act of 1994.¹⁵

2.3.2. Mobility, Access, and Safety

Mobility, Access, and Safety are not required as part of this analysis but were included to provide additional context to the corridors for consideration. Implementing a toll can impact access to necessities like health care and employment. Furthermore, rest areas and public boating access points are points of interest that have been included on the environmental screening maps. [Table 11](#) provides details about the data and their sources. The maps and data tables for this data are located in [Appendix A](#).

Table 11: Mobility, Access, and Safety Data Sources

Data Set	Data Source, Year
Health Care Licensed health care facilities and agencies	Michigan Open GIS Data Portal – LARA, 2019
Public Boating Access Location information for all designated public boating access sites.	Michigan Open GIS Data Portal – MI DNR, 2022
Rest Areas Locations of rest areas throughout the transportation system.	Michigan Open GIS Data Portal – MDOT, 2020

2.3.3. Cultural and Historic Resources

Cultural and historic resources may be protected under Section 4(f) of the U.S. Department of Transportation Act of 1966, which provides “consideration of park and recreation lands, wildlife and waterfowl refuges, and historic sites during transportation project development”.¹⁶ Coordination with the Federal Highway Administration (FHWA) is necessary when impacting and/or using Section 4(f) properties.

In addition, properties that may be considered Section 6(f) properties must be identified. Section 6(f) of the Land and Water Conservation Fund Act established the Land and Water Conservation Fund (LAWCON), an assistance program that gives grants to help pay for the acquisition and development of outdoor recreation sites and facilities. Properties purchased with any of these funds are then prohibited from being converted to a non-recreational use without prior authorization from the Department of the Interior National Park Service.¹⁷ [Table 12](#) provides details about the data and sources. The maps and data tables for this data are located in [Appendix A](#).

¹⁵ (Michigan Department of Environment, Great Lakes, and Energy, 2022)

¹⁶ (U.S. Department of Transportation Federal Highway Administration, n.d.)

¹⁷ (U.S. Department of Transportation Federal Highway Administration, n.d.)

Table 12: Cultural and Historic Resource Data Sources

Data Set	Data Source, Year
Cemeteries Cemeteries are often significant cultural/historic places	ESRI – U.S. Geological Survey, 2021
Historic Places and Sites The National Register geospatial dataset is an inventory of cultural resources that are listed on the National Register of Historic Places. This dataset does not include any features that are considered restricted or sensitive. Cultural and historic resources will need to be investigated more in depth during the Section 106 process.	National Park Service Integrated Resource Management Application, 2022
Historic Trunkline Bridges Bridges that are 1) on the National Register of Historic Places; 2) eligible for the National Register of Historic Places; or 3) possibly eligible for the National Register of Historic Places or State or local historic register. ¹⁸	National Bridge Inventory Homeland Infrastructure Foundation-Level Data (HIFLD) Geoplatform by FHWA, 2018
Land and Water Conservation Fund Projects Projects that were funded in part by LAWCON funds and are protected under Section 6(f) as described earlier in the document.	Land and Water Conservation Fund past projects map ¹⁹ , 2020
Parks, Recreation, and Conservation Land Conservation and recreation land that is publicly owned and open and available to the public.	Michigan Open GIS Data Portal – MI DNR, 2019

2.3.4. Social and Economic Resources

Data was collected to provide context as to the people living and working in the area of these corridors. Data was collected at the 2020 census tract level from the 2015-2020 Five-Year American Community Survey (ACS) data unless otherwise noted in [Table 13](#). The maps and data tables for this data are located in [Appendix B](#).

¹⁸ (U.S. Department of Transportation Federal Highway Administration, 1995)

¹⁹ (The Trust for Public Land, 2021)

Table 13: Social and Economic Resource Data Sources

Data Set	Data Source
<p>Limited English Proficiency Understanding English proficiency in the areas helps to determine whether translation services may be needed as the project(s) move forward. The data includes people who indicated they speak English “not well” or “not at all”.</p>	<p>U.S. Census Bureau ACS table B16004 <i>Age by Language Spoken at Home by Ability to Speak English for the Population 5 Years and Over</i></p>
<p>Low-income Households with a median income that is at or below poverty guidelines set by the Department of Health and Human Services</p>	<p>U.S. Census Bureau ACS table B1701 <i>Poverty Status in the Last 12 Months by Sex and Age</i></p>
<p>Minority People who are Black, Hispanic, Asian American, and/or American Indian/Alaskan Native</p>	<p>U.S. Census Bureau ACS table P2 <i>Hispanic or Latino, and Not Hispanic or Latino by Race</i></p>
<p>People with a Disability People who with a physical or mental impairment that substantially limits one or more major life activities; has a record of such an impairment; or is regarded as having such an impairment.²⁰</p>	<p>U.S. Census Bureau ACS table B18101 <i>Sex by Age by Disability Status</i></p>
<p>Transportation Access Disadvantaged Census Tracts This layer contains census tract-level data regarding the Justice40 initiative with regard to transportation access, specifically communities that spend more, and take longer, to get where they need to go. This dataset is utilizing 2010 census tract geography.*</p>	<p>U.S. Department of Transportation, May 10, 2022</p>
<p>Population The total number of people within a census tract, by age group</p>	<p>U.S. Census Bureau ACS table S0101 <i>Age and Sex</i></p>

*Census tract boundaries differ between 2010 and 2020 due to a change in population between census counts.

²⁰ (Michigan Department of Transportation, 2011)

3. Environmental Screening Findings

The following section provides an overview of the environmental screening results for each corridor. Detailed maps and tables for each segment can be found in [Appendix A: Environmental Screening Results](#). Further analysis will need to be conducted if specific tolling projects were to move forward through detailed field studies and project-level environmental studies, which will better identify specific resources that may be impacted.

3.1. Corridor 1: I-94

I-94 in its entirety spans across the southern part of Michigan from the Indiana/Michigan border to the Ontario provincial boundary at the Blue Water Bridge in Port Huron. I-94 was proclaimed the first border-to-border interstate in the United States at the end of 1960 and is sometimes referred to as “Michigan’s Main Street”. The entire length of I-94 is constructed as a freeway and is on the National Highway System (NHS).²¹

The I-94 corridor, Corridor 1 for the purpose of this study, stretches from the Michigan/Indiana border to US-24/Telegraph Road in Taylor, MI. An overview map of Corridor 1 is in [Figure 1](#) of [Appendix A](#). This is the largest corridor in this study and traverses several different counties and communities. The complete detailed tables and maps for Corridor 1 are in [Appendix A Tables 1](#) through [4](#) and [Figures 2](#) through [21](#).

Throughout Corridor 1, there is one historic site (Segment 1-09), the historic 38th Street Bridge. No cemeteries are within the 500-foot corridor buffer.

There are several potential Section 4(f) resources that may need additional investigation. This includes several parks, nature centers, recreation areas, snowmobile trails, and recreational trails. In addition, some Section 6(f) properties are near the corridor, including Glassman Park, Warren Dunes State Park, St. Joseph Township Park, Harbors West Park, Morrow Lake, Portage Creek Bicentennial Park, Southeast Park, Waterloo Recreation Area, and Belleville Lake.

The western part of the corridor, specifically Segments 1-01, 1-02, and 1-03, are located within a Coastal Zone Management Area and Section 10 Waterway regulatory jurisdiction. Segment 1-02 is also within a Critical Dune Area and High Risk Erosion Area.

Segment 1-03 intersects with the St. Joseph River, a large river with multiple public access points, which is a navigable waterway, and is known to have State Threatened mussel species present.

Floodplains are a concern for 17 of the 20 segments of Corridor 1. Wetlands are a concern in each segment of Corridor 1, as well.

The Detroit Metropolitan Airport abuts Corridor 1 Segment 1-20 near Romulus, Michigan.

²¹ (Bessert, *Michigan Highways: Route Listings: I-94, 2022*)

There are 15 threatened and endangered species and 21 species of migratory birds found within the corridor, identified in [Tables 5 and 6 of Appendix A](#).

3.2. Corridor 2: I-196

I-196 provides a connection between I-94 near Benton Heights, Michigan to I-96 in Grand Rapids, Michigan. I-196 is named after Gerald R. Ford, the 38th President of the United States who was raised in Grand Rapids. The entire length of I-196 is freeway and is on the NHS.²²

The I-196 corridor, Corridor 2, spans from the I-94/I-196 interchange near Benton Heights to the I-196/M-6 interchange southwest of Grand Rapids. An overview of Corridor 2 is in [Figure 22 in Appendix A](#). The complete detailed tables and maps for Corridor 2 are in [Appendix A Tables 7 and 8 and Figures 23 through 29](#).

Several parks, which may be Section 4(f) properties can be found throughout the corridor, many of which have trail networks within them. Segment 2-05 intersects with the Kalamazoo River and has an historic bridge. This segment also has a Section 6(f) property at the Schultz Park. Each segment of Corridor 2, except 2-07, is located within a Coastal Zone Management Area. Segments 2-01, 2-02, and 2-04 are also near high risk erosion areas. Segments 2-01 through 2-05 are within Section 10 Waterway regulatory jurisdiction; however, there are no navigable waterways intersecting this corridor. Sections 2-01 through 2-03 intersect with the 100-year floodplain.

Black River, located in segment 2-03, is the only waterway intersecting the corridor with a state special concern for mussels.

There are 11 threatened and endangered species and 20 species of migratory birds found within the corridor, identified in [Table 9 of Appendix A](#).

3.3. Corridor 3: I-75

I-75, in its entirety in Michigan, spans from the Ohio/Michigan state border to the Ontario provincial boundary at the international bridge between Sault Ste Marie, Michigan and Sault Ste Marie, Ontario. I-75 is Michigan's longest route-number highway. Similar to I-94, I-75 is sometimes referred to as "Michigan's Main Street". This major north-south corridor is essential for commerce, general travel within the state, and is a major route for tourists. I-75 has different common names throughout the state, depending on which part of the highway is being referenced. In Metro Detroit, it is referred to as the Fisher Freeway, and downriver to Pontiac it's referred to as the Chrysler Freeway. I-75 is Michigan's busiest freeway and is also the only route that crosses the Mackinac Bridge over the Straits of Mackinac. The entirety of I-75 is freeway and part of the NHS.²³

The southern I-75 portion that is included in this study, Corridor 3, is between the Ohio/Michigan border and the I-75/I-275 interchange in Monroe County. On overview map of Corridor 3 is in [Figure](#)

²² (Bessert, *Michigan Highways: Highways 180 through 199*, 2022)

²³ (Bessert, *Michigan Highways: Route Listings: I-75*, 2022)

30 of [Appendix A](#). Corridor 8 is also I-75 but is in a different area of the state further north. The complete detailed tables and maps for Corridor 3 are in [Appendix A Table 10](#) and [Figures 31](#) and [32](#).

There are two historic bridges on this corridor, both located in Segment 3-02: the Conrail River Raisin Bridge and the Dunbar Road bridge. Additionally, both segments are located within Section 10 Waterway regulatory jurisdiction and within a Coastal Zone Management Area. Several Section 4(f) properties are found throughout both segments. Segment 3-01 has parks, a State Game Area, and is near the Detroit River International Wildlife Refuge and Luna Pier Park, which are both Section 6(f) properties and Segment 3-02 also has parks, trails, and is near the Detroit River International Wildlife Refuge.

Segment 3-02 intersects River Raisin, a navigable waterway with multiple public access points and is known to have the presence of federally listed mussel species. Otter Creek and Stony Creek are known to have state threatened mussel species.

Both segments intersect with the 100-year floodplain and wetlands.

There are nine threatened and endangered species and 17 species of migratory birds found within the corridor, identified in [Table 11](#) of [Appendix A](#).

3.4. Corridor 4: I-275

I-275 extends from I-75 near Monroe, Michigan to the I-96/I-696/M-5/I-275 interchange near Novi, Michigan. According to MDOT, I-275 runs concurrently with I-96 between the I-96/M-14 junction and the I-96/I-696/M-5/I-275 interchange.²⁴

For the purpose of this study, I-275, or Corridor 4, extends from I-75 near Monroe to the I-96/I-696/M-5/I-275 interchange near Novi, Michigan. An overview map of Corridor 4 is in [Figure 33](#) of [Appendix A](#). The complete detailed tables and maps for Corridor 4 are in [Appendix A Table 12](#) and [Figures 34](#) through [37](#).

There are no historic sites or bridges along Corridor 4, nor are there cemeteries or navigable waterways. There are several parks and recreation sites throughout the corridor, which are Section 4(f) properties, such as Willow Metropark and Hines County Park. Only one potential Section 6(f) property is within the corridor on Segment 4-01: Unity Park. Two waterways are flagged for mussel presence where they intersect with I-275: Huron River is known for federally listed mussel species and Middle Rouge River is known for state threatened mussel species.

The Detroit Metropolitan Airport abuts Corridor 4 Segment 4-02 near Romulus, Michigan.

All segments except Segment 2-04 intersect with a 100-year floodplain. All segments intersect with wetlands.

There are 11 threatened and endangered species and 16 species of migratory birds found within the corridor, identified in [Table 13](#) of [Appendix A](#).

²⁴ (Bessert, *Michigan Highways: Highways 250 through 696*, 2022)

3.5. Corridor 5: I-69

I-69 stretches from the Michigan/Indiana border to the Ontario provincial boundary with the Blue Water Bridges in Port Huron, Michigan concurrently with I-94. I-69 begins as a north-south highway until it bypasses Lansing and then runs east-west to Port Huron. The entirety of I-69 is freeway and is part of the NHS.²⁵

For this study, I-69, or Corridor 5, includes the portion of the freeway between I-94 near Marshall, Michigan to the I-69/I-75 interchange near Flint, Michigan. An overview map of Corridor 5 is in [Figure 38](#) of [Appendix A](#). The complete detailed tables and maps for Corridor 5 are in [Appendix A Tables 14](#) and [15](#) and [Figures 39](#) through [48](#).

There are no historic sites along any corridors; however, there are three cemeteries: Bosworth Cemetery (Segment 5-02); West Windsor Cemetery (Segment 5-03); Oak Plain Cemetery (Segment 5-07); and Fremont Cemetery (Segment 5-09).

Throughout the corridor, there are several State Game Areas, trails, and water trails. None of the water features are navigable waterways. There are a couple of potential Section 6(f) properties, including Delta Charter Township (Segment 5-04), and Wiswasser Park (Segment 5-06).

The majority of segments, eight of the ten, intersect with the 100-year floodplain, including Segments 5-01 through 5-06, 5-09, and 5-10.

There are nine threatened and endangered species and 19 species of migratory birds found within the corridor, identified in [Table 16](#) of [Appendix A](#).

3.6. Corridor 6: M-14

M-14 is a non-interstate designated freeway near Ann Arbor, Michigan. It begins west of Ann Arbor at its junction with I-94 and extends east to its junction with I-96. The entirety of M-14 is freeway and on the NHS.²⁶

For this study, M-14, or Corridor 6, extends from the M-14/I-94 interchange to the western M-14/US-23 interchange. An overview map of Corridor 6 is in [Figure 49](#) of [Appendix A](#). The complete detailed tables and maps for Corridor 6 are in [Appendix A Table 17](#) and [Figure 50](#).

There are no historic properties or bridges within this corridor. It intersects one water feature, the Huron River, which is not navigable, nor does it have any known presence of endangered mussel species at the intersection. There are no potential Section 6(f) properties, but there are several parks, nature areas, the Iron Belle Trail, and the Huron River water trail. There are several potential Section 4(f) properties, which are protected under federal law. These include Garden Homes Park, Riverwood Nature Area, Kuebler Langford Nature Area, Camp Hilltop Park, Sunset Brooks Nature Area, Bluffs

²⁵ (Bessert, *Michigan Highways: Route Listings: I-69, 2022*)

²⁶ (Bessert, *Michigan Highways: Route Listings: M-14, 2022*)

Nature Area, Bandemer Park, Onder Park, the Huron River Trail, and the Iron Belle Trail. Upstream of M-14, the Huron River is considered a natural river.

This Corridor intersects with both the 100-year floodplain and wetlands.

There are eight threatened and endangered species and 17 species of migratory birds found within the corridor, identified in [Table 18](#) of [Appendix A](#).

3.7. Corridor 7: I-696

I-696 extends from the I-96/I-696/M-5/I-275 interchange near Novi, Michigan to the I-696/I-94 interchange near St. Clair Shores, Michigan. The entire corridor is a freeway and on the NHS. This highway is also referred to as the Walter P Reuther Freeway.²⁷

The entirety of I-696 is included in this study as Corridor 7. An overview map of the Corridor is in [Figure 51](#) of [Appendix A](#). The complete detailed tables and maps for Corridor 7 are in [Appendix A Table 19](#) and [Figures 52](#) through [54](#).

Segment 7-02 has three historic districts: Lathrup Village Historic District, the Detroit Zoological Park, and Pleasant Ridge Historic District. The other two segments do not have any historic sites or bridges. None of the segments have cemeteries. Pebble Creek Park (Segment 7-01) and Harding Park (Segment 7-02) are potential Section 6(f) properties. There are several additional parks and recreation areas that could be Section 4(f) properties. The Rouge River, intersecting Segment 7-02, is known to have State Threatened mussel species. Additionally, Segment 7-03 abuts the Detroit Arsenal, which is federally owned and may require additional permitting and coordination later in the process.

All three segments intersect with wetlands and Segments 2-01 and 2-02 intersect with the 100-year floodplain.

There are 10 threatened and endangered species and 16 species of migratory birds found within the corridor, identified in [Table 20](#) of [Appendix A](#).

3.8. Corridor 8: I-75

Corridor 8 includes I-75 from the I-75/I-675 interchange near Saginaw, MI to the I-75/US-127 interchange south of Grayling, Michigan. An overview map of Corridor 8 is in [Figure 55](#) of [Appendix A](#). Corridor 3 in this study includes a different portion of I-75 in the southeastern portion of the state. The complete detailed tables and maps for Corridor 8 are in [Appendix A Tables 21](#) and [22](#) and [Figures 56](#) through [64](#).

There are no historic sites/bridges or cemeteries throughout Corridor 8. There are multiple State Game Areas, which could be Section 4(f) properties. There are also many parks and different types of trails throughout, such as Gladwin State Forest Area (Segment 8-05), Roscommon State Forest Area (Segment 8-07), and the Iron Belle Trail (Segment 8-08). Segment 8-01 is near Monitor Township Park, a potential Section 6(f) property. Additionally, Segments 8-06 through 8-09 are near Section 6(f)

²⁷ (Bessert, *Michigan Highways: Highways 250 through 696*, 2022)

funded Kirtland's Warbler Wildlife Management Area. There are no waterways with mussel species known to be present. Segment 8-01 is within Section 10 Waterway jurisdiction; however, there are also no navigable waterways within this corridor.

Each segment except Segment 8-05 intersects with the 100-year floodplain. Each segment intersects with wetlands.

There are 12 threatened and endangered species and 18 species of migratory birds found within the corridor, identified in [Table 23](#) of [Appendix A](#).

4. Environmental Justice

Environmental Justice (EJ) “is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies.”²⁸ Fair treatment means that no group/groups of people shall disproportionately share negative externalities from implementing a project or policy. Furthermore, EJ considerations include ensuring all people have the same opportunity to provide input and feedback on these projects and policies in a meaningful manner.

This particular demographic analysis is a starting point for EJ analysis and engagement. It provides data and information about the corridors that are under consideration to identify potential issues that may require deeper examination in subsequent phases of the project. Identifying these potential issues as early as possible allows for a more detailed and proactive review with regard to regulatory requirements, stakeholder identification and engagement, scoping of approaches, impact analysis, and, when necessary, potential mitigation. When conducted early, examining socioeconomic data allows for the opportunity to better engage stakeholders, which in turn allows the project to be more catered to community values and may allow for more benefit integration and less burden resulting from the project. All data and maps for each corridor can be found in [Appendix B](#).

4.1. Executive Order 12898

In 1994, Executive Order 12898 *Federal Actions to Address Environmental Justice in Minority and Low-income Populations* (EO 12898) was signed. The purpose of this was to achieve environmental protection for all communities, including environmental and human health effects on minority and low-income populations. According to the Environmental Protection Agency website,

“E.O. 12898 directs federal agencies to:

- identify and address the disproportionately high and adverse human health or environmental effects of their actions on minority and low-income populations, to the greatest extent practicable and permitted by law.
- develop a strategy for implementing environmental justice.
- promote nondiscrimination in federal programs that affect human health and the environment, as well as provide minority and low-income communities access to public information and public participation.”²⁹

As a federal fund recipient, MDOT is required to adhere to the federal EJ requirements. MDOT’s EJ guidance document, *Environmental Justice Guidance for Michigan Transportation Plans, Programs and Activities*, was used to conduct this analysis.

²⁸ (U.S. Environmental Protection Agency, 2021)

²⁹ (U.S. Environmental Protection Agency, 2021)

4.2. Executive Order 13985

In 2021, Executive Order 13985 *Advancing Racial Equity and Support for Underserved Communities Through the Federal Government*³⁰ (EO 13985) was signed. The purpose of this was to advance equity through identifying and addressing barriers to equal opportunity. The U.S. Department of Transportation (USDOT) released an *Equity Action Plan Summary*, which provides the following as new strategies for the USDOT to advance equity:

- Power of Community: Empower communities to engage in transportation decision-making more effectively
- Interventions: Targeted technical support to increase investment in underserved communities
- Expanding Access: Expand transportation access for underserved communities
- Wealth Creation: Build wealth in underserved communities by empowering small disadvantaged businesses³¹

4.3. Executive Order 14008

Executive Order 14008 *Tackling the Climate Crisis at Home and Abroad* was signed in 2021³² (EO 14008). This executive order established the “Justice40” Initiative, which aims to deliver 40% of overall benefit of federal investments in climate and clean energy to underserved and disadvantaged communities. Relevant investment made as part of the Bipartisan Infrastructure Law is included under this executive order.³³ USDOT also established a definition for transportation access disadvantaged communities. These are communities that spend more, and take longer, to get where they need to go.

A full list of the indicators and sources used to define the disadvantaged communities can be found on the USDOT Justice40 Initiative website.³⁴

The disadvantaged communities data set utilized 2010 census tract geography, which differs from the 2020 geography used for the other analyses.

4.4. Title VI of the Civil Rights Act of 1964

Title VI protects individuals from being discriminated against in the conduct of all federal activities. This includes on the basis of race, color, national origin, disability, sex, and age. The effort to prevent discrimination includes the “impacts on access, benefits, participation, treatment, services, procurement and contracting, training activities, investigation of complaints, allocation of funds, prioritization of projects, and the functions of planning, project development, design, right-of-way acquisition, construction, and research”.³⁵

³⁰ (Federal Register, 2021)

³¹ (U.S. Department of Transportation, 2022)

³² (Federal Register, 2021)

³³ (U.S. Department of Transportation, 2022)

³⁴ (U.S. Department of Transportation, 2022)

³⁵ (Aimen, et al., 2018)

The nondiscrimination principles of both EO 12898 and the Title VI statute overlap, however, they are two separate mandates with their own separate requirements. Therefore, this analysis was expanded beyond low-income and minority populations to comply with Title VI. This analysis also includes persons with a disability, children under 5 years old, elderly people 65 years or older, and people with Limited English Proficiency (LEP).

4.5. Impacts of Toll Implementation

Introducing a toll on a roadway induces a transaction cost onto the user, which raises additional EJ concerns around tolling. Equity analysis shall consider how costs and benefits are distributed among roadway users. Equity in tolling specifically focuses on income equity, geography equity, and modal equity:

1. Income: impact on low-income drivers who would be unable to afford to use the facility/facilities.
2. Geographic: Unfairly benefit or harm people based on where they live or work or congestion on alternative routes if people try to avoid tolls.
3. Modal: Concern that transit or carpooling would be adversely impacted by initiatives that make driving alone more attractive.

As such, user access to opportunities and important places should be considered as part of the analysis. This includes considering the location of employment centers, hospitals and other healthcare facilities, schools, places of worship, recreational centers, government and non-government service centers, and other destinations in the region served by the tolled or to-be tolled facility.

4.6. Methodology

The methodology for identifying potential environmental justice populations was developed in accordance with MDOT EJ guidance and is described in the following sections.

4.6.1. Identifying the Target Population(s)

The first step in this analysis is identifying the target geographic locations where there are large populations of people who are low-income and/or are minorities. This will assist in developing outreach tactics to ensure they are aware of both the project and the public involvement opportunities, as well as to confirm meetings and materials are accessible to everyone. Any county that a Tier 1 Corridor was within or close to was included in this analysis.

Population Definitions

Low-income and minority populations are defined by final U.S. Department of Transportation (USDOT) Order 5610.2 on Environmental Justice, contained in the Federal Register on April 15, 1997. In

addition, persons with a disability, children, elderly, and those with Limited English Proficiency (LEP) are included as part of Title VI compliance.³⁶

LOW-INCOME

Households with a median income that is at or below the poverty guidelines set by the Department of Health and Human Services are considered low-income (see [Table 14](#)). Low-income population refers to any readily identifiable group of people who are considered low-income that live in geographic proximity. The data was collected from the U.S. Census Bureau. Data is from ACS data table B17001 *Poverty Status in the Last 12 Months by Sex and Age* from 2020 ACS 5-Year Estimates.

Table 14: 2020 Poverty Guidelines³⁷

Persons in family/household	Poverty Guideline
1	\$12,760
2	\$17,240
3	\$21,720
4	\$26,200
5	\$30,680
6	\$35,160
7	\$39,640
8	\$44,120

**For families/households with more than 8 persons, add \$4,480 for each additional person.*

MINORITY

Someone is considered a minority if they are:

- a. Black,
- b. Hispanic,
- c. Asian American, and/or
- d. American Indian/Alaskan Native

³⁶ (U.S. Department of Human Services and U.S. Department of Justice, 2016)

³⁷ (U.S. Department of Health and Human Services, 2020)

Data was collected from the U.S. Census Bureau. Data are from the 2020 Decennial Census data table P2 *Hispanic or Latino, and Not Hispanic or Latino by Race*. The value was calculated with the following formula:

$$\text{Percent minority} = \frac{(\text{Total Population} - \text{Not Hispanic or Latino: White Alone})}{\text{Total Population}} \times 100$$

Minority population refers to identifiable groups of minority persons living in geographic proximity.³⁸

PERSONS WITH A DISABILITY

Anyone with a physical or mental impairment that substantially limits one or more major life activities; has a record of such an impairment; or is regarded as having such an impairment is considered to be a person with a disability.

CHILDREN

Anyone who is age 5 years or younger.³⁹

ELDERLY

Anyone who is age 65 years or older.⁴⁰

4.6.2. Location Quotient Method

The Location Quotient (LQ) method was used to identify census tracts with potential environmental justice populations with regards to poverty, minority populations, and Limited English Proficiency. This is a statistical approach that calculates and compares the share of contribution of an area to a local economy, or in this case, the share of contribution of the identified populations.

Formula

$$LQ = \frac{(\text{Number in census tract} / \text{Total Population in census tract})}{(\text{Number in comparison geography} / \text{Total Population in comparison geography})}$$

Results

LQ ≤ 1.0: Not considered a potential environmental justice area

LQ > 1.0: Considered a potential environmental justice area

The higher the location quotient value, the larger the share is of that local geography compared to the larger geography. For this analysis, the census tract was compared to the county within which it is located.

³⁸ (U.S. Department of Transportation, 2012)

³⁹ Children 5 years or younger were not originally in the EJ guidance from MDOT but has been added as a factor for this study as a Title VI consideration.

⁴⁰ Defined by U.S. Department of Labor

4.7. Demographic Analysis Findings

This section describes the environmental justice analysis findings for each corridor in comparison to the county/counties each corridor is located within and the State of Michigan. Maps and tables of the environmental justice findings can be found in [Appendix B](#).

4.7.1. Corridor 1: I-94

Corridor 1 I-94 traverses across the southern portion of the lower peninsula, including (west to east) Berrien, Van Buren, Kalamazoo, Calhoun, Jackson, Washtenaw, and Wayne Counties. Data can be found in [Table 1](#) in [Appendix B](#).

- Within these counties, there are 969 total census tracts and a total population of 2,952,068.
- Low-income
 - o 530,505 people, or 18.0%, are considered low-income throughout this corridor.
 - o 406 (41.5%) census tracts have a low-income location quotient of one or more and are considered environmental justice census tracts.
- Minority
 - o 1,246,803 people are minorities in this corridor, accounting for approximately 42.2% of the total population.
 - o 438 (45.2%) census tracts have a minority location quotient of one or more and are considered environmental justice census tracts.
- Limited English Proficiency
 - o 52,675 (1.8%) people have Limited English Proficiency throughout this corridor.
- 457,069 people are 65 years or older, accounting for 15.5% of the population.
- 179,309 people are under 5 years old, accounting for 6.1% of the population.
- 418,421 (14.2%) people have a disability.
- Transportation Access Disadvantaged Communities
 - o Out of the total 907 2010 census tracts, 453 (50.0%) are considered transportation access disadvantaged.

Areas of high poverty and large populations of people who are minority are clustered around cities like Benton Harbor, Kalamazoo, Battle Creek, Jackson, Ann Arbor, and Detroit. Van Buren and Wayne Counties have high levels of poverty throughout the county with some census tracts that also have larger minority populations. There is also an area near Albion that has a high percentage of poverty and minority populations, towards the eastern edge of Calhoun County. Many census tracts around the corridor are considered transportation access disadvantaged, with the exception of around urban areas like Kalamazoo and Ann Arbor. Demographic maps of Corridor 1 are in [Figures 1](#) through [4](#) of [Appendix B](#).

4.7.2. Corridor 2: I-196

Corridor 2 I-196 travels north along the west coast of the state, intersecting with Berrien, Van Buren, Allegan, and Ottawa Counties. Data for this corridor can be found in [Table 2](#) in [Appendix B](#).

- Within these counties, there are a total of 169 census tracts and a total population of 908,275.
- Low-income
 - o 104,897 or 11.5% of the population are considered low-income throughout this corridor.
 - o 54 (32.0%) census tracts have a low-income location quotient of one or more, indicating those tracts are environmental justice areas.
- Minority
 - o 199,236 (21.9%) people are minorities in this corridor.
 - o 46 (27.2%) census tracts have a minority location quotient of one or more and are environmental justice areas.
- Limited English Proficiency
 - o 9,517 or 1.0% of the population have Limited English Proficiency.
- 146,551 people are 65 years or older, accounting for 16.1% of the population.
- 54,040 people are under 5, accounting for 5.9% of the population.
- 109,237 (12.0%) people have a disability.
- Transportation Access Disadvantaged Communities
 - o Out of the total 140 2010 census tracts, 79 (56.4%) are considered transportation access disadvantaged.

The portions of Berrien, Van Buren, and Allegan counties where I-196 is located have large populations of low-income people and minorities. The majority of the census tracts in Allegan and Van Buren Counties are considered transportation disadvantaged, except around South Haven and Saugatuck. Ottawa County has significantly less transportation access disadvantaged census tracts around the corridor. Corridor 2 demographic maps are in [Figures 5](#) through [8](#) in [Appendix B](#).

4.7.3. Corridor 3: I-75

Corridor 3 I-75 runs from the Ohio/Michigan border through Monroe County. Data for this corridor can be found in [Table 3](#) in [Appendix B](#).

- There are a total of 41 census tracts and a total population of 154,809 people.
- Low-income
 - o Of the total population, 16,657 (10.8%) are considered low-income.
 - o 14 (34.2%) census tracts have a low-income location quotient of one or more.
- Minority
 - o 19,440 (12.6%) people are minority throughout this corridor.
 - o 12 (29.3%) census tracts have a minority location quotient of one or more, indicating environmental justice areas.

- Limited English Proficiency
 - o 360 (0.2%) people have Limited English Proficiency.
- 27,160 people are 65 years or older, accounting for 17.5% of the population.
- 7,839 people are under 5 years old, accounting for 5.1% of the population.
- 21,777 people (14.1%) have a disability.
- Transportation Access Disadvantaged Communities
 - o Out of the total 39 2010 census tracts, 28 (72.0%) are considered transportation access disadvantaged.

There are high rates of poverty, and a large portion of the population are minority near Monroe. The only census tracts near the corridor that are not considered transportation access disadvantaged are just south of Monroe and near the Michigan/Indiana border to the west of the corridor. Corridor 3 demographic maps are in [Figures 9 through 12](#) in [Appendix B](#).

4.7.4. Corridor 4: I-275

Corridor 4 I-275 sits between I-75 in Monroe County and I-696 in Oakland County. From south to north, it traverses Monroe, Wayne, and Oakland Counties. Data for this corridor can be found in [Table 4](#) of [Appendix B](#).

- Within these counties, there are 3,222,765 people and a total of 1,017 census tracts.
- Low-income
 - o 482,949 people (15.0%) are considered low-income.
 - o 610 (60.0%) census tracts have a low-income location quotient of one or more.
- Minority
 - o 1,351,127 people are minority in this corridor, accounting for 41.9% of the population.
 - o 584 (57.4%) census tracts have a minority location quotient of one or more, indicating potential environmental justice areas.
- Limited English Proficiency
 - o 62,440 or 1.9% of the population have Limited English Proficiency in this corridor.
- 508,992 people are 65 years or older, accounting for 15.8% of the population.
- 190,804 people are under 5 years old, accounting for 5.9% of the population.
- 440,914 (13.7%) people have a disability.
- Transportation Access Disadvantaged Communities
 - o Out of the total 987 2010 census tracts, 468 (47.4%) are considered transportation access disadvantaged.

The portions of Monroe County that I-275 traverses have a moderately high level of poverty. Wayne and Oakland Counties near Corridor 4, on the other hand, have high rates of both poverty and minority populations. Monroe County census tracts around this corridor are all considered transportation access disadvantaged. In Wayne County, there are many tracts that are considered

disadvantaged, with less towards the northern terminus of the corridor near Farmington Hills. Demographic maps for this corridor are in [Figures 13 through 16](#) in [Appendix B](#).

4.7.5. Corridor 5: I-69

Corridor 5 I-69 begins in Calhoun County where it intersects with I-94 and ends at the I-69/I-75 interchange in Genesee County. Corridor 5 traverses Calhoun, Eaton, Clinton, Shiawassee, and Genesee Counties. Ingham County is included in this analysis even though the corridor does not intersect with it. The corridor approaches the Clinton/Ingham County border, making Ingham County necessary to include. Data for this corridor can be found in [Table 5](#) of [Appendix B](#).

- Within all of these counties, the total population is 1,081,818 and there is a total of 328 census tracts.
- Low-income
 - o 167,427 people (15.5%) are considered low-income in this corridor.
 - o 190 (57.9%) census tracts have a low-income location quotient of one or more, indicating specific environmental justice areas.
- Minority
 - o 289,045 people (26.7%) are minorities.
 - o 189 (57.6%) census tracts have a minority location quotient of one or more.
- Limited English Proficiency
 - o 8,713 people (0.8%) have Limited English Proficiency.
- 180,269 people are 65 years or older, accounting for 16.7%.
- 62,237 people are under 5 years old, accounting for 5.8%
- 167,348 people (22.9%) have a disability.
- Transportation Access Disadvantaged Communities
 - o Out of the total 318 2010 census tracts, 177 (55.7%) are considered transportation access disadvantaged.

I-69 bypasses Lansing, an area with both high rates of low-income and minority populations. Segment 5-10 terminates just before Flint, another city with large concentrations of people who are minority and/or low-income populations. The census tracts around Lansing and East Lansing are mostly not considered transportation access disadvantaged, whereas the majority of Eaton and Shiawassee Counties are largely disadvantaged. Demographic maps for Corridor 5 are in [Figures 17 through 20](#) in [Appendix B](#).

4.7.6. Corridor 6: M-14

M-14 Corridor 6 is located completely within Washtenaw County. Data for this corridor can be found in [Appendix B](#) in [Table 6](#).

- There are a total of 107 census tracts and 372,258 people.
- Low-income

- 48,329 people (13.0%) are considered low-income.
- 69 (64.5%) census tracts have a low-income location quotient of one or more, indicating environmental justice areas.
- Minority
 - 120,038 people (32.2%) are minority.
 - 59 (55.1%) census tracts have a minority location quotient of one or more, indicating potential environmental justice areas.
- Limited English Proficiency
 - 4,965 (1.3%) have Limited English Proficiency.
- 51,337 people are 65 years or older, accounting for 13.8% of the population.
- 17,977 people are under 5 years, accounting for 4.8% of the population.
- 34,799 (9.3%) people have a disability.
- Transportation Access Disadvantaged Communities
 - Out of the total 100 2010 census tracts, 30 (30.0%) are considered transportation access disadvantaged.

There is a high concentration of both high poverty rates and large minority populations near the corridor. Most of the low-income and minority populations are east of the corridor. Corridor 6 has very few census tracts that are considered transportation access disadvantaged. Demographic maps for Corridor 6 are in [Figures 21](#) through [24](#) in [Appendix B](#).

4.7.7. Corridor 7: I-696

I-696 Corridor 7 is located within Oakland and Macomb Counties. Data for this corridor is in [Table 7](#) in [Appendix B](#).

- The total population is 2,155,612 and there are 593 census tracts.
- Low-income
 - 182,126 (8.4%) people are considered low-income.
 - 380 (64.1%) census tracts have a low-income location quotient of one or more, indicating an environmental justice area.
- Minority
 - 611,234 (28.4%) people are minorities.
 - 390 (66.0%) census tracts have a minority location quotient of one or more.
- Limited English Proficiency
 - 40,215 (1.9%) people have Limited English Proficiency.
- 359,412 people are 65 years or older, accounting for 16.7% of the population.
- 115,660 people are under 5 years old, accounting for 5.4% of the population.
- 266,500 (12.4%) people have a disability.
- Transportation Access Disadvantaged Communities

- Out of the total 554 2010 census tracts, 270 (48.7%) are considered transportation access disadvantaged.

There is a high concentration of both high poverty and minority populations along the entirety of Corridor 7, particularly to the south. Transportation access disadvantaged census tracts are sporadic throughout the corridor, with the eastern portion of the corridor having more disadvantaged census tracts in Macomb County. Demographic maps for Corridor 7 are in [Figures 25 through 28](#) in [Appendix B](#).

4.7.8. Corridor 8: I-75

I-75 Corridor 8 is the section of I-75 that goes through (from south to north) Genesee, Bay, Arenac, Ogemaw, Roscommon, and Crawford Counties. Gladwin County is also included in this analysis despite the corridor not being within the county. It approaches and almost goes into Gladwin County, making it necessary to include in the analysis. Data for this corridor is in [Table 8](#) in [Appendix B](#).

- The total population is 607,672 people and there is a total of 129 census tracts.
- Low-income
 - 104,083 (17.1%) people are considered low-income in this corridor.
 - 74 (57.4%) census tracts have a low-income location quotient of one or more.
- Minority
 - 142,452 (23.4%) people are minorities.
 - 77 (60.0%) census tracts have a minority location quotient of one or more
- Limited English Proficiency
 - 2,121 (0.3%) people have Limited English Proficiency.
- 119,048 people are 65 years or older, accounting for 19.6% of the population.
- 33,559 are under 5 years, accounting for 5.5% of the population.
- 109,271 (18.0%) people have a disability.
- Transportation Access Disadvantaged Communities
 - Out of the total 119 2010 census tracts, 88 (74.0%) are considered transportation access disadvantaged.

There is a large portion of the population throughout this corridor that are considered low-income. There is a large concentration of both high poverty and a large minority population south of the southern terminus of the corridor near Saginaw. Corridor 8 has a significant amount of census tracts that are considered transportation access disadvantaged. The only area near the corridor without disadvantaged census tracts is towards the southern terminus of the corridor near Zilwaukee. Demographic maps for this corridor are in [Figures 29 through 32](#) in [Appendix B](#).

5. Next Steps

Moving forward from this environmental screening, more detailed analyses will need to be conducted at a project level through the environmental review process. This can include analyzing a range of alternatives based on the defined purpose and need; conducting an assessment of impacts once an action and/or project has been defined; identifying specific avoidance/minimization measures, as well as evaluating potential mitigation actions for unavoidable impacts; coordination with resource and regulatory agencies; and public involvement opportunities. Engaging stakeholders early in the planning process aides in minimizing negative impacts and can lead to the enhancement of positive impacts.

Additionally, next steps will include a deeper analysis of equity and the impacts of implementing a toll all lanes approach to these corridors. Based on this initial environmental screening, the following key issues may need to be addressed during project-level reviews:

- Water features, including wetlands, floodplains, streams, lakes, and drains
- Threatened and Endangered species and Migratory Birds
- Section 4(f) and 6(f) properties such as parks, trails, and State Game Areas
- Environmental justice considerations, including minority and low-income and meaningful engagement with these communities.

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Appendix A. Environmental Screening Results

1.1 Corridor 1: I-94

Table 1: Corridor 1 I-94 Segments 1-01 to 1-05

	1-01	1-02	1-03	1-04	1-05
Length (miles)	12.01	11.37	10.79	11.61	10.54
Corridor Limit (start)	State Border – Indiana	Sawyer Rd	South Lakeshore Dr interchange	US-31 Interchange	South Center St
Corridor Limit (end)	Sawyer Rd	South Lakeshore Dr interchange	US-31 Interchange	South Center St	M-51
Historic Sites	No	No	No	No	No
Cemeteries	No	No	No	No	No
Potential Environmental Contamination	No	Yes	No	No	No
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance)
Section 4(f)	Roscommon State Forest Area; Chikaming Township Scenic Area; Chikaming Nature Preserve	Warren Dunes State Park; Warren Dunes State Park Trails; Roscommon State Forest Area; Grand Mere State Park Trails; Grand Mere State Park; Lincoln Township Beach	St. Joseph Township Park; Eaton Park; Maiden Lane Community Park; Riverside Park	Snowmobile Trails	Snowmobile Trails
Section 6(f)*	Glassman Park	Warren Dunes State Park	St. Joseph Township Park	No	No
Water Features	Galien River	Hickory Creek	Hickory Creek; Saint Joseph River; Ox Creek; Unnamed Streams	Blue Creek; Mill Creek; Pine Creek	Hog Creek; Shafer Lake; Paw Paw River; Reynolds Lake; Lake Cora
Water Quality*	Section 10 Waterways	Section 10 Waterways	Section 10 Waterways	No	No
Sensitive Landscapes	Coastal Zone Management Area	Coastal Zone Management Area; Critical Dune Area; High Risk Erosion Area	Coastal Zone Management Area	No	No
Land Ownership	No	DNR State Managed Land	No	No	No
Forestry	Commercial Forest	No	No	No	No
Designated Natural Rivers	No	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	Yes	Yes	Yes
Mussel*	No	No	State Threatened: St. Joseph River	No	No
Navigable Waterway	No	No	Yes: St. Joseph River	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 2: Corridor 1 I-94 Segments 1-06 to 1-10

	1-06	1-07	1-08	1-09	1-10
Length (miles)	10.55	9.26	9.01	9.99	8.52
Corridor Limit (start)	M-51	Van Buren/ Kalamazoo County Border	S Westnedge Ave	35 th St S	Helmer Rd S
Corridor Limit (end)	Van Buren/ Kalamazoo County Border	S Westnedge Ave	35 th St S	Helmer Rd S	E Michigan Ave
Historic Sites	No	No	No	Glassman 38 th St Bridge	No
Cemeteries	No	No	No	No	No
Potential Environmental Contamination	No	No	Yes	No	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)
Section 4(f)	Snowmobile Trails	Harbors West Park	Emerald Drive Park	Fort Custer Recreation Area; 38 th St Bridge	Iron Belle Trail
Section 6(f)*	No	Harbors West Park	Morrow Lake; Portage Creek Bicentennial Park	No	No
Water Features	Three Mile Lake; West Branch Paw Paw River; East Branch Paw Paw River; Cook Drain	Atwater Millpoint; Portage Creek	Portage Creek; Davis Creek; Comstock Creek; Morrow Creek; Morrow Lake	Kalamazoo River; Wood Lake; Murnham Lake; Burnham Lake	Minges Brook; Minges Channel; Brickyard Creek; Harper Creek; Kalamazoo River; Dickinson Creek
Water Quality*	No	TMDL: Phosphorus	TMDL: Phosphorus	TMDL: Phosphorus	TMDL: Phosphorus
Sensitive Landscapes	No	No	No	No	No
Land Ownership	No	No	No	No	No
Forestry	No	No	No	No	No
Designated Natural Rivers	No	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	Yes	No	Yes
Mussel*	State Threatened: East Branch Paw Paw River	No	No	No	State Threatened: Kalamazoo River
Navigable Waterway	No	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 3: Corridor 1 I-94 Segments 1-11 to 1-15

	1-11	1-12	1-13	1-14	1-15
Length (miles)	8.42	11.35	9.26	9.31	8.13
Corridor Limit (start)	E Michigan Ave	Partello Rd	Calhoun/ Jackson County Border	N Dearing Rd	US-127
Corridor Limit (end)	Partello Rd	Calhoun/ Jackson County Border	Dearing Rd	US-127	Mt Hope Rd
Historic Sites	No	No	No	No	No
Cemeteries	No	No	No	No	No
Potential Environmental Contamination	No	Yes	No	Yes	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)	No	No	No
Section 4(f)	Great Lake to Lake Trail	No	No	North Jackson Lions Park; Iron Belle Trail; Grand River Water Trail	Waterloo Recreation Area
Section 6(f)*	No	No	No	No	Waterloo Recreation Area
Water Features	Dickinson Creek; Bear Creek	Rice Creek	South Branch Rice Creek; Mackey Brook	Sandstone Creek; Grand River	Brill Lake
Water Quality*	TMDL: Phosphorus	TMDL: Phosphorus	TMDL: Phosphorus; TMDL: Dissolved Oxygen	TMDL: Phosphorus; TMDL: Dissolved Oxygen; TMDL: Sediment	TMDL: Sediment; TMDL: Dissolved Oxygen
Sensitive Landscapes	No	No	No	No	No
Land Ownership	No	No	No	No	DNR State Managed Land
Forestry	No	No	No	No	No
Designated Natural Rivers	No	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	No	Yes	No
Mussel*	No	State Threatened: Rice Creek	No	State Threatened: Sandstone Creek; State Threatened: Grand River	No
Navigable Waterway	No	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 4: Corridor 1 I-94 Segments 1-16 to 1-20

	1-16	1-17	1-18	1-19	1-20
Length (miles)	9.29	9.8	12.11	8.96	11.73
Corridor Limit (start)	Mt Hope Rd	M-52	N Zeeb Rd	US-12	Belleville Rd
Corridor Limit (end)	M-52	N Zeeb Rd	US-12	Belleville Rd	US-24/Telegraph
Historic Sites	No	No	No	No	No
Cemeteries	No	No	No	No	No
Potential Environmental Contamination	No	Yes	Yes	Yes	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)
Section 4(f)	Waterloo Recreation Area	Pierce Lake Golf Course and Park	Evergreen Park; South Maple Park; Hansen Nature Area; Dicken Park; Churchill Downs Park; Eisenhower Park; Pittsfield Township Park; Mary Beth Doyle Park; Southeast Park; Scarlett Mitchell Area; Lillie Park	North Bay Park; Sugarbrook Park; VanBuren Park; Border to Border Trail: Huron River Greenway; Huron River Water Trail	Taylor Meadows Golf Club
Section 6(f)*	Waterloo Recreation Area	No	Southeast Park	Belleville Lake	No
Water Features	Notten Lake; Letts Creek	North Fork; Mill Creek; Honey Creek	Honey Creek; Swift Drain	Paint Creek; Ford Lake; Huron River; Susterka Lake; Belleville Lake; Willow Run Creek	Huron River; McBride Drain; Vealy Drain; Rawson Drain; Sloss Ganong Drain; Godfrey Drain
Water Quality*	TMDL: Nutrients; TMDL: Phosphorus; TMDL: Dissolved Oxygen	TMDL: Nutrients	TMDL: Nutrients; TMDL: Sediment	TMDL: Nutrients; TMDL: Sediment	TMDL: Nutrients; TMDL: Sediment
Sensitive Landscapes	No	No	No	No	No
Land Ownership	DNR State Managed Land	No	No	No	No
Forestry	No	No	No	No	No
Designated Natural Rivers	No	Mill Creek	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	Yes	Yes	Yes
Mussel*	No	State Threatened: Mill Creek	No	Federally Endangered or Threatened: Ford Lake/Huron River	No
Navigable Waterway	No	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 5: Corridor 1 I-94 Threatened/Endangered Species and Migratory Birds Segments 1-01 to 1-10

Category

(E) = Endangered; (T) = Threatened; (NE) = Experimental, Non-Essential Population; (C) = Candidate

Common Name

Scientific Name

	1-01	1-02	1-03	1-04	1-05	1-06	1-07	1-08	1-09	1-10
Mammals										
(E) Indiana Bat Myotis sodalists	X	X	X	X	X	X	X	X	X	X
(T) Northern Long-eared Bat Myotis septentrionalis	X	X	X	X	X	X	X	X	X	X
Birds										
(E) Piping Plover Charadrius melodus	X	X	X	X	X	X	X			
(T) Red Knot Calidris canutus rufa	X	X	X	X	X	X	X			
(NE) Whooping Crane Grus americana	X	X	X	X						
Reptiles										
(T) Copperbelly Water Snake Nerodia erythrogaster neglecta									X	X
(T) Eastern Massasauga rattlesnake Sistrurus catenatus	X	X	X	X	X	X	X	X	X	X
Clams										
(E) Snuffbox Mussel Epioblasma triquetra						X	X	X	X	
Insects										
(E) Mitchell's Satyr Butterfly Neonympha itchellii mitchellii	X	X	X	X	X	X	X	X	X	
(C) Monarch Butterfly Danaus plexippus	X	X	X	X	X	X	X	X	X	X
Flowering Plants										
(T) Pitcher's Thistle Cirsium pitcheri	X	X	X	X	X	X	X			
Migratory Birds										
American Golden-plover Pluvialis dominica	X	X	X	X				X	X	
Bald Eagle Haliaeetus leucocephalus	X	X	X	X	X	X	X	X	X	X
Black Tern Chlidonias niger	X	X	X	X						
Black-billed Cuckoo Coccyzus erythrophthalmus	X	X	X	X	X	X	X	X	X	X
Bobolink Dolichonyx oryzivorus	X	X	X	X	X	X	X	X	X	X
Canada Warbler Cardellina canadensis	X	X	X	X	X	X	X	X	X	X
Cerulean Warbler Dendroica cerulea	X	X	X	X	X	X	X	X	X	X
Eastern Whip-poor-will Antrostomus vociferus	X	X	X	X	X	X	X	X	X	X
Golden Eagle Aquila chrysaetos	X	X	X	X			X	X	X	X
Golden-winged Warbler Vermivora chrysoptera	X	X	X	X	X	X	X	X	X	X
Henslow's Sparrow Ammodramus henslowii	X	X	X	X			X	X	X	X
Lesser Yellowlegs Tringa flavipes	X	X	X	X	X	X	X	X	X	X
Long-eared Owl asio otus			X	X						
Marbled Godwit Litmosa fedoa	X	X	X	X						
Red-headed Woodpecker Melanerpes erythrocephalus	X	X	X	X	X	X	X	X	X	X
Ruddy Turnstone Arenaria interpres morinella	X	X	X	X					X	X
Rusty Blackbird Euphagus carolinus	X	X	X	X	X	X	X	X	X	X
Short-billed Dowitcher Limnodromus griseus	X	X	X	X				X	X	
Wood Thrush Hylocichla mustelina	X	X	X	X	X	X	X	X	X	X

Table 6: Corridor 1 I-94 Threatened/Endangered Species and Migratory Birds Segments 1-11 to 1-20

	1-11	1-12	1-13	1-14	1-15	1-16	1-17	1-18	1-19	1-20
Mammals										
(E) Indiana Bat <i>Myotis sodalists</i>	X	X	X	X	X	X	X	X	X	X
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X	X	X	X	X	X	X	X	X	X
Birds										
(E) Piping Plover <i>Charadrius melodus</i>									X	X
(T) Red Knot <i>Calidris canutus rufa</i>									X	X
(NE) Whooping Crane <i>Grus americana</i>		X	X	X	X	X				
Reptiles										
(T) Copperbelly Water Snake <i>Nerodia erythrogaster neglecta</i>	X	X	X							
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X	X	X	X	X	X	X	X	X	X
Clams										
(E) Northern Riffleshell <i>Epioblasma</i>									X	X
(E) Snuffbox Mussel <i>Epioblasma triquetra</i>						X	X	X	X	
Insects										
(E) Mitchell's Satyr Butterfly <i>Neonympha itchellii mitchellii</i>		X	X	X	X	X	X	X	X	
(C) Monarch Butterfly <i>Danaus plexippus</i>	X	X	X	X	X	X	X	X	X	X
(E) Poweshiek Skipperling <i>Oarisma poweshiek</i>		X	X	X	X	X	X	X	X	
Flowering Plants										
(T) Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i>						X	X	X	X	X
Migratory Birds										
American Golden-plover <i>Pluvialis dominica</i>							X	X	X	X
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X	X	X	X	X	X	X	X	X
Black Tern <i>Chlidonias niger</i>			X		X	X	X	X	X	
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	X	X	X		X	X	X	X	X	X
Bobolink <i>Dolichonyx oryzivorus</i>	X	X	X	X	X	X	X	X	X	X
Canada Warbler <i>Cardellina canadensis</i>	X	X	X		X	X	X	X	X	X
Cerulean Warbler <i>Dendroica cerulea</i>			X		X	X	X	X	X	X
Eastern Whip-poor-will <i>Antrostomus vociferus</i>					X	X	X	X	X	X
Golden Eagle <i>Aquila chrysaetos</i>				X	X	X	X	X		X
Golden-winged Warbler <i>Vermivora chrysoptera</i>			X	X	X	X	X	X	X	X
Henslow's Sparrow <i>Ammodramus henslowii</i>	X	X	X	X	X	X	X	X	X	X
Kentucky Warbler <i>Oporornis formosus</i>								X		
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X	X	X	X	X	X	X	X	X
Long-eared Owl <i>asio otus</i>	X	X					X	X	X	X
Prothonotary Warbler <i>Protonotaria citrea</i>								X	X	
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X	X	X	X	X	X	X	X	X	X
Rusty Blackbird <i>Euphagus carolinus</i>	X	X	X	X	X	X	X	X	X	X
Short-billed Dowitcher <i>Limnodromus griseus</i>			X	X	X	X	X	X	X	
Wood Thrush <i>Hylocichla mustelina</i>	X	X	X	X	X	X	X	X	X	X

Figure 1: Corridor 1 I-94 Overview Map

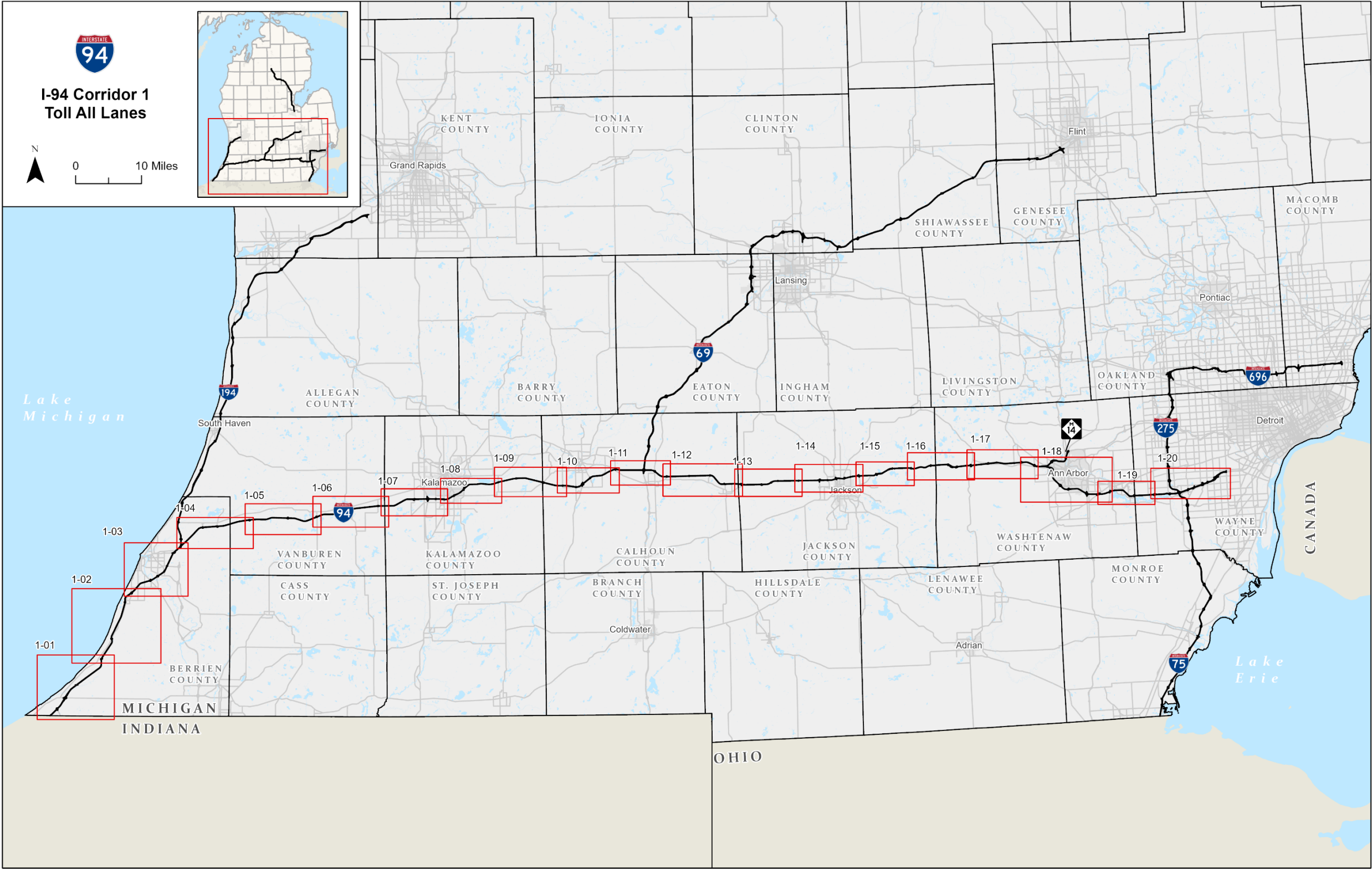


Figure 2: Corridor 1 I-94 Segment 1-01

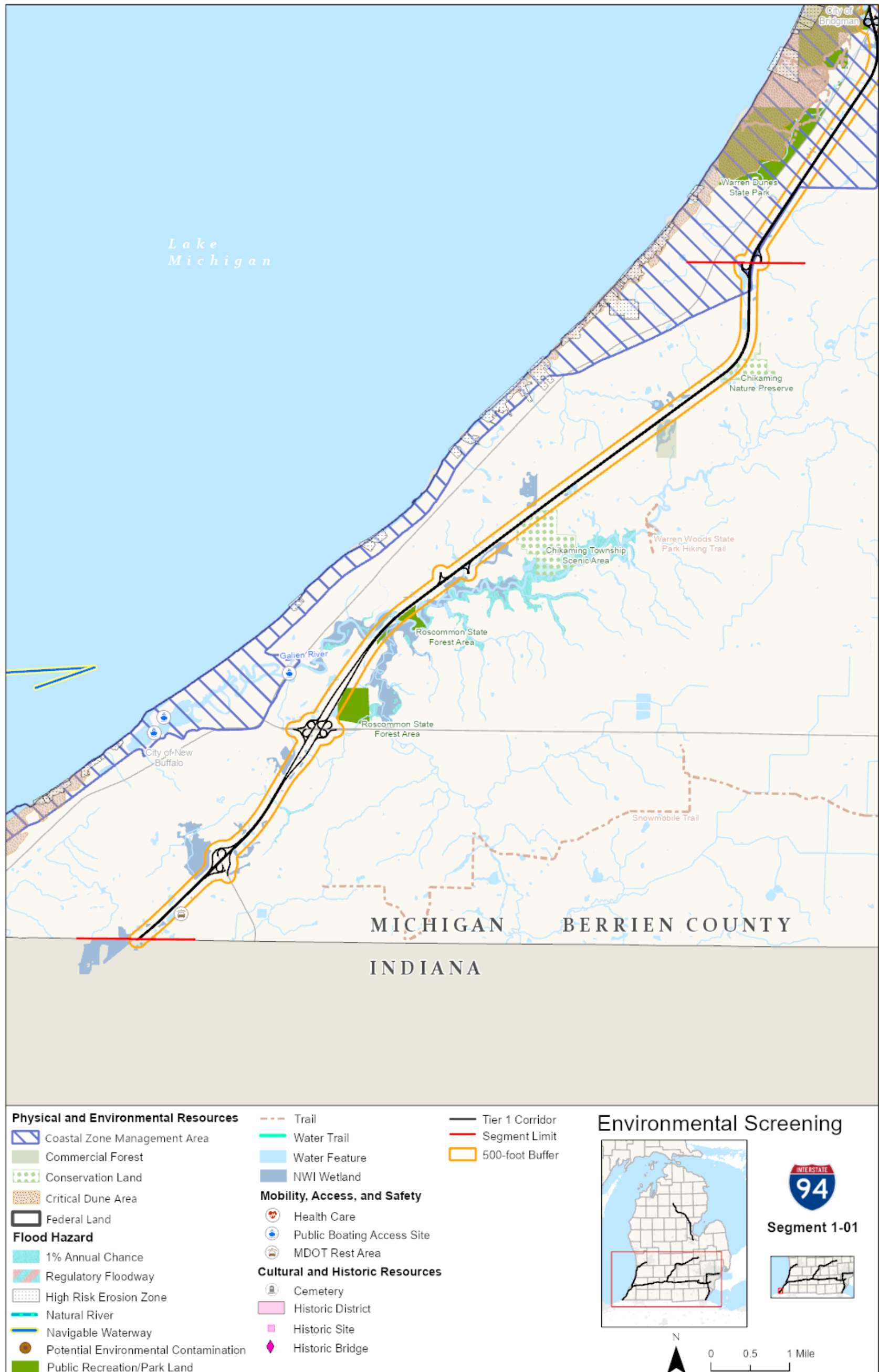


Figure 3: Corridor 1 I-94 Segment 1-02

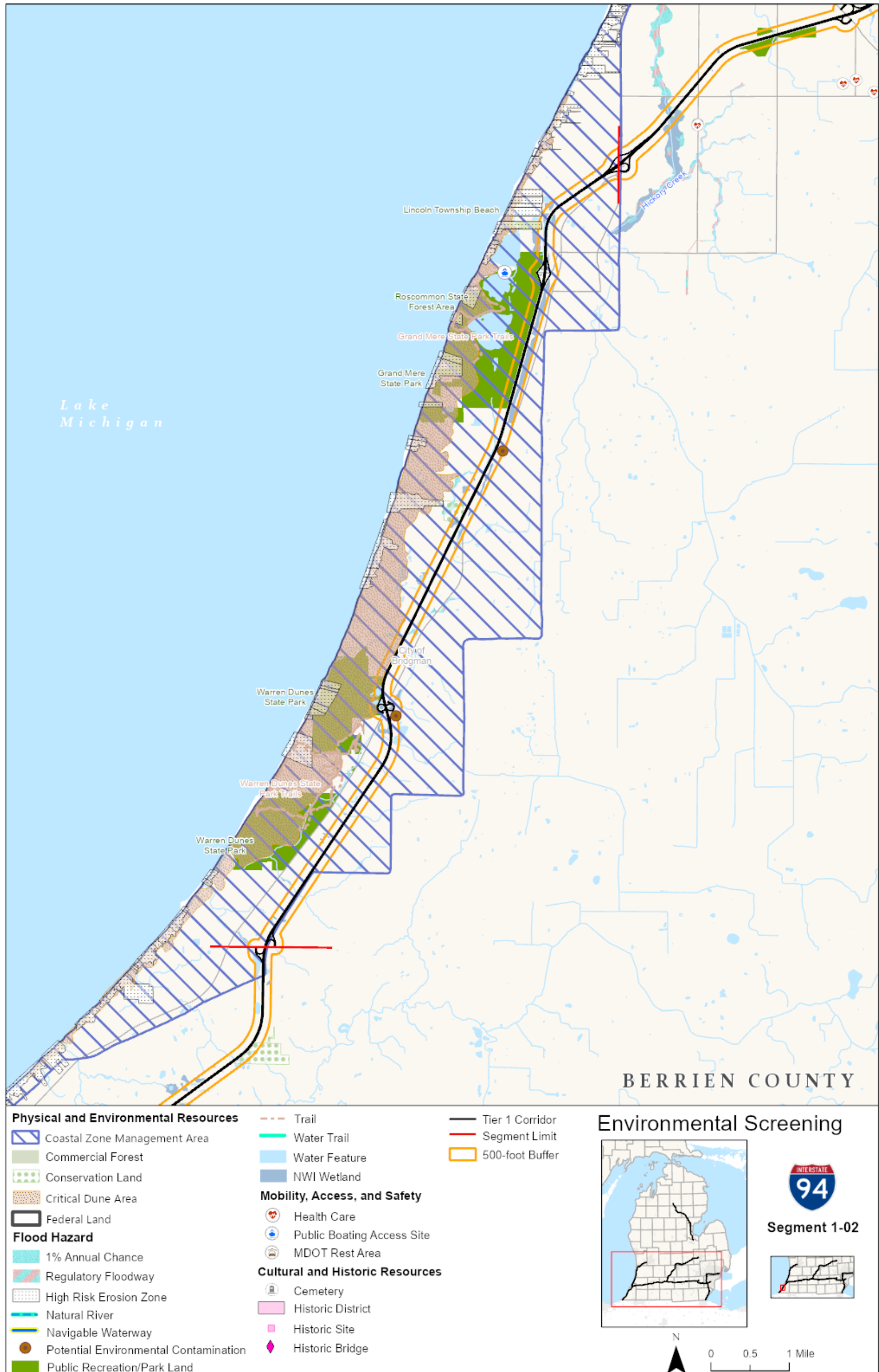


Figure 4: Corridor 1 I-94 Segment 1-03

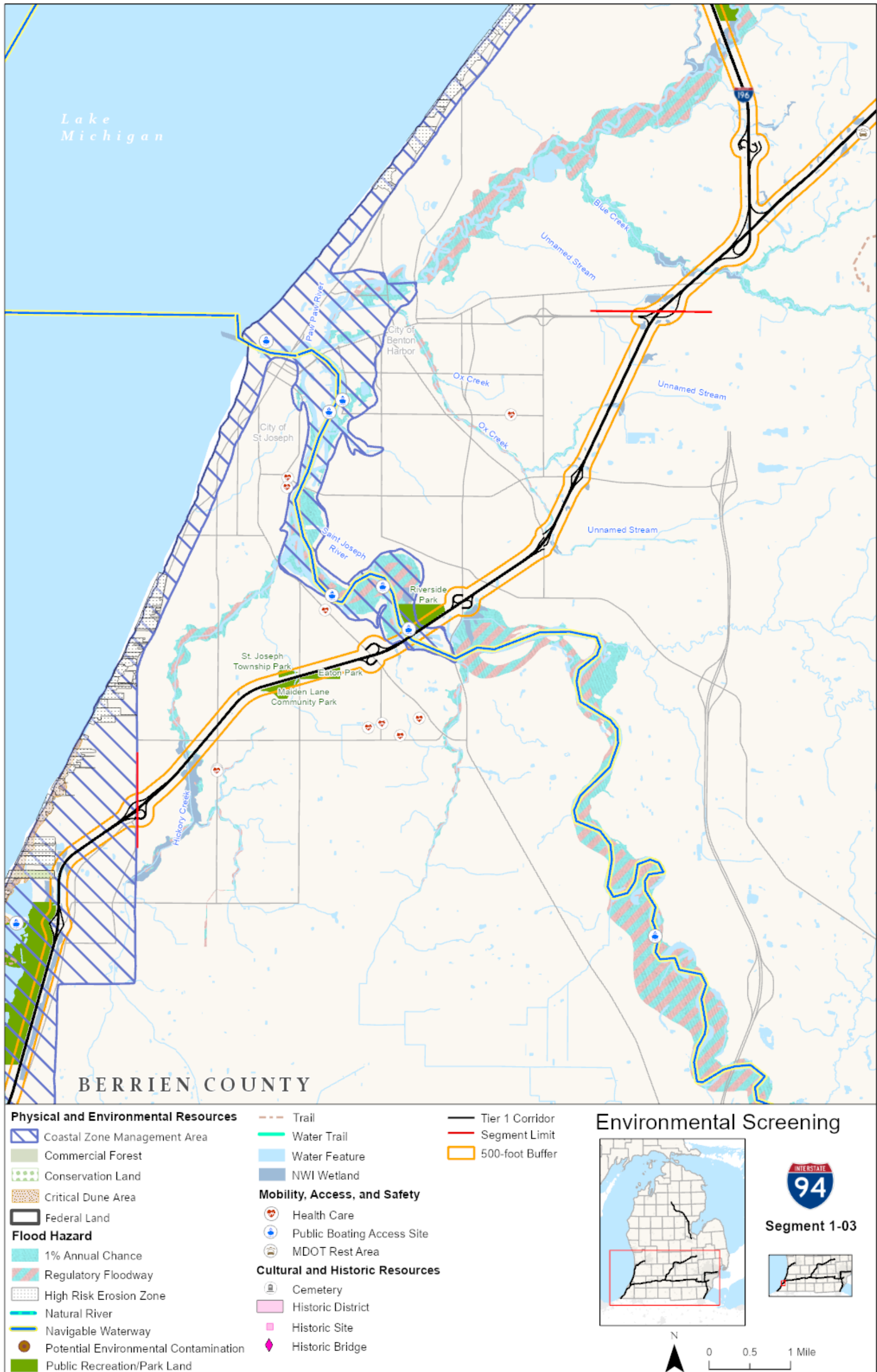


Figure 5: Corridor 1 I-94 Segment 1-04

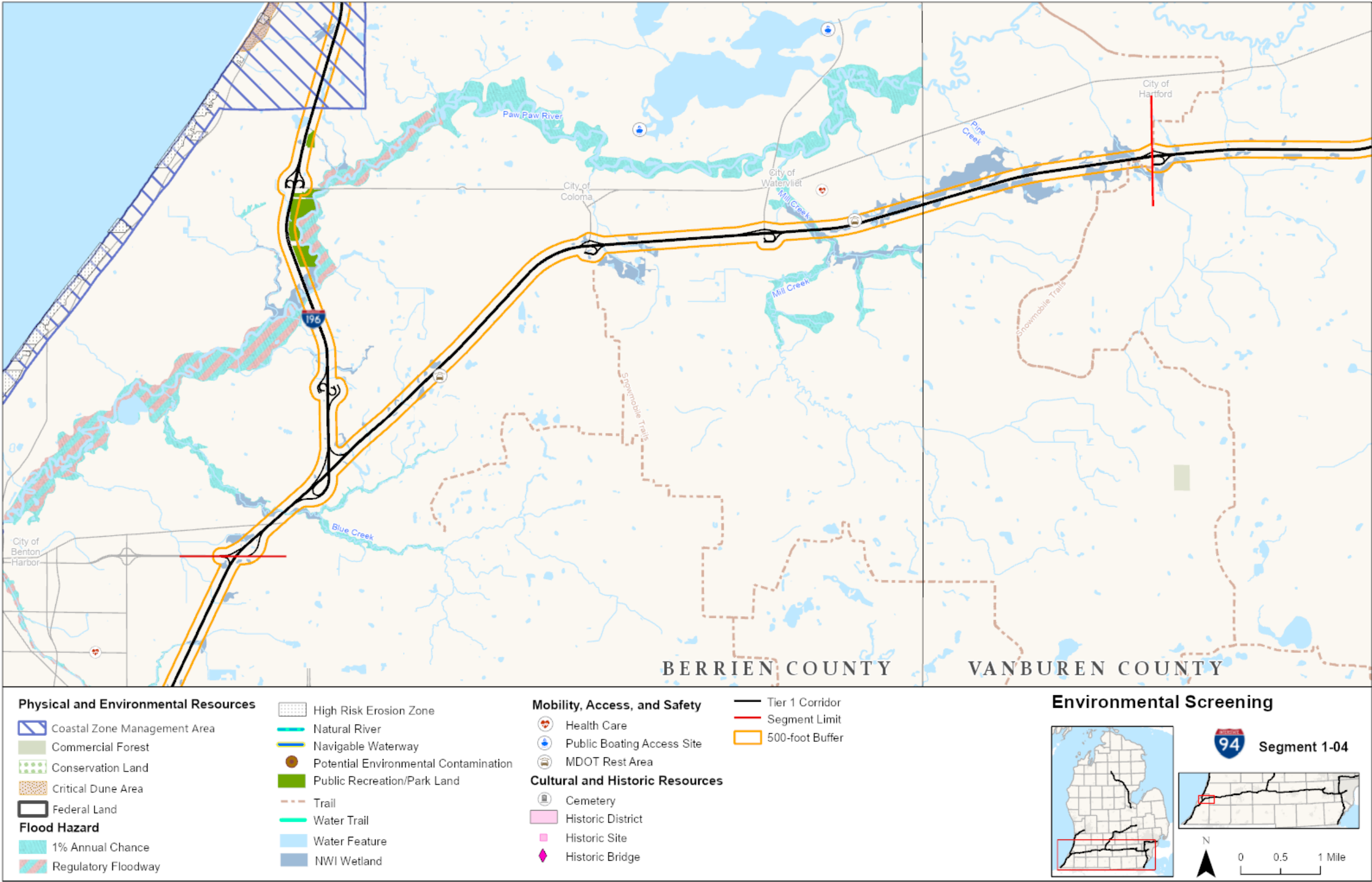


Figure 6: Corridor 1 I-94 Segment 1-05

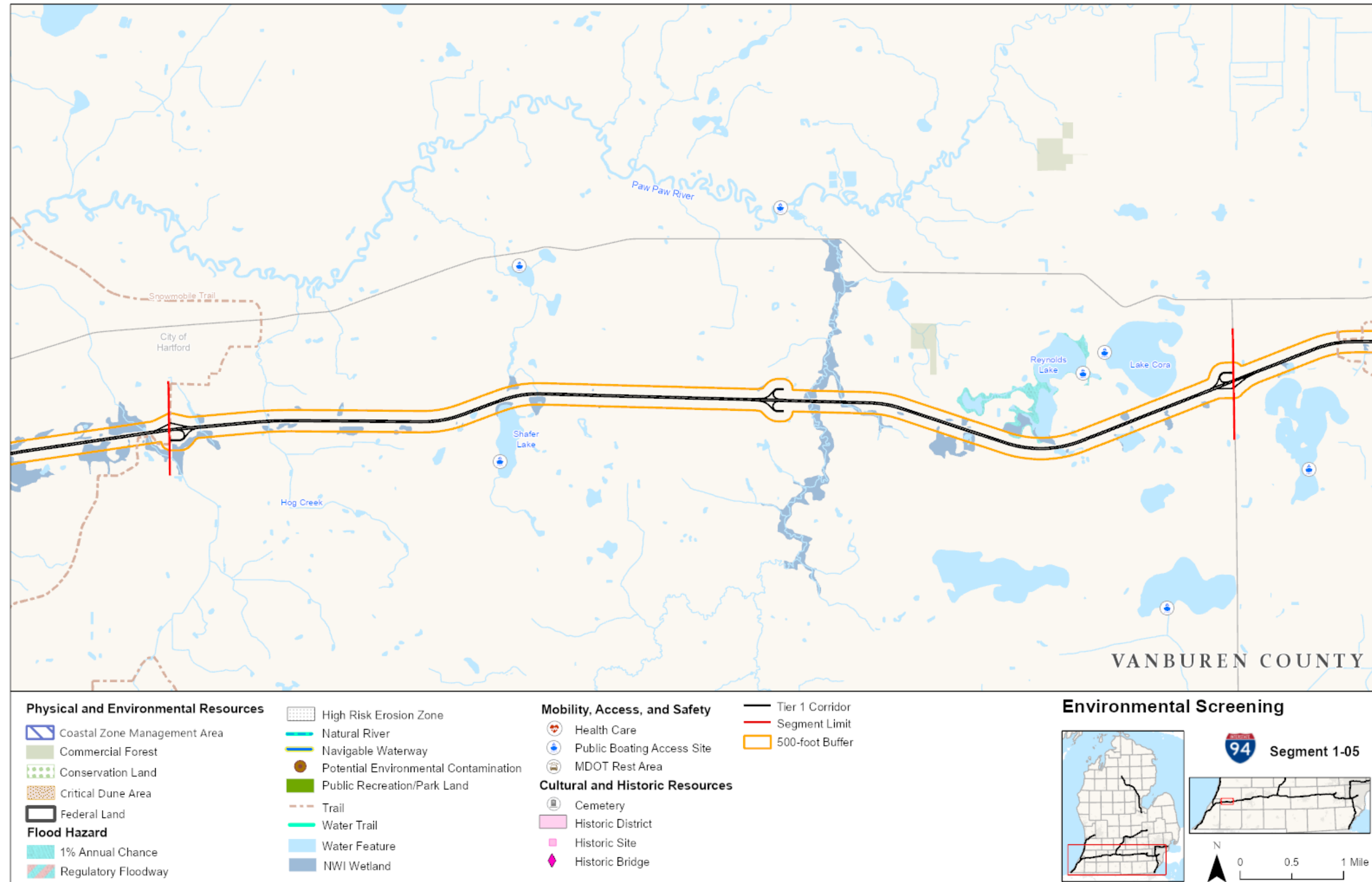


Figure 7: Corridor 1 I-94 Segment 1-06

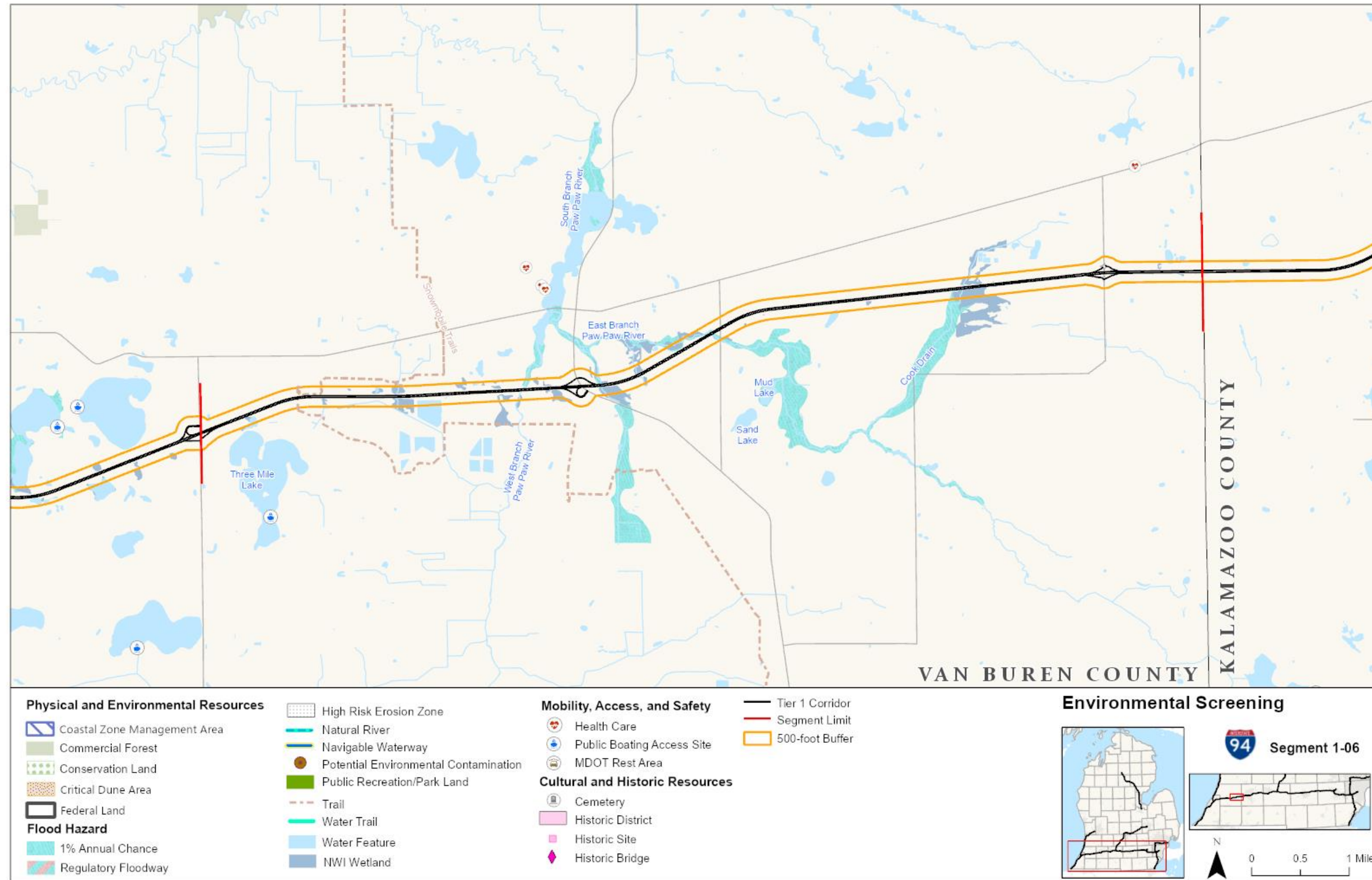


Figure 8: Corridor 1 I-94 Segment 1-07

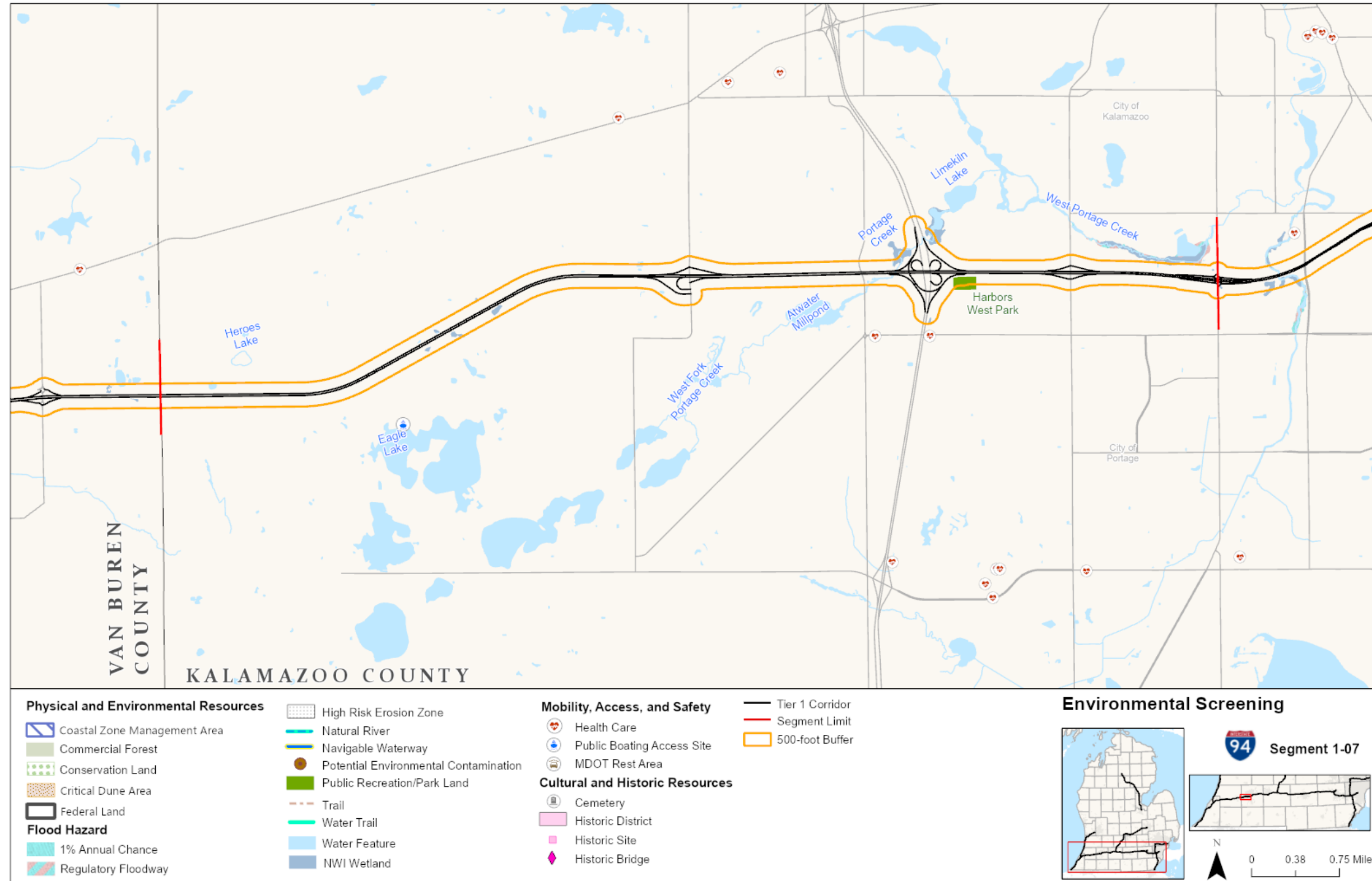


Figure 9: Corridor 1 I-94 Segment 1-08

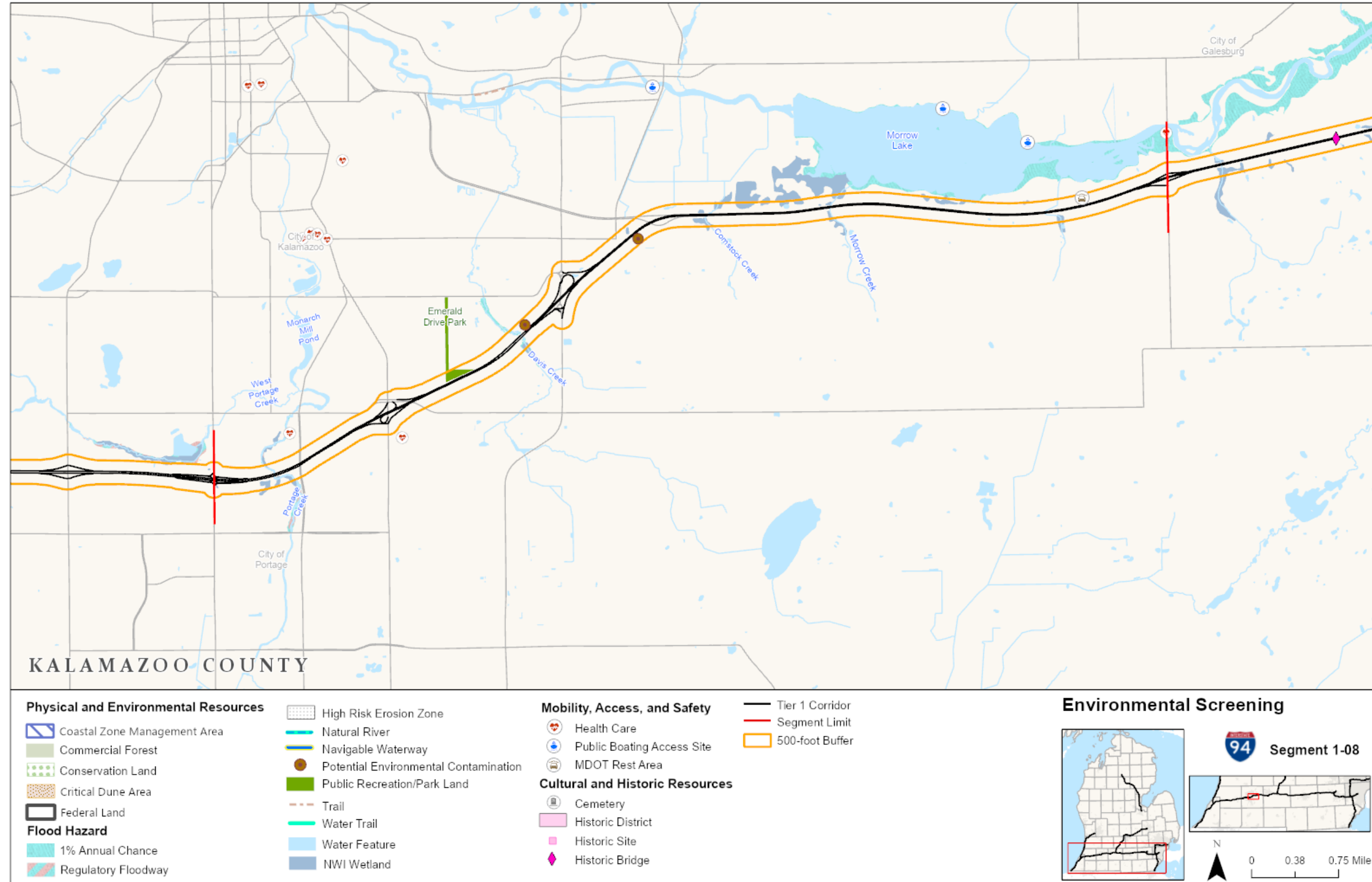


Figure 10: Corridor 1 I-94 Segment 1-09

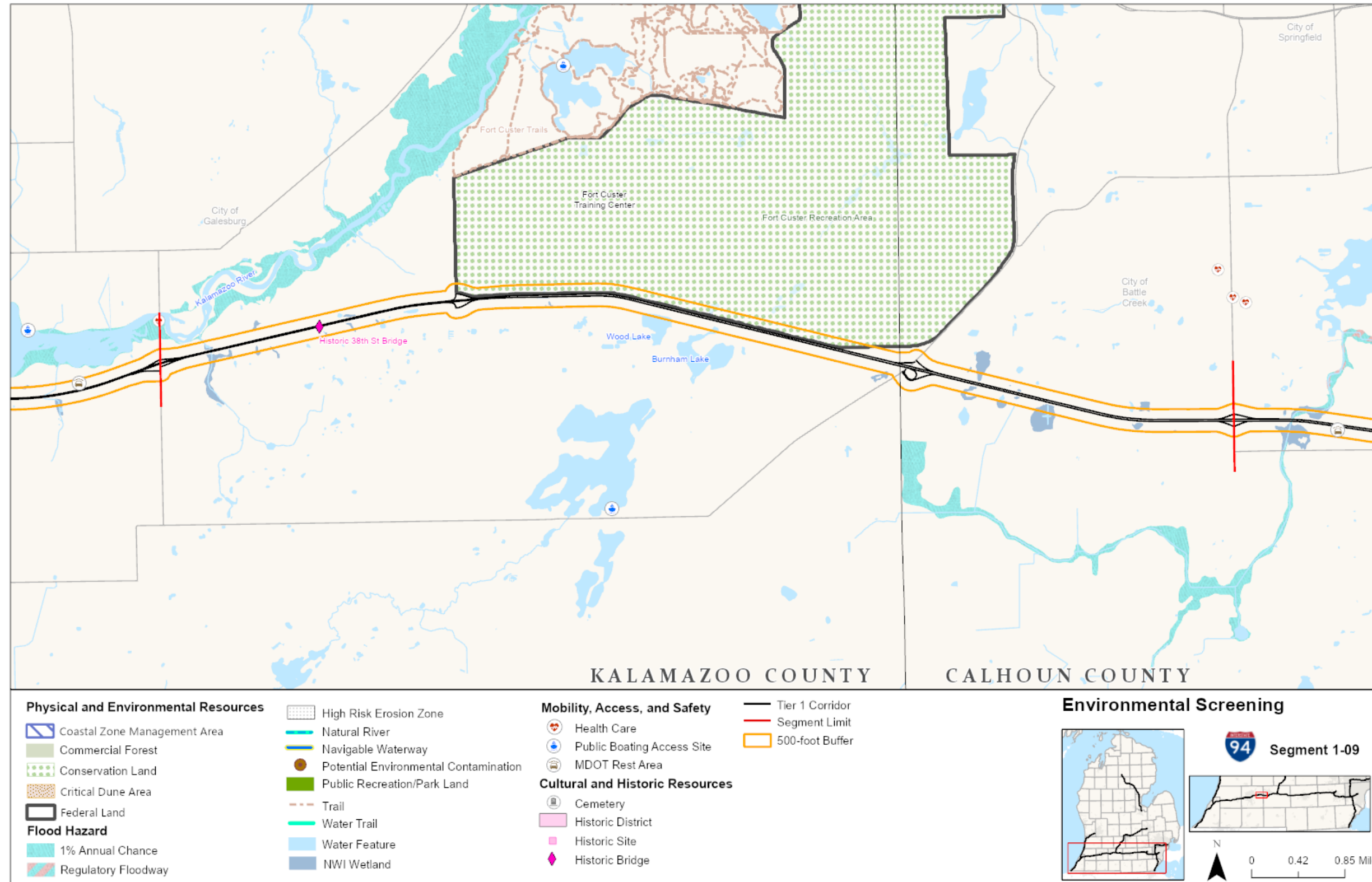


Figure 11: Corridor 1 I-94 Segment 1-10

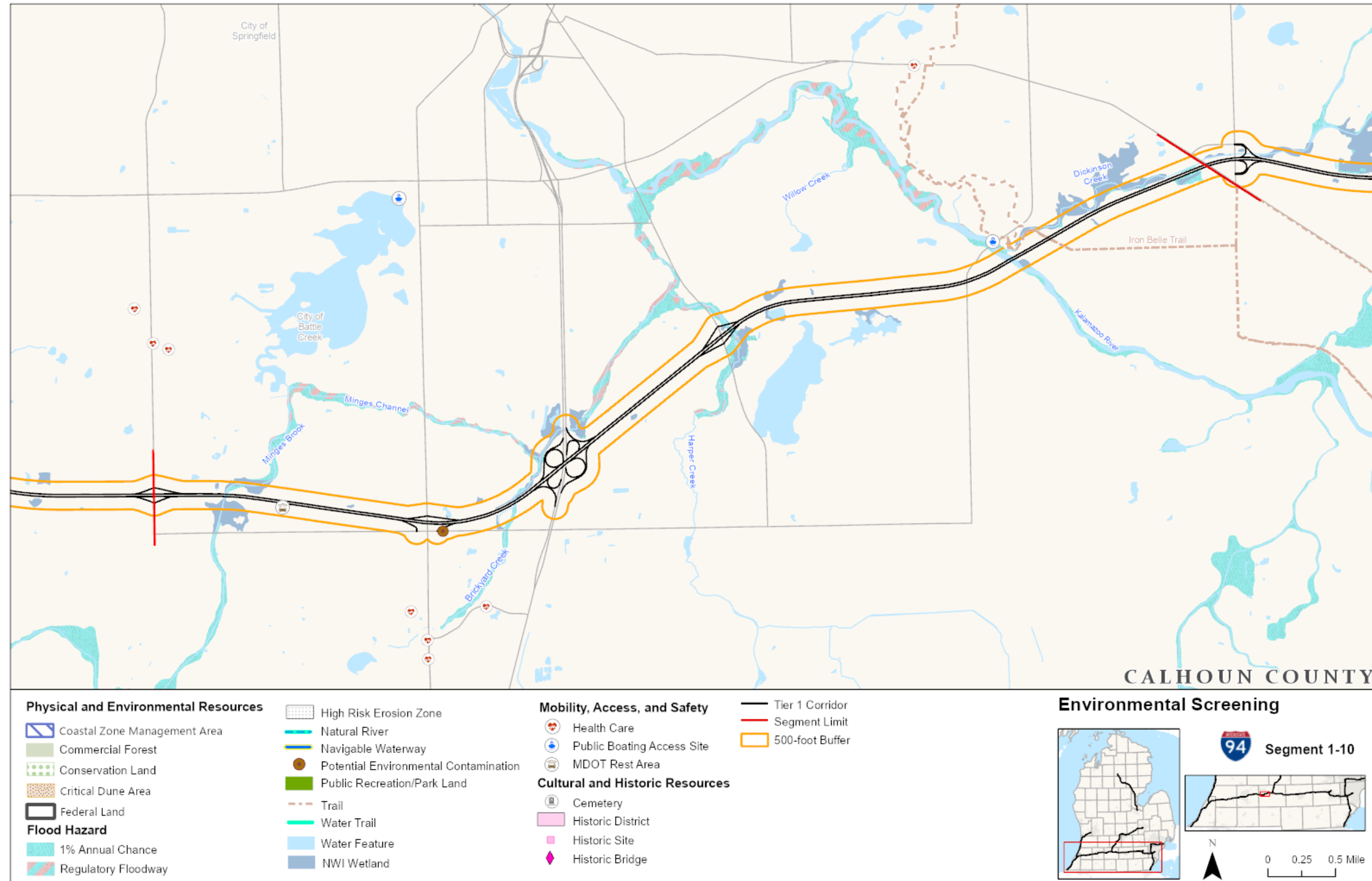


Figure 12: Corridor 1 I-94 Segment 1-11

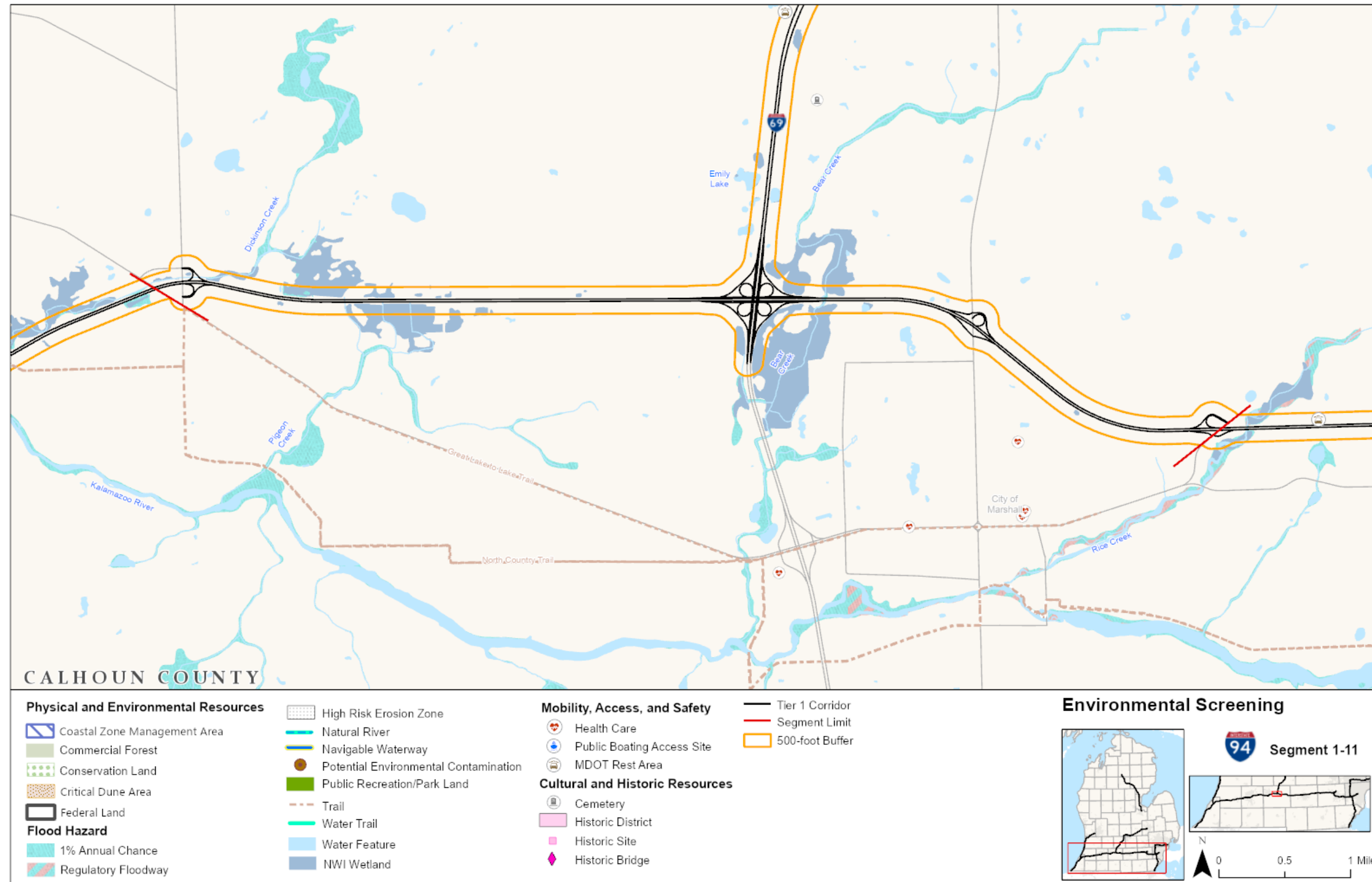


Figure 13: Corridor 1 I-94 Segment 1-12

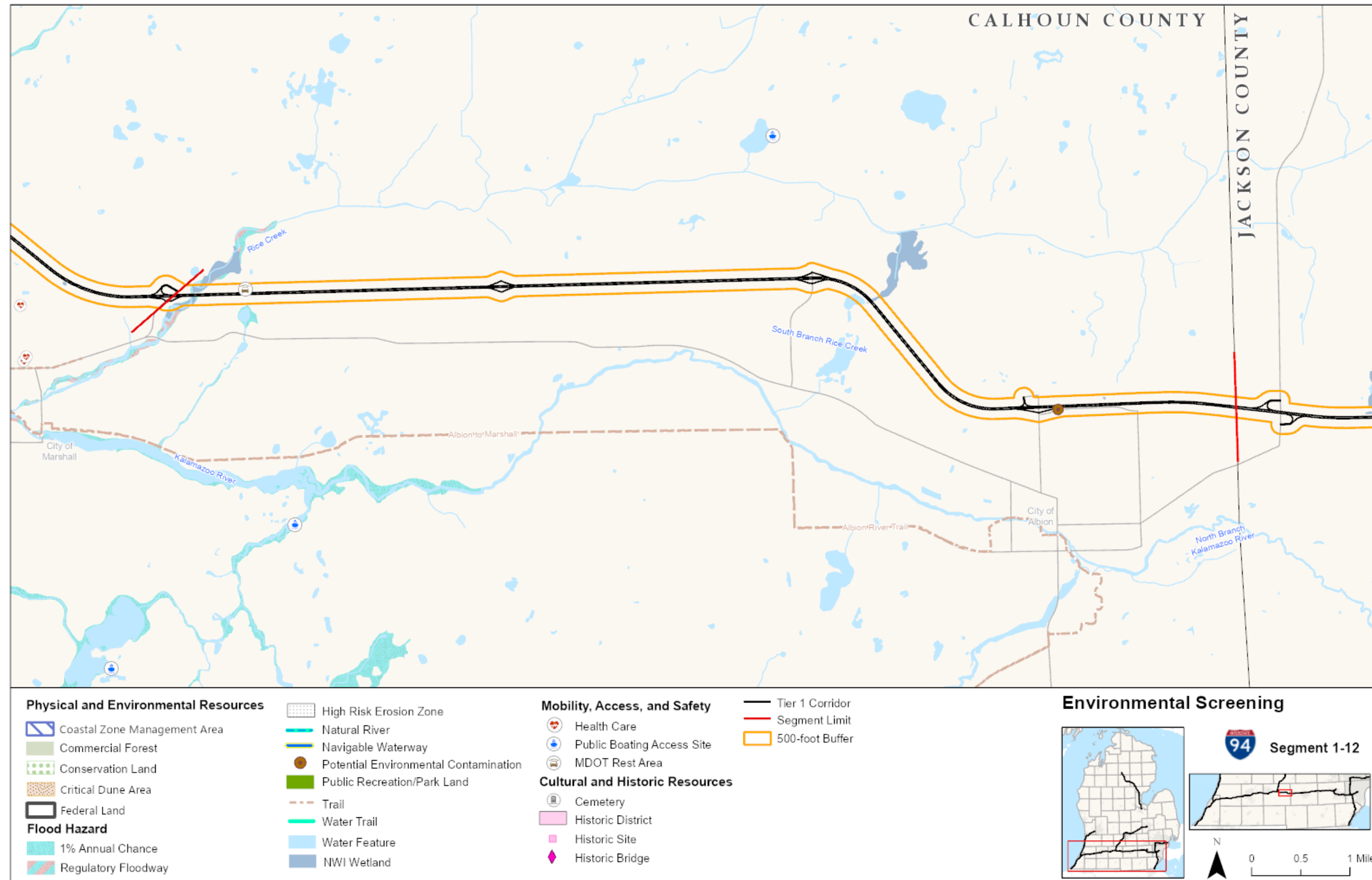


Figure 14: Corridor 1 I-94 Segment 1-13

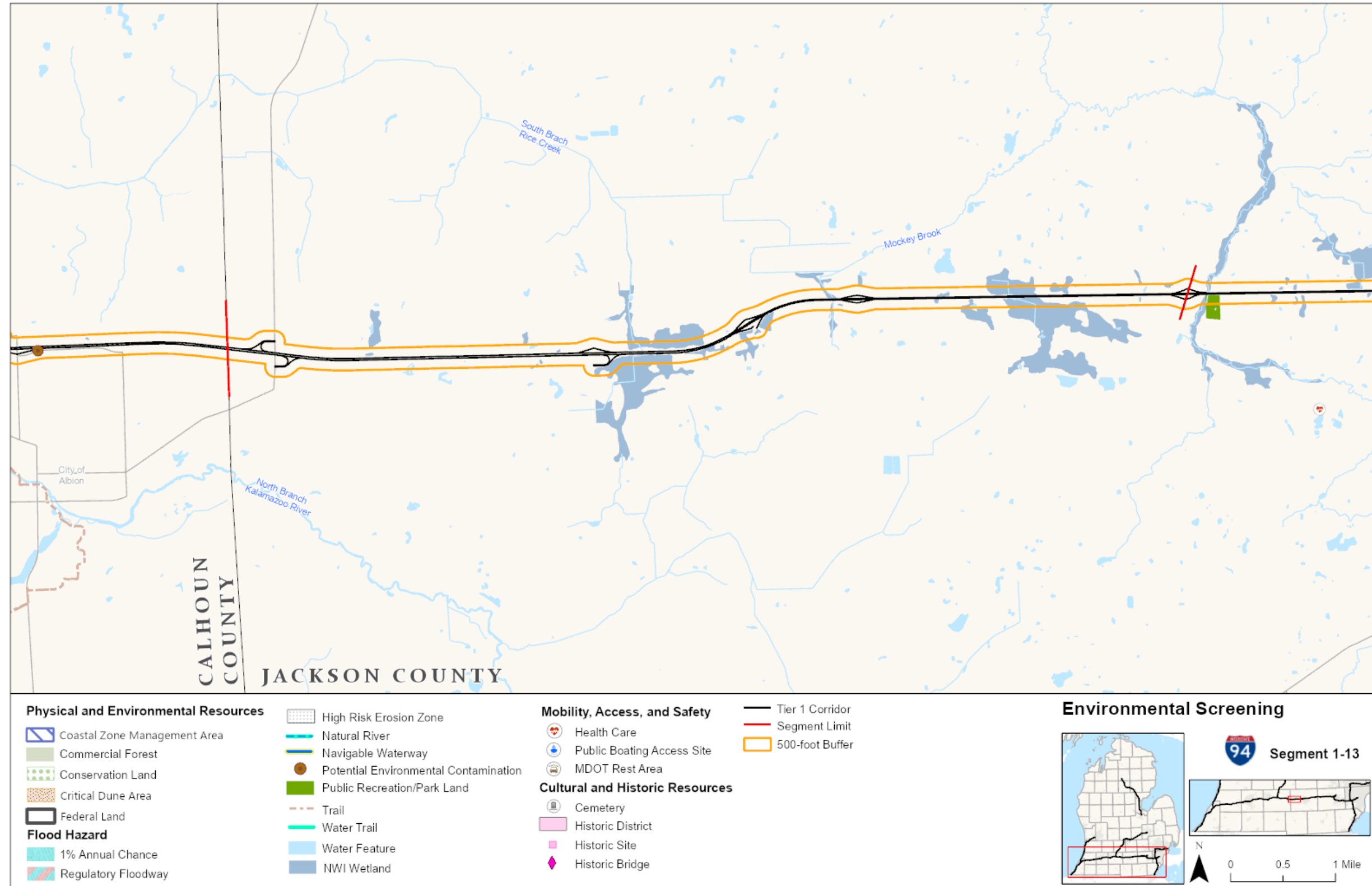


Figure 15: Corridor 1 I-94 Segment 1-14

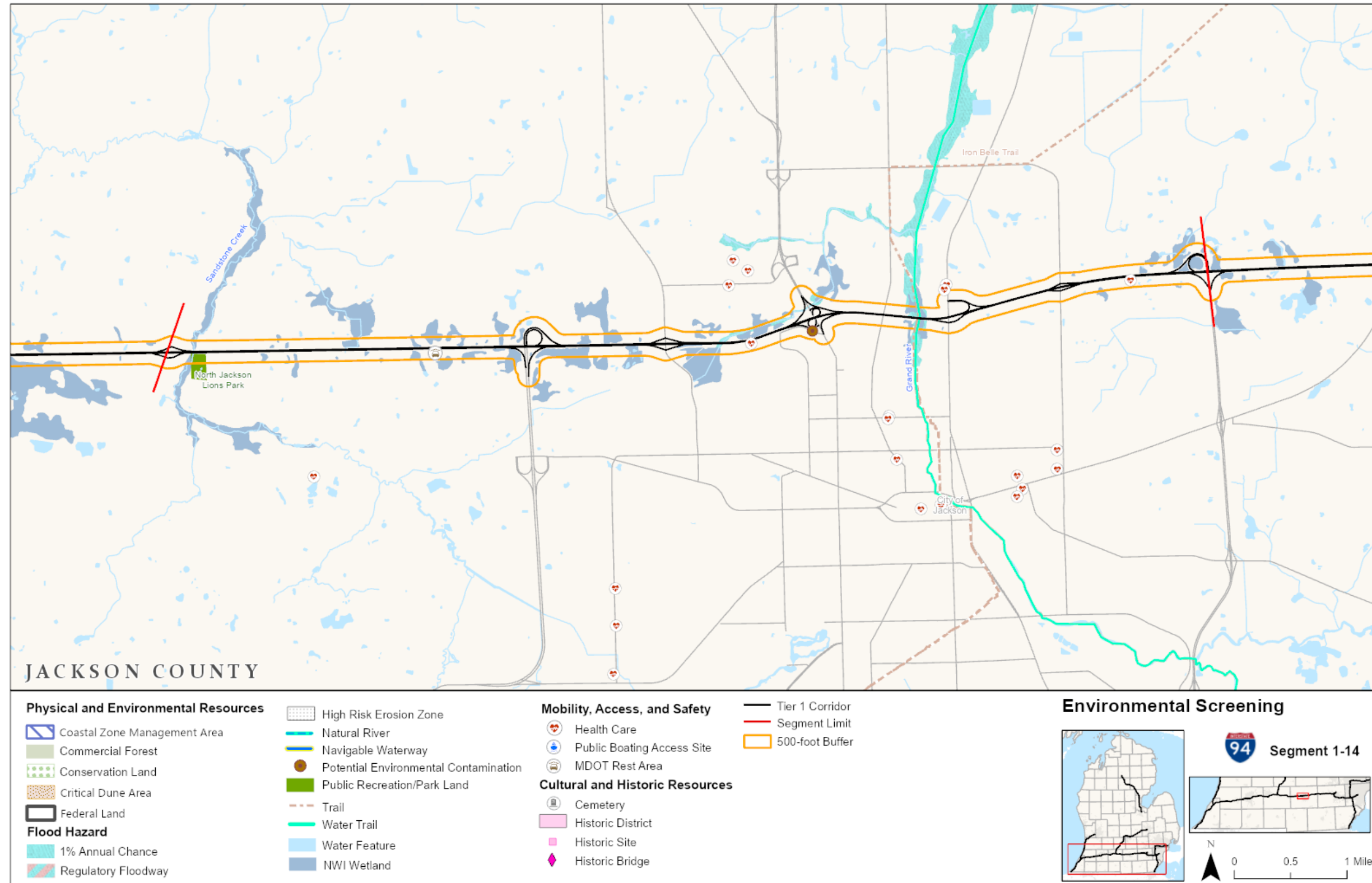


Figure 16: Corridor 1 I-94 Segment 1-15

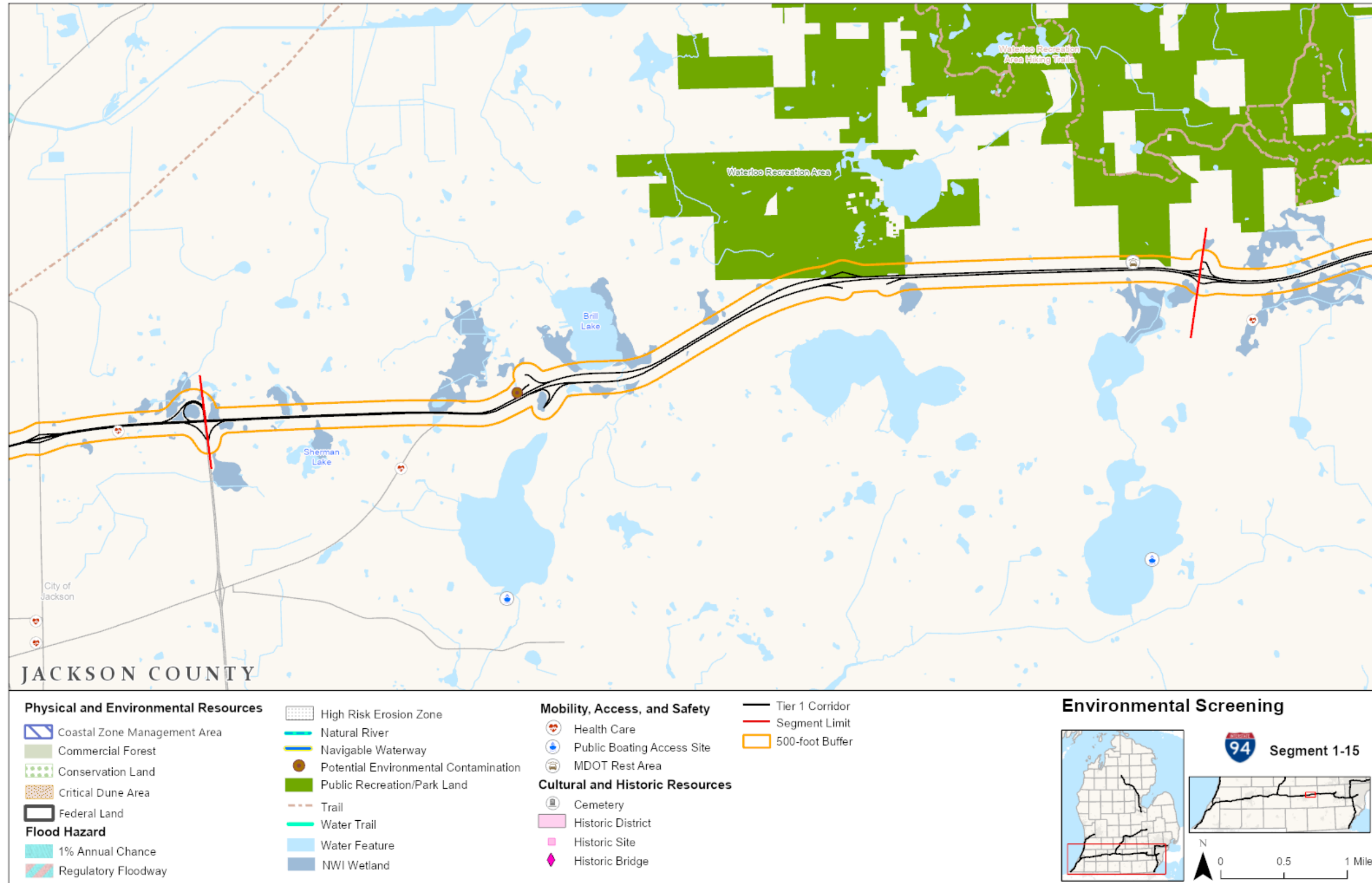


Figure 17: Corridor 1 I-94 Segment 1-16

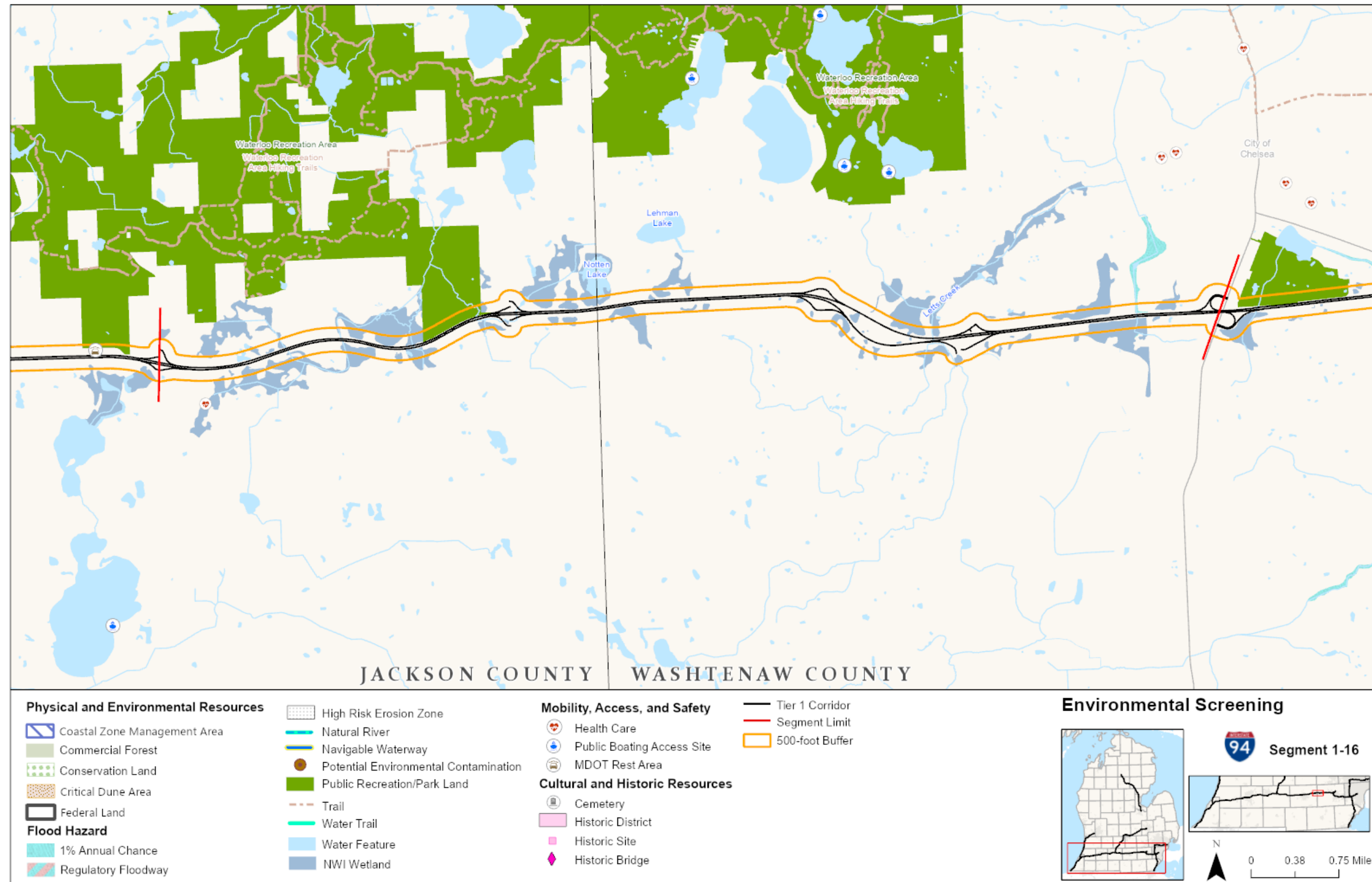


Figure 18: Corridor 1 I-94 Segment 1-17

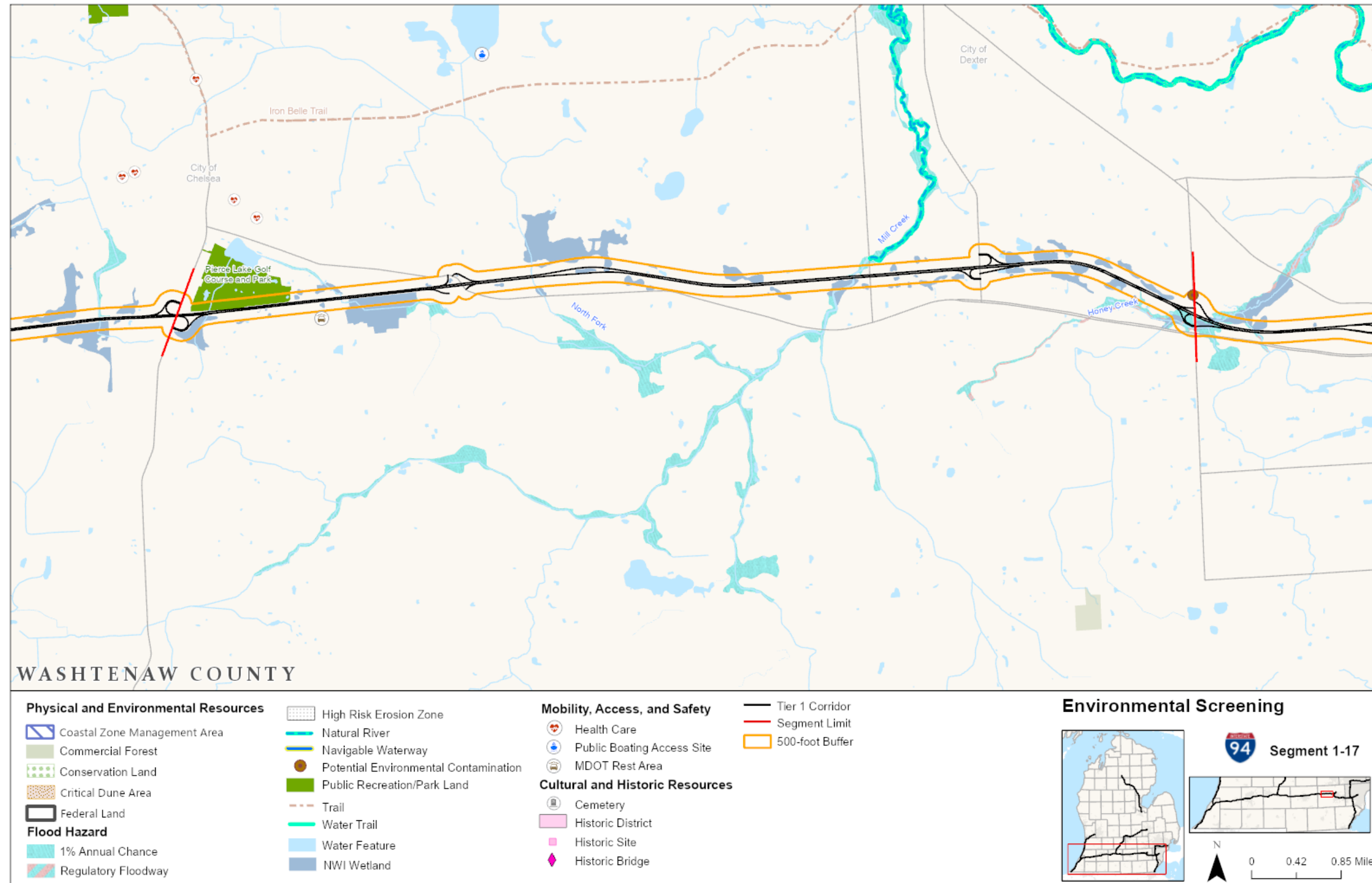


Figure 19: Corridor 1 I-94 Segment 1-18

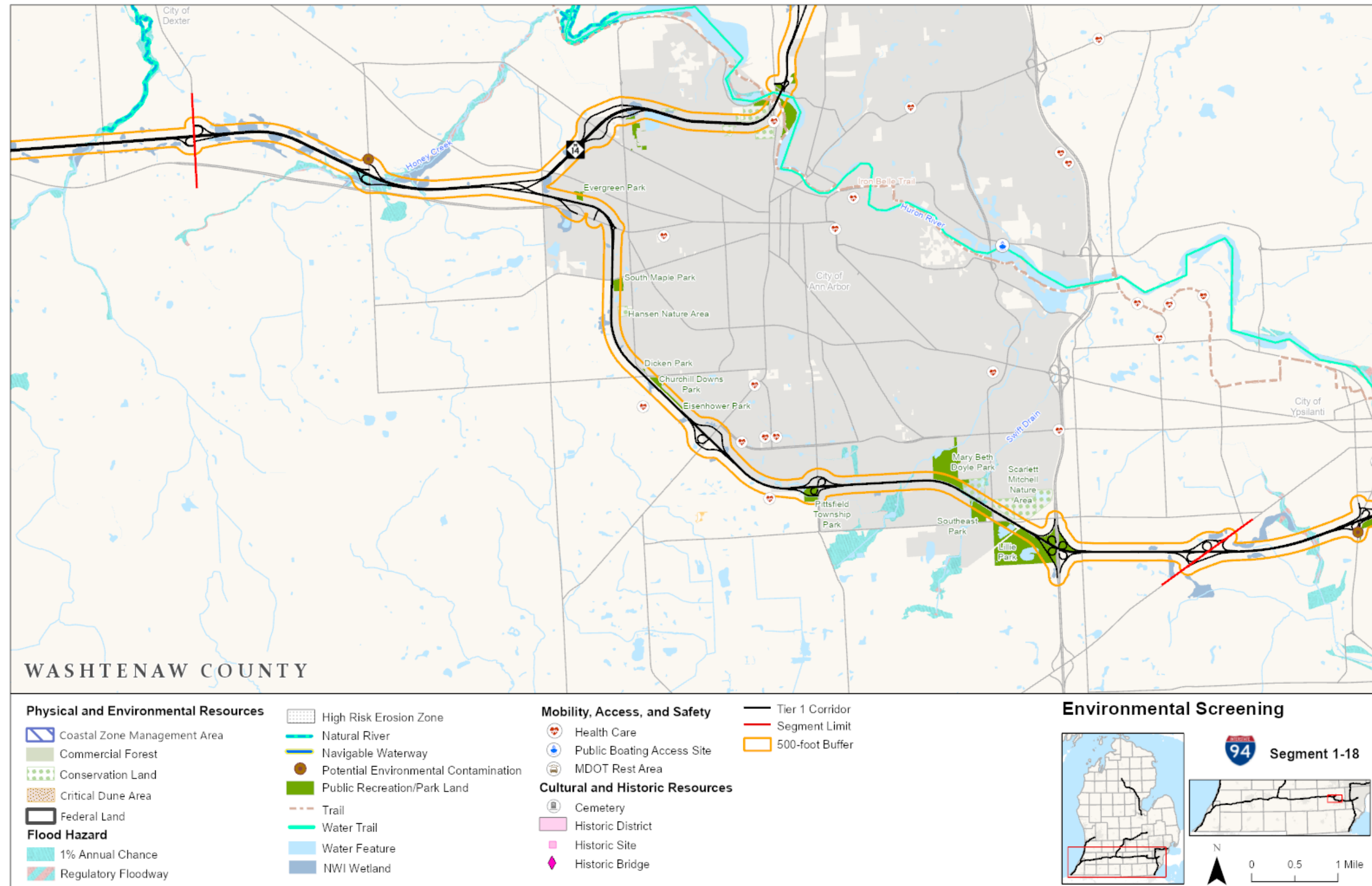


Figure 20: Corridor 1 I-94 Segment 1-19

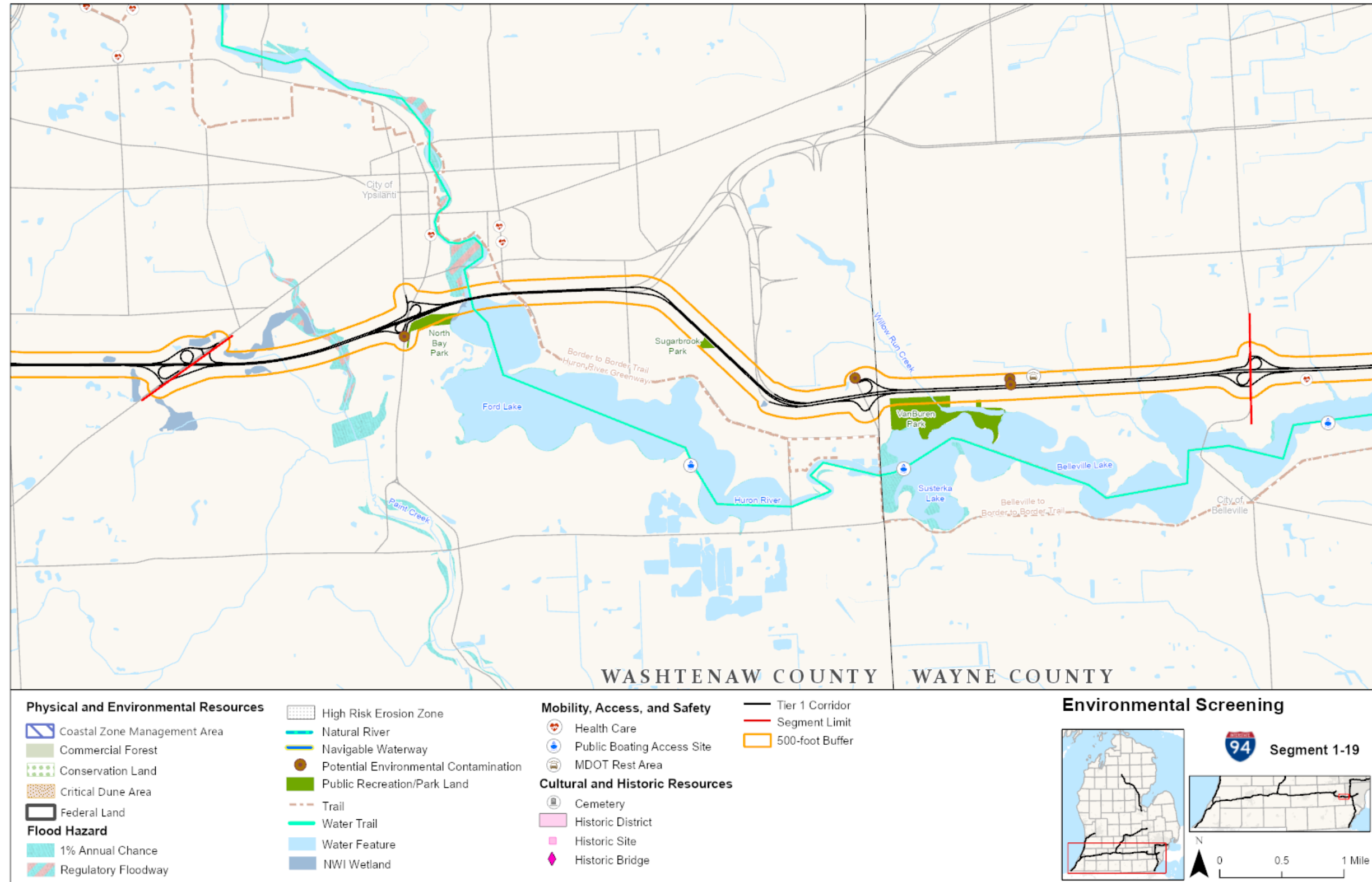
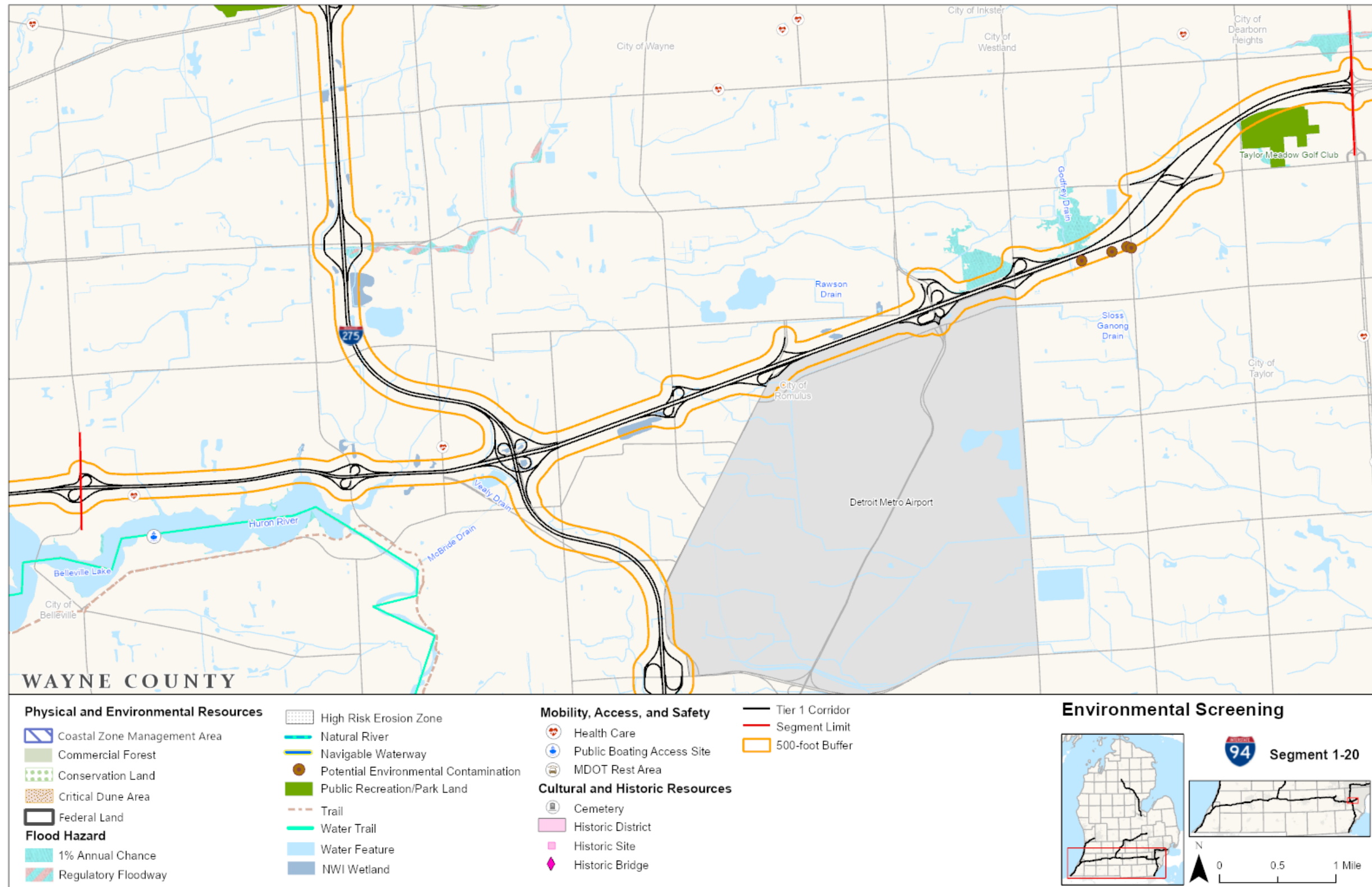


Figure 21: Corridor 1 I-94 Segment 1-20



Corridor 2: I-196

Table 7: Corridor 2 I-196 Segments 2-01 to 2-05

	2-01	2-02	2-03	2-04	2-05
Length (miles)	9.28	8.32	9.73	10.13	11.15
Corridor Limit (start)	I-94	44 th Ave	M-140	111 th Ave	130 th Ave
Corridor Limit (end)	44 th Ave	M-140	111 th Ave	130 th Ave	M-40
Historic Sites	No	No	No	No	Historic bridge
Cemeteries	No	No	No	No	No
Potential Environmental Contamination	No	Yes	No	No	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)
Section 4(f)	Coloma Road Park; Athletic Park	Ross Coastal Plain Marshes; Dunes Parkway; VanBuren State Park; VanBuren State Park Trails	Kai-Haven Sesquicentennial State Park; Kai-Haven State Park Trail	WauKeNa	Schultz Park
Section 6(f)*	No	No	No	No	Douglas Schultz Park
Water Features	Paw Paw River; Jacobs Chapel Lake; Rogers Creek	Rogers Creek; Brandywine Creek	Deerlick Creek; Black River; North Branch Black River	Tannery Creek	Kalamazoo River; Goshom Creek; North Branch Macatawa River
Water Quality*	Section 10 Waterways	Section 10 Waterways	Section 10 Waterways	Section 10 Waterways	Section 10 Waterways; TMDL: Phosphorus
Sensitive Landscapes	Coastal Zone Management Area; Critical Dune Area; High Risk Erosion Area	Coastal Zone Management Area; Critical Dune Area; High Risk Erosion Area	Coastal Zone Management Area	Coastal Zone Management Area	Coastal Zone Management Area
Land Ownership	No	DNR State Managed Land	No	No	No
Forestry	No	No	No	No	No
Designated Natural Rivers	No	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	Yes	No	No
Mussel*	No	No	State Special Concern: Black River	No	No
Navigable Waterway	No	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 8: Corridor 2 I-196 Segments 2-06 and 2-07

	2-06	2-07
Length (miles)	6.89	9.13
Corridor Limit (start)	M-40	Byron Rd
Corridor Limit (end)	Byron Rd	Paul Henry Fwy
Historic Sites	No	No
Cemeteries	No	No
Potential Environmental Contamination	No	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment)	1997 8-Hour Ozone (Maintenance)
Section 4(f)	Upper Macatawa Site	Upper Macatawa Site
Section 6(f)*	No	No
Water Features	North Branch Macatawa River; Macatawa River; South Branch Macatawa River	Macatawa River
Water Quality*	TMDL: Phosphorus	TMDL: Phosphorus
Sensitive Landscapes	Coastal Zone Management Area	No
Land Ownership	No	No
Forestry	No	No
Designated Natural Rivers	No	No
USDA Wild & Scenic Rivers	No	No
National Wetlands Inventory (NWI)	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes
Mussel*	No	No
Navigable Waterway	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 9: Corridor 2 Threatened/Endangered Species and Migratory Birds Segments 2-01 to 2-07

Category

(E) = Endangered; (T) = Threatened; (NE) = Experimental, Non-Essential Population; (C) = Candidate

Common Name

Scientific Name

	2-01	2-02	2-03	2-04	2-05	2-06	2-07
Mammals							
(E) Indiana Bat <i>Myotis sodalist</i>	X	X	X	X	X	X	X
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X	X	X	X	X	X	X
Birds							
(E) Piping Plover <i>Charadrius melodus</i>	X	X	X	X	X	X	X
(T) Red Knot <i>Calidris canutus rufa</i>	X	X	X	X	X	X	X
(NE) Whooping Crane <i>Grus americana</i>	X		X	X	X	X	X
Reptiles							
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X	X	X	X	X	X	X
Clams							
(E) Snuffbox Mussel <i>Epioblasma triquetra</i>						X	X
Insects							
(E) Karner Blue Butterfly <i>Lycaeides melissa samuelis</i>			X	X	X	X	
(E) Mitchell's Satyr Butterfly <i>Neonympha itchellii mitchellii</i>	X	X	X				
(C) Monarch Butterfly <i>Danaus plexippus</i>	X	X	X	X	X	X	X
Flowering Plants							
(T) Pitcher's Thistle <i>Cirsium pitcheri</i>	X	X	X	X	X	X	X
Migratory Birds							
American Golden-plover <i>Pluvialis dominica</i>			X	X	X		X
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X	X	X	X	X	X
Black Tern <i>Chlidonias niger</i>		X	X	X	X		
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	X	X	X	X	X	X	X
Bobolink <i>Dolichonyx oryzivorus</i>	X	X	X	X	X	X	X
Canada Warbler <i>Cardellina canadensis</i>	X	X	X	X	X	X	X
Cerulean Warbler <i>Dendroica cerulea</i>	X	X	X		X	X	
Eastern Whip-poor-will <i>Antrostomus vociferus</i>	X	X	X	X	X	X	
Golden Eagle <i>Aquila chrysaetos</i>		X	X	X	X	X	X
Golden-winged Warbler <i>Vermivora chrysoptera</i>	X	X	X	X	X	X	X
Henslow's Sparrow <i>Ammodramus henslowii</i>	X						
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X	X	X	X	X	X
Long-eared Owl <i>asio otus</i>	X				X	X	
Marbled Godwit <i>Litmosa fedoa</i>		X	X	X	X		
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X	X	X	X	X	X	X
Ruddy Turnstone <i>Arenaria interpres morinella</i>		X	X	X	X		
Rusty Blackbird <i>Euphagus carolinus</i>	X	X	X	X	X	X	X
Short-billed Dowitcher <i>Limnodromus griseus</i>		X	X	X	X	X	X
Wood Thrush <i>Hylocichla mustelina</i>	X	X	X	X	X	X	X
Yellow Rail <i>Coturnicops noveboracensis</i>				X	X	X	X

Figure 22: Corridor 2 I-196 Overview Map

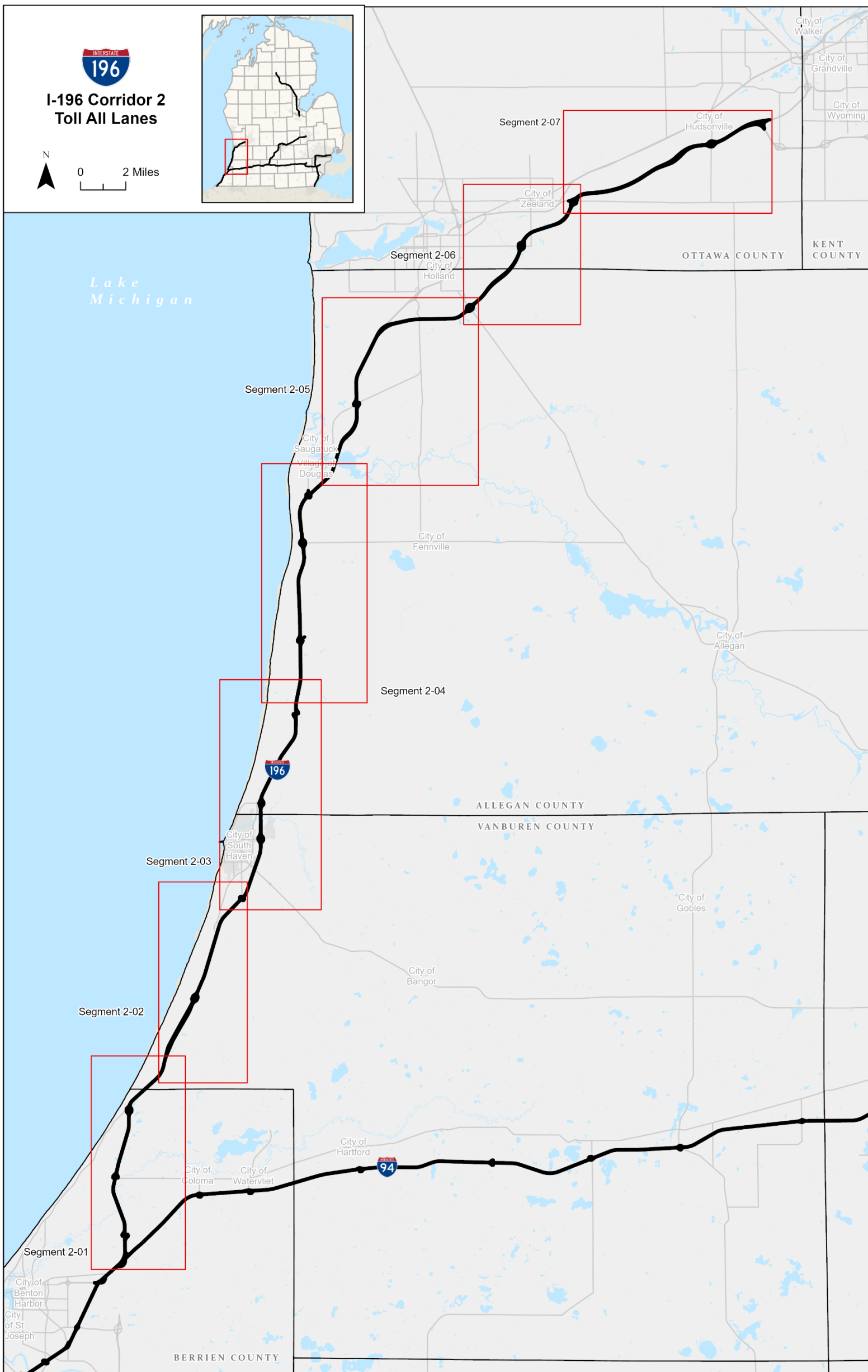


Figure 23: Corridor 2 I-196 Segment 2-01

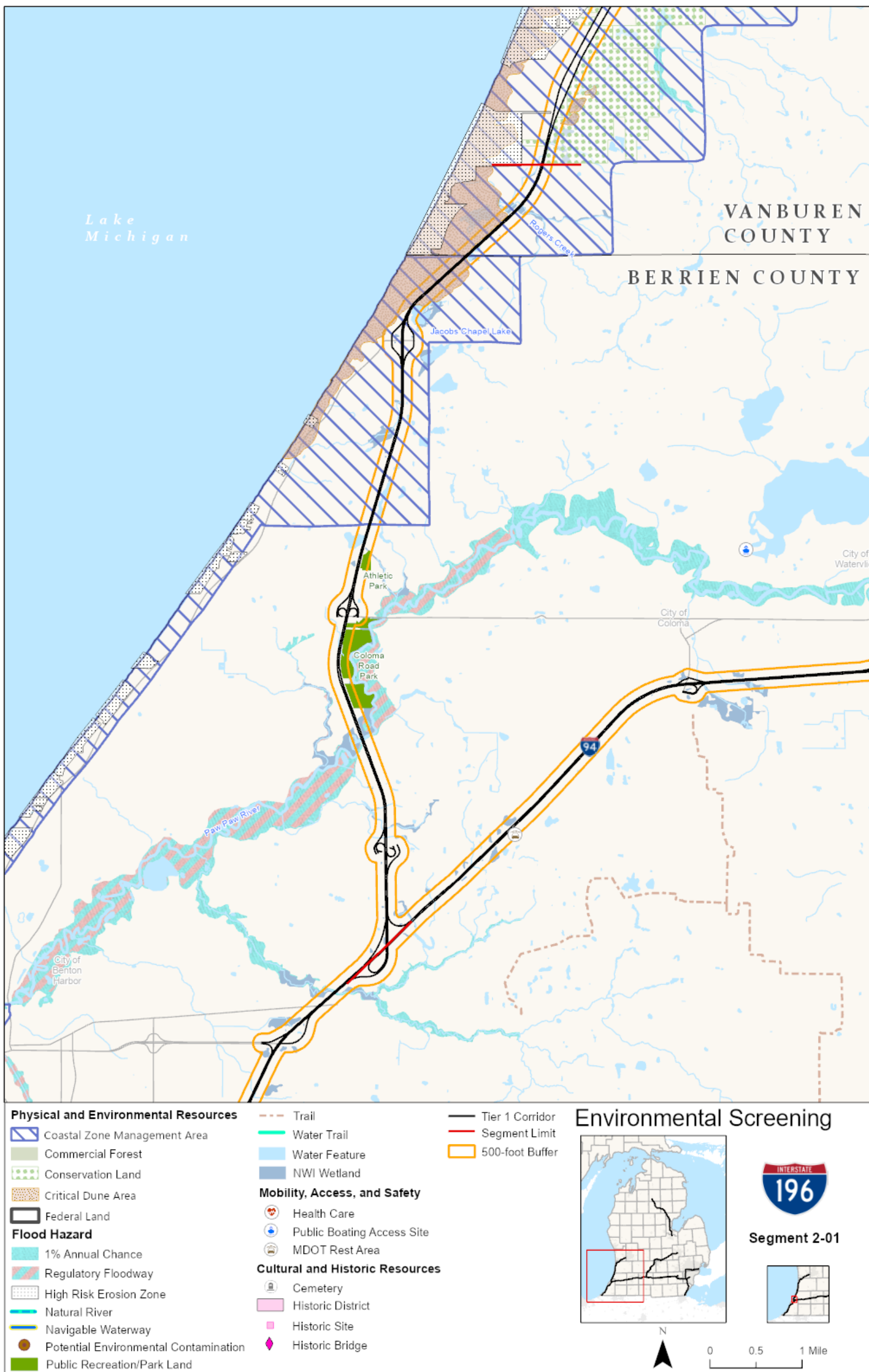


Figure 24: Corridor 2 I-196 Segment 2-02

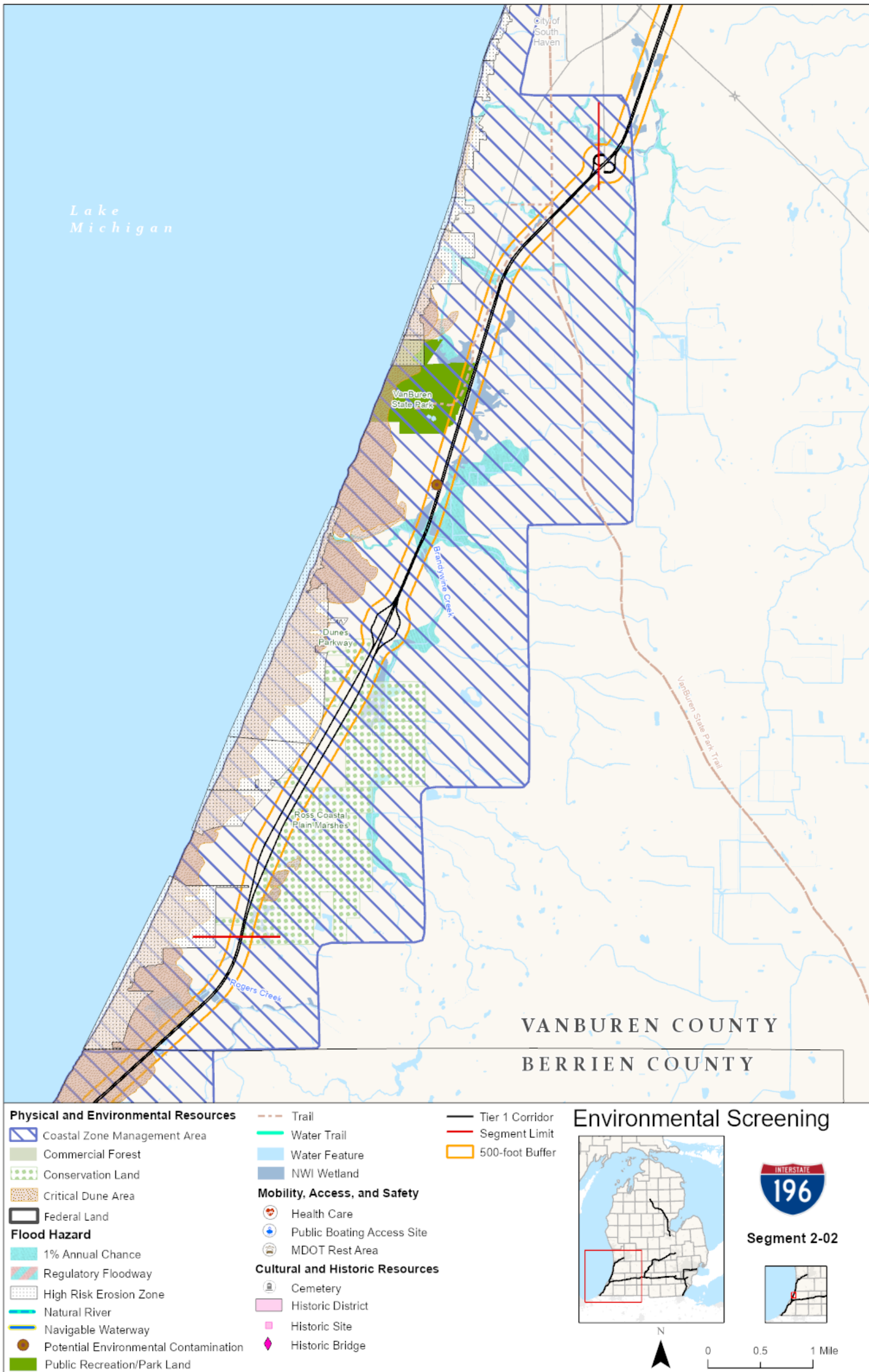


Figure 25: Corridor 2 I-196 Segment 2-03

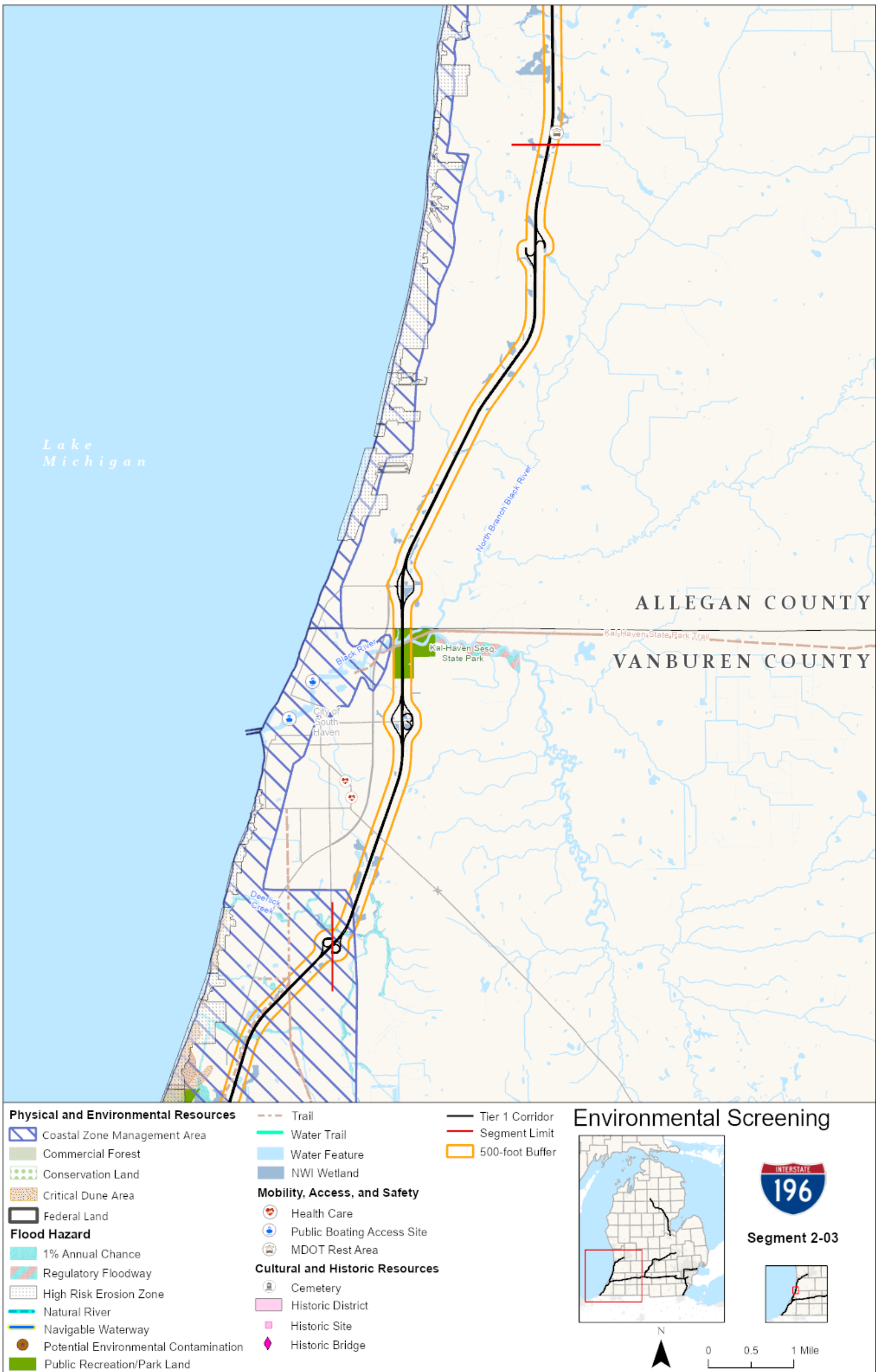


Figure 26: Corridor 2 I-196 Segment 2-04

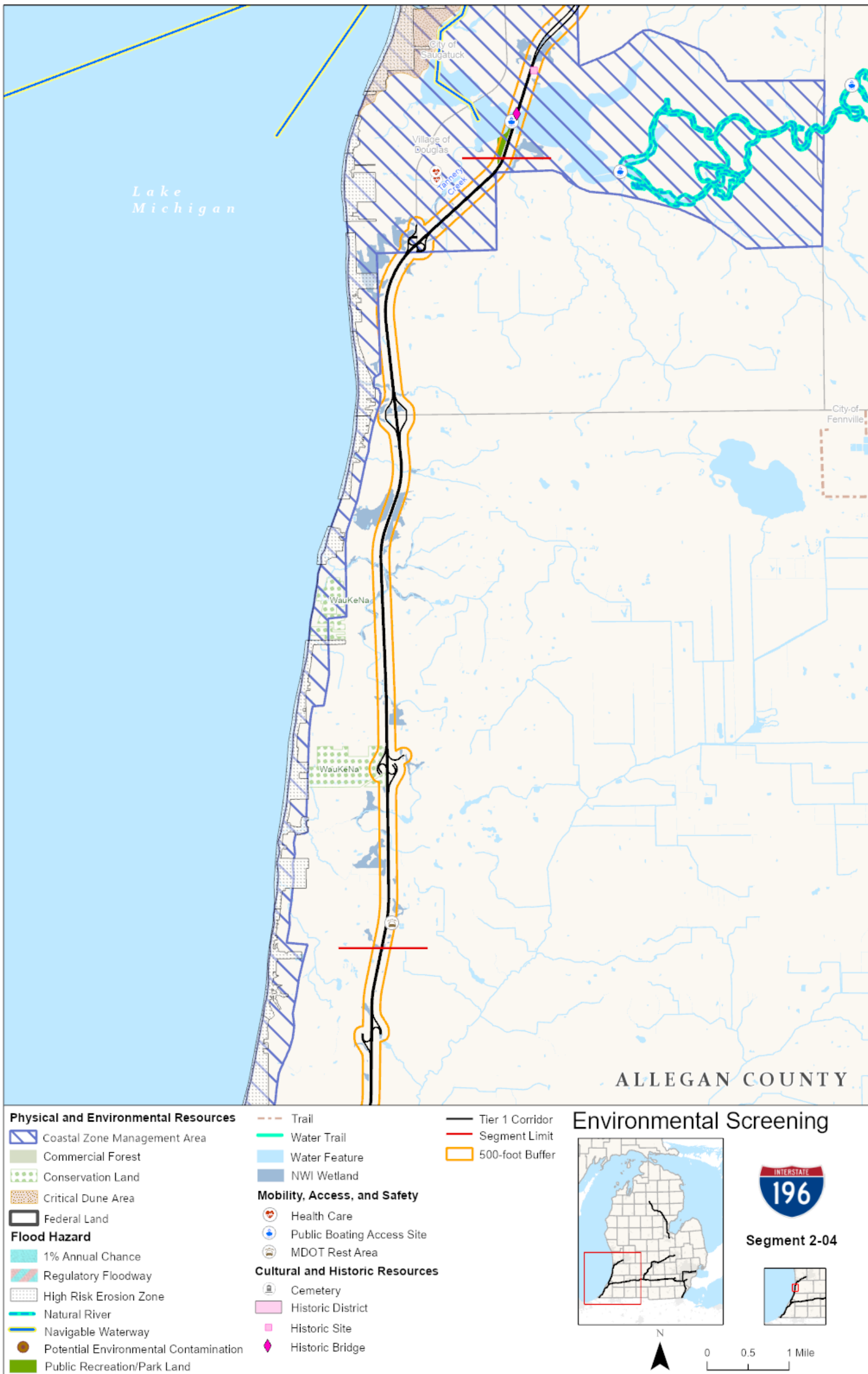


Figure 27: Corridor 2 I-196 Segment 2-05

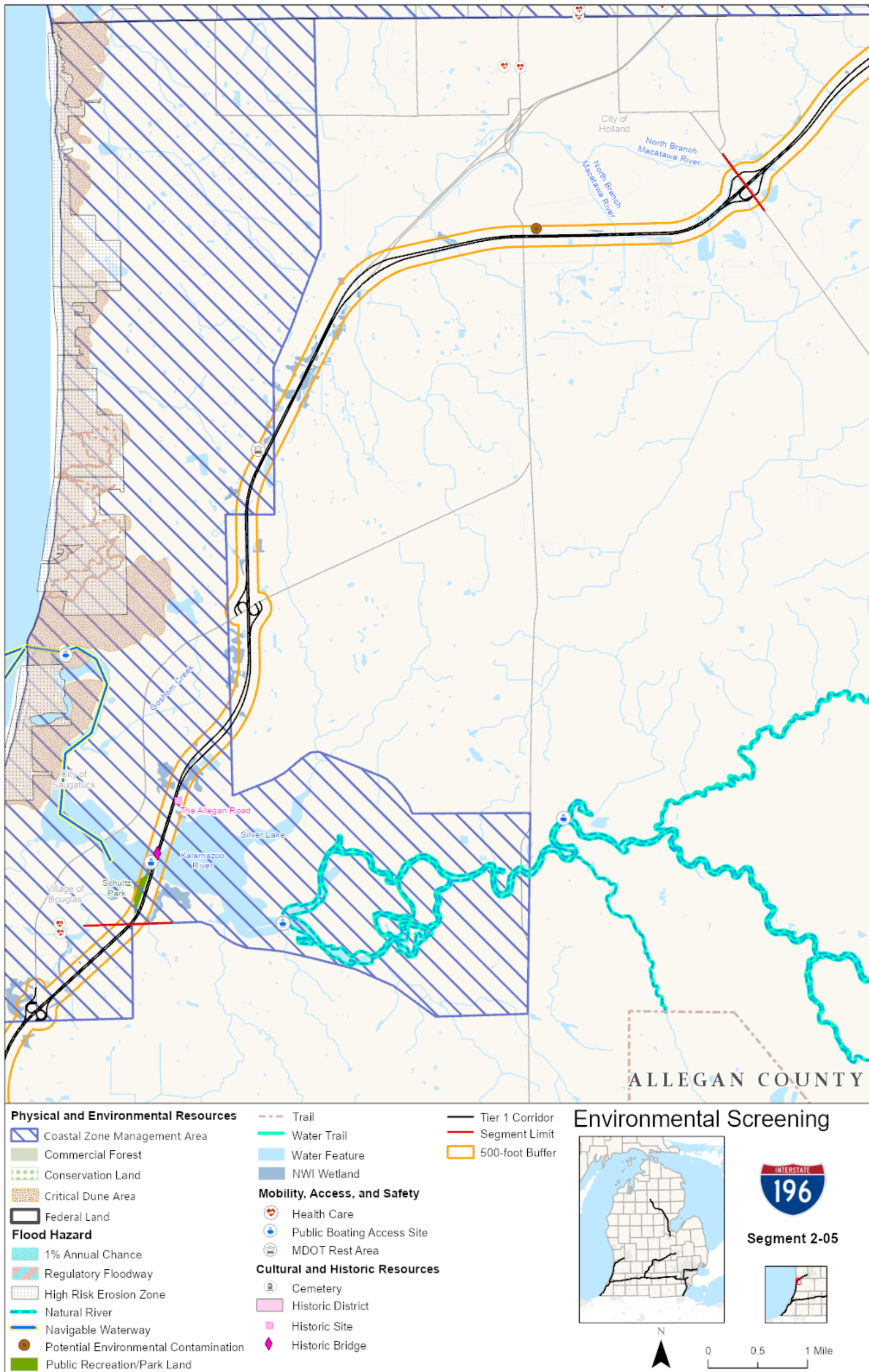


Figure 28: Corridor 2 I-196 Segment 2-06

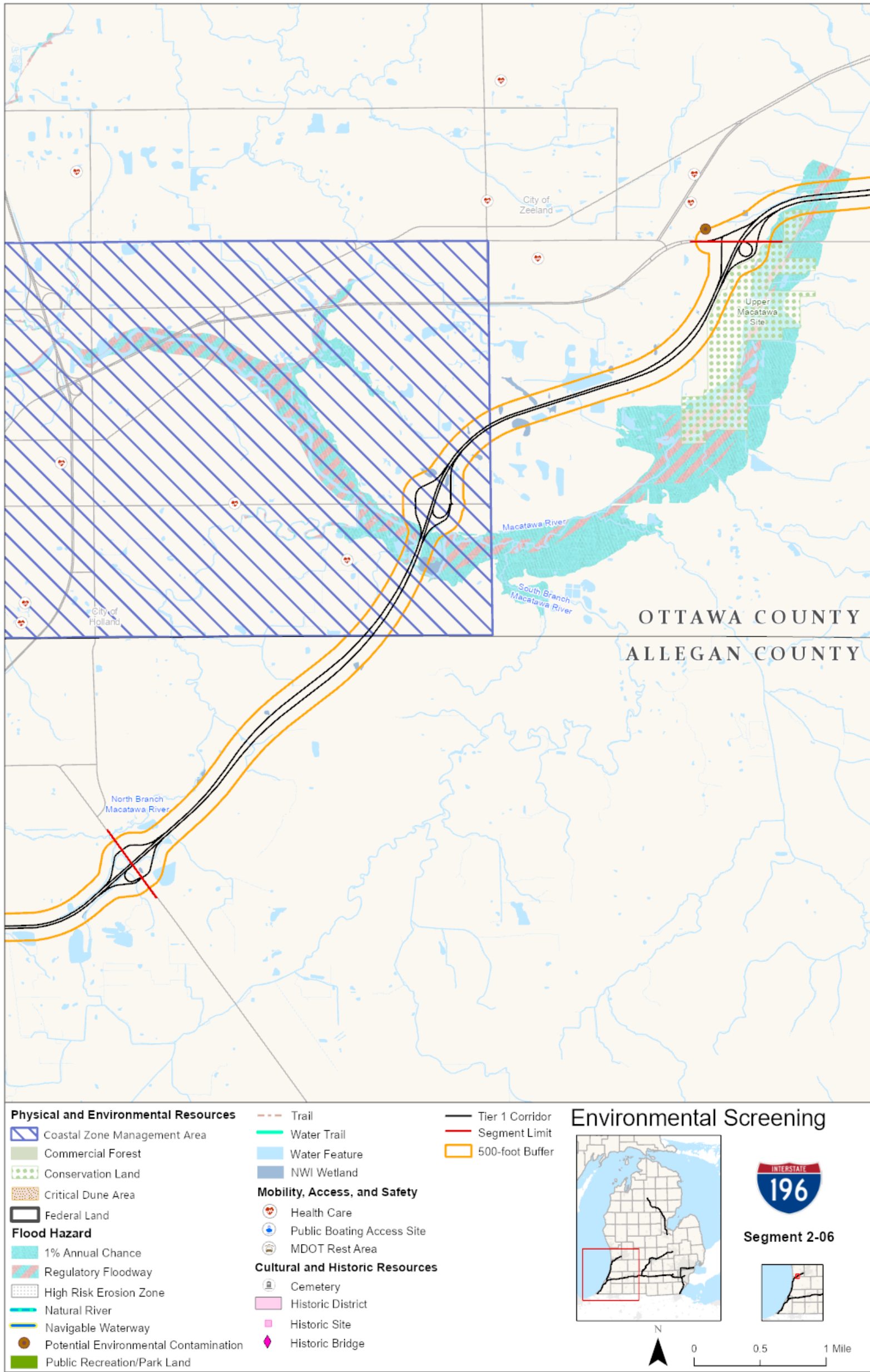
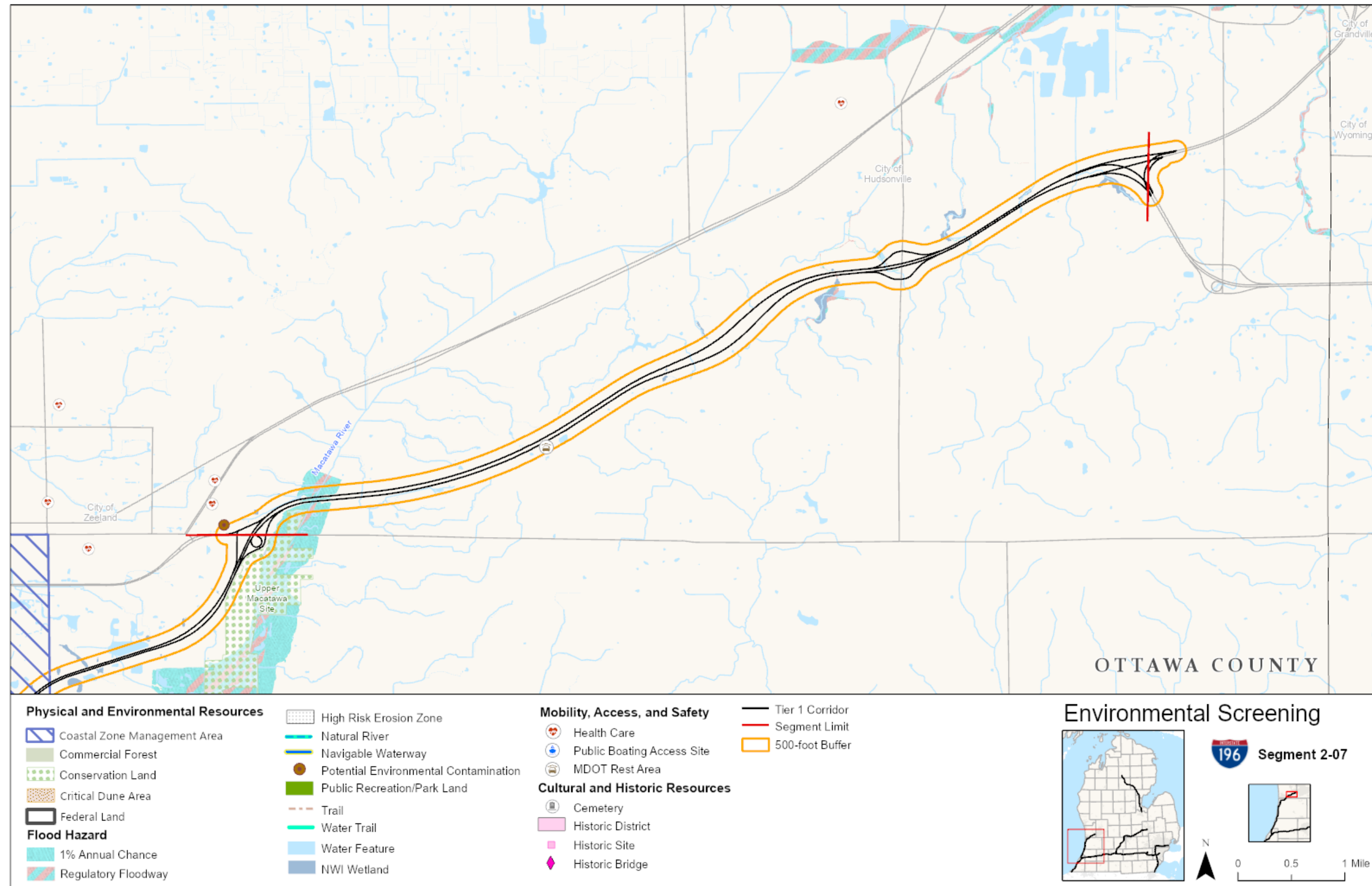


Figure 29: Corridor 2 I-196 Segment 2-07



Corridor 3: I-75

Table 10: Corridor 3 I-75 Segments 3-01 and 3-02

	3-01	3-02
Length (miles)	8.64	11.65
Corridor Limit (start)	Ohio/Michigan Border	South Otter Creek Rd
Corridor Limit (end)	South Otter Creek Rd	I-275/I-75 Interchange
Historic Sites	No	Conrail River Raisin Bridge; Dunbar Rd Bridge
Cemeteries	No	No
Potential Environmental Contamination	No	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)
Section 4(f)	South Erie Park; Erie State Game Area; Detroit River International Wildlife Refuge; Lotus Manor	Sterling State Park; Sterling State Park Trails; Detroit River International Wildlife Refuge
Section 6(f)*	Detroit River International Wildlife Refuge; Luna Pier Park	Detroit River International Wildlife Refuge
Water Features	Halfway Creek; Hooper Run; Bay Creek; Muddy Creek	Otter Creek; Woodchuck Creek; La Plaisance Creek; Plum Creek; River Raisin; Sandy Creek
Water Quality*	Section 10 Waterways	Section 10 Waterways
Sensitive Landscapes	Coastal Zone Management Area	Coastal Zone Management Area
Land Ownership	DNR State Managed Lands	DNR State Managed Lands; Detroit International Wildlife Refuge
Forestry	No	No
Designated Natural Rivers	No	No
USDA Wild & Scenic Rivers	No	No
National Wetlands Inventory (NWI)	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes
Mussel*	No	State Threatened: Otter Creek; Federally Listed: River Raisin; State Threatened: Stony Creek
Navigable Waterway	No	Yes: River Raisin

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 11: Corridor 3 I-75 Threatened/Endangered Species and Migratory Birds Segments 3-01 and 3-02

Category

(E) = Endangered; (T) = Threatened; (NE) = Experimental, Non-Essential Population; (C) = Candidate

Common Name

Scientific Name

	3-01	3-02
Mammals		
(E) Indiana Bat <i>Myotis sodalist</i>	X	X
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X	X
Birds		
(E) Piping Plover <i>Charadrius melodus</i>	X	X
(T) Red Knot <i>Calidris canutus rufa</i>	X	X
Reptiles		
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X	X
Clams		
(E) Northern Riffleshell <i>Epioblasma rangiana</i>	X	X
Insects		
(E) Karner Blue Butterfly <i>Lycaeides melissa samuelis</i>	X	X
(C) Monarch Butterfly <i>Danaus plexippus</i>	X	X
Flowering Plants		
(T) Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i>	X	X
Migratory Birds		
American Golden-plover <i>Pluvialis dominica</i>	X	X
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X
Black Tern <i>Chlidonias niger</i>	X	
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>		X
Bobolink <i>Dolichonyx oryzivorus</i>	X	X
Canada Warbler <i>Cardellina canadensis</i>	X	X
Cerulean Warbler <i>Dendroica cerulea</i>	X	
Golden Eagle <i>Aquila chrysaetos</i>	X	X
Golden-winged Warbler <i>Vermivora chrysoptera</i>	X	X
King Rail <i>Rallus elegans</i>	X	X
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X
Marbled Godwit <i>Litmosa fedoa</i>	X	X
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X	X
Ruddy Turnstone <i>Arenaria interpres morinella</i>	X	X
Rusty Blackbird <i>Euphagus carolinus</i>	X	X
Short-billed Dowitcher <i>Limnodromus griseus</i>	X	X
Wood Thrush <i>Hylocichla mustelina</i>	X	X

Figure 30: Corridor 3 I-75 Overview Map

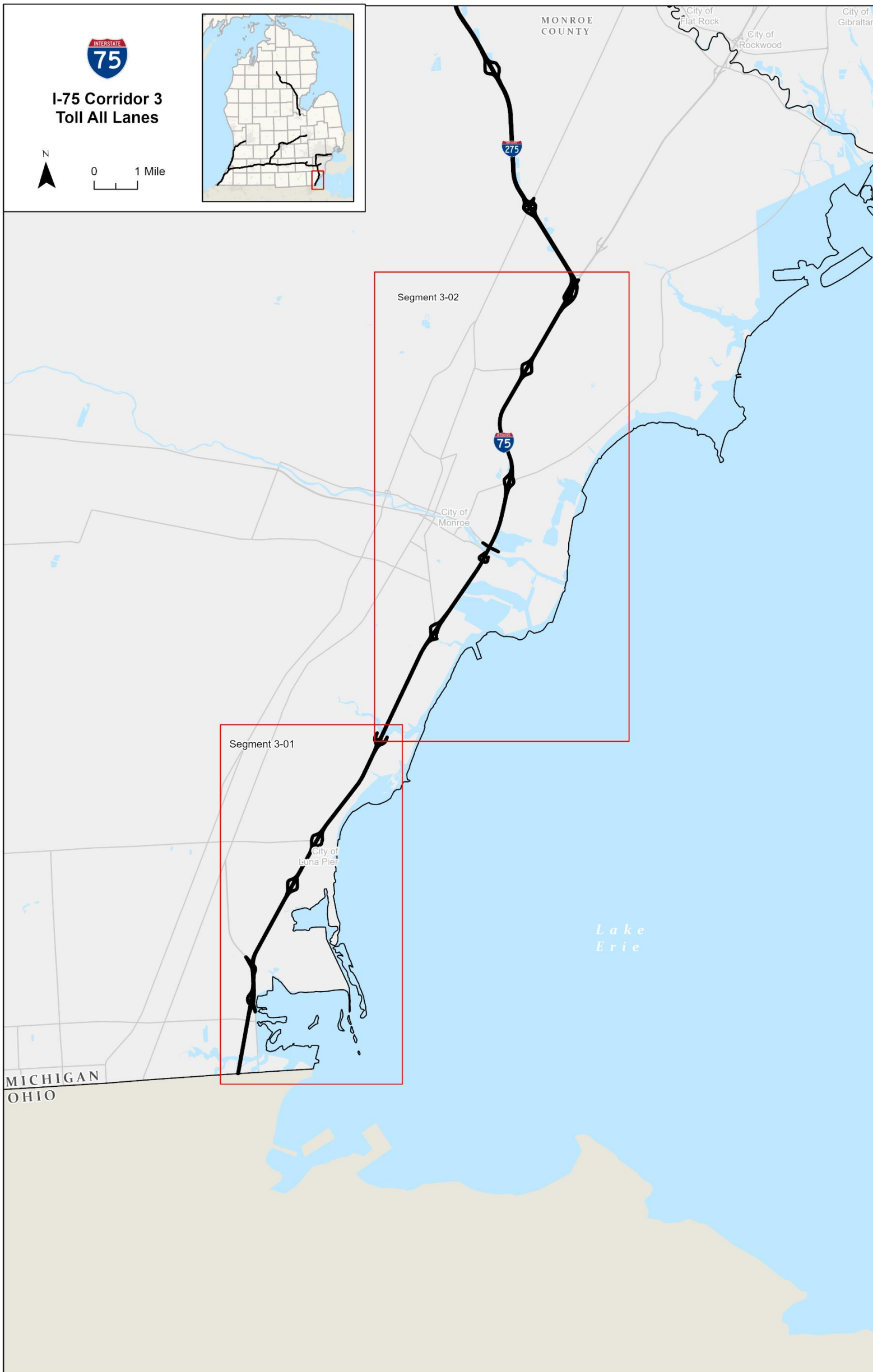


Figure 31: Corridor 3 I-75 Segment 3-01

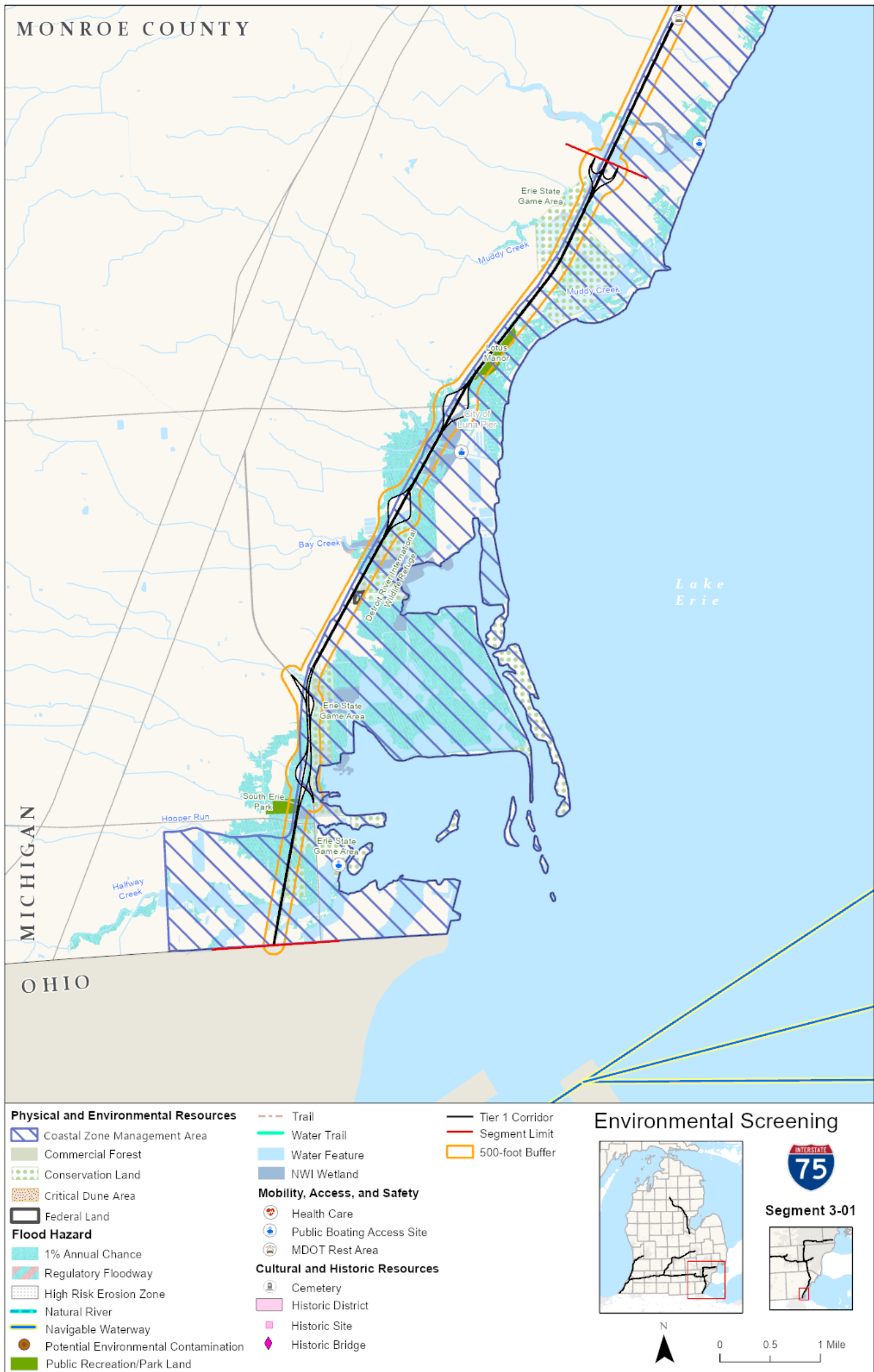
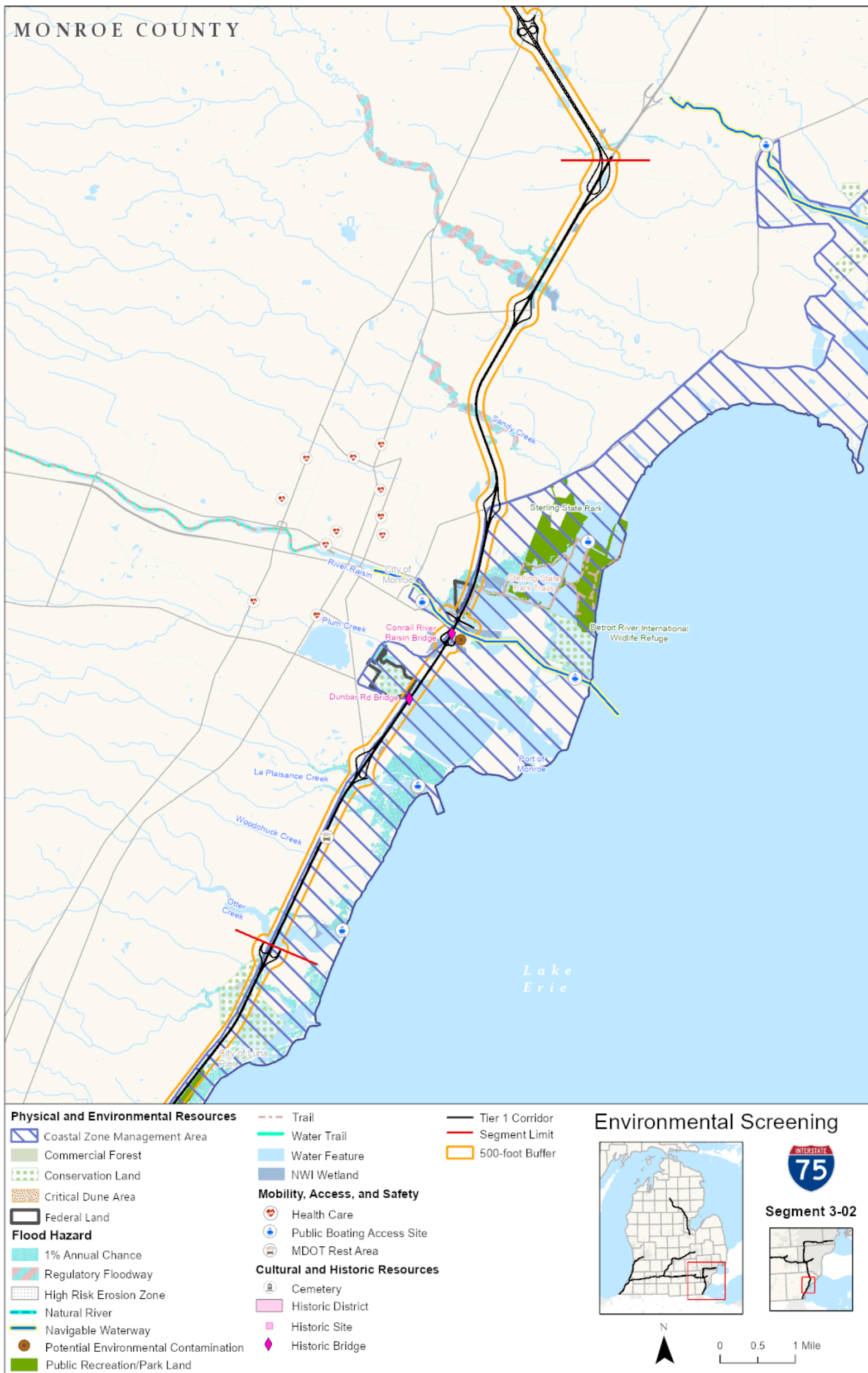


Figure 32: Corridor 3 I-75 Segment 3-02



Corridor 4: I-275

Table 12: Corridor 4 I-275 Segments 4-01 to 4-04

	4-01	4-02	4-03	4-04
Length (miles)	9.11	8.98	8.94	9.42
Corridor Limit (start)	I-75	Willow Rd	Hannan Rd	Joy Rd
Corridor Limit (end)	Willow Rd	Hannan Rd	Joy Rd	I-696
Historic Sites	No	No	No	No
Cemeteries	No	No	No	No
Potential Environmental Contamination	No	No	Yes	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)
Section 4(f)	No	Willow Metropark; Willow Metropark Golf Course; Iron Belle Trail; Huron River Water Trail	Fellows Creek Golf Course	Hines County Park; Tiffany Park; Bluegrass Park and Nature Center; Quakertown Park
Section 6(f)*	Unity Park	No	No	No
Water Features	Unnamed Streams (5); Little Swan Creek; Swan Creek; North Branch Swan Creek; Duff Drain	Duff Drain; Regan Drain; Huron River; Unnamed Stream; Hubert Drain; Reiser Drain; Hosmer Drain; Blakely Drain; Carr Drain; Zink Drain; McBride Drain; Leek and Bower Drain; Delaney Drain	Delaney Drain; Cooper Counts Drain; McClaughrey Drain; Harrison Drain; Lower River Rouge; Wiles Drain; Fellows Creek; Willow Creek; Tonquisha Creek South Branch; Deer Drain	Deer Drain; Middle Rouge River; Bell Branch; Ingersol Creek; Tarabusi Creek; County Drain
Water Quality*	No	TMDL: Sediment; TMDL: Nutrients	TMDL: Nutrients; TMDL: Sediment	TMDL: Sediment
Sensitive Landscapes	No	No	No	No
Land Ownership	No	No	No	No
Forestry	No	No	No	No
Designated Natural Rivers	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	Yes	No
Mussel*	No	Federally Listed: Huron River	No	State Threatened: Middle Rouge River
Navigable Waterway	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 13: Corridor 4 I-275 Threatened/Endangered Species and Migratory Birds Segments 4-01 to 4-04

Category

(E) = Endangered; (T) = Threatened; (NE) = Experimental, Non-Essential Population; (C) = Candidate

Common Name

Scientific Name

	4-01	4-02	4-03	4-04
Mammals				
(E) Indiana Bat <i>Myotis sodalist</i>	X	X	X	X
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X	X	X	X
Birds				
(E) Piping Plover <i>Charadrius melodus</i>	X	X	X	X
(T) Red Knot <i>Calidris canutus rufa</i>	X	X	X	X
Reptiles				
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X	X	X	X
Clams				
(E) Northern Riffleshell <i>Epioblasma rangiana</i>	X	X	X	X
(E) Snuffbox Mussel <i>Epioblasma triquetra</i>				X
Insects				
(E) Karner Blue Butterfly <i>Lycaeides melissa samuelis</i>	X			
(C) Monarch Butterfly <i>Danaus plexippus</i>	X	X	X	X
(E) Poweshiek Skipperling <i>Oarisma poweshiek</i>				X
Flowering Plants				
(T) Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i>	X	X	X	X
Migratory Birds				
American Golden-plover <i>Pluvialis dominica</i>	X	X	X	X
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X	X	X
Black Tern <i>Chlidonias niger</i>				X
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	X	X	X	X
Bobolink <i>Dolichonyx oryzivorus</i>	X	X	X	X
Canada Warbler <i>Cardellina canadensis</i>	X	X	X	X
Cerulean Warbler <i>Dendroica cerulea</i>			X	X
Eastern Whip-poor-will <i>Antrostomus vociferus</i>			X	X
Golden-winged Warbler <i>Vermivora chrysoptera</i>	X	X	X	X
Henslow's Sparrow <i>Ammodramus henslowii</i>	X	X	X	X
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X	X	X
Long-eared Owl <i>asio otus</i>			X	X
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X	X	X	X
Rusty Blackbird <i>Euphagus carolinus</i>	X	X	X	X
Short-billed Dowitcher <i>Limnodromus griseus</i>				X
Wood Thrush <i>Hylocichla mustelina</i>	X	X	X	X

Figure 33: Corridor 4 I-275 Overview Map

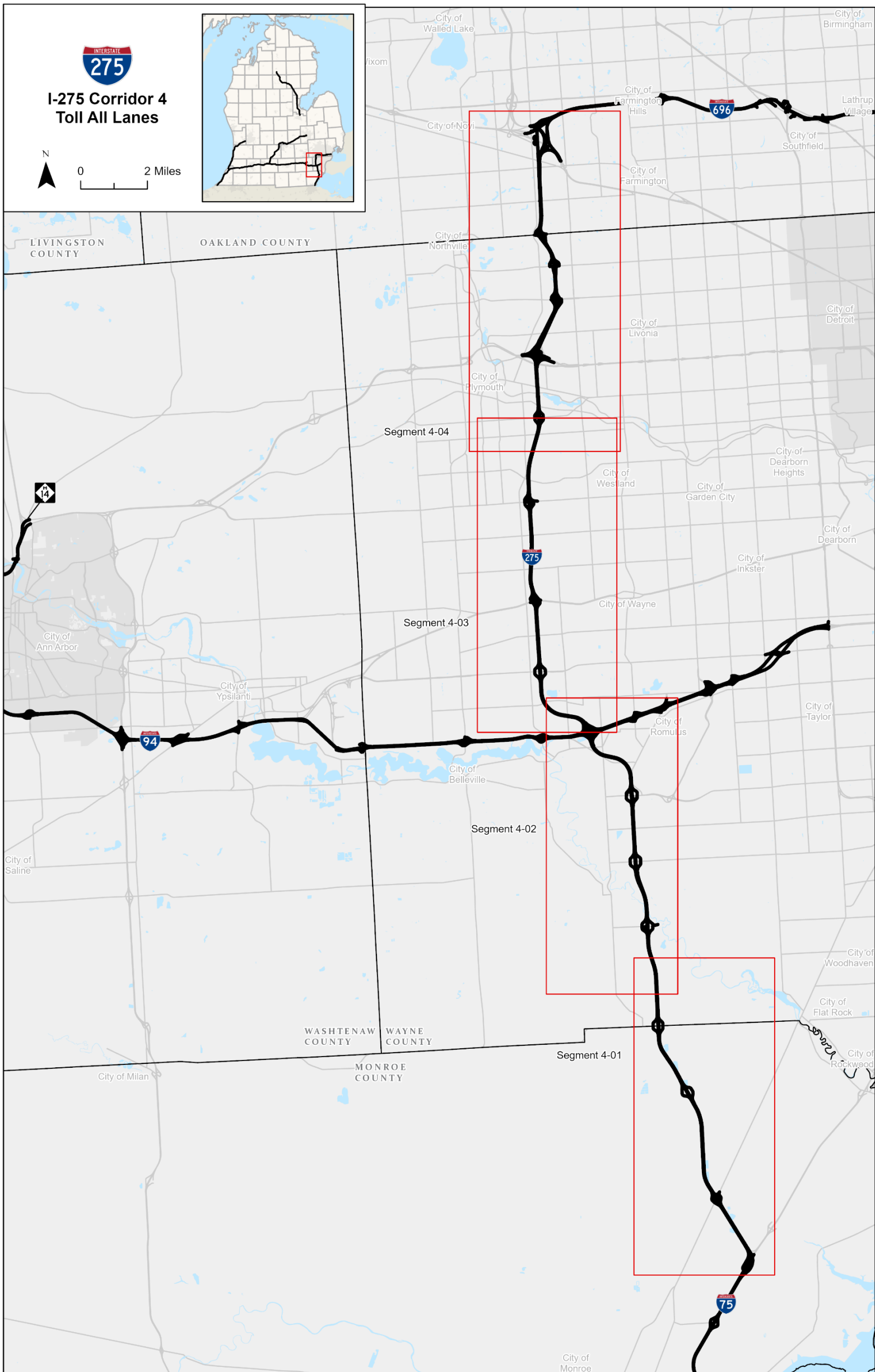


Figure 34: Corridor 4 I-275 Segment 4-01

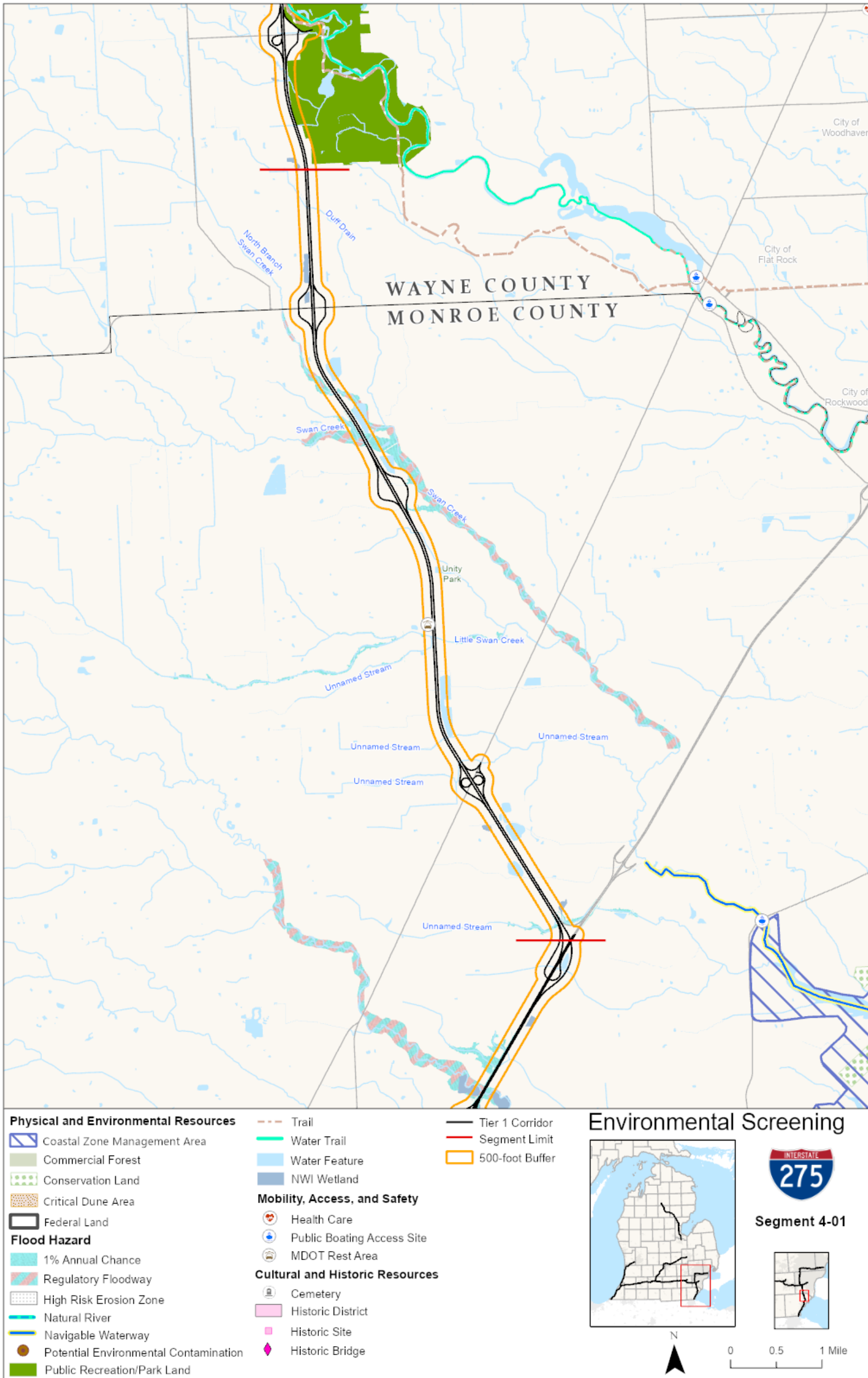


Figure 35: Corridor 4 I-275 Segment 4-02

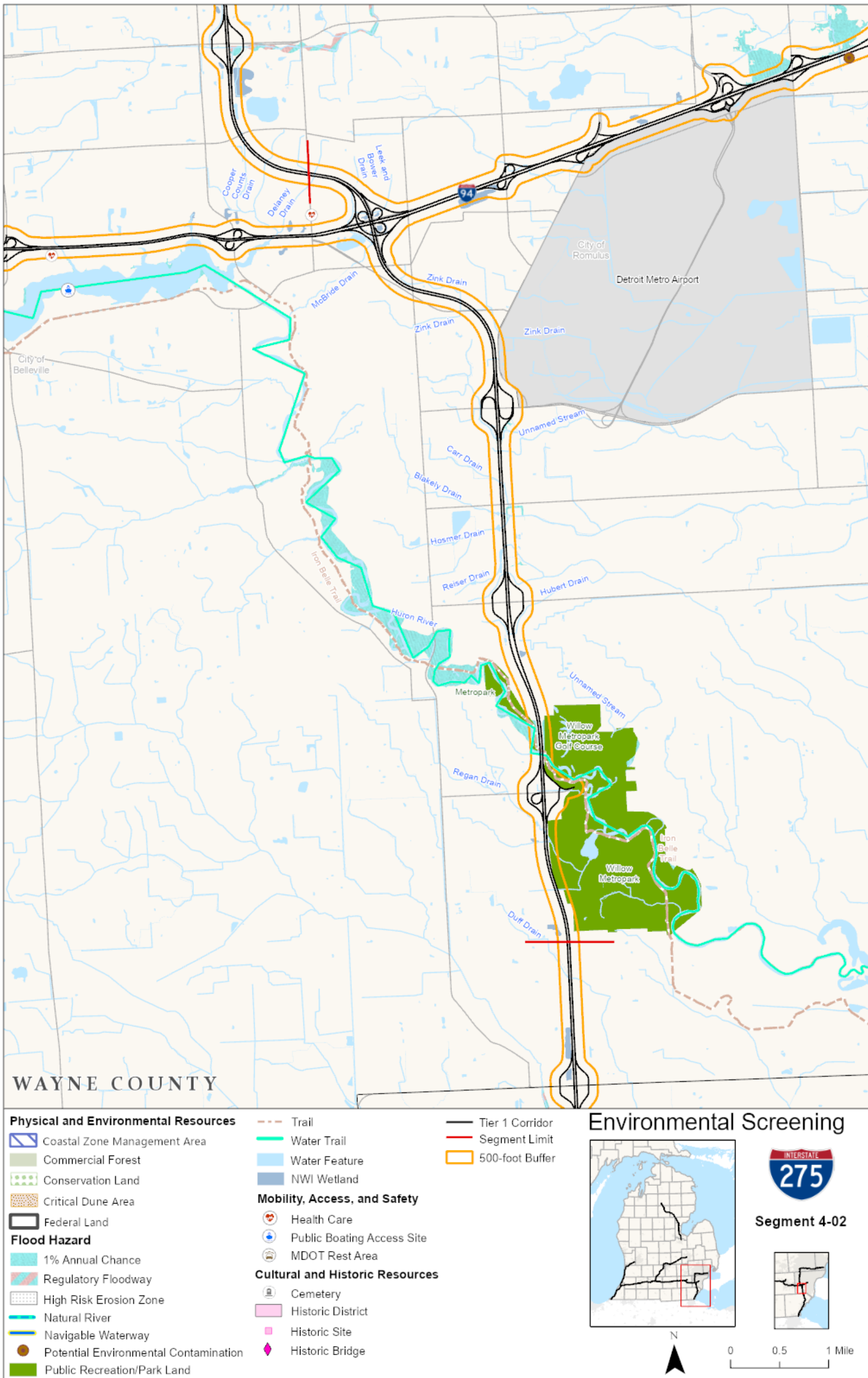
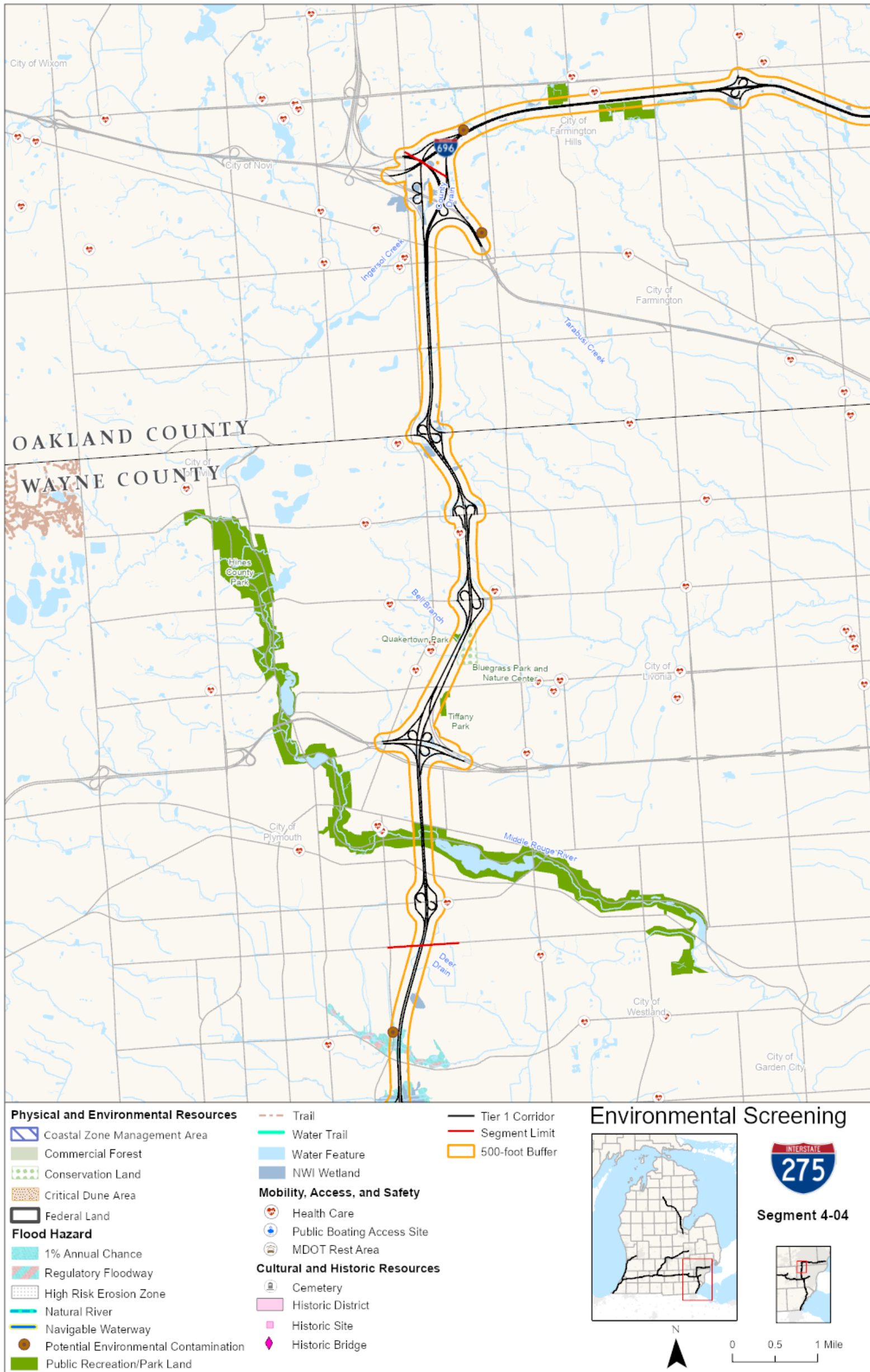


Figure 36: Corridor 4 I-275 Segment 4-03



Figure 37: Corridor 4 I-275 Segment 4-04



Corridor 5: I-69

Table 14: Corridor 5 I-69 Segments 5-01 to 5-05

	5-01	5-02	5-03	5-04	5-05
Length (miles)	10.14	11.32	10.72	9.10	8.88
Corridor Limit (start)	I-94/I-69 Interchange	M-78	Shepherd St/East Clinton Trail	Lansing Rd	West Grand River Ave
Corridor Limit (end)	M-78	Shepherd St/East Clinton Trail	Lansing Rd	West Grand River Ave	US-127
Historic Sites	No	No	No	No	No
Cemeteries	No	Yes	Yes	No	No
Potential Environmental Contamination	No	No	Yes	No	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)	1997 8-Hour Ozone (Maintenance)
Section 4(f)	No	Charlotte State Game Area; Eaton County Fairgrounds; Cemetery	Cemetery; Lake Interstate State Game Area	Lake Interstate State Game Area; Windsor Township State Game Area; Erickson Park; Grand River Water Trail	Watertown Township Public Land
Section 6(f)*	No	No	No	No	No
Water Features	Emily Lake; Bear Creek; Indian Creek	Indian Creek; Big Creek; Battle Creek; Page Creek; Cooper Forest Reynolds Drain	Butternut Creek; Church Drain; Thornapple River; Thornapple Drain	Moon and Hamilton Drain; Grand River	Watson and Summer Drains; Summers Drain; Prairie Creek; Gunderman Lake Drain; Remy Chandler Drain; Dower Drain
Water Quality*	TMDL: Phosphorus	TMDL: Phosphorus	No	TMDL: Sediment	No
Sensitive Landscapes	No	No	No	No	No
Land Ownership	No	DNR State Managed Lands	DNR State Managed Lands	DNR State Managed Lands	No
Forestry	No	No	No	No	No
Designated Natural Rivers	No	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	Yes	Yes	Yes
Mussel*	No	State threatened or endangered: Battle Creek	No	State threatened or endangered: Grand River	No
Navigable Waterway	No	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 15: Corridor 5 I-69 Segments 5-06 to 5-10

	5-06	5-07	5-08	5-09	5-10
Length (miles)	9.07	9.50	5.43	9.97	10.19
Corridor Limit (start)	US-127	Woodbury Rd	South Morrice Rd	Grand River Rd	Shiawassee/Genesee County Border
Corridor Limit (end)	Woodbury Rd	South Morrice Rd	Grand River Rd	Shiawassee/Genesee County Border	I-75/I-69 Interchange
Historic Sites	No	No	No	No	No
Cemeteries	No	Yes	No	Yes	No
Potential Environmental Contamination	No	No	No	Yes	No
Air Quality*	1997 8-Hour Ozone (Maintenance)	No	No	No	1997 8-Hour Ozone (Maintenance)
Section 4(f)	Rose Lake State Wildlife Area; Wiswasser Park	Rose Lake State Wildlife Area; Cemetery	No	City of Durand Park; Shiawassee River Water Trail; Cemetery	State Forest
Section 6(f)*	Wiswasser Park	No	No	No	No
Water Features	Remy Chandler Drain; Park Lake; Perch Lake; Mud Creek; Baughman Drain; Vermilion Creek	Baughman Drain; Vermilion Creek; Osborn Creek Drain; Perry Drain No. 2; Austin Creek; Grub Creek	Looking Glass River	Shiawassee River; Holly Drain; Webb Creek; Chalker Drain	Chalker Drain; Sprague Drain; West Branch Swartz Creek; Lizard Valley Drain; Howland Drain; Swartz Creek; Call Drain
Water Quality*	No	No	No	No	No
Sensitive Landscapes	No	No	No	No	No
Land Ownership	DNR State Managed Land	No	No	No	No
Forestry	No	No	No	No	No
Designated Natural Rivers	No	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	No	No	Yes	Yes
Mussel*	State Special Concern: Vermilion Creek	State Special Concern: Vermilion Creek	No	State Threatened: Shiawassee River	State Threatened: Swartz Creek
Navigable Waterway	No	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 16: Corridor 5 I-69 Threatened/Endangered Species and Migratory Birds Segments 5-01 to 5-10

Category

(E) = Endangered; (T) = Threatened; (NE) = Experimental, Non-Essential Population; (C) = Candidate

Common Name

Scientific Name

	5-01	5-02	5-03	5-04	5-05	5-06	5-07	5-08	5-09	5-10
Mammals										
(E) Indiana Bat <i>Myotis sodalist</i>	X	X	X	X	X	X	X	X	X	X
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X	X	X	X	X	X	X	X	X	X
Birds										
(T) Red Knot <i>Calidris canutus rufa</i>						X	X	X	X	X
(NE) Whooping Crane <i>Grus americana</i>						X				
Reptiles										
(T) Copperbelly Water Snake <i>Nerodia erythrogaster neglecta</i>	X	X								
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X	X	X	X	X	X	X	X	X	X
Clams										
(E) Snuffbox Mussel <i>Epioblasma triquetra</i>				X	X	X				
Insects										
(C) Monarch Butterfly <i>Danaus plexippus</i>	X	X	X	X	X	X	X	X	X	X
Flowering Plants										
(T) Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i>	X	X	X	X	X	X			X	X
Migratory Birds										
American Golden-plover <i>Pluvialis dominica</i>	X	X	X	X			X	X		
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X	X	X	X	X	X	X	X	X
Black Tern <i>Chlidonias niger</i>			X	X		X	X			
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	X	X	X	X	X	X	X			
Bobolink <i>Dolichonyx oryzivorus</i>	X	X	X	X	X	X	X		X	X
Canada Warbler <i>Cardellina canadensis</i>	X		X	X	X	X	X			
Cerulean Warbler <i>Dendroica cerulea</i>						X	X			
Eastern Whip-poor-will <i>Antrostomus vociferus</i>		X	X			X	X			
Golden Eagle <i>Aquila chrysaetos</i>	X	X	X	X	X	X	X			
Golden-winged Warbler <i>Vermivora chrysoptera</i>	X	X	X	X	X	X	X			
Henslow's Sparrow <i>Ammodramus henslowii</i>	X					X	X			
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X	X	X	X	X	X	X	X	X
Long-eared Owl <i>asio otus</i>	X			X	X	X	X			
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X	X	X	X	X	X	X		X	X
Ruddy Turnstone <i>Arenaria interores morinella</i>			X	X						
Rusty Blackbird <i>Euphagus carolinus</i>	X	X	X	X	X	X	X	X	X	X
Short-billed Dowitcher <i>Limnodromus griseus</i>			X	X		X	X		X	X
Wood Thrush <i>Hylocichla mustelina</i>	X	X	X	X	X	X	X			
Yellow Rail <i>Coturnicops noveboracensis</i>						X	X			

Figure 38: Corridor 5 I-69 Overview Map

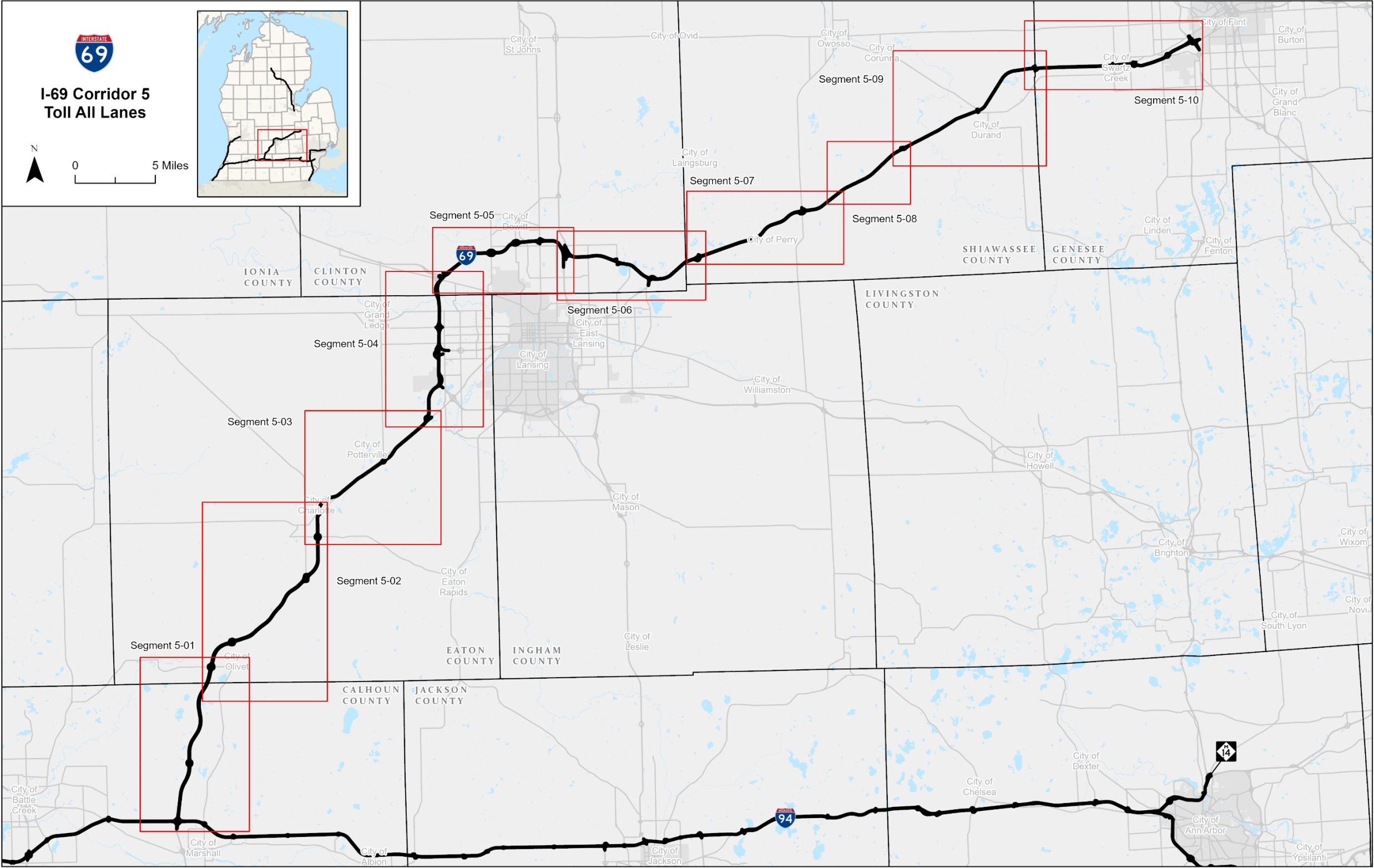


Figure 39: Corridor 5 I-69 Segment 5-01

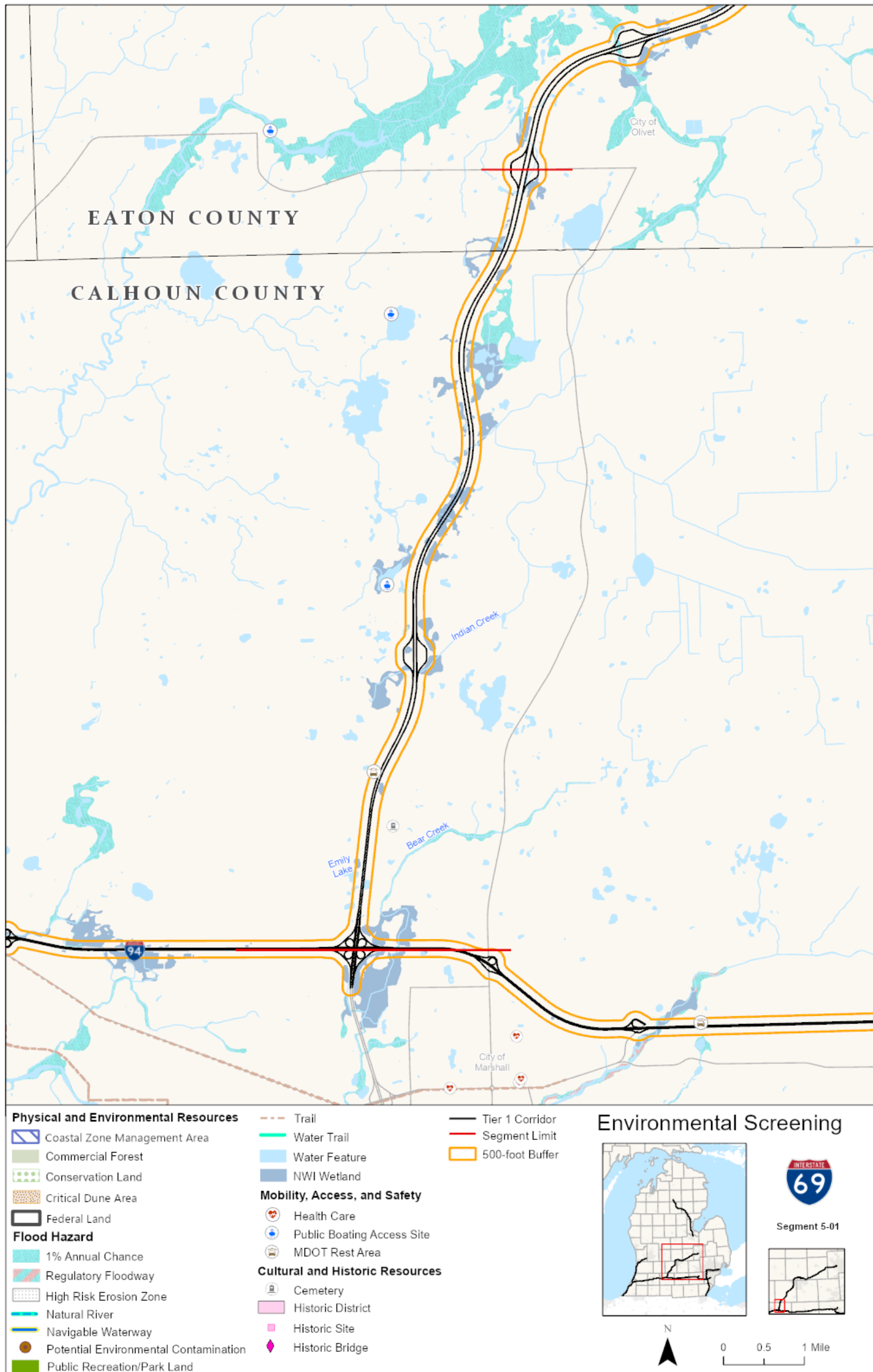


Figure 40: Corridor 5 I-69 Segment 5-02

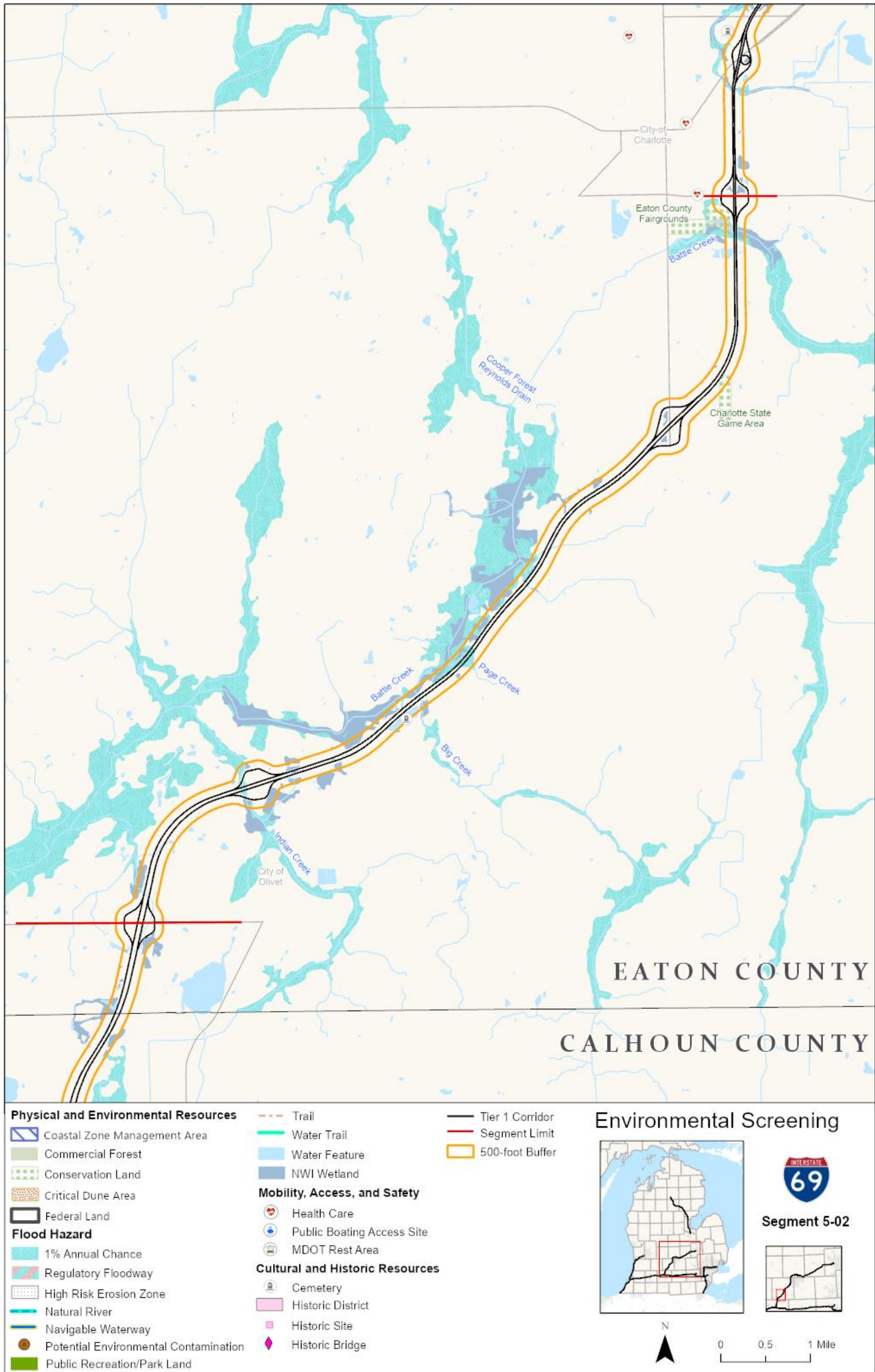


Figure 41: Corridor 5 I-69 Segment 5-03



Figure 42: Corridor 5 I-69 Segment 5-04

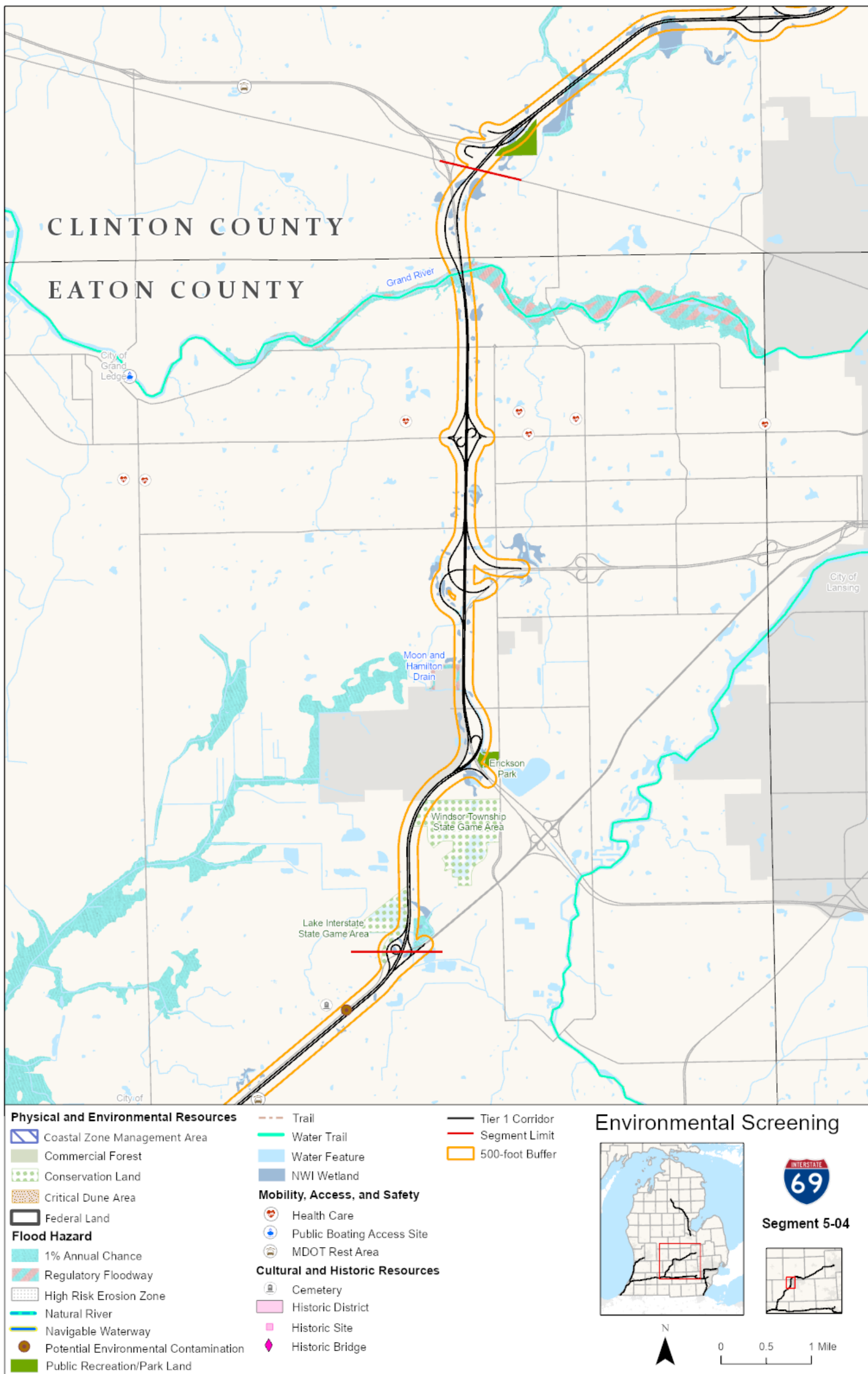


Figure 43: Corridor 5 I-69 Segment 5-05

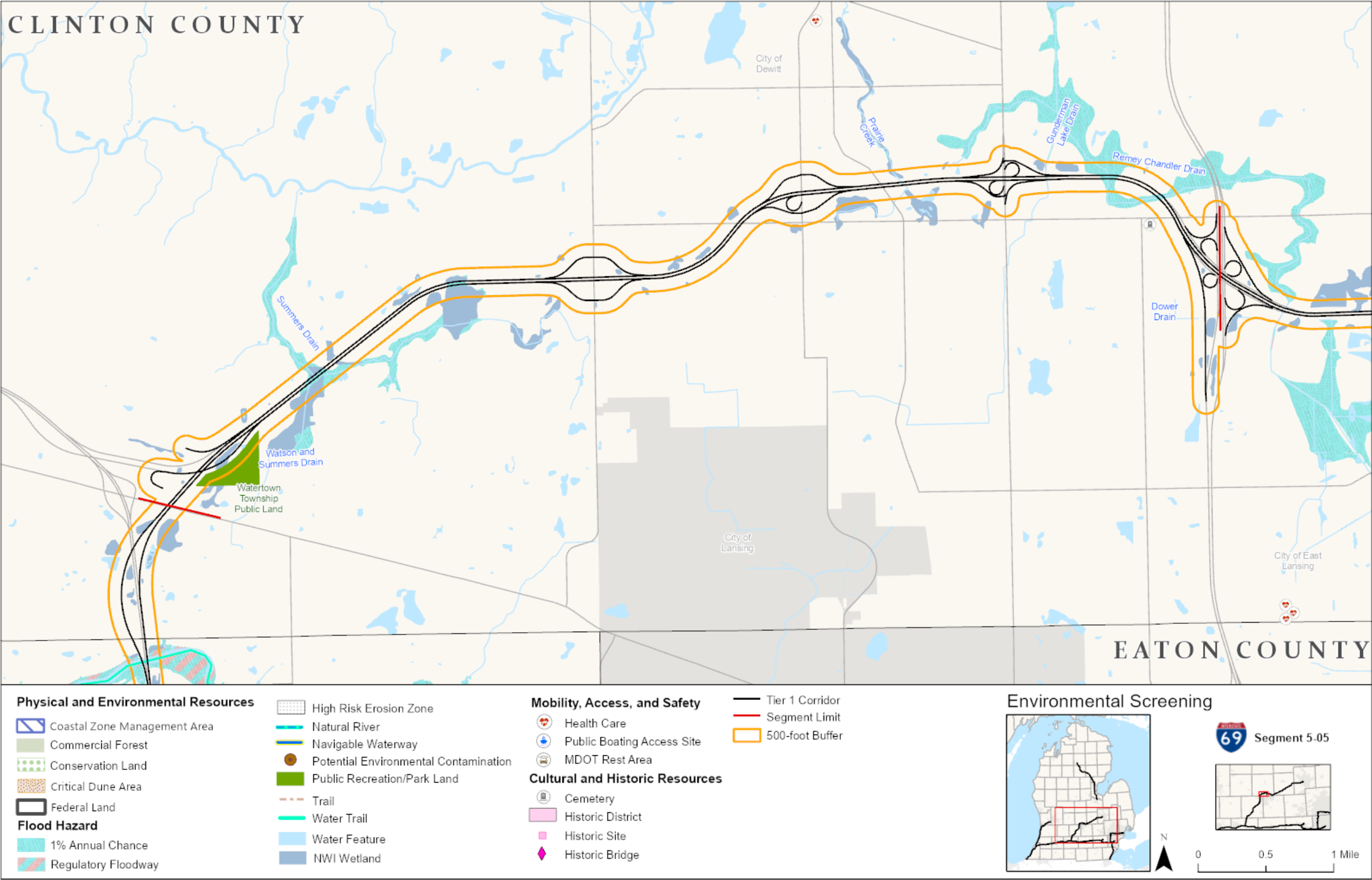


Figure 44: Corridor 5 I-69 Segment 5-06

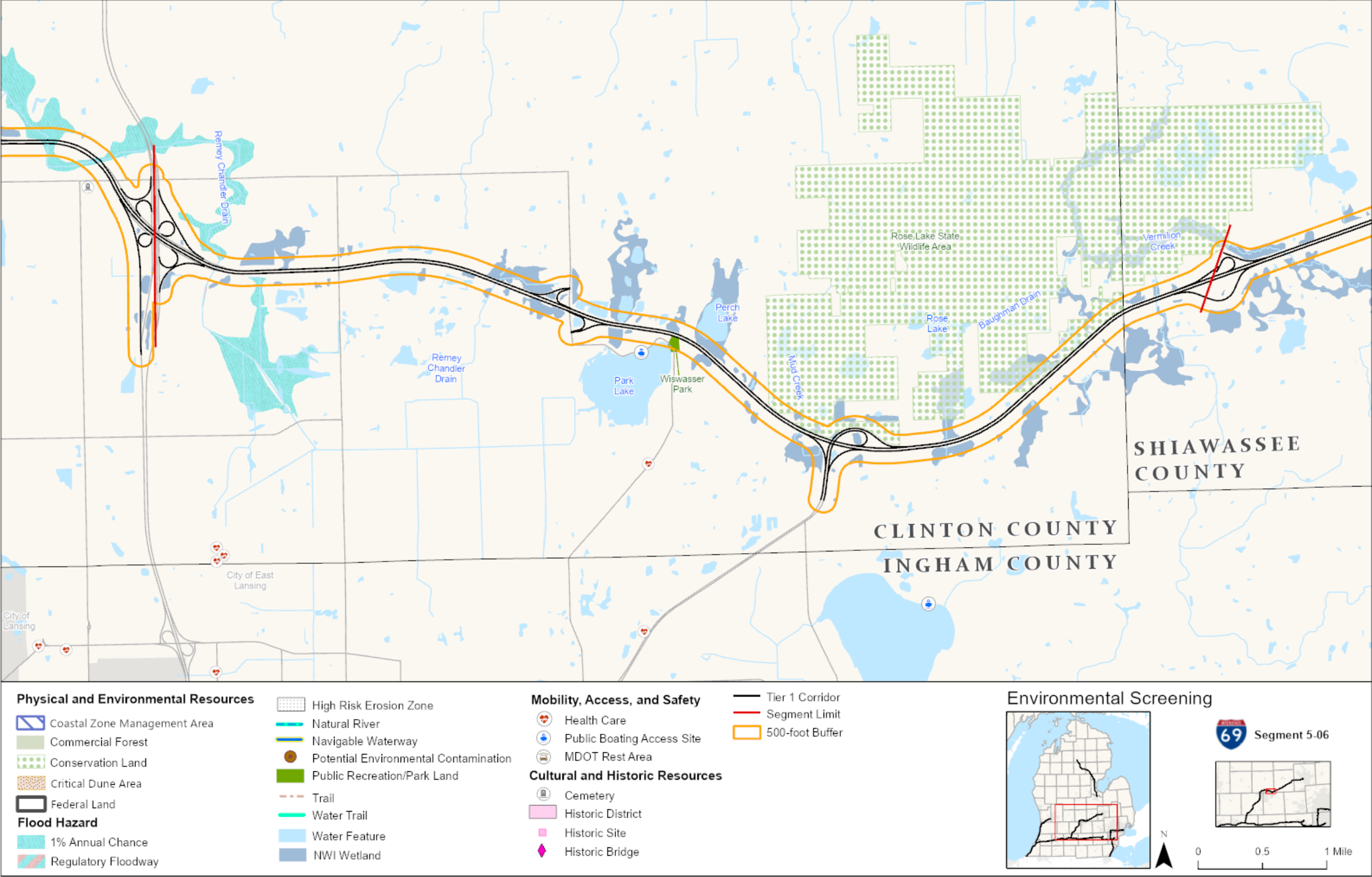


Figure 45: Corridor 5 I-69 Segment 5-07

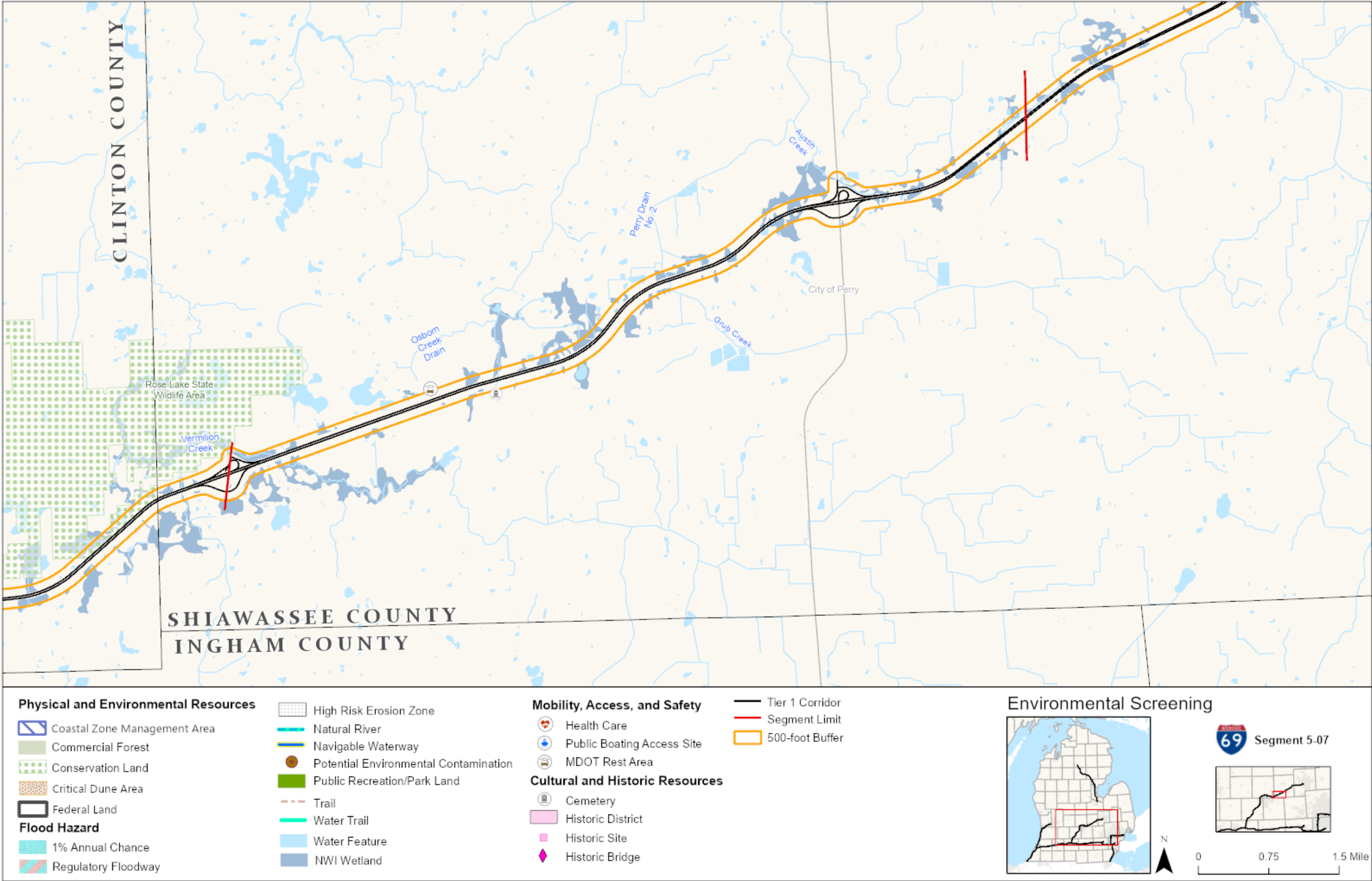


Figure 46: Corridor 5 I-69 Segment 5-08

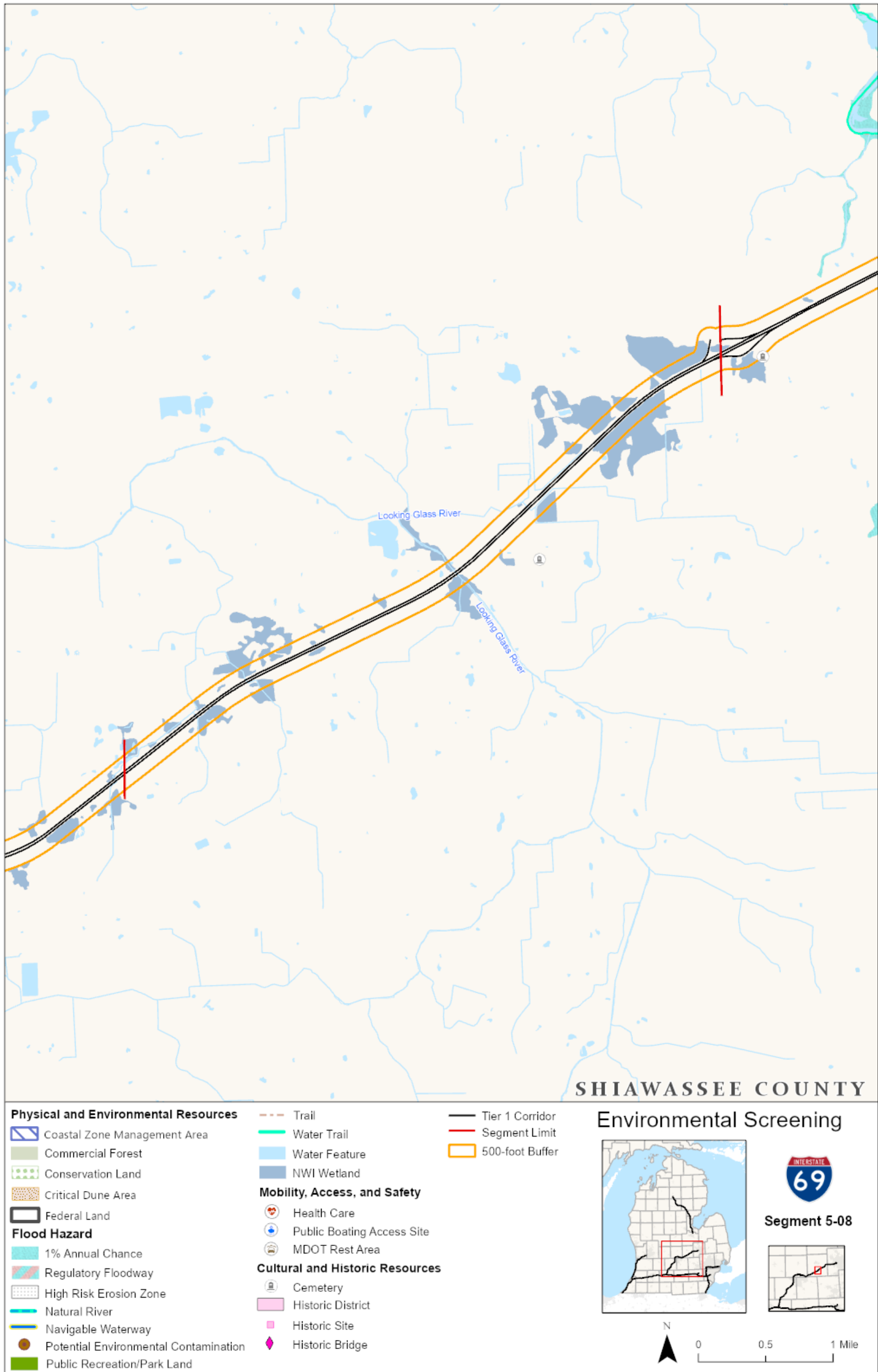


Figure 47: Corridor 5 I-69 Segment 5-09

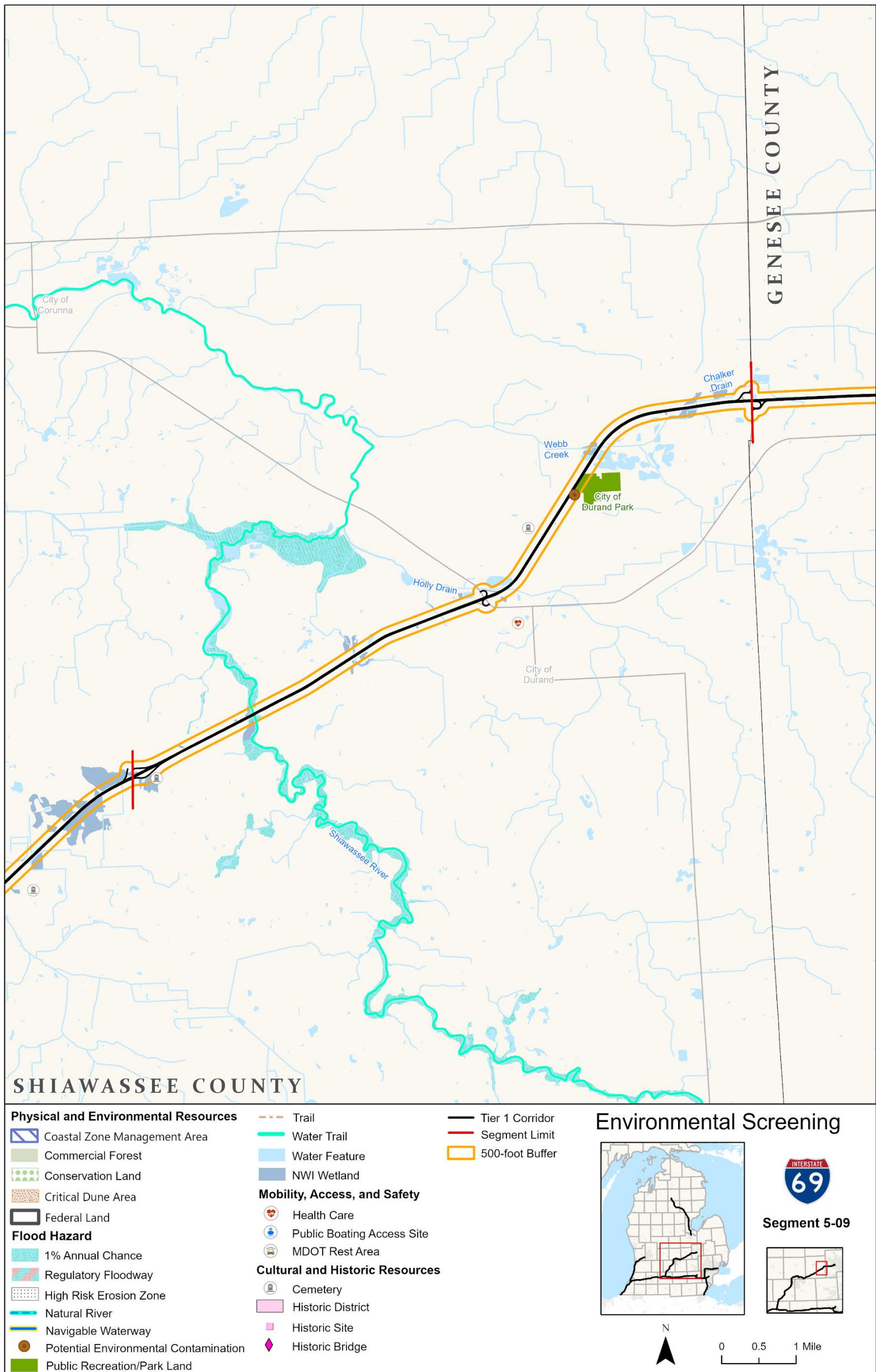
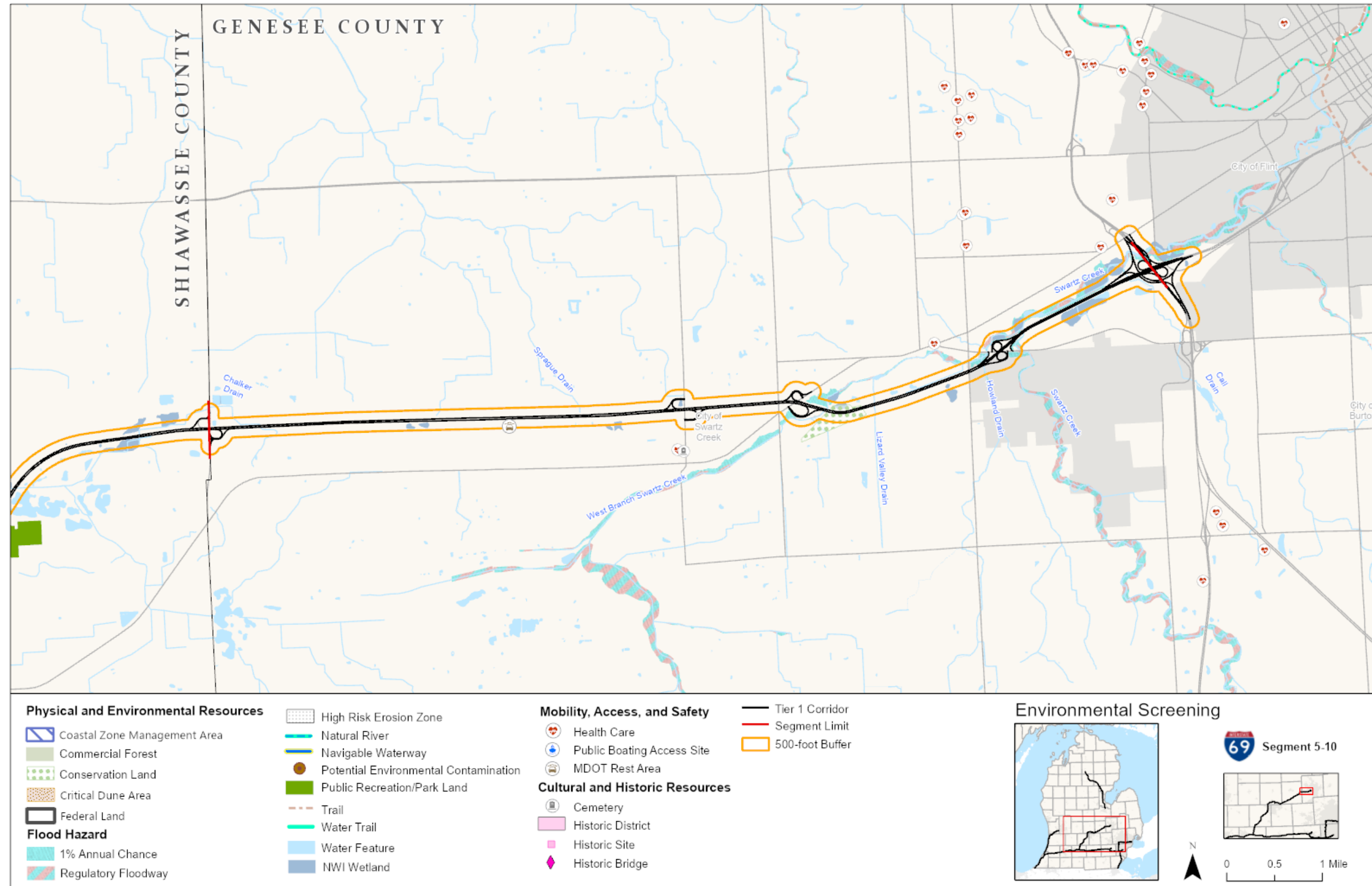


Figure 48: Corridor 5 I-69 Segment 5-10



Corridor 6: M-14

Table 17: Corridor 6 M-14 Segment 6-01

6-01	
Length (miles)	4.03
Corridor Limit (start)	North Wagner Rd
Corridor Limit (end)	M-14/US-23 Interchange
Historic Sites	No
Cemeteries	No
Potential Environmental Contamination	No
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)
Section 4(f)	Garden Homes Park; Riverwood Nature Area; Sunset Brooks Nature Area; Kuebler Langford Nature Area; Camp Hilltop Park; Bluffs Nature Area; Bandemer Park; Onder Park; Huron River Water Trail; Iron Belle Trail
Section 6(f)*	No
Water Features	Huron River
Water Quality*	TMDL: Nutrients
Sensitive Landscapes	No
Land Ownership	No
Forestry	No
Designated Natural Rivers	No
USDA Wild & Scenic Rivers	No
National Wetlands Inventory (NWI)	Yes
100-Year Flood FEMA Floodplain	Yes
Mussel*	No
Navigable Waterway	No

Resources and features marked with an asterisk () are not displayed in the map series but are included in the overview and summary tables.*

Table 18: Corridor 6 Threatened/Endangered Species and Migratory Birds Segment 6-01

Category

(E) = Endangered; (T) = Threatened; (NE)=Experimental, Non-Essential Population; (C)=Candidate

Common Name

Scientific Name

6-01	
Mammals	
(E) Indiana Bat <i>Myotis sodalist</i>	X
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X
Reptiles	
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X
(E) Snuffbox Mussel <i>Epioblasma triquetra</i>	X
Insects	
(E) Mitchell's Satyr Butterfly <i>Neonympha mitchellii mitchellii</i>	X
(C) Monarch Butterfly <i>Danaus plexippus</i>	X
(E) Poweshiek Skipperling <i>Oarisma poweshiek</i>	X
Flowering Plants	
(T) Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i>	X
Migratory Birds	
American Golden-plover <i>Pluvialis dominica</i>	X
Bald Eagle <i>Haliaeetus leucocephalus</i>	X
Black Tern <i>Chlidonias niger</i>	X
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	X
Bobolink <i>Dolichonyx oryzivorus</i>	X
Canada Warbler <i>Cardellina canadensis</i>	X
Cerulean Warbler <i>Dendroica cerulea</i>	X
Eastern Whip-poor-will <i>Antrostomus vociferus</i>	X
Golden Eagle <i>Aquila chrysaetos</i>	X
Golden-winged Warbler <i>Vermivora chrysoptera</i>	X
Henslow's Sparrow <i>Ammodramus henslowii</i>	X
Lesser Yellowlegs <i>Tringa flavipes</i>	X
Long-eared Owl <i>asio otus</i>	X
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X
Rusty Blackbird <i>Euphagus carolinus</i>	X
Short-billed Dowitcher <i>Limnodromus griseus</i>	X
Wood Thrush <i>Hylocichla mustelina</i>	X

Figure 49: Corridor 6 M-14 Overview Map

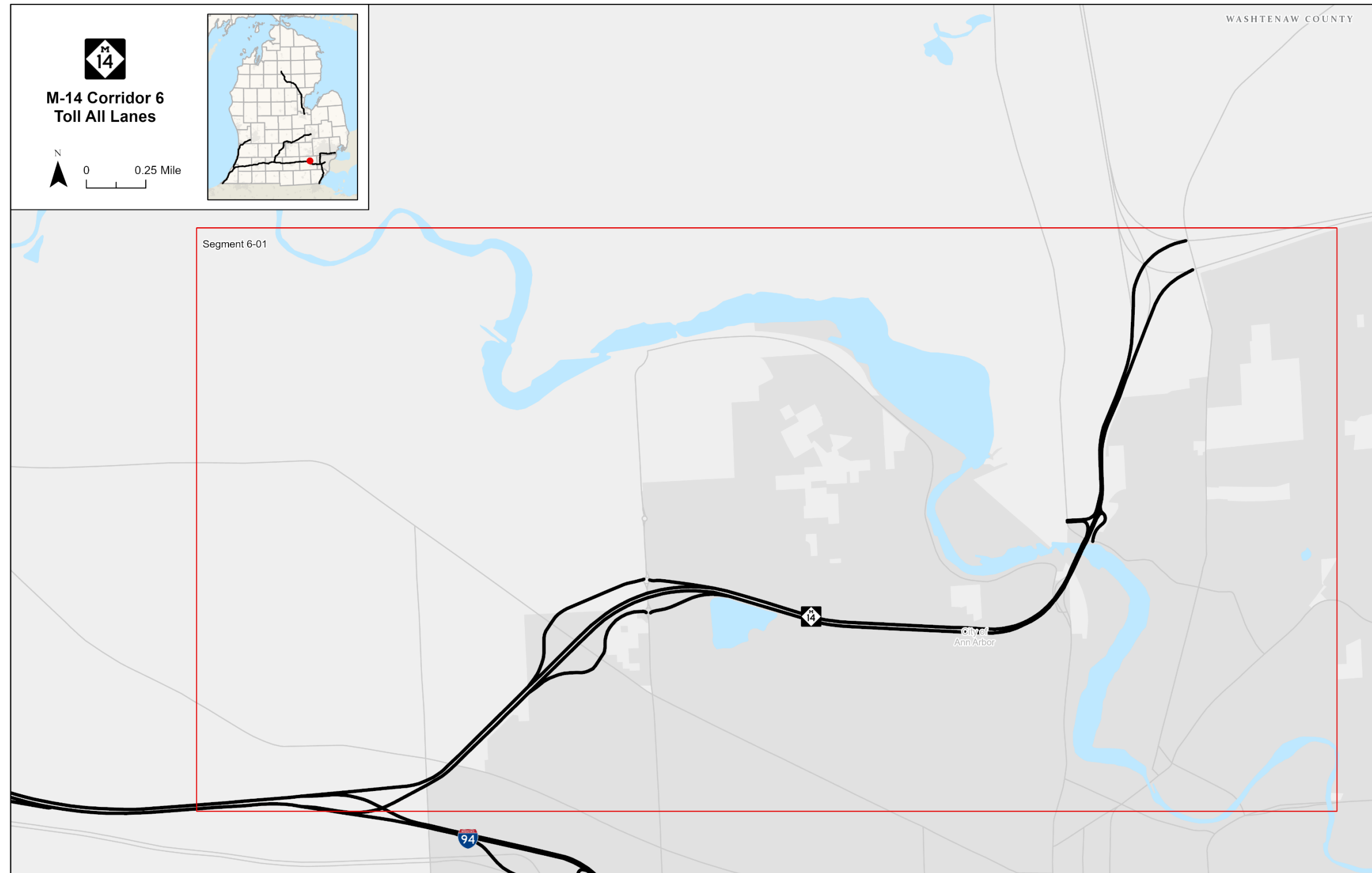
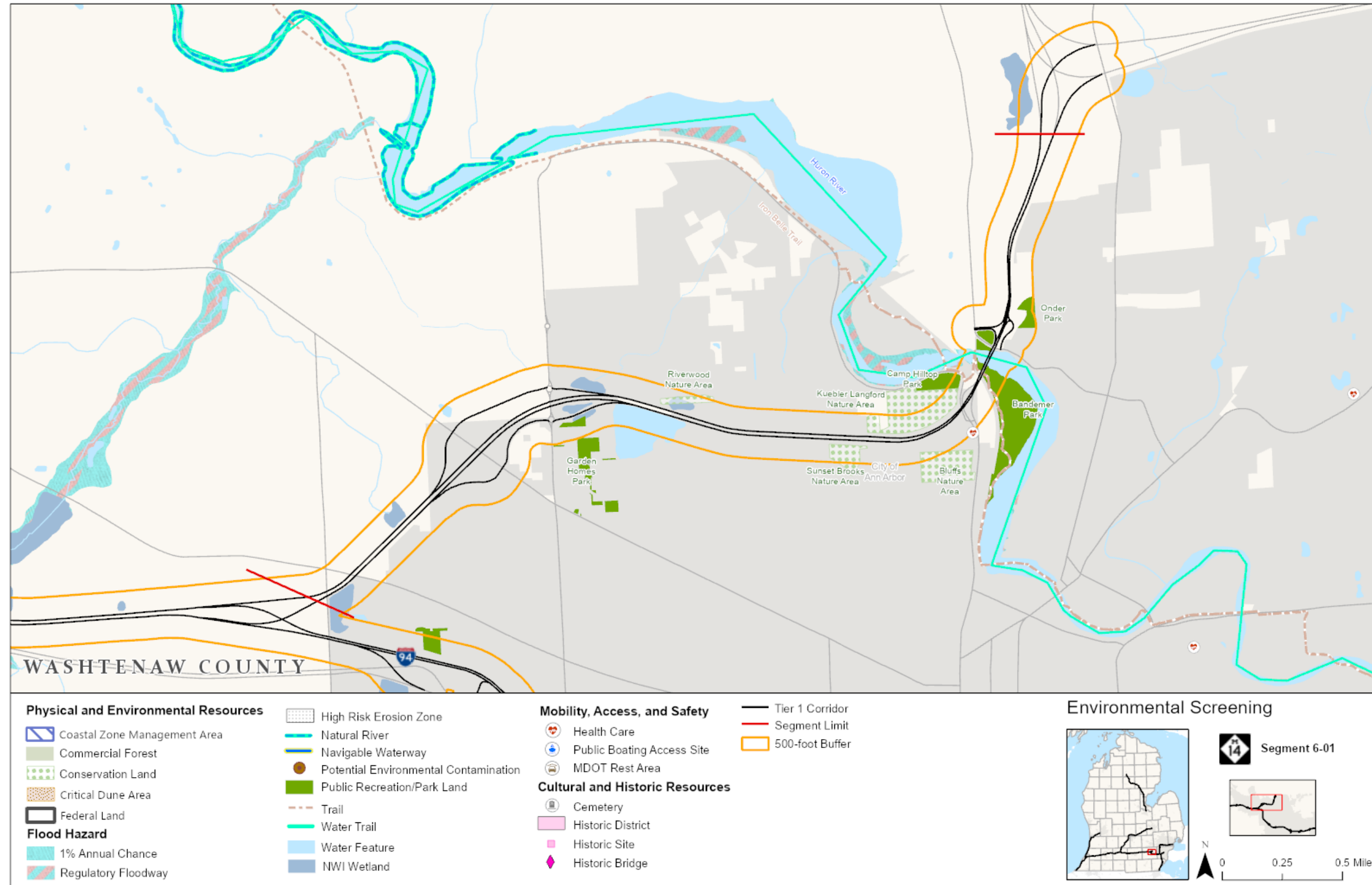


Figure 50: Corridor 6 M-14 Segment 6-01



Corridor 7: I-696

Table 19: Corridor 7 I-696 Segments 7-01 to 7-03

	7-01	7-02	7-03
Length (miles)	7.87	9.44	10.26
Corridor Limit (start)	I-96/M-5/I-696 Interchange	US-24	I-75
Corridor Limit (end)	US-24	I-75	I-94
Historic Sites	No	Lathrup Village Historic District; Detroit Zoological Park; Pleasant Ridge Historic District	No
Cemeteries	No	No	No
Potential Environmental Contamination	Yes	Yes	Yes
Air Quality*	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)	1997 8-Hour Ozone (Maintenance); 2015 8-Hour Ozone (non-Attainment); 2006 24-Hour PM2.5 (Maintenance)
Section 4(f)	Soccer Field; Woodland Hills Park; Pebble Creek Park	Valley Woods Park; Goldengate Park; Freeway Park; Lincoln Woods; Victoria Park; Rothstein Park; Rackham Golf Course; Ridge Road Community Center and Moberly Park; Greenbelt Park; Harding Park; Lathrup Village Historic District; Detroit Zoological Park; Pleasant Ridge Historic District	Conner Creek to Schoenherr Rd Pathway; Memorial Park
Section 6(f)*	Pebble Creek Park	Harding Park	No
Water Features	Seeley Ditch; Minnow Pond Drain; Pebble Creek	Rouge River; Miller Ditch; Evans Ditch	Sharkey Drain; Bear Creek Drain; Harrington Drain
Water Quality*	TMDL: Sediment	TMDL: Sediment	No
Sensitive Landscapes	No	No	No
Land Ownership	No	No	Detroit Arsenal
Forestry	No	No	No
Designated Natural Rivers	No	No	No
USDA Wild & Scenic Rivers	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	No
Mussel*	No	State Threatened: Rouge River	No
Navigable Waterway	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 20: Corridor 7 Threatened/Endangered Species and Migratory Birds Segments 7-01 to 7-03

Category

(E) = Endangered; (T) = Threatened; (NE) = Experimental, Non-Essential Population; (C) = Candidate

Common Name

Scientific Name

	7-01	7-02	7-03
Mammals			
(E) Indiana Bat <i>Myotis sodalists</i>	X	X	X
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X	X	X
Birds			
(E) Piping Plover <i>Charadrius melodus</i>			X
(T) Red Knot <i>Calidris canutus rufa</i>			X
(NE) Whooping Crane <i>Grus americana</i>			X
Reptiles			
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X	X	X
Clams			
(E) Rayed Bean <i>Villosa fabalis</i>			X
(E) Snuffbox Mussel <i>Epioblasma triquetra</i>	X	X	X
Insects			
(C) Monarch Butterfly <i>Danaus plexippus</i>	X	X	X
(E) Poweshiek Skipperling <i>Oarisma poweshiek</i>	X	X	X
Migratory Birds			
American Golden-plover <i>Pluvialis dominica</i>	X		
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X	X
Black Tern <i>Chlidonias niger</i>	X		X
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	X	X	X
Bobolink <i>Dolichonyx oryzivorus</i>	X	X	X
Canada Warbler <i>Cardellina canadensis</i>	X	X	X
Cerulean Warbler <i>Dendroica cerulea</i>	X	X	X
Eastern Whip-poor-will <i>Antrostomus vociferus</i>	X	X	X
Golden-winged Warbler <i>Vermivora chrysoptera</i>	X	X	X
Henslow's Sparrow <i>Ammodramus henslowii</i>	X		
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X	X
Long-eared Owl <i>asio otus</i>	X		
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X	X	X
Rusty Blackbird <i>Euphagus carolinus</i>	X	X	X
Short-billed Dowitcher <i>Limnodromus griseus</i>	X		
Wood Thrush <i>Hylocichla mustelina</i>	X	X	X

Figure 52: Corridor 7 I-696 Segment 7-01

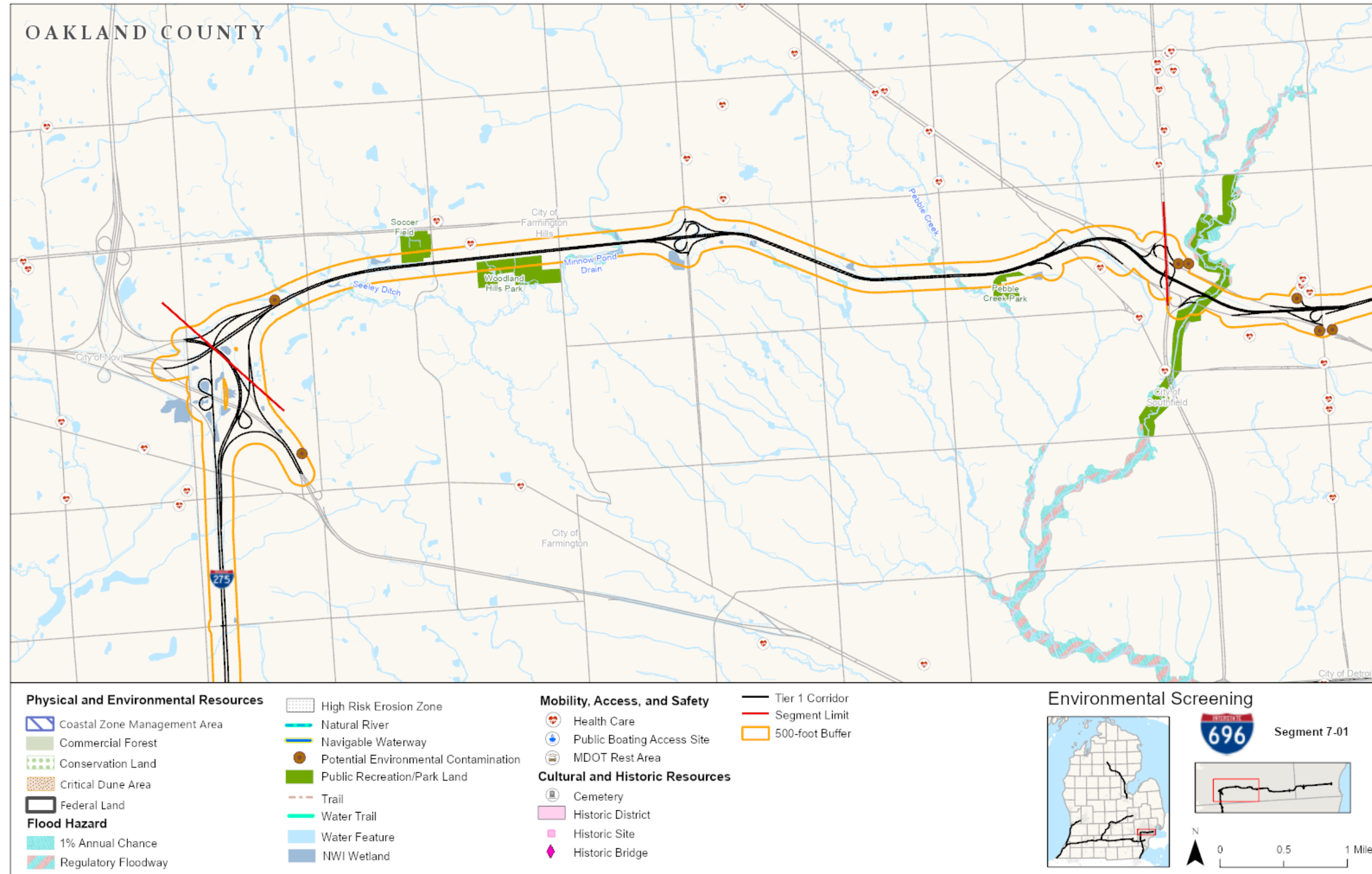


Figure 53: Corridor 7 I-696 Segment 7-02

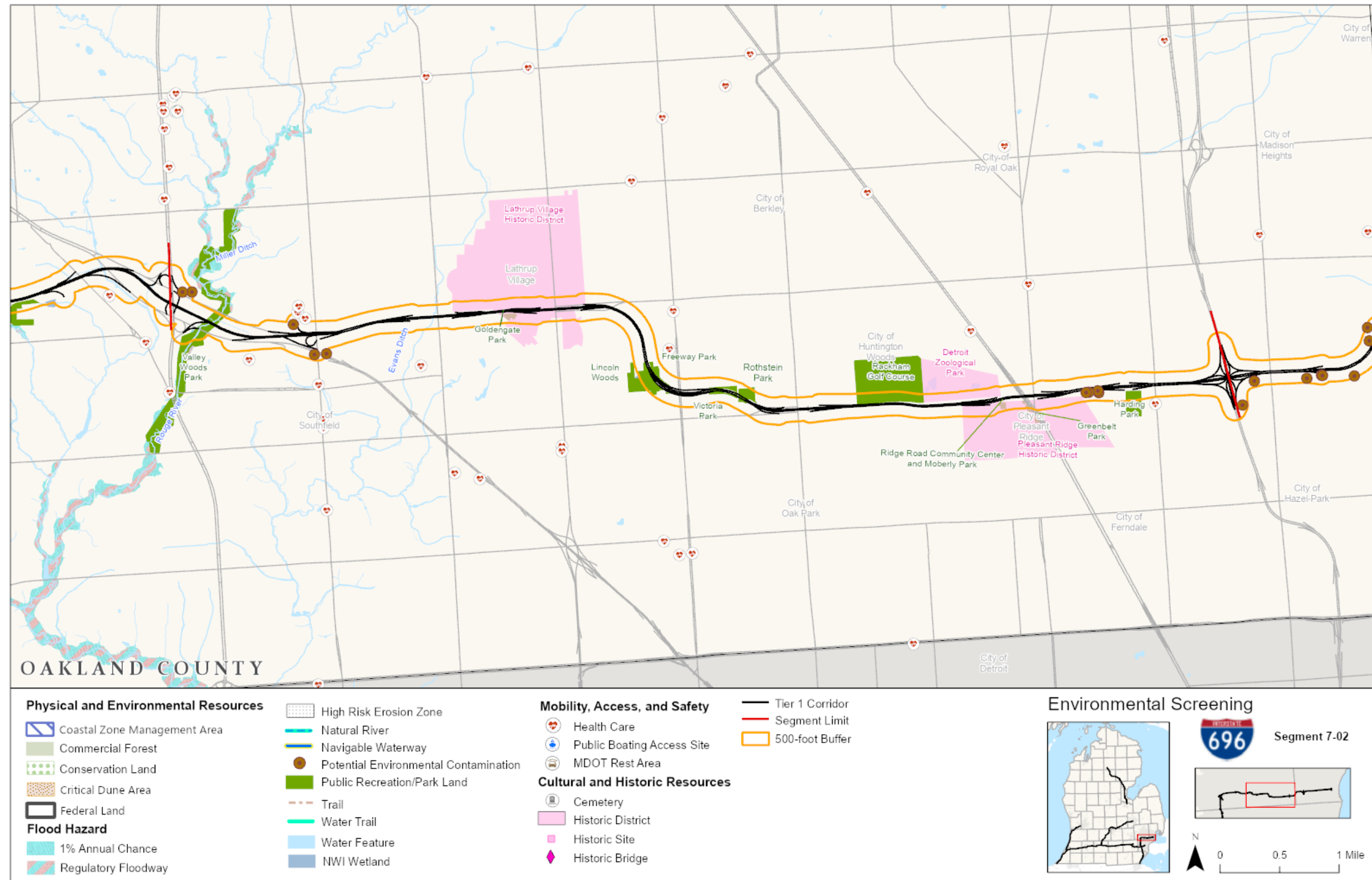
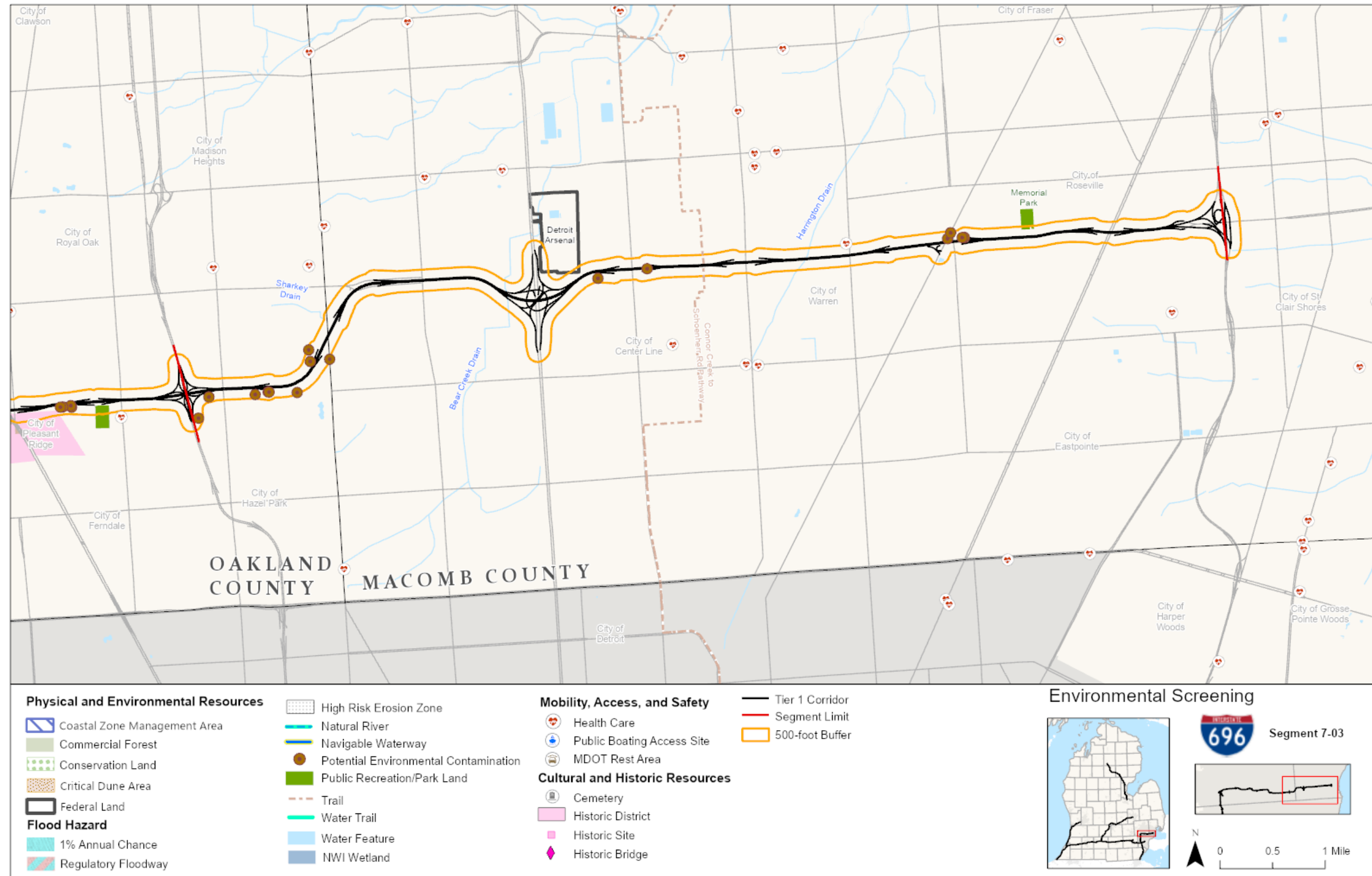


Figure 54: Corridor 7 I-696 Segment 7-03



Corridor 8: I-75

Table 21: Corridor 8 I-75 Segments 8-01 to 8-05

	8-01	8-02	8-03	8-04	8-05
Length (miles)	8.46	9.66	11.97	9.13	10.22
Corridor Limit (start)	I-675/I-75 Interchange	M-13/I-75/M-23 Interchange	East Linwood Rd	Bay/Arenac County Border	West Sterling Rd
Corridor Limit (end)	M-13/I-75/M-23 Interchange	East Linwood Rd	Bay/Arenac County Border	West Sterling Rd	Arenac/Ogemaw County Border
Historic Sites	No	No	No	No	No
Cemeteries	No	No	No	No	No
Potential Environmental Contamination	No	No	No	No	No
Air Quality*	No	No	No	No	No
Section 4(f)	State Forest; Monitor Township Park	No	Fraser Township State Game Area	No	Gladwin State Forest Area
Section 6(f)*	Monitor Township Park	No	No	No	No
Water Features	Saginaw River; Squaconning Creek; Dutch Creek	Kawkawlin River; North Branch Kawkawlin River; Railroad Drain	Pinconning River	Saganing River; North Branch Pine River	North Branch Pine River; Wells Creek
Water Quality*	Section 10 Waterways	TMDL: Dissolved Oxygen	No	No	No
Sensitive Landscapes	Coastal Zone Management Area	No	No	No	No
Land Ownership	DNR State Managed Land	No	DNR State Managed Land	No	DNR State Managed Land
Forestry	No	No	No	No	No
Designated Natural Rivers	No	No	No	No	No
USDA Wild & Scenic Rivers	No	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	Yes	Yes	Yes	Yes	No
Mussel*	No	No	No	No	No
Navigable Waterway	No	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

Table 22: Corridor 8 I-75 Segments 8-06 to 8-09

	8-06	8-07	8-08	8-09
Length (miles)	10.35	11.84	12.05	10.18
Corridor Limit (start)	Arenac/Ogemaw County Border	County Road 23/ Old M-55	Maple Valley Rd	North Roscommon Rd/ M-18
Corridor Limit (end)	County Road 23/ Old M-55	Maple Valley Rd	North Roscommon Rd/ M-18	US-127
Historic Sites	No	No	No	No
Cemeteries	No	No	No	No
Potential Environmental Contamination	No	No	No	No
Air Quality*	No	No	No	No
Section 4(f)	Roscommon State Forest Area	Roscommon State Forest Area; Iron Belle Trail; St. Helen Trails	Roscommon State Forest Area; Backus Creek State Game Area; Robinson Creek Flooding State Wildlife Management Area; Hunter Walking Trails	Roscommon State Forest Area; Gaylord State Forest Area; North Higgins Lake Trail Connector; West Higgins Route; Beaver Creek Trail
Section 6(f)*	Kirtland's Warbler Wildlife Management Area**	Kirtland's Warbler Wildlife Management Area**	Kirtland's Warbler Wildlife Management Area**	Kirtland's Warbler Wildlife Management Area**
Water Features	Spring Creek; North Eddy Creek	Ogemaw Creek; Smith Creek	No	Beaver Creek
Water Quality*	No	No	No	No
Sensitive Landscapes	No	No	No	No
Land Ownership	DNR State Managed Land	DNR State Managed Land	DNR State Managed Land	DNR State Managed Land
Forestry	No	No	No	No
Designated Natural Rivers	No	No	No	Yes
USDA Wild & Scenic Rivers	No	No	No	No
National Wetlands Inventory (NWI)	Yes	Yes	Yes	Yes
100-Year Flood FEMA Floodplain	No	No	No	No
Mussel*	No	No	No	No
Navigable Waterway	No	No	No	No

Resources and features marked with an asterisk (*) are not displayed in the map series but are included in the overview and summary tables.

** The grant was a county-wide grant according to the LAWCON website but the actual management area does not intersect with the corridor.

Table 23: Corridor 8 I-75 Threatened/Endangered Species and Migratory Birds Segments 8-01 to 8-09

Category

(E) = Endangered; (T) = Threatened; (NE) = Experimental, Non-Essential Population; (C) = Candidate

Common Name

Scientific Name

	8-01	8-02	8-03	8-04	8-05	8-06	8-07	8-08	8-09
Mammals									
(E) Indiana Bat <i>Myotis sodalists</i>	X	X	X	X					
(T) Northern Long-eared Bat <i>Myotis septentrionalis</i>	X	X	X	X	X	X	X	X	X
Birds									
(E) Piping Plover <i>Charadrius melodus</i>	X	X	X	X	X	X			
(T) Red Knot <i>Calidris canutus rufa</i>	X	X	X	X	X	X			
Reptiles									
(T) Copperbelly Water Snake <i>Nerodia erythrogaster neglecta</i>									
(T) Eastern Massasauga rattlesnake <i>Sistrurus catenatus</i>	X	X	X	X	X	X	X	X	X
Clams									
(E) Snuffbox Mussel <i>Epioblasma triquetra</i>					X	X			
Insects									
(E) Hungerford's Crawling Water Beetle <i>Brychius hungerfordi</i>									X
(C) Monarch Butterfly <i>Danaus plexippus</i>	X	X	X	X	X	X	X	X	X
Flowering Plants									
(T) Eastern Prairie Fringed Orchid <i>Platanthera leucophaea</i>	X	X	X	X					
(T) Houghton's Goldenrod <i>Solidago houghtonii</i>									X
(T) Pitcher's Thistle <i>Cirsium pitcheri</i>			X	X	X	X			
Migratory Birds									
American Golden-plover <i>Pluvialis dominica</i>	X	X	X						
Bald Eagle <i>Haliaeetus leucocephalus</i>	X	X	X	X	X	X	X	X	X
Black Tern <i>Chlidonias niger</i>	X	X					X	X	X
Black-billed Cuckoo <i>Coccyzus erythrophthalmus</i>	X	X	X	X	X	X	X	X	X
Bobolink <i>Dolichonyx oryzivorus</i>	X	X	X	X	X	X	X		X
Canada Warbler <i>Cardellina canadensis</i>	X	X			X		X	X	X
Cerulean Warbler <i>Dendroica cerulea</i>	X	X							
Eastern Whip-poor-will <i>Antrostomus vociferus</i>	X	X		X	X		X	X	X
Evening Grosbeak <i>Coccothraustes vespertinus</i>					X		X		X
Golden Eagle <i>Aquila chrysaetos</i>								X	X
Golden-winged Warbler <i>Vermivora chrysoptera</i>	X	X	X		X		X	X	X
Lesser Yellowlegs <i>Tringa flavipes</i>	X	X	X	X	X				X
Olive-sided Flycatcher <i>Contopus cooperi</i>			X		X		X	X	X
Red-headed Woodpecker <i>Melanerpes erythrocephalus</i>	X	X	X	X					
Ruddy Turnstone <i>Arenaria interores morinella</i>	X	X							
Rusty Blackbird <i>Euphagus carolinus</i>	X	X	X	X					
Short-billed Dowitcher <i>Limnodromus griseus</i>	X	X							
Wood Thrush <i>Hylocichla mustelina</i>	X	X	X	X	X	X	X	X	X

Figure 55: Corridor 8 I-75 Overview Map

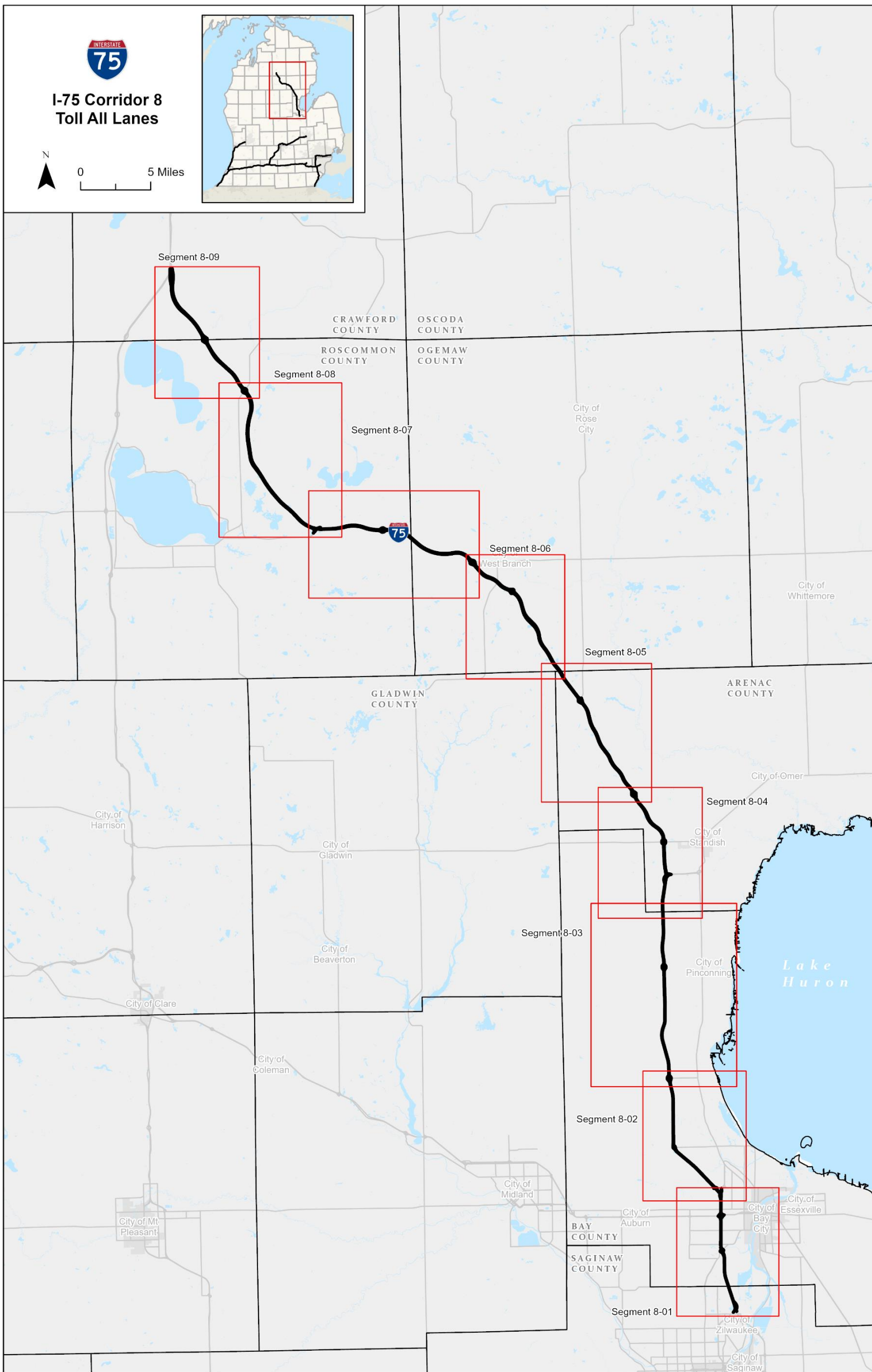


Figure 56: Corridor 8 I-75 Segment 8-01

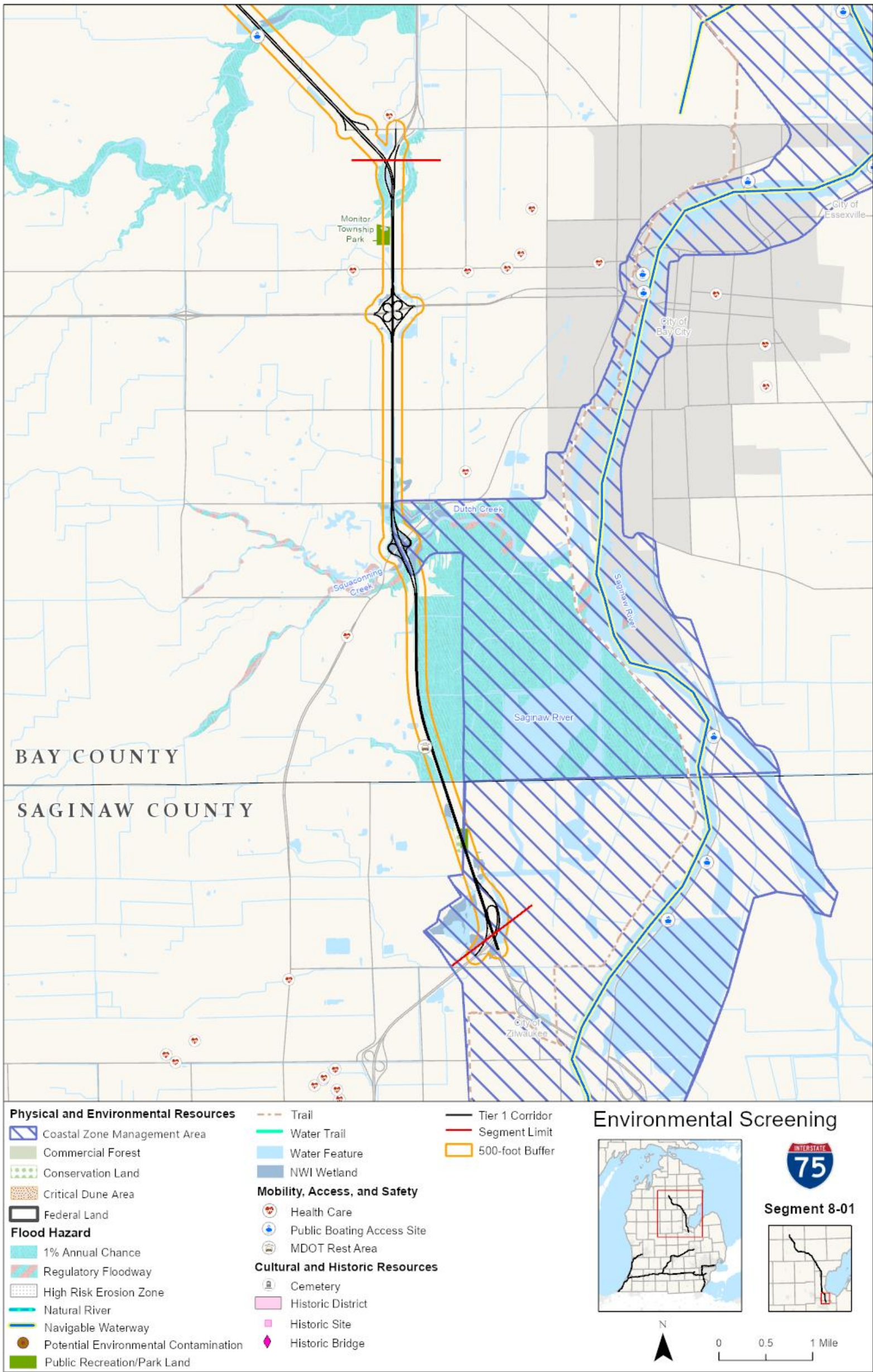


Figure 57: Corridor 8 I-75 Segment 8-02

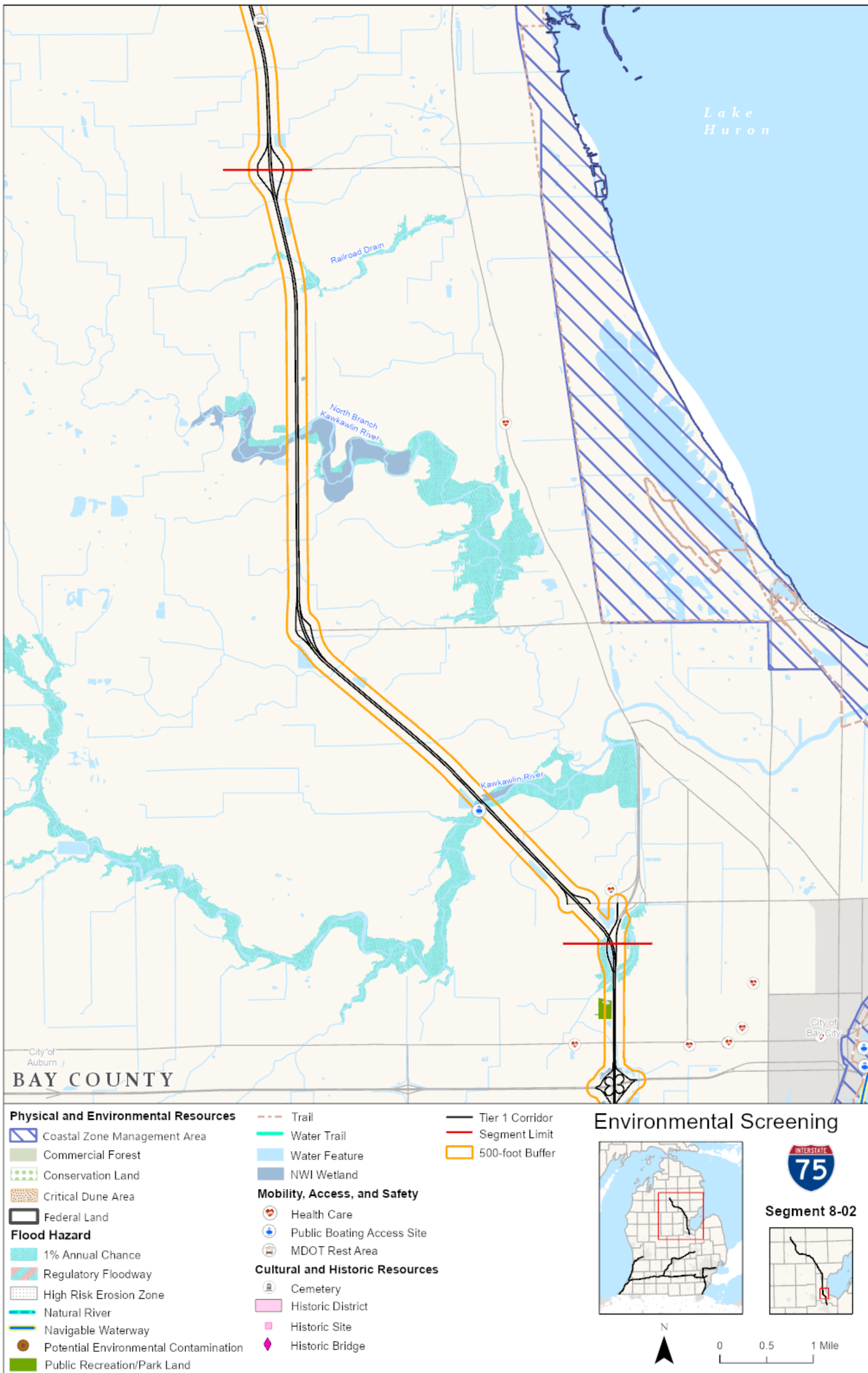


Figure 58: Corridor 8 I-75 Segment 8-03

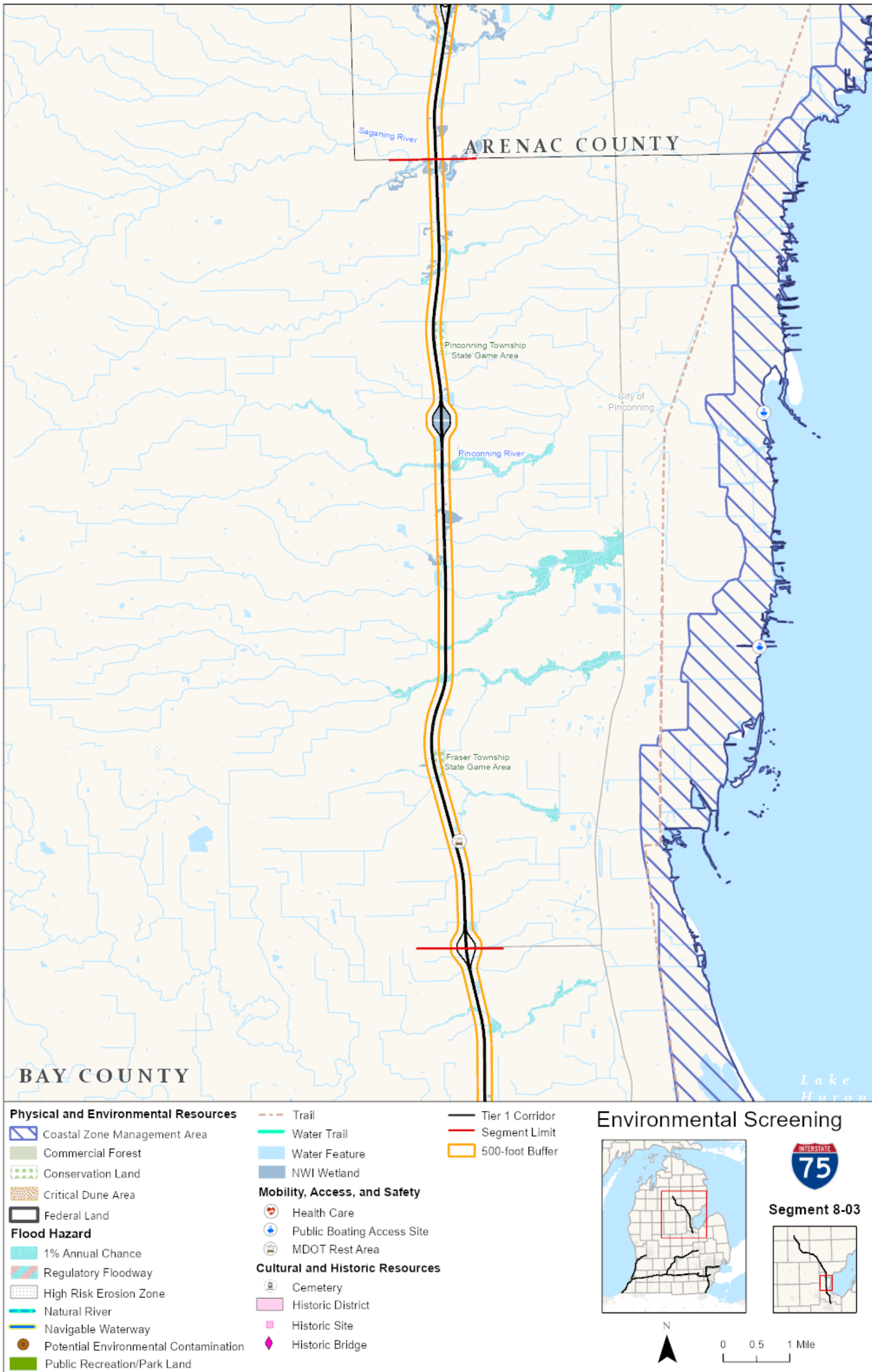


Figure 59: Corridor 8 I-75 Segment 8-04

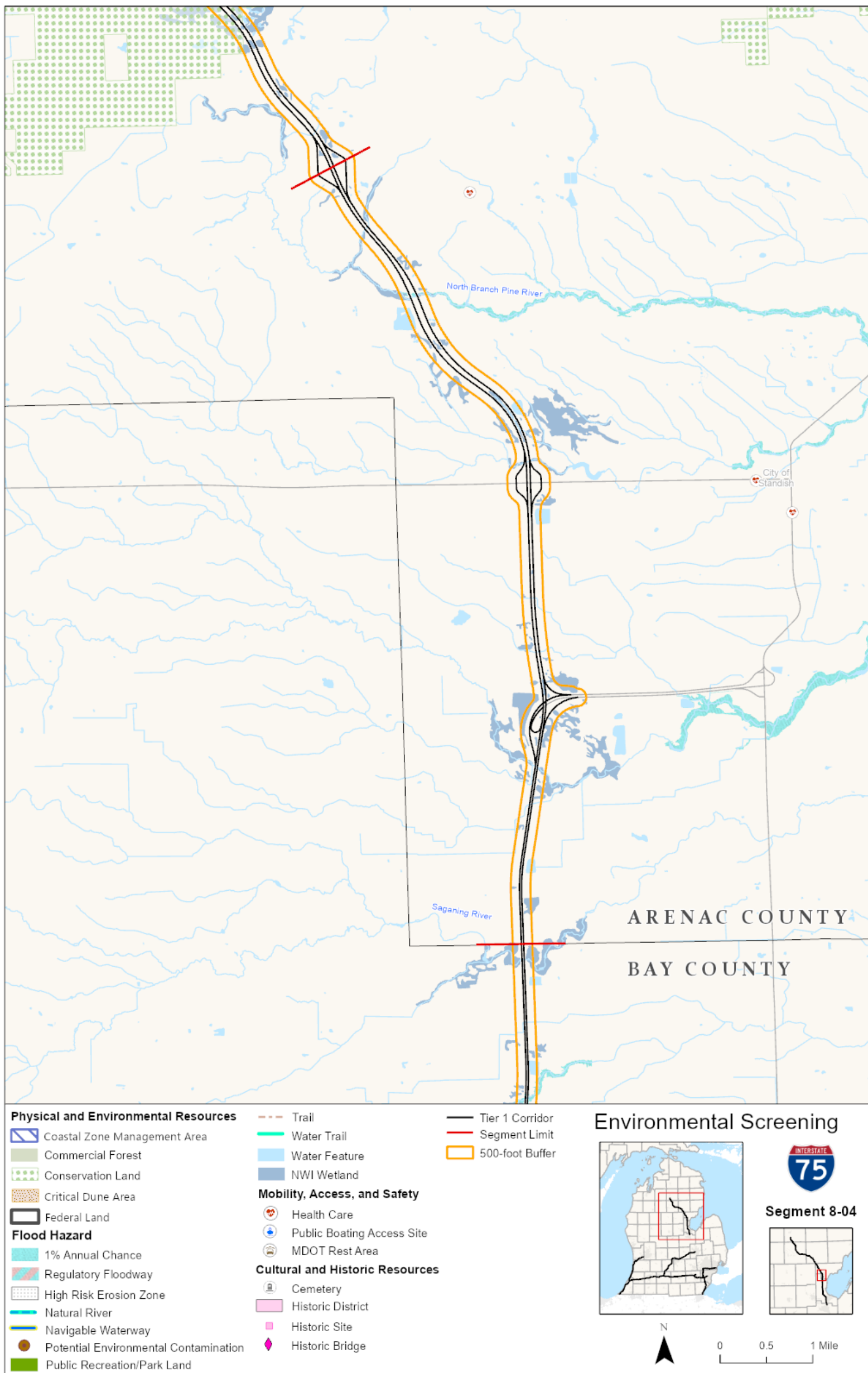


Figure 60: Corridor 8 I-75 Segment 8-05

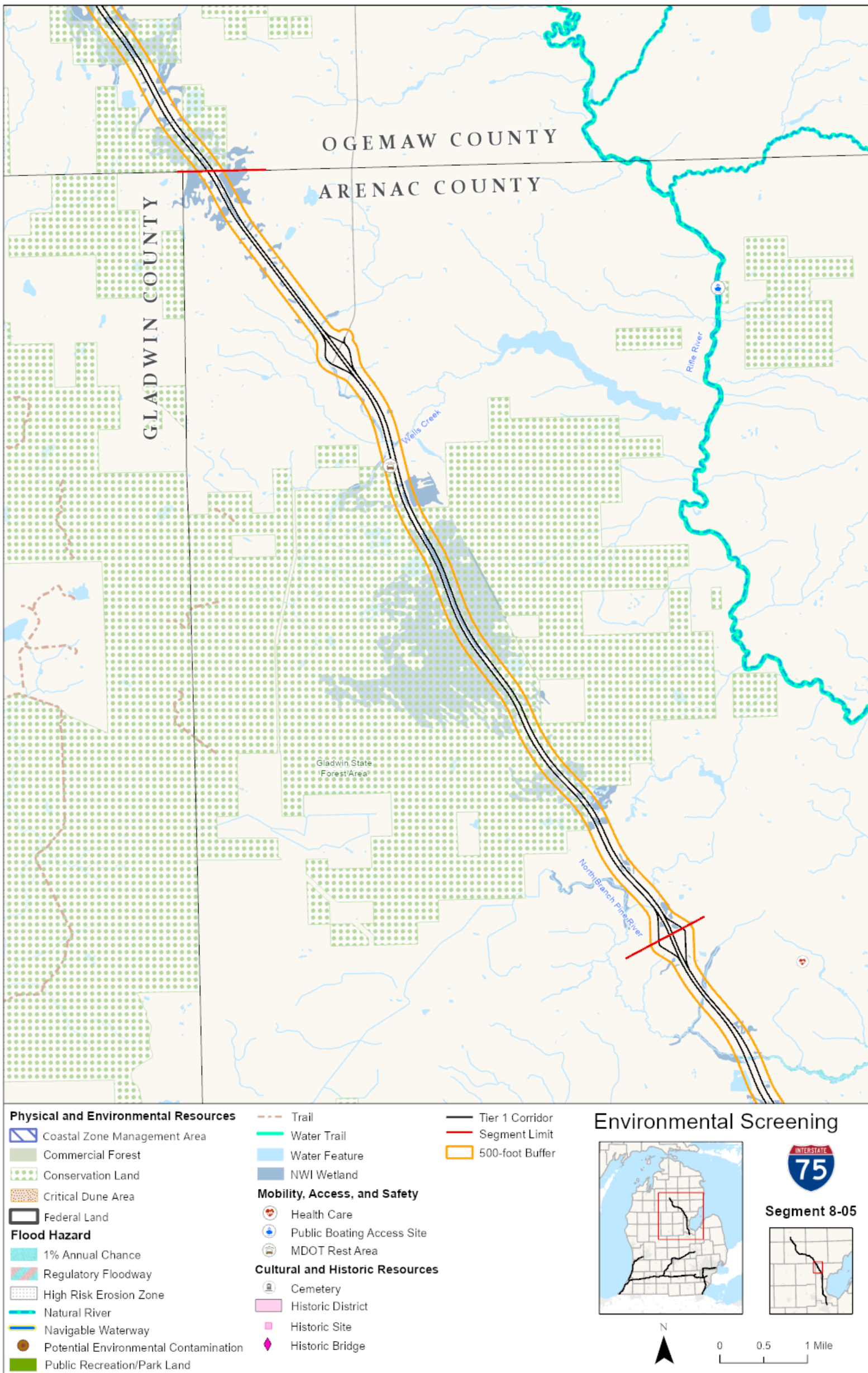


Figure 61: Corridor 8 I-75 Segment 8-06

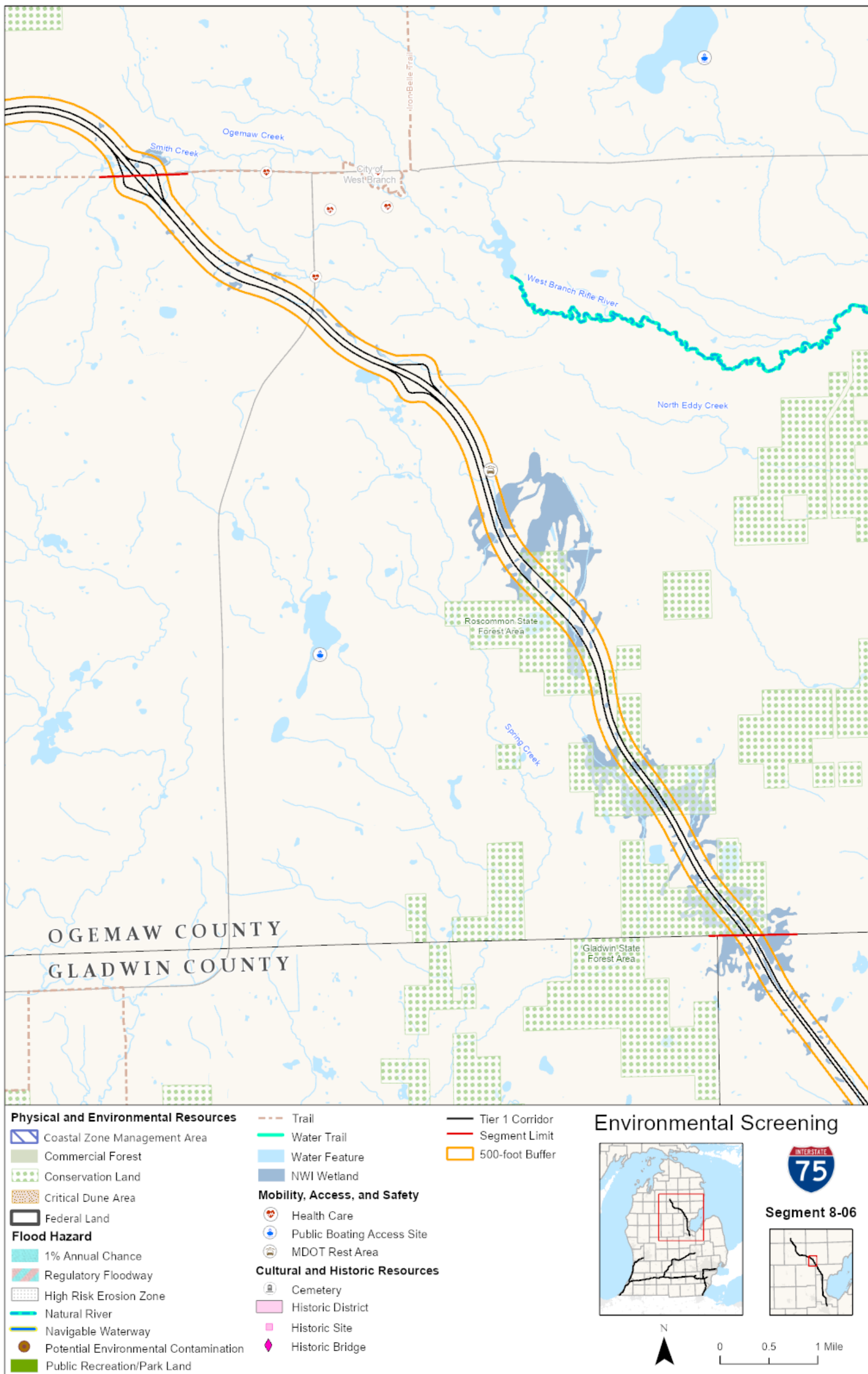


Figure 62: Corridor 8 I-75 Segment 8-07

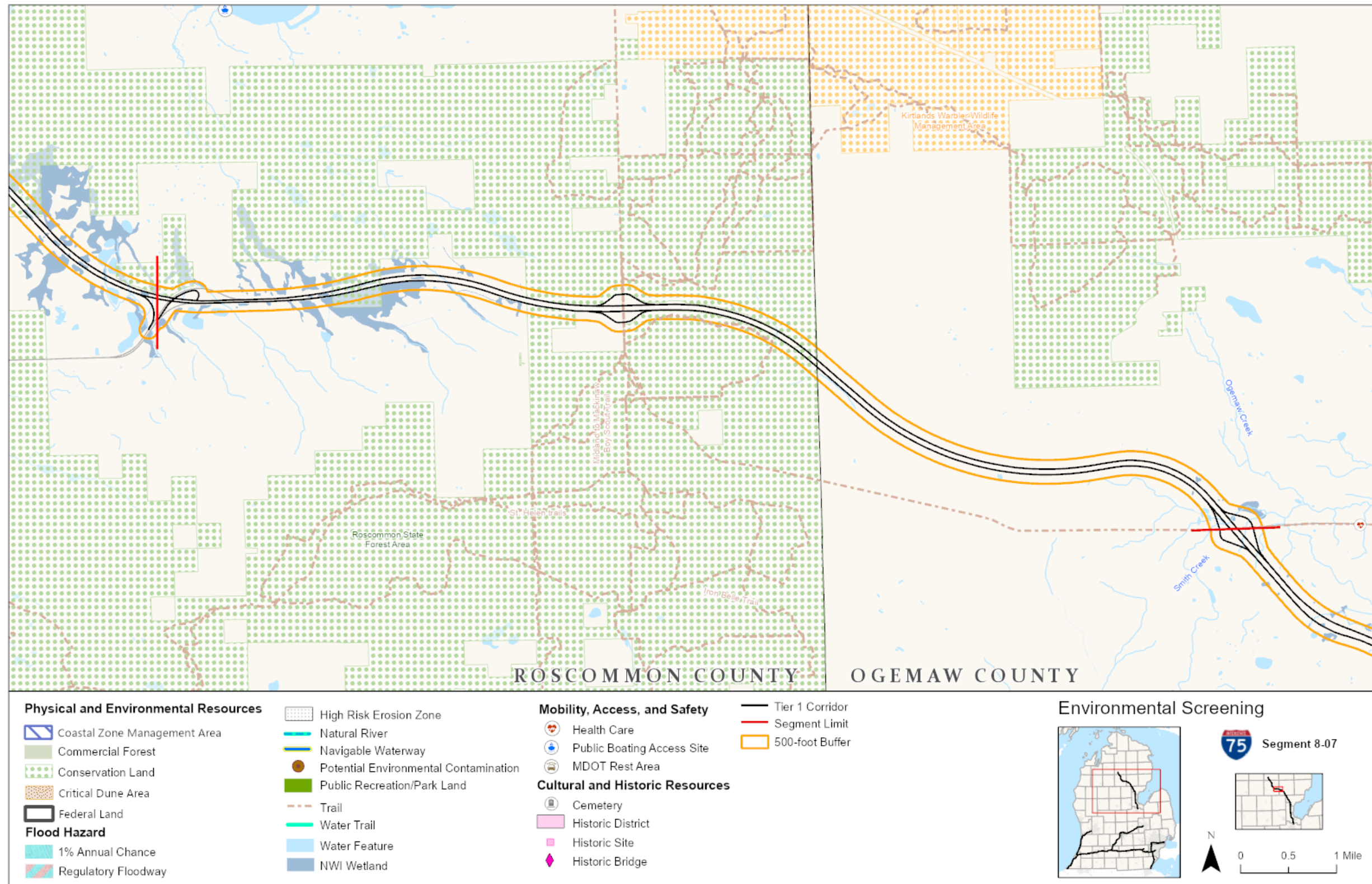


Figure 63: Corridor 8 I-75 Segment 8-08

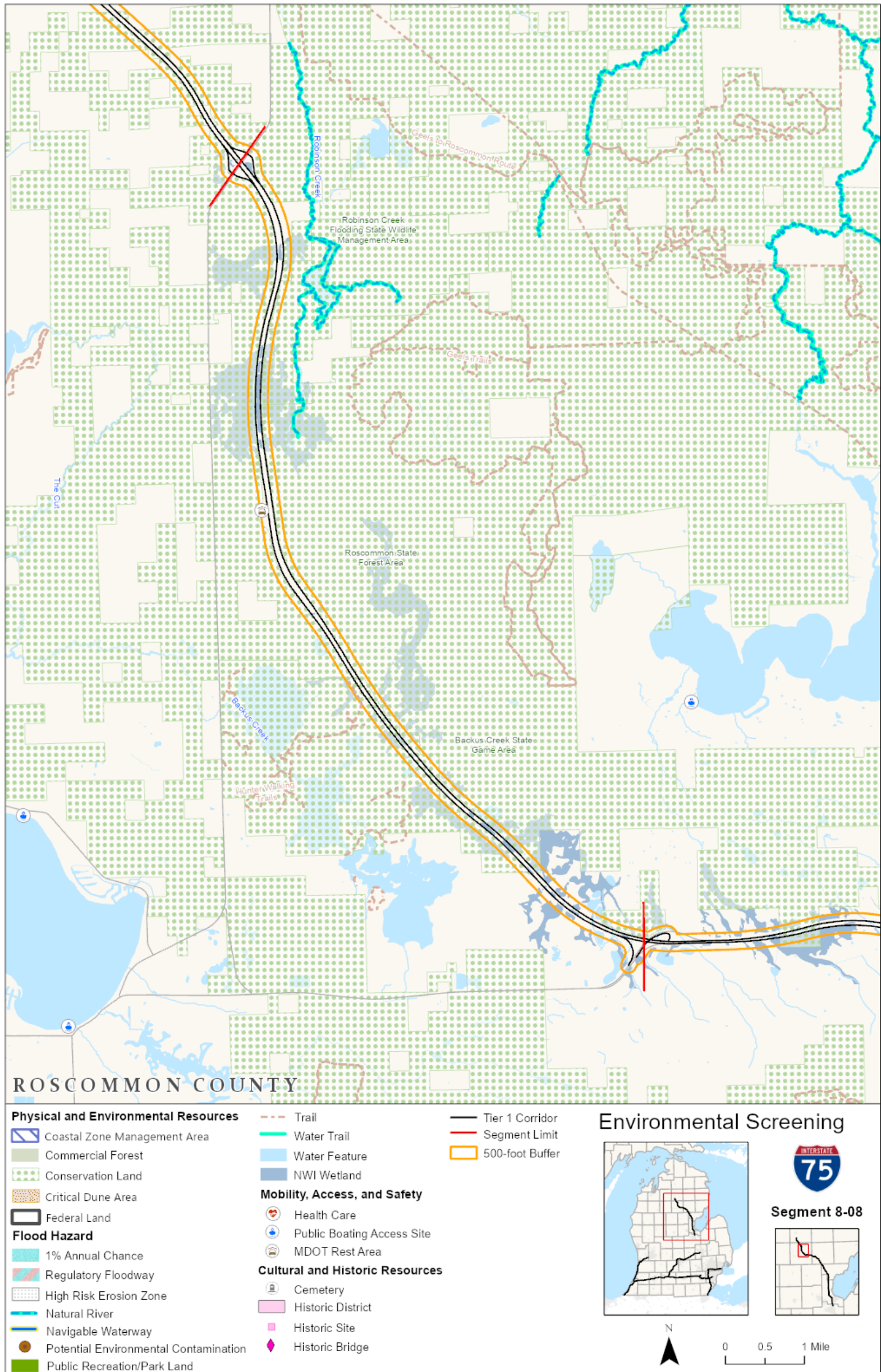
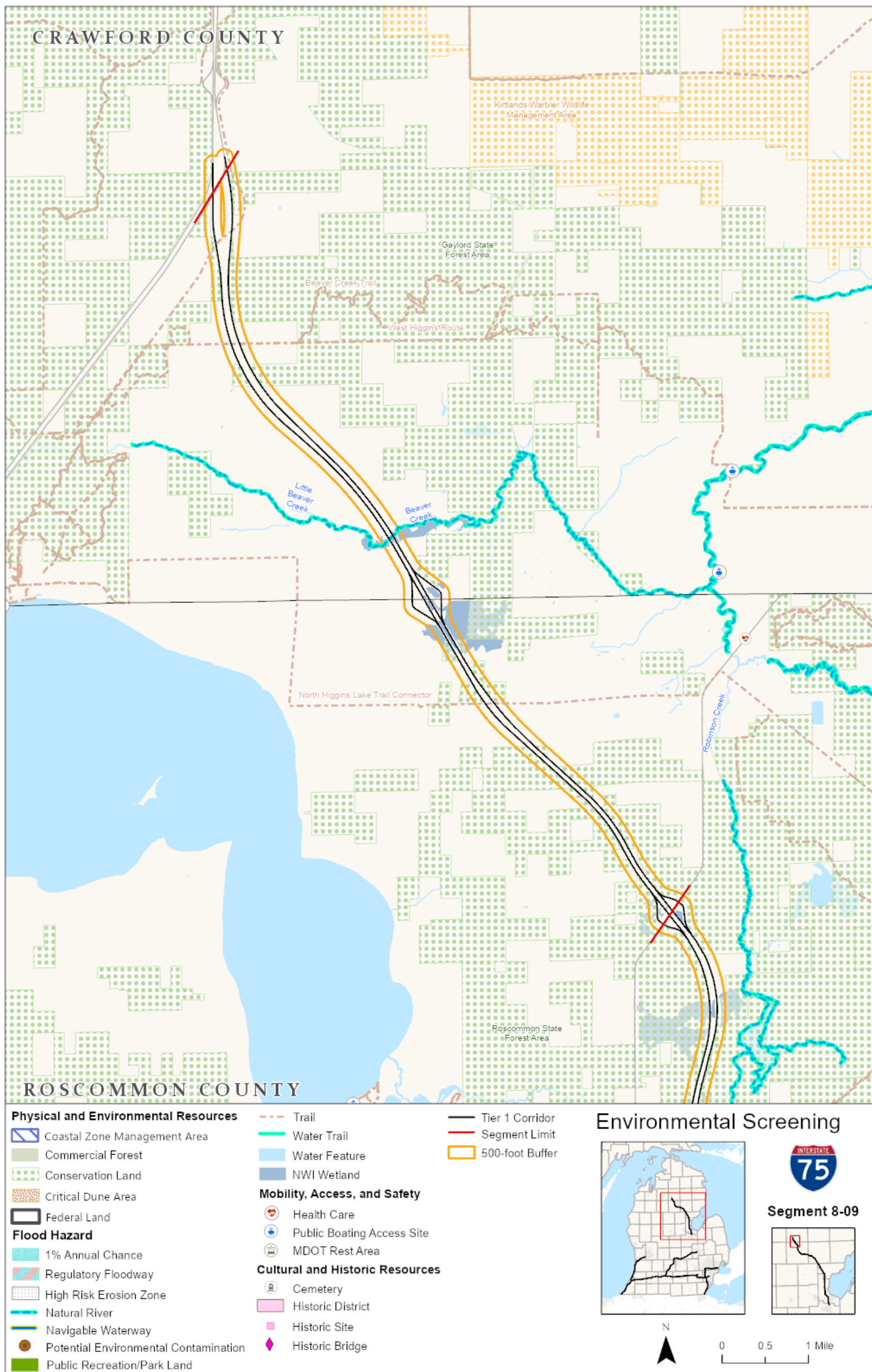


Figure 64: Corridor 8 I-75 Segment 8-09



Appendix B. Demographic & Environmental Justice Screening Results

Corridor 1: I-94

Table 1: Corridor 1 I-94 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 1 (sum of counties)	2,952,068	530,505; 18.0%	1,246,803; 42.2%	52,675; 1.8%	457,069; 15.5%	179,309; 6.1%	418,421; 14.2%
Berrien County	154,316	24,590; 15.9%	42,713; 27.7%	1,420; 0.9%	30,446; 19.7%	8,770; 5.7%	23,428; 15.2%
Van Buren County	75,587	11,027; 14.6%	16,187; 21.4%	1,291; 1.7%	13,582; 18.0%	4,622; 6.1%	10,586; 14.0%
Kalamazoo County	261,670	36,923; 14.1%	68,242; 26.1%	1,904; 0.7%	39,609; 15.1%	15,753; 6.0%	33,914; 13.0%
Calhoun County	134,310	21,667; 16.1%	33,925; 25.3%	1,257; 0.9%	23,728; 17.7%	8,172; 6.1%	19,666; 14.6%
Jackson County	160,366	18,397; 11.5%	29,269; 18.3%	616; 0.4%	27,925; 17.4%	8,938; 5.6%	22,681; 14.1%
Washtenaw County	372,258	48,329; 13.0%	120,038; 32.2%	4,965; 1.3%	51,337; 13.8%	17,977; 4.8%	34,799; 9.3%
Wayne County	1,793,561	369,572; 20.6%	936,429; 52.2%	41,222; 2.3%	270,442; 15.1%	115,077; 6.4%	273,347; 15.2%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 1: Corridor 1 I-94 Bivariate Map

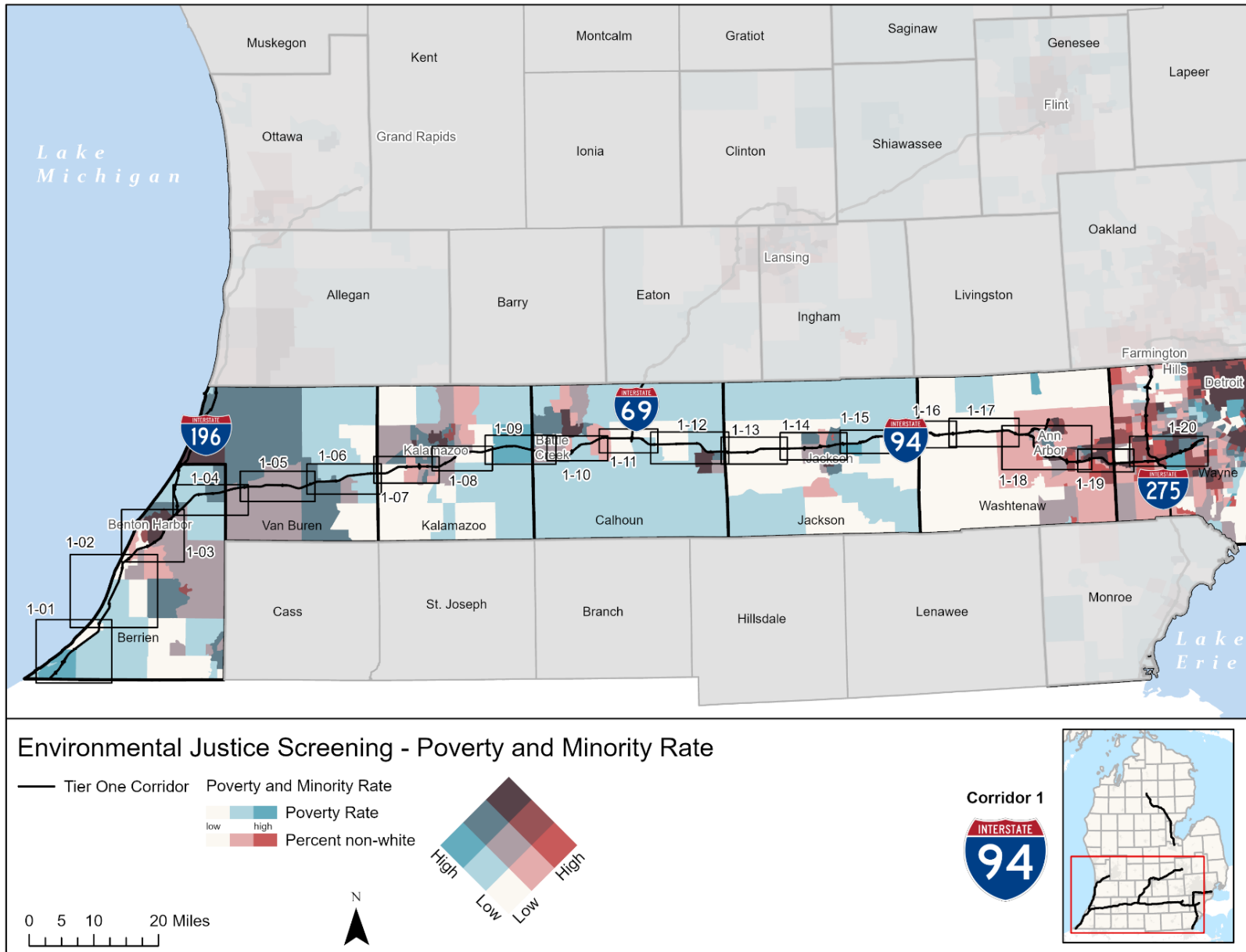


Figure 2 Corridor 1 I-94 Low Income Population map

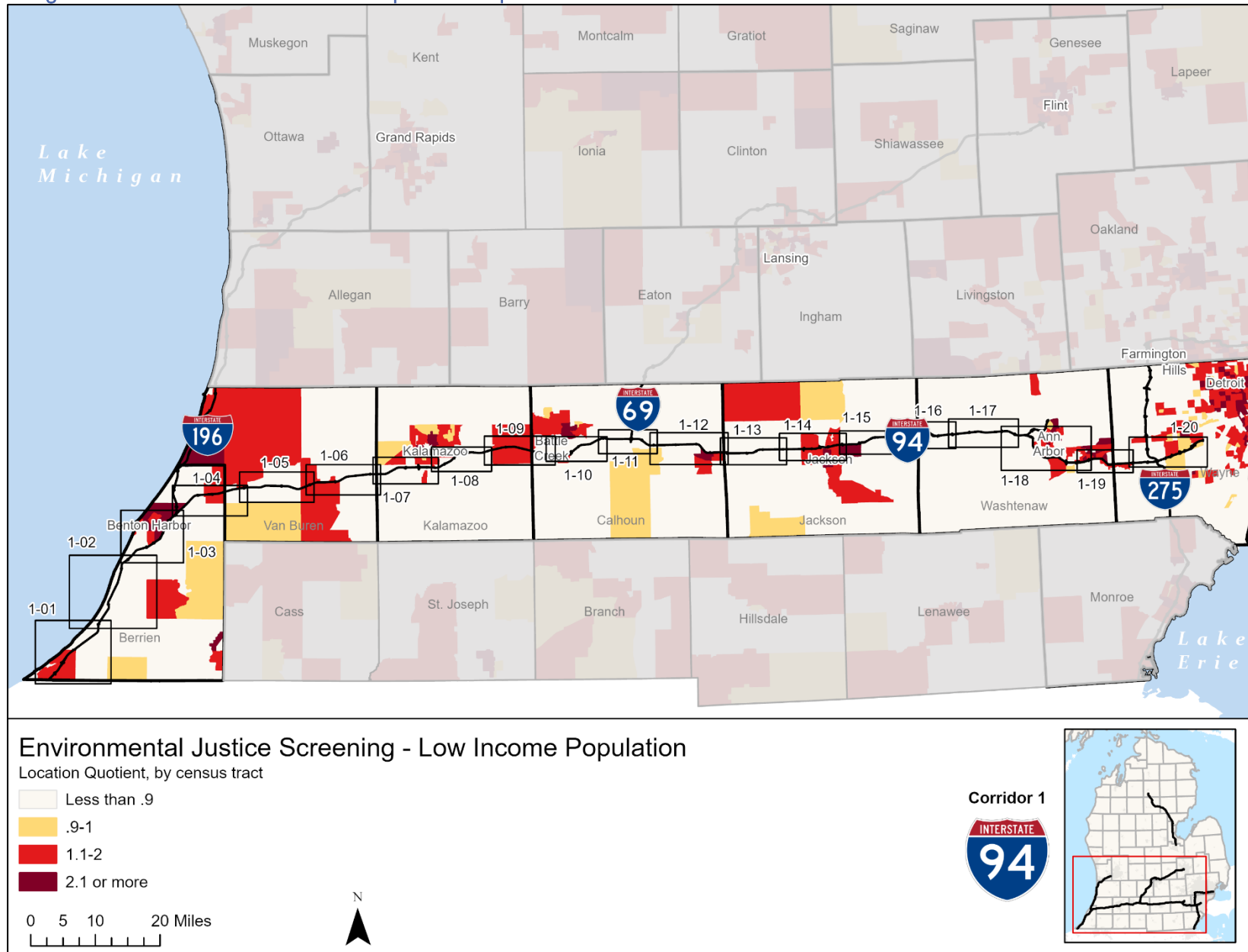


Figure 3: Corridor 1 I-94 Minority Population Map

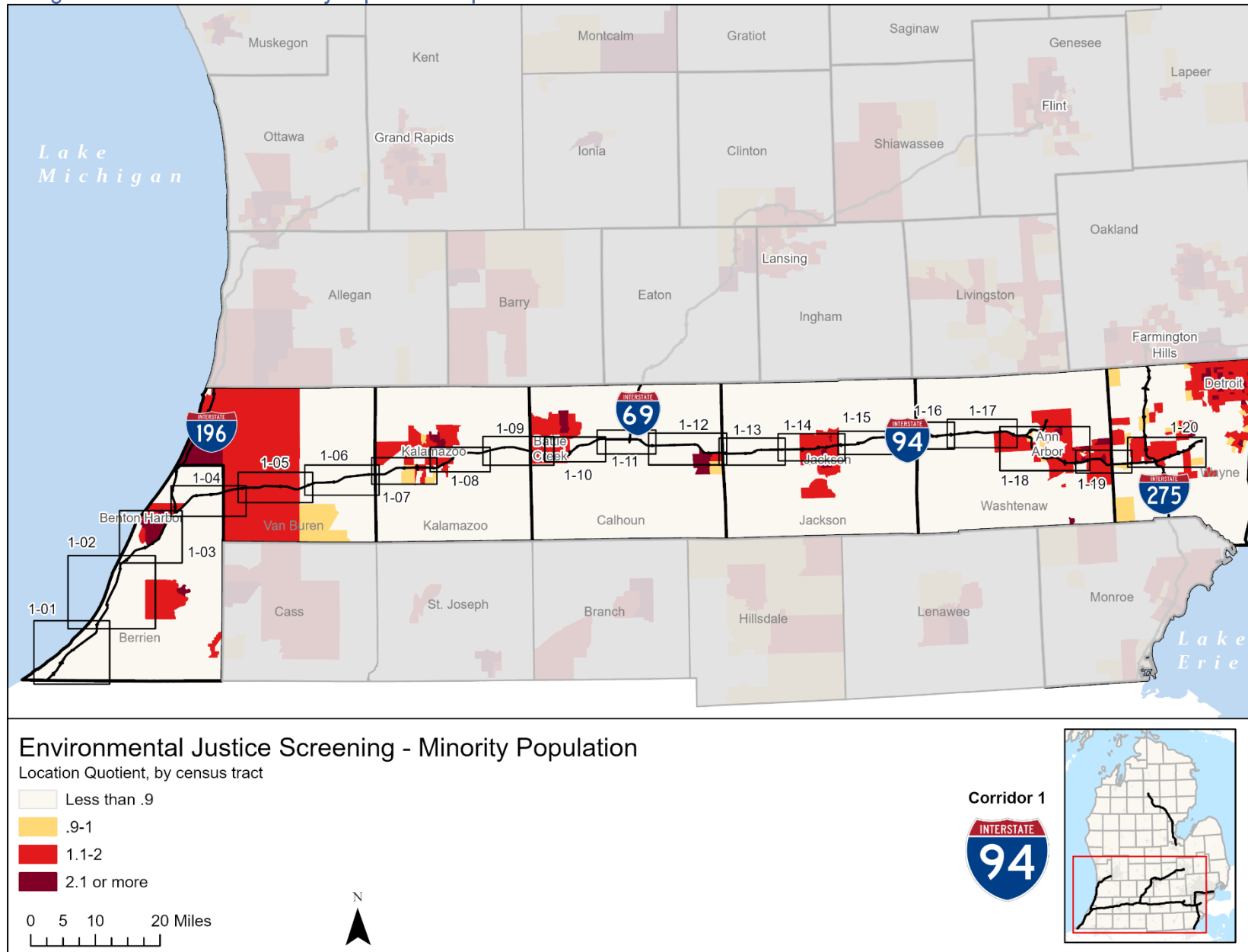
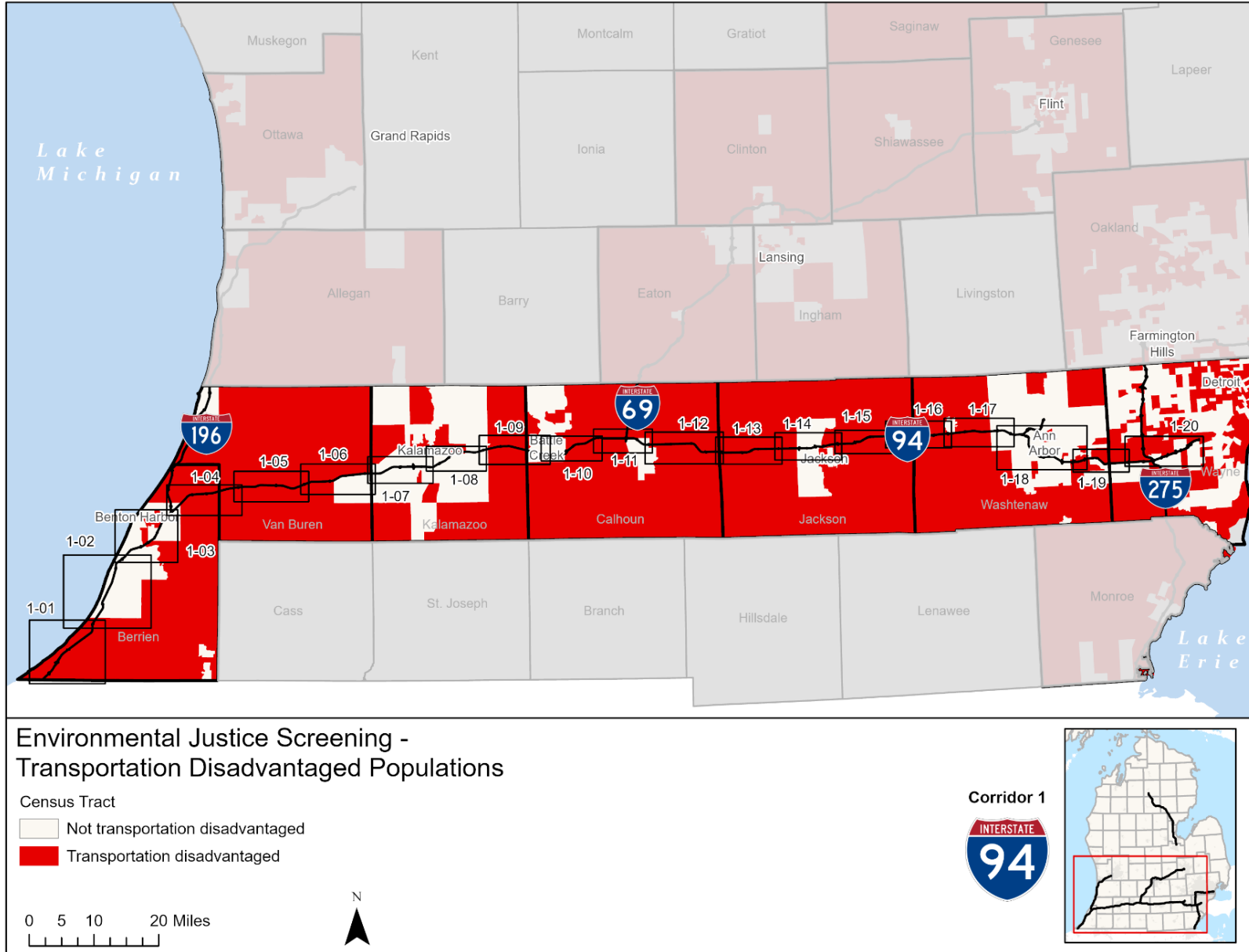


Figure 4: Corridor 1 I-94 Transportation Disadvantaged Census Tracts Map



Corridor 2: I-196

Table 2: Corridor 2 I-196 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 2 (sum of counties)	908,275	104,897; 11.5%	199,236; 21.9%	9,517; 1.0%	146,551; 16.1%	54,040; 5.9%	109,237; 12.0%
Berrien County	154,316	24,590; 15.9%	42,713; 27.7%	1,420; 0.9%	30,446; 19.7%	8,770; 5.7%	23,428; 15.2%
Van Buren County	75,587	11,027; 14.6%	16,187; 21.4%	1,291; 1.7%	13,582; 18%	4,622; 6.1%	10,586; 14.0%
Kalamazoo County	261,670	36,923; 14.1%	68,242; 26.1%	1,904; 0.7%	39,609; 15.1%	15,753; 6.0%	33,914; 13.0%
Allegan County	120,502	10,161; 8.4%	17,414; 14.5%	1,040; 0.9%	19,327; 16.0%	7,217; 6.0%	11,837; 9.8%
Ottawa County	296,200	22,196; 7.5%	54,680; 18.5%	3,862; 1.3%	43,587; 14.7%	17,678; 6.0%	29,472; 10.0%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 5: Corridor 2 I-196 Bivariate Map

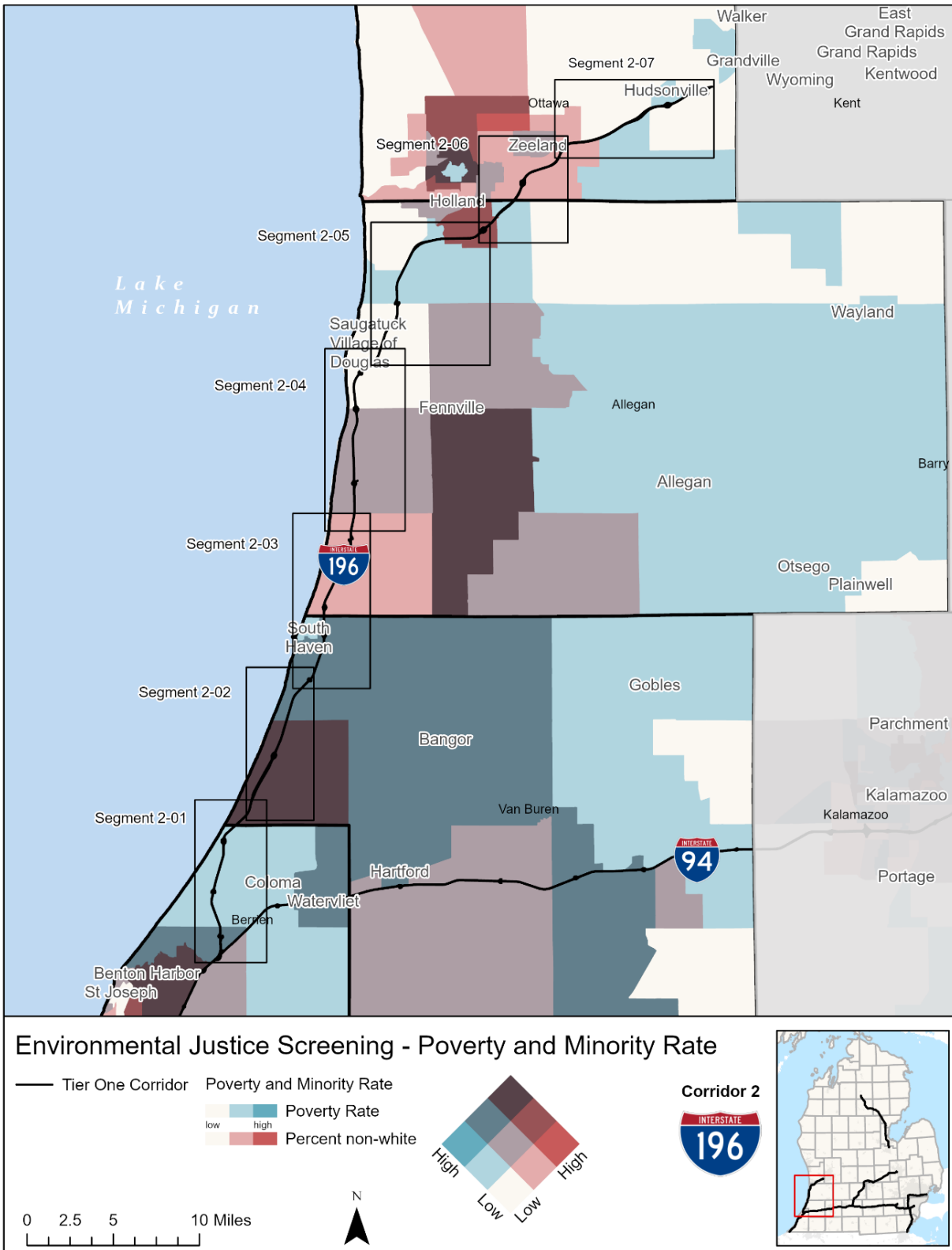


Figure 7: Corridor 2 I-196 Minority Population Map

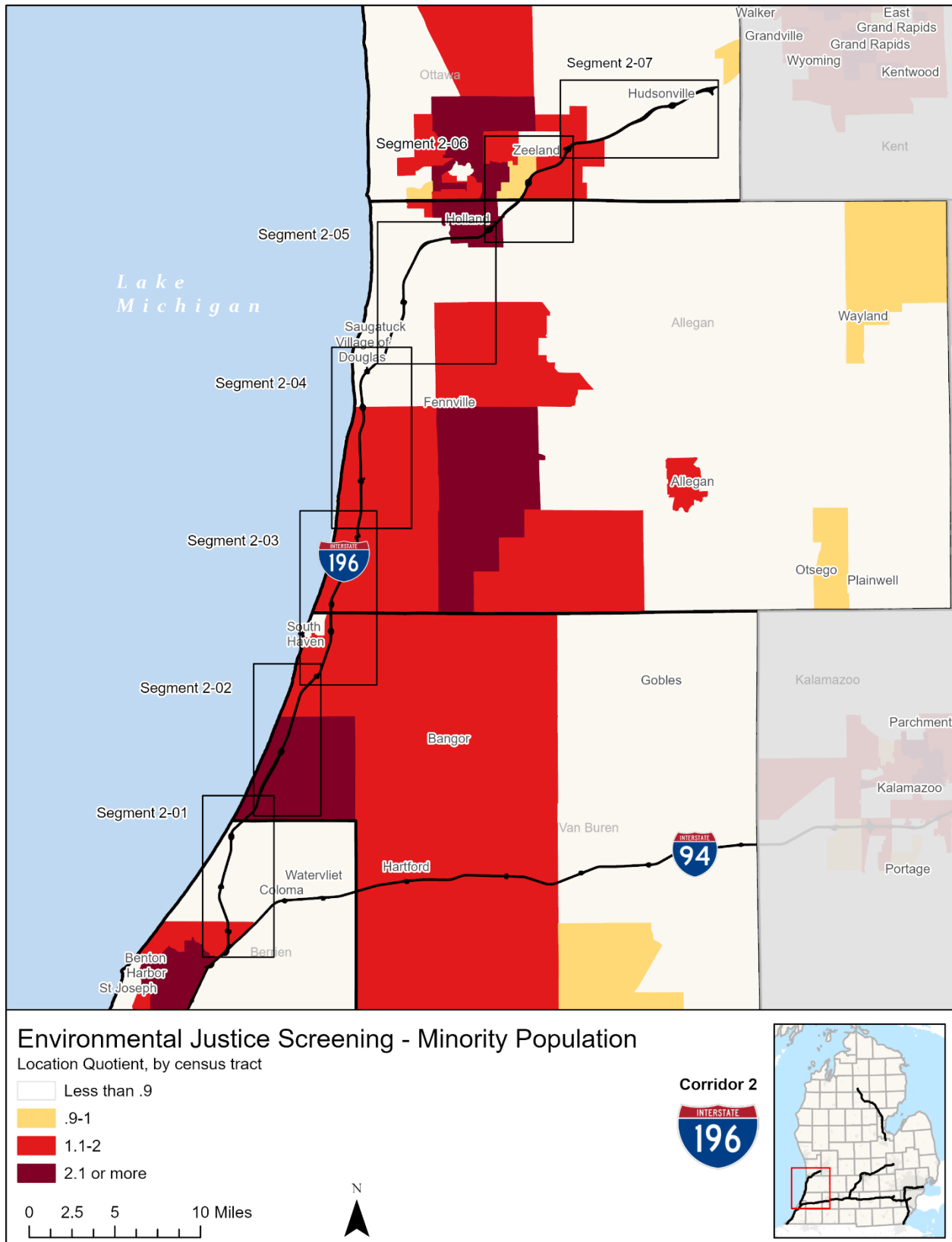
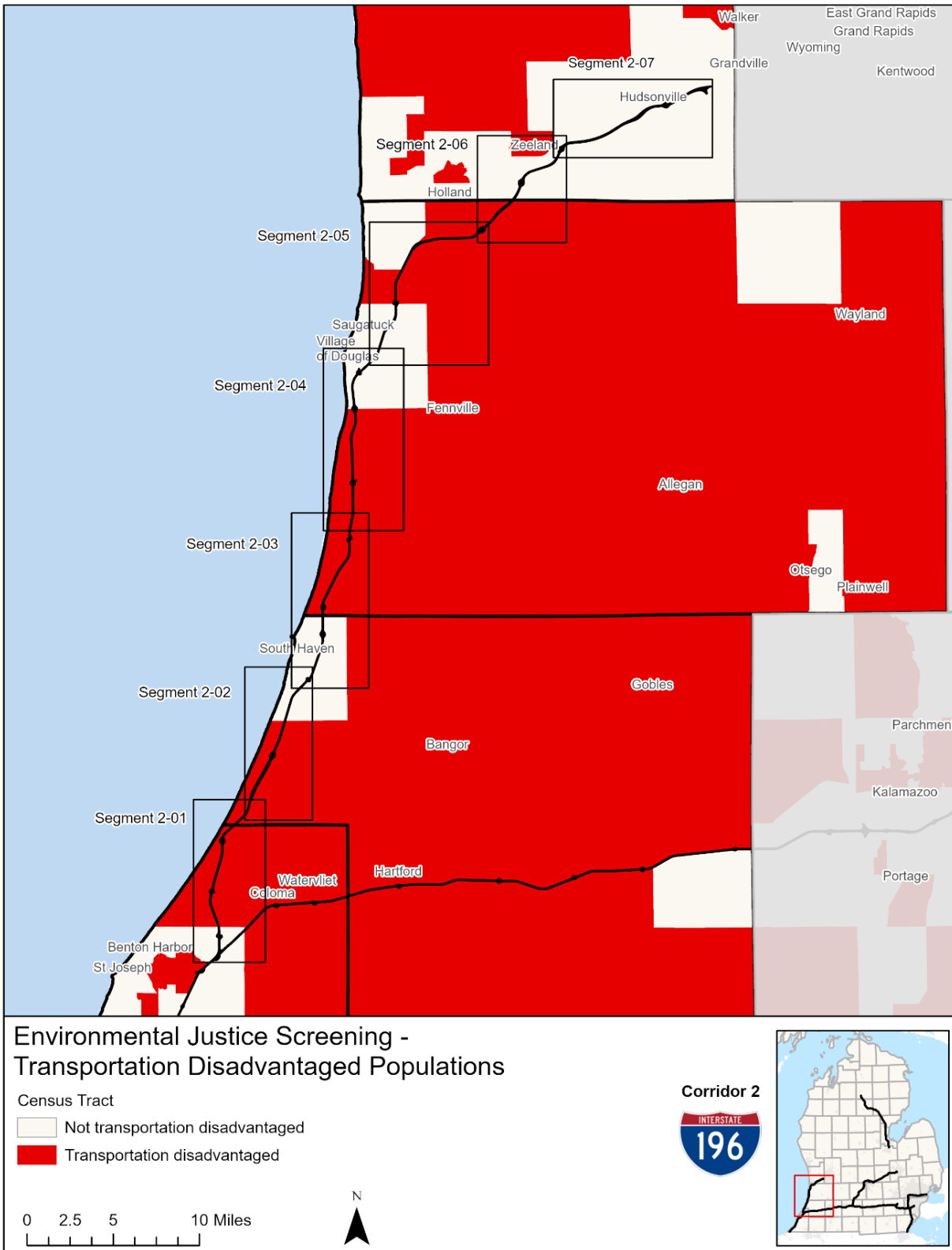


Figure 8: Corridor 2 I-196 Transportation Disadvantaged Census Tracts Map



Corridor 3: I-75

Table 3: Corridor 3 I-75 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 3 (sum of counties)	154,809	16,657; 10.8%	19,440; 12.6%	360; 0.2%	27,160; 17.5%	7,839; 5.1%	21,777; 14.1%
Monroe County	154,809	16,657; 10.8%	19,440; 12.6%	360; 0.2%	27,160; 17.5%	7,839; 5.1%	21,777; 14.1%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 9: Corridor 3 I-75 Bivariate Map

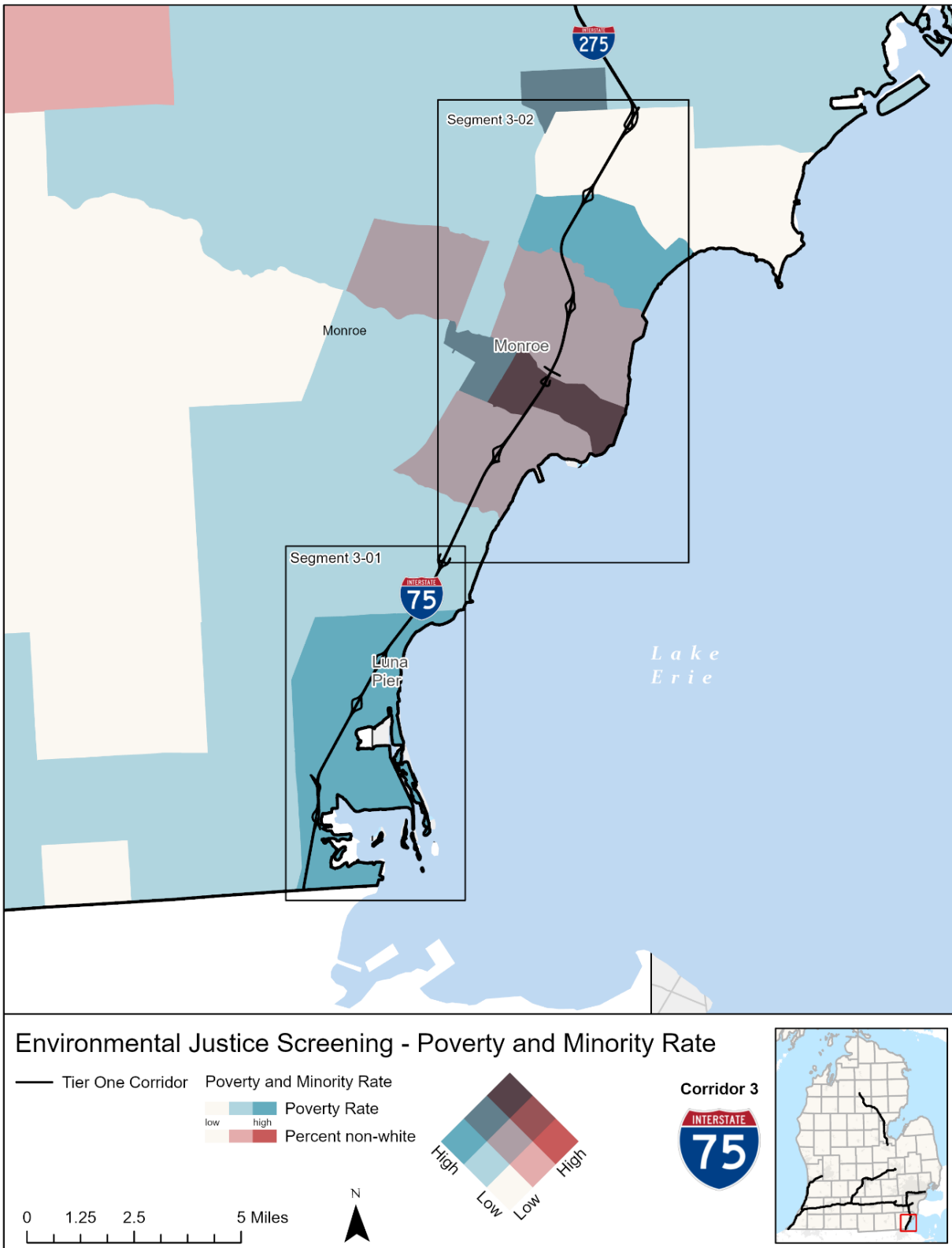


Figure 10: Corridor 3 I-75 Low Income Population Map

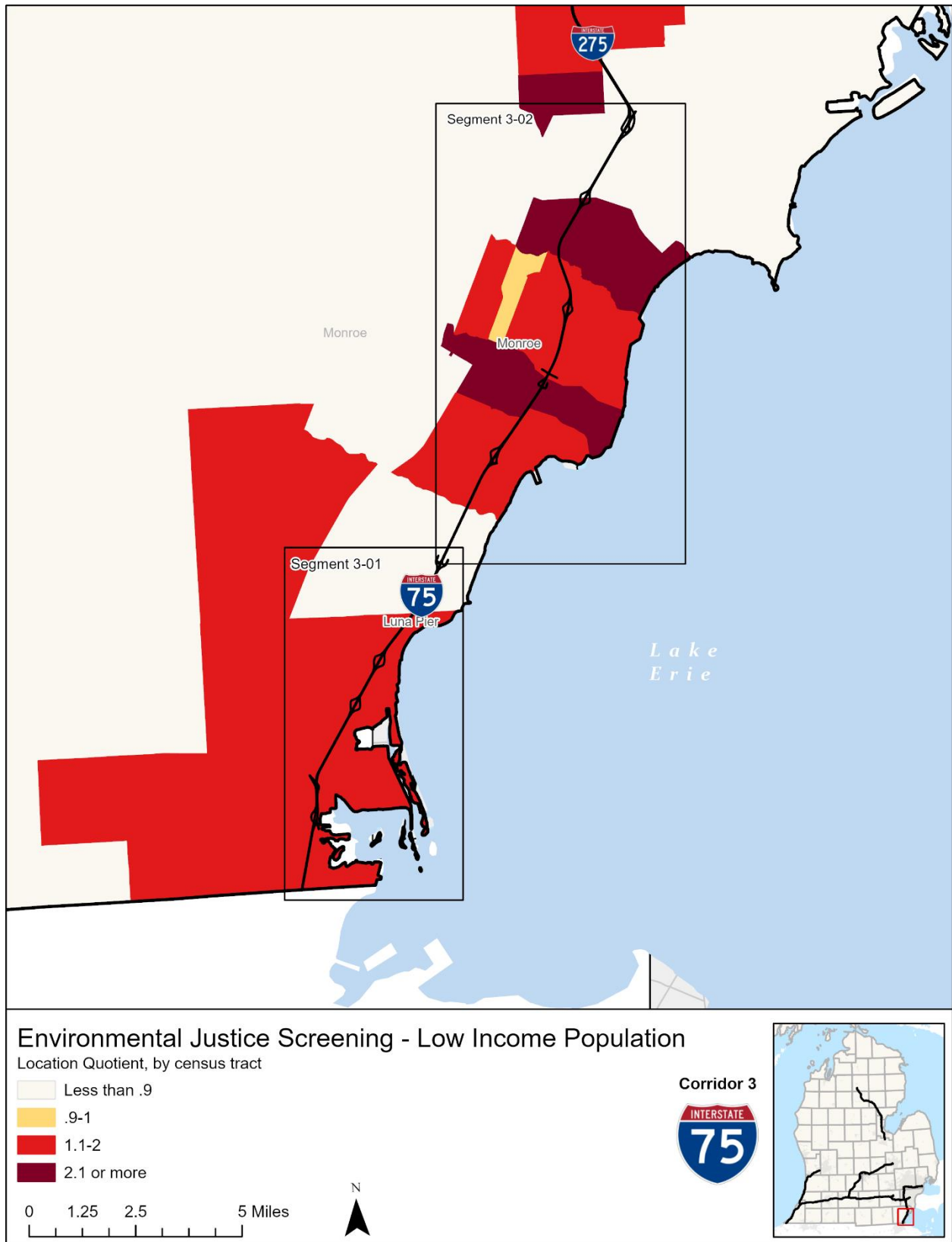


Figure 11: Corridor 3 I-75 Minority Population Map

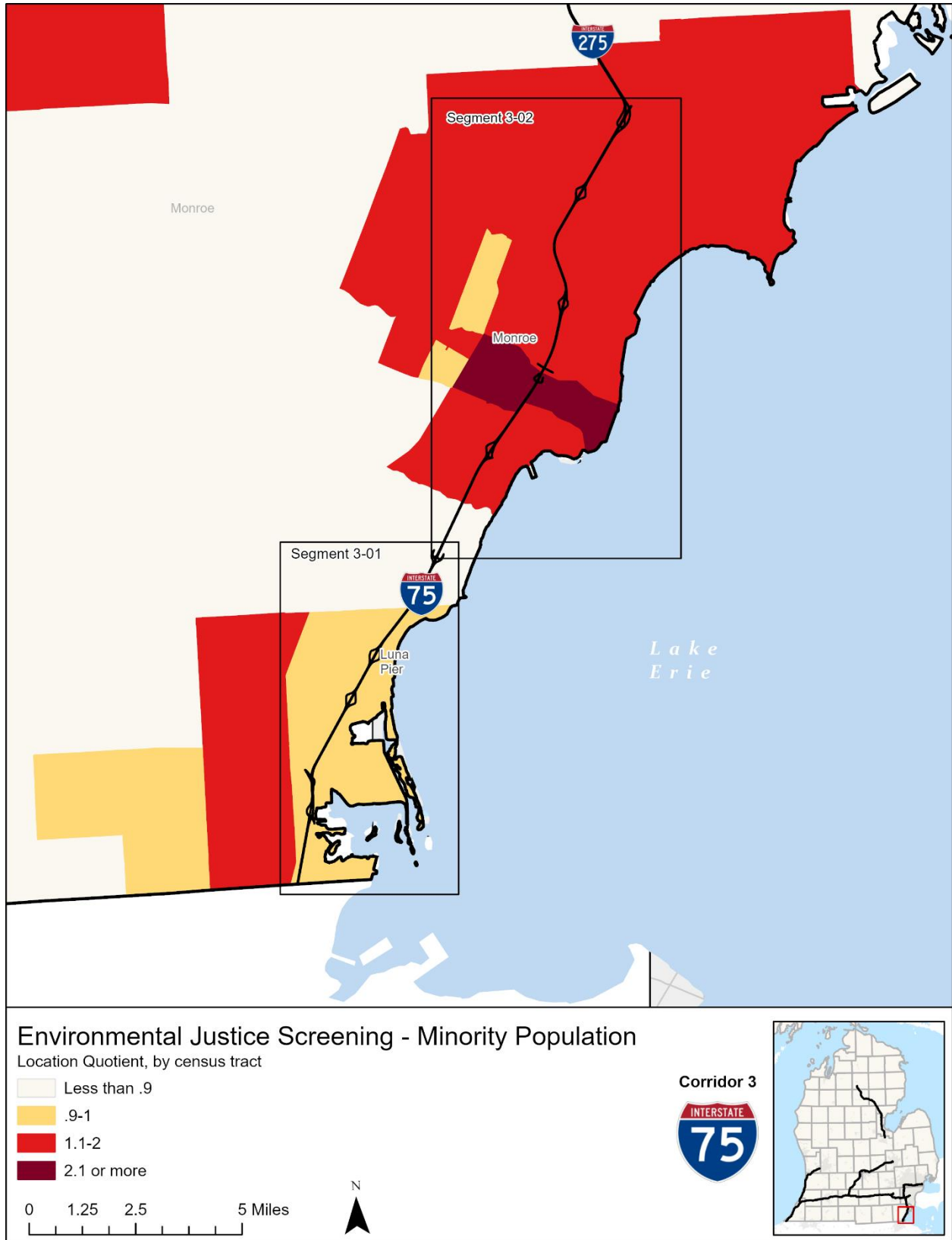
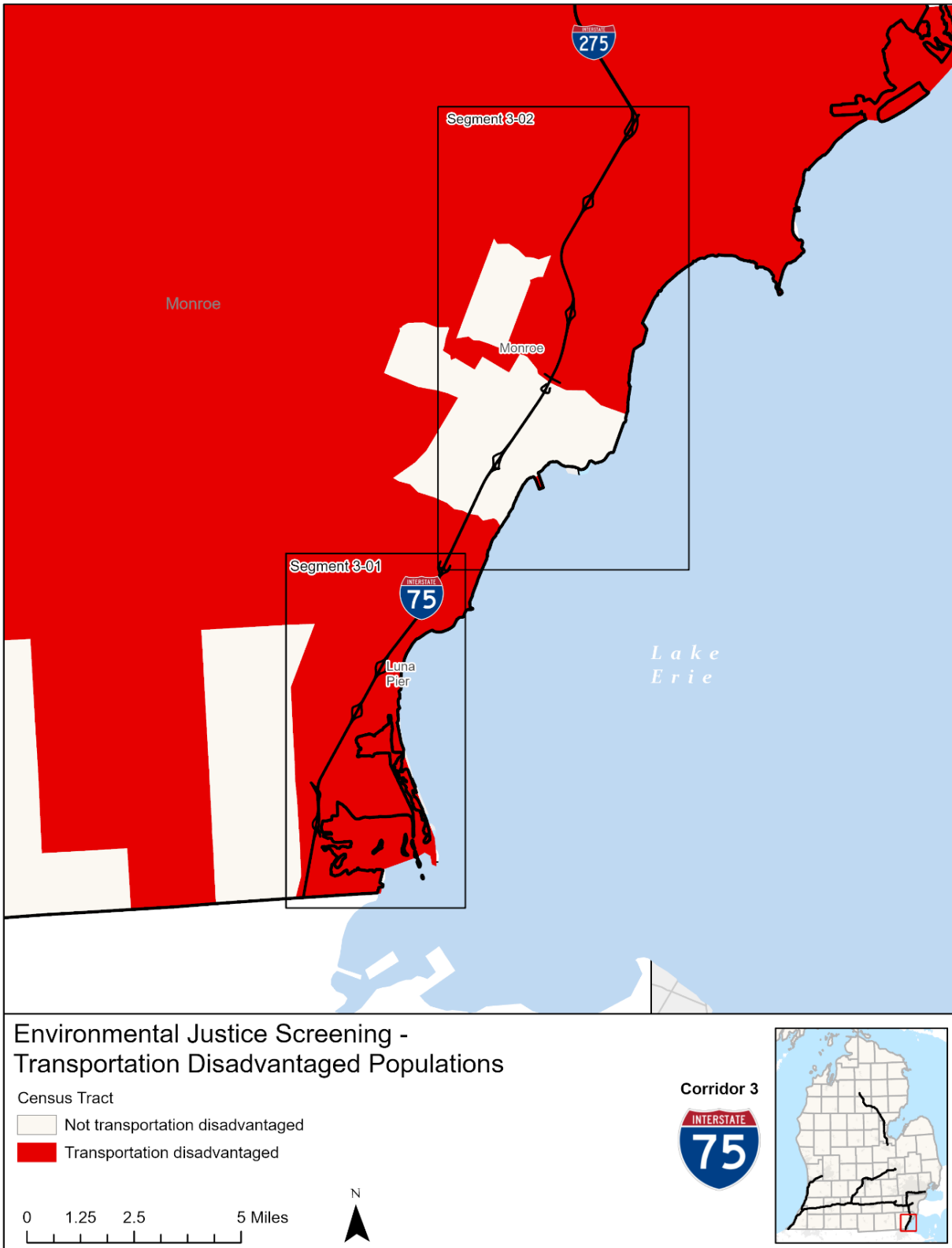


Figure 12: Corridor 3 I-75 Transportation Disadvantaged Census Tracts Map



Corridor 4: I-275

Table 4: Corridor 4 I-275 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 4 (sum of counties)	3,222,765	482,949; 15.0%	1,351,127; 41.9%	62,440; 1.9%	508,992; 15.8%	190,804; 5.9%	440,914; 13.7%
Monroe County	154,809	16,657; 10.8%	19,440; 12.6%	360; 0.2%	27,160; 17.5%	7,839; 5.1%	21,777; 14.1%
Wayne County	1,793,561	369,572; 20.6%	936,429; 52.2%	41,222; 2.3%	270,442; 15.1%	115,077; 6.4%	273,347; 15.2%
Oakland County	1,274,395	96,720; 7.6%	395,258; 31.0%	20,858; 1.6%	211,390; 16.6%	67,888; 5.3%	145,790; 11.4%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 13: Corridor 4 I-275 Bivariate Map

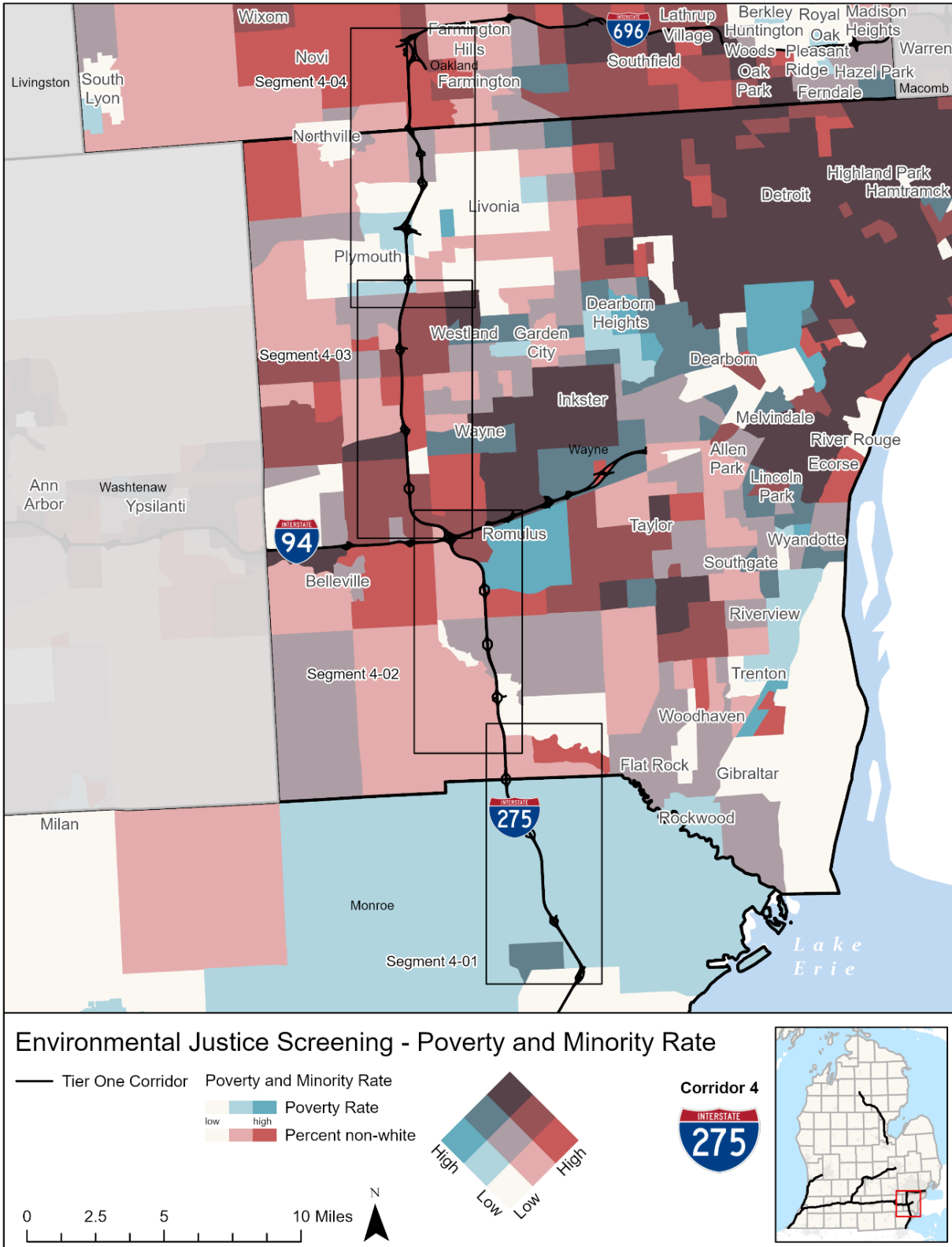


Figure 14: Corridor 4 I-275 Low Income Population Map

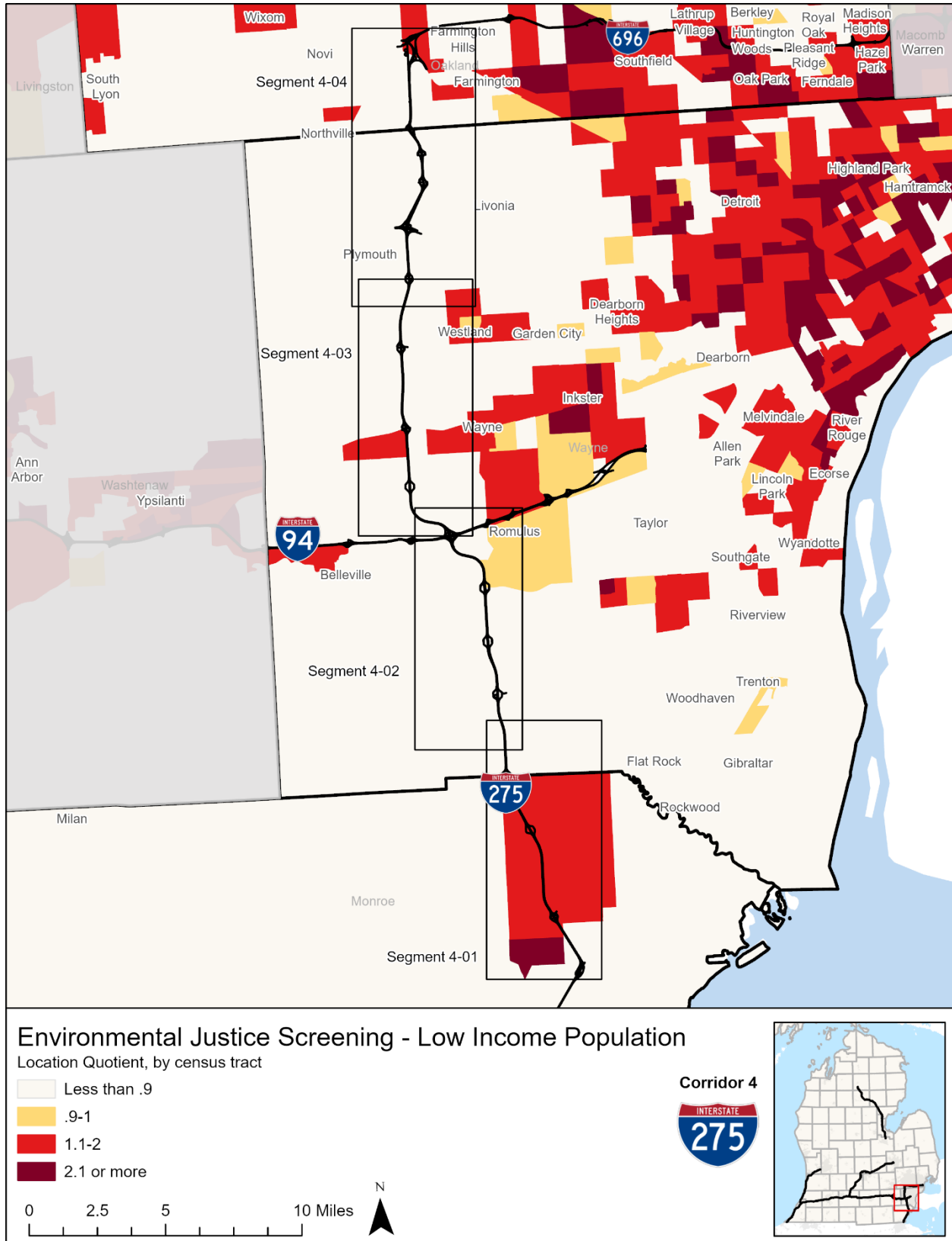


Figure 15: Corridor 4 I-275 Minority Population Map

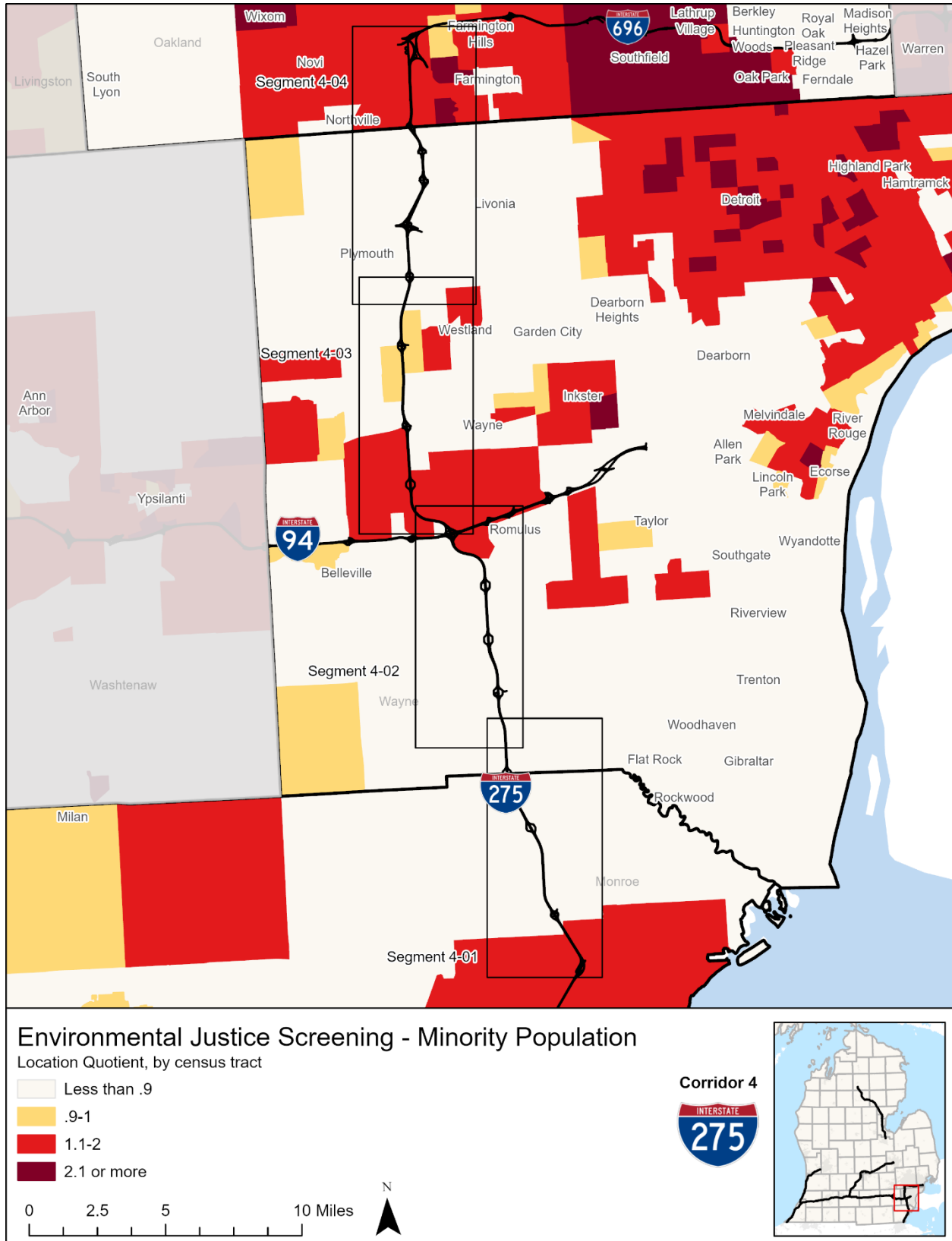
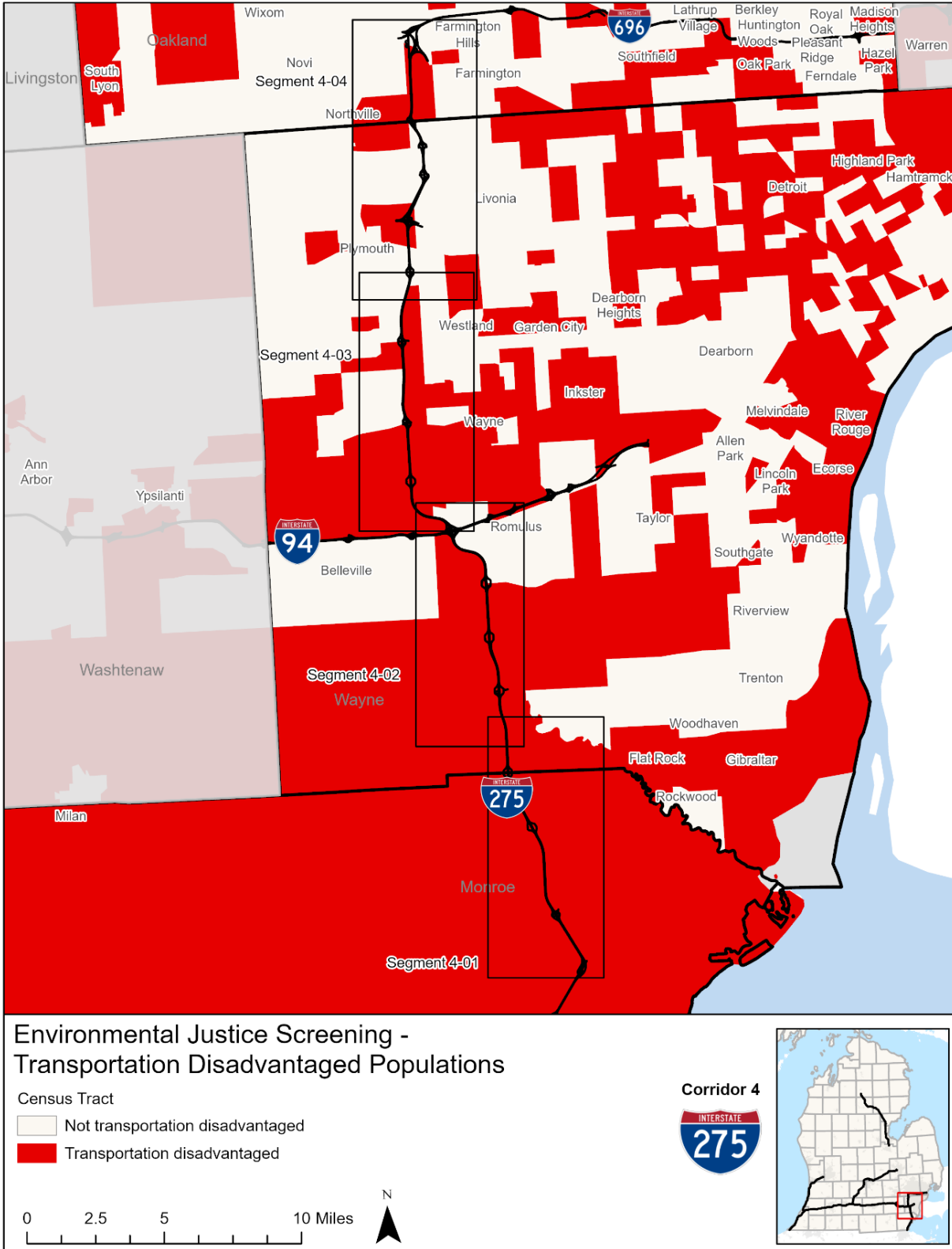


Figure 16: Corridor 4 I-275 Transportation Disadvantaged Census Tracts Map



Corridor 5: I-69

Table 5: Corridor 5 I-69 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 5 (sum of counties)	1,081,818	167,427; 15.5%	289,045; 26.7%	8,713; 0.8%	180,269; 16.7%	62,237; 5.8%	167,348; 15.5%
Calhoun County	134,310	21,667; 16.1%	33,925; 25.3%	1,257; 0.9%	23,728; 17.7%	8,172; 6.1%	19,666; 14.6%
Eaton County	109,175	9,281; 8.5%	21,975; 20.1%	828; 0.8%	20,205; 18.5%	5,997; 5.5%	17,959; 16.4%
Ingham County	284,900	50,108; 17.6%	93,349; 32.8%	4,635; 1.6%	39,551; 13.9%	16,136; 5.7%	37,705; 13.2%
Clinton County	79,128	6,465; 8.2%	11,213; 14.2%	345; 0.4%	13,394; 16.9%	4,395; 5.6%	9,813; 12.4%
Shiawassee County	68,094	7,374; 10.8%	5,855; 8.6%	71; 0.1%	12,456; 18.3%	3,576; 5.3%	10,733; 15.8%
Genesee County	406,211	72,532; 17.9%	122,728; 30.2%	1,577; 0.4%	70,935; 17.5%	23,961; 5.9%	71,472; 17.6%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 17: Corridor 5 I-69 Bivariate Map

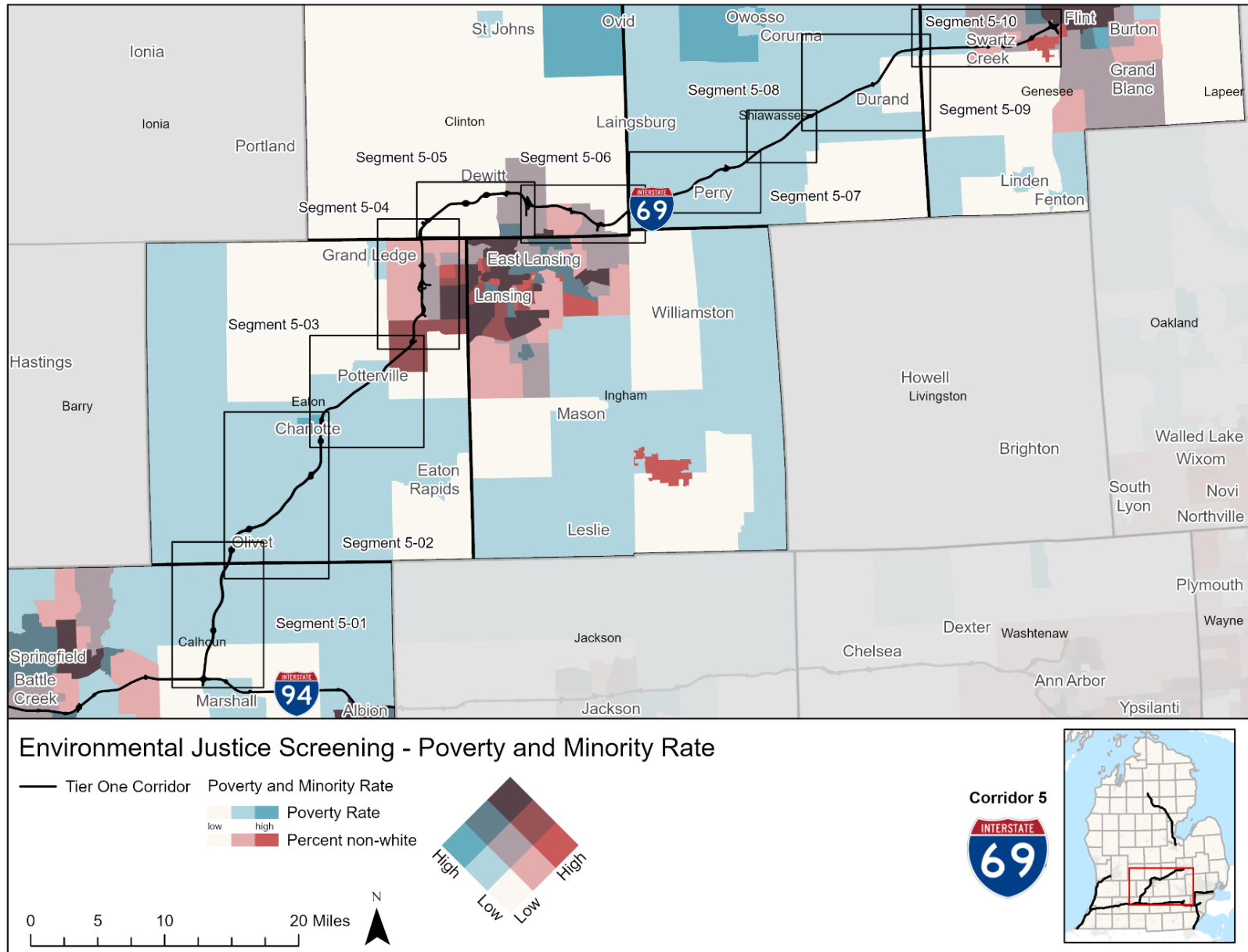


Figure 18: Corridor 5 I-69 Low Income Population Map

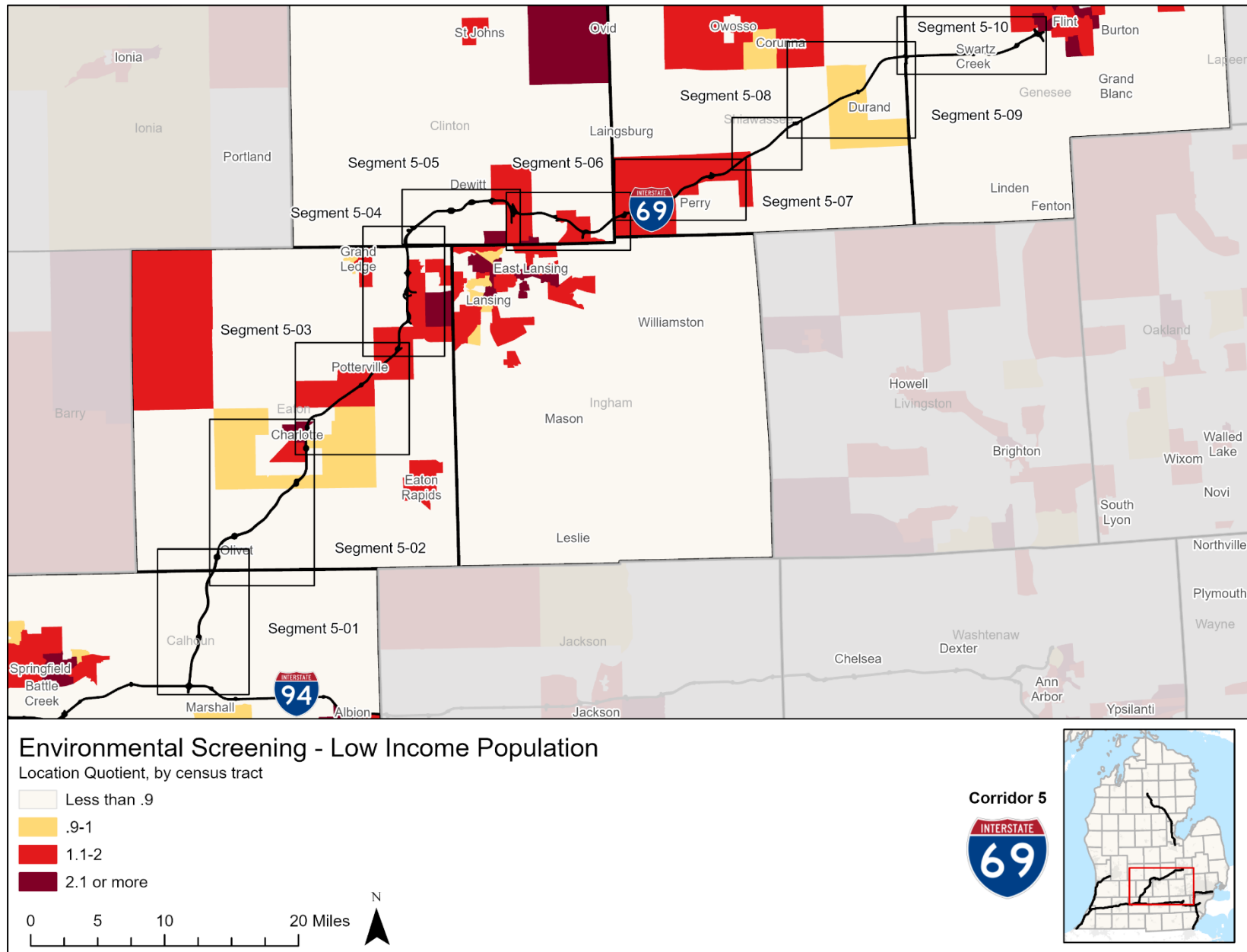


Figure 19: Corridor 5 I-69 Minority Population Map

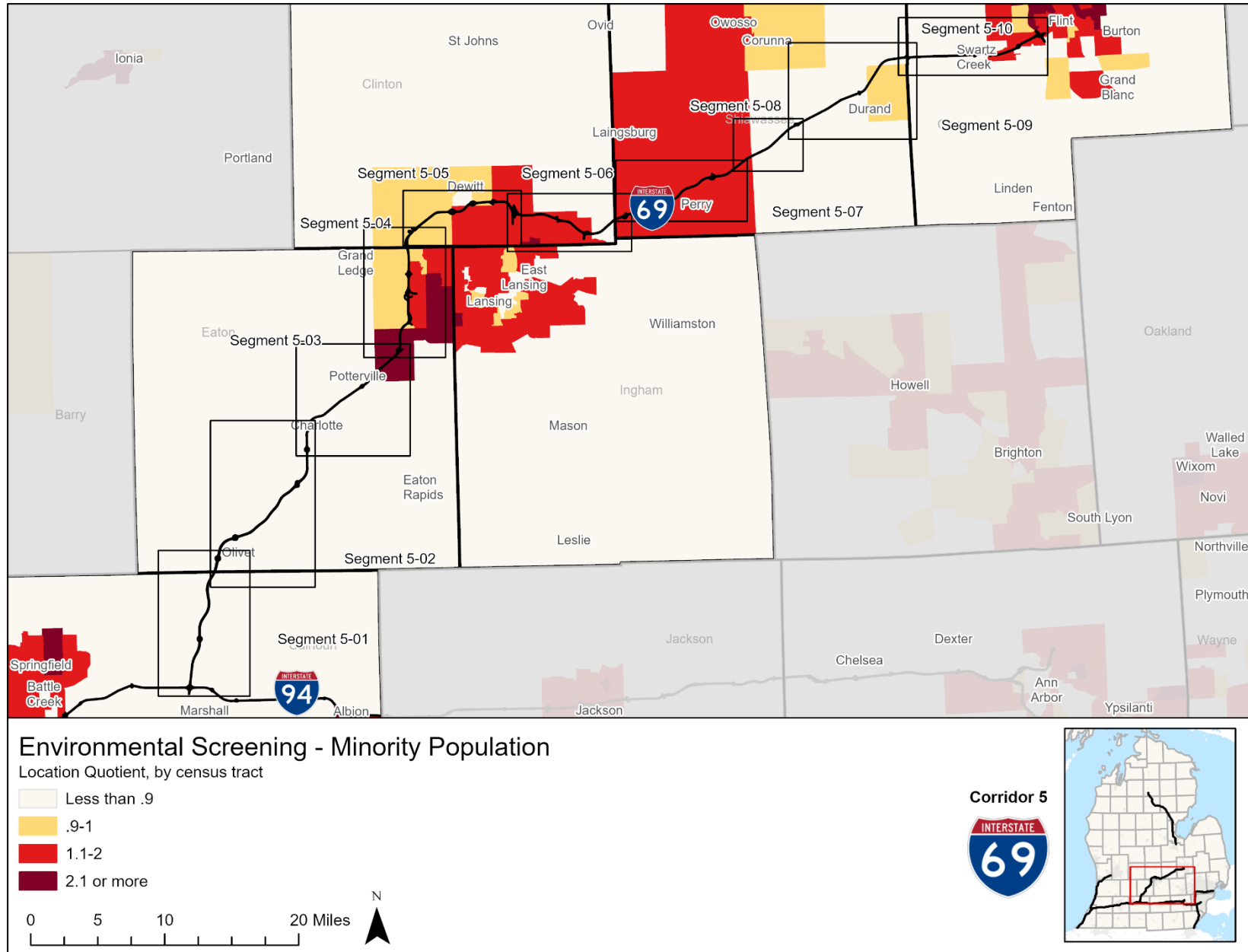
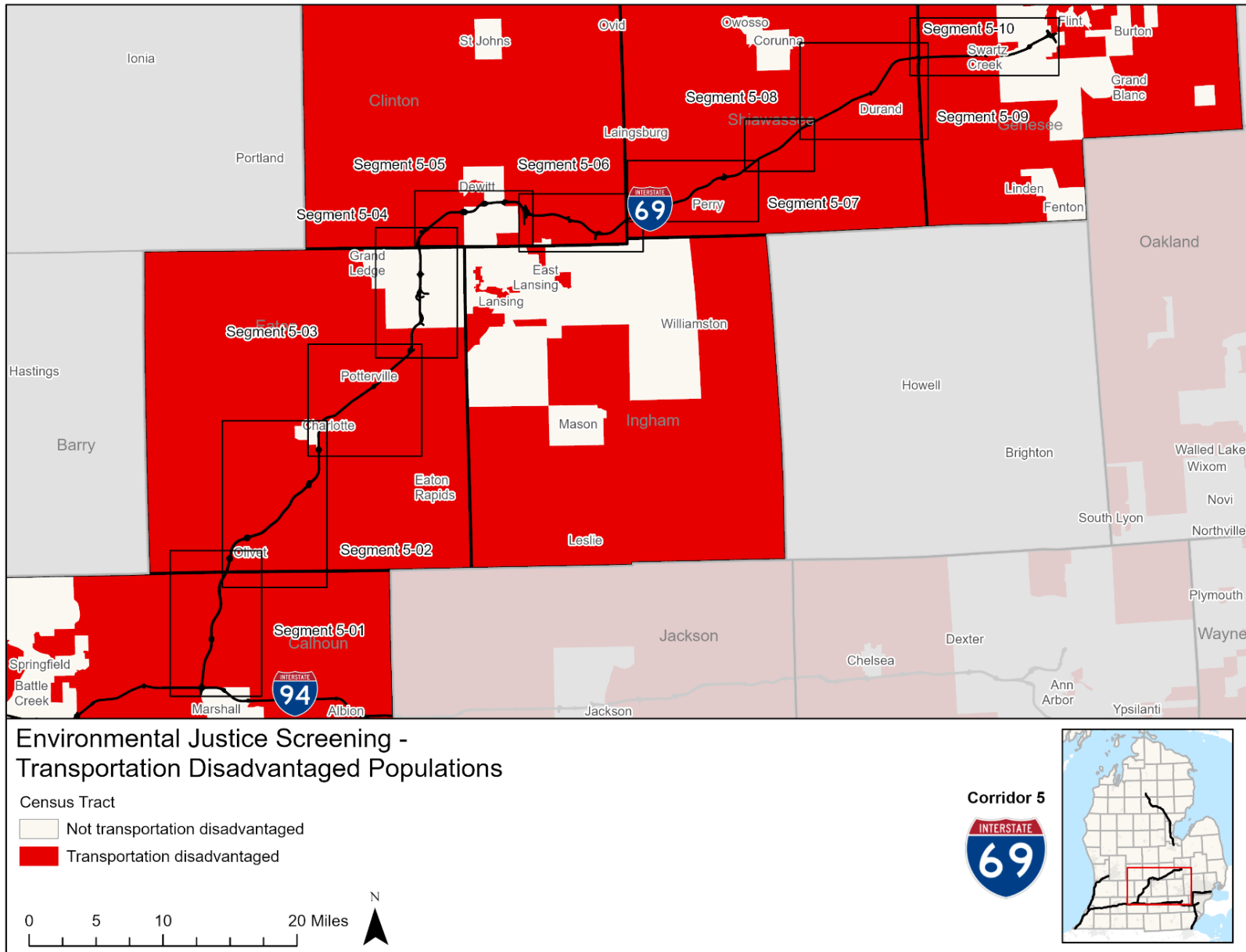


Figure 20: Corridor 5 I-69 Transportation Disadvantaged Census Tracts Map



Corridor 6: M-14

Table 6: Corridor 6 M-14 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 6 (sum of counties)	372,258	48,329; 13.0%	120,038; 32.2%	4,965; 1.3%	51,337; 13.8%	17,977; 4.8%	34,799; 9.3%
Washtenaw County	372,258	48,329; 13.0%	120,038; 32.2%	4,965; 1.3%	51,337; 13.8%	17,977; 4.8%	34,799; 9.3%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 21: Corridor 6 M-14 Bivariate Map

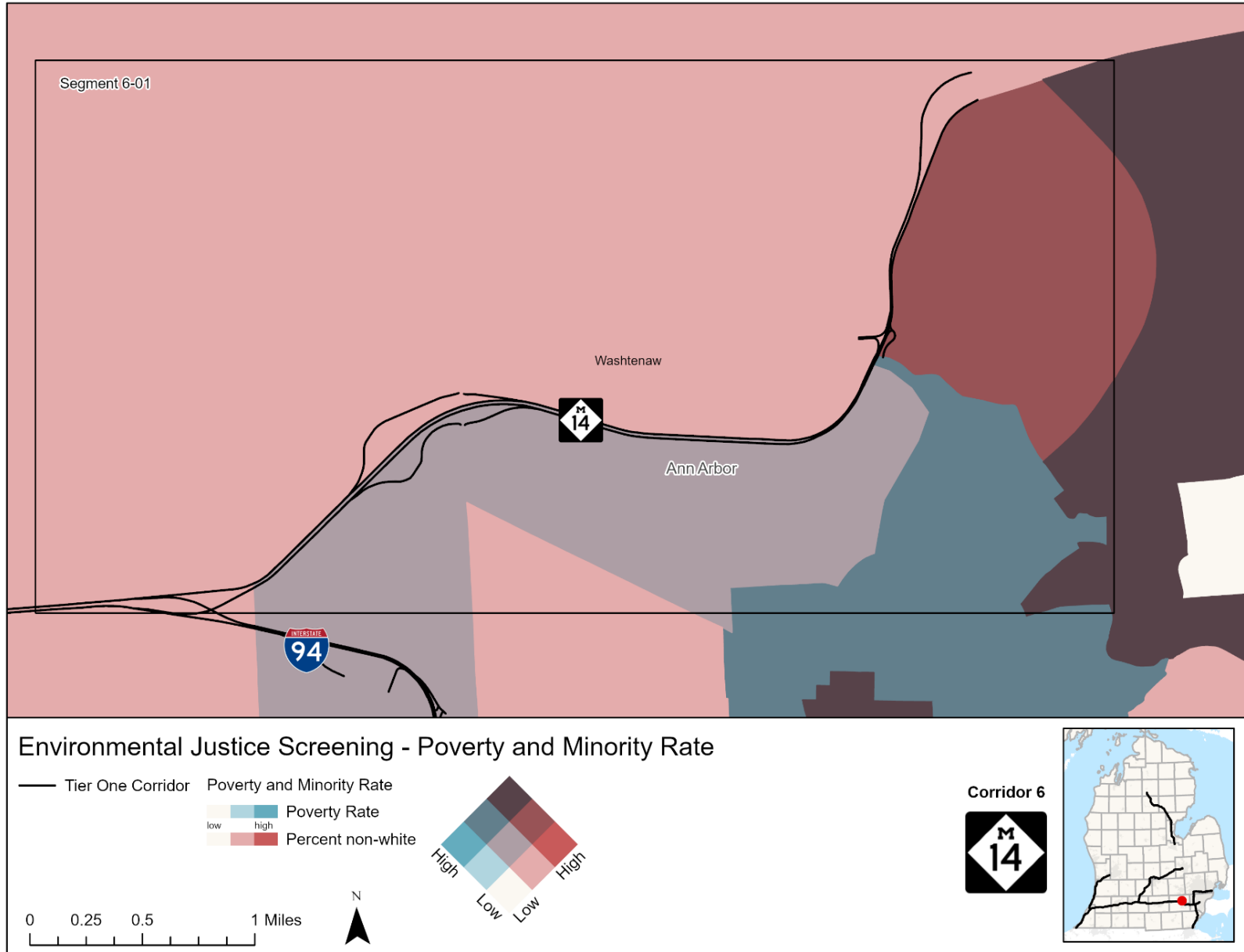


Figure 22: Corridor 6 M-14 Low Income Population Map

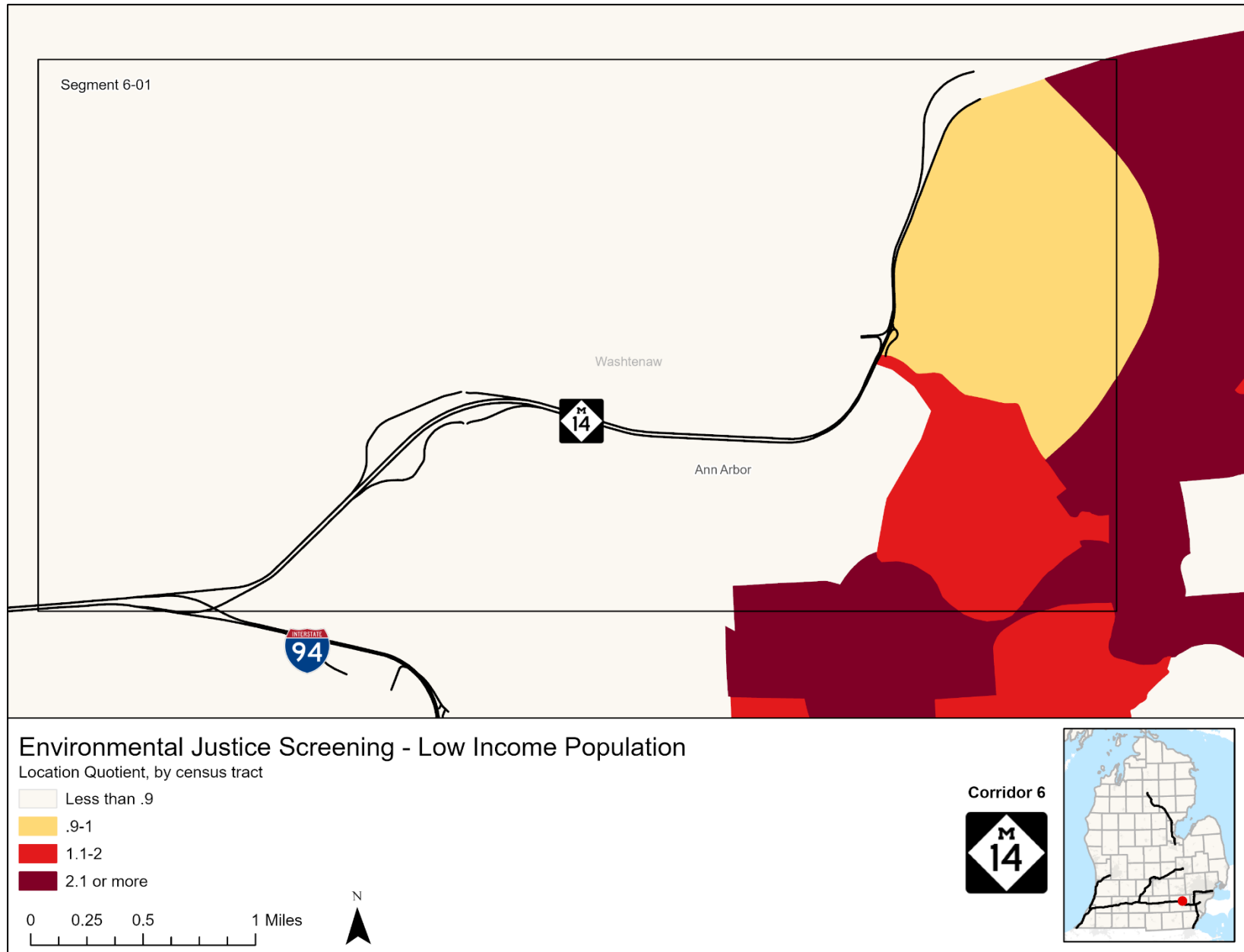


Figure 23: Corridor 6 M-14 Minority Population Map

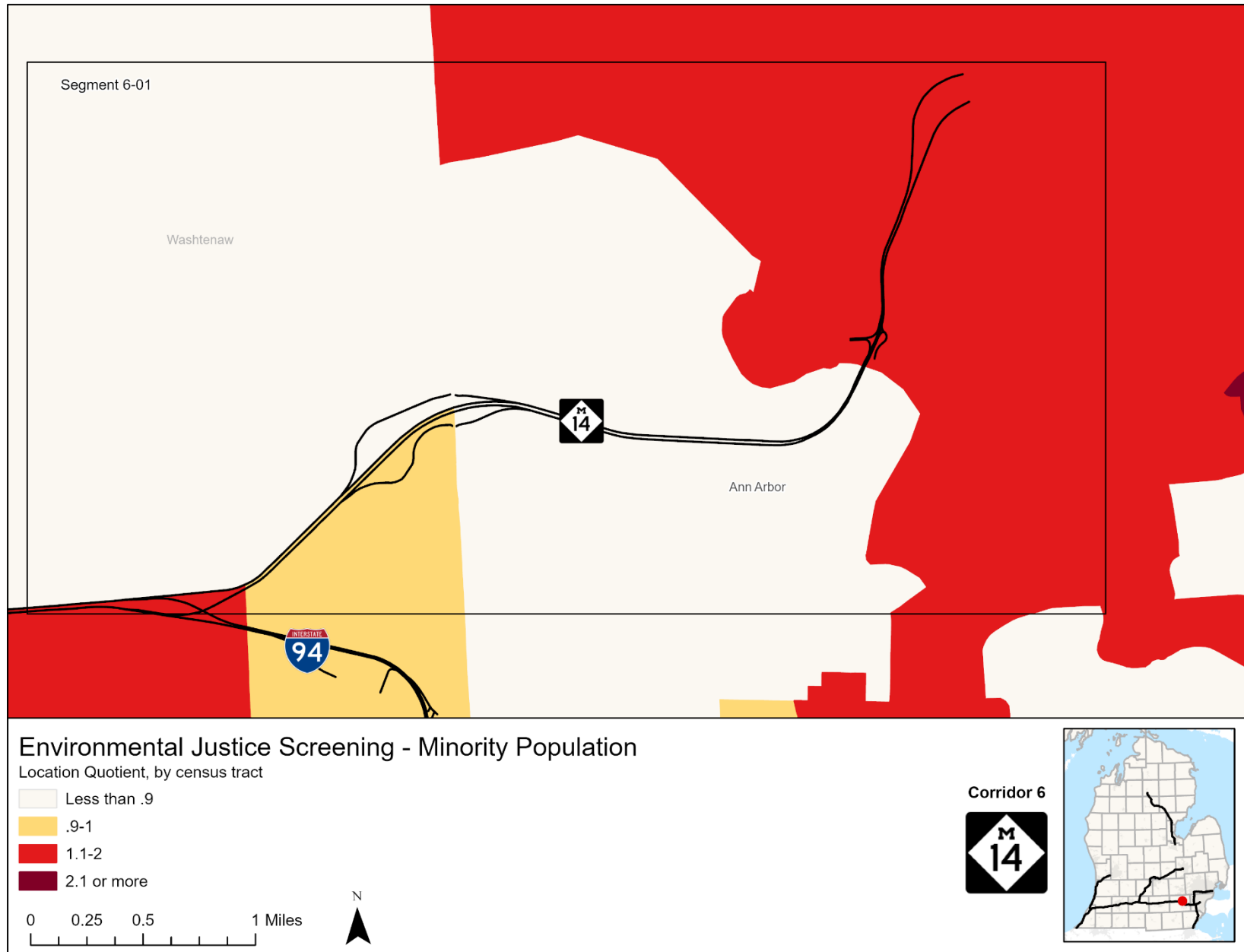
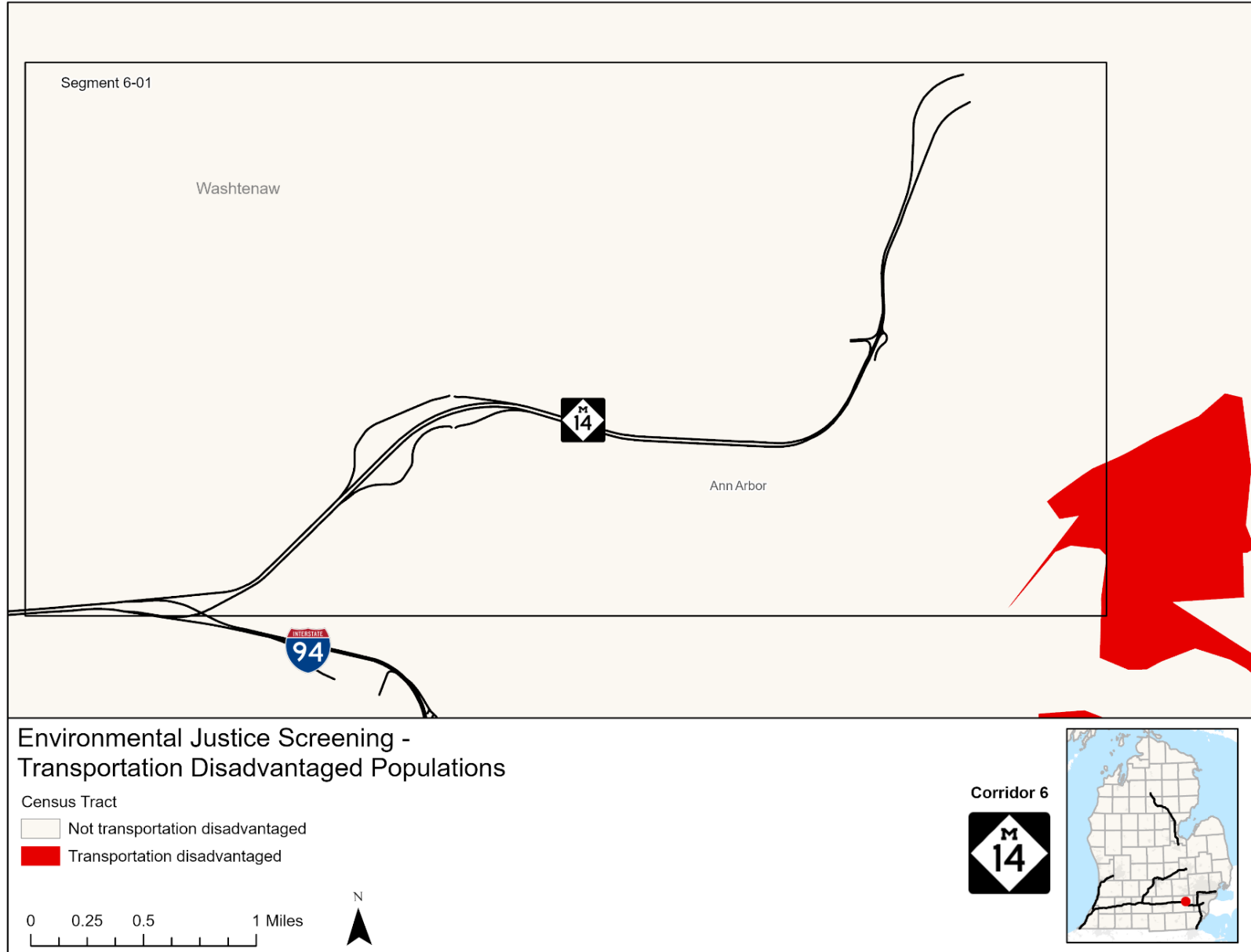


Figure 24: Corridor 6 M-14 Transportation Disadvantaged Census Tracts Map



Corridor 7: I-696

Table 7: Corridor 7 I-696 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 7 (sum of counties)	2,155,612	182,126; 8.4%	611,234; 28.4%	40,215; 1.9%	359,412; 16.7%	115,660; 5.4%	266,500; 12.4%
Oakland County	1,274,395	96,720; 7.6%	395,258; 31.0%	20,858; 1.6%	211,390; 16.6%	67,888; 5.3%	145,790; 11.4%
Macomb County	881,217	85,406; 9.7%	215,976; 24.5%	19,357; 2.2%	148,022; 16.8%	47,772; 5.4%	120,710; 13.7%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 25: Corridor 7 I-696 Bivariate Map

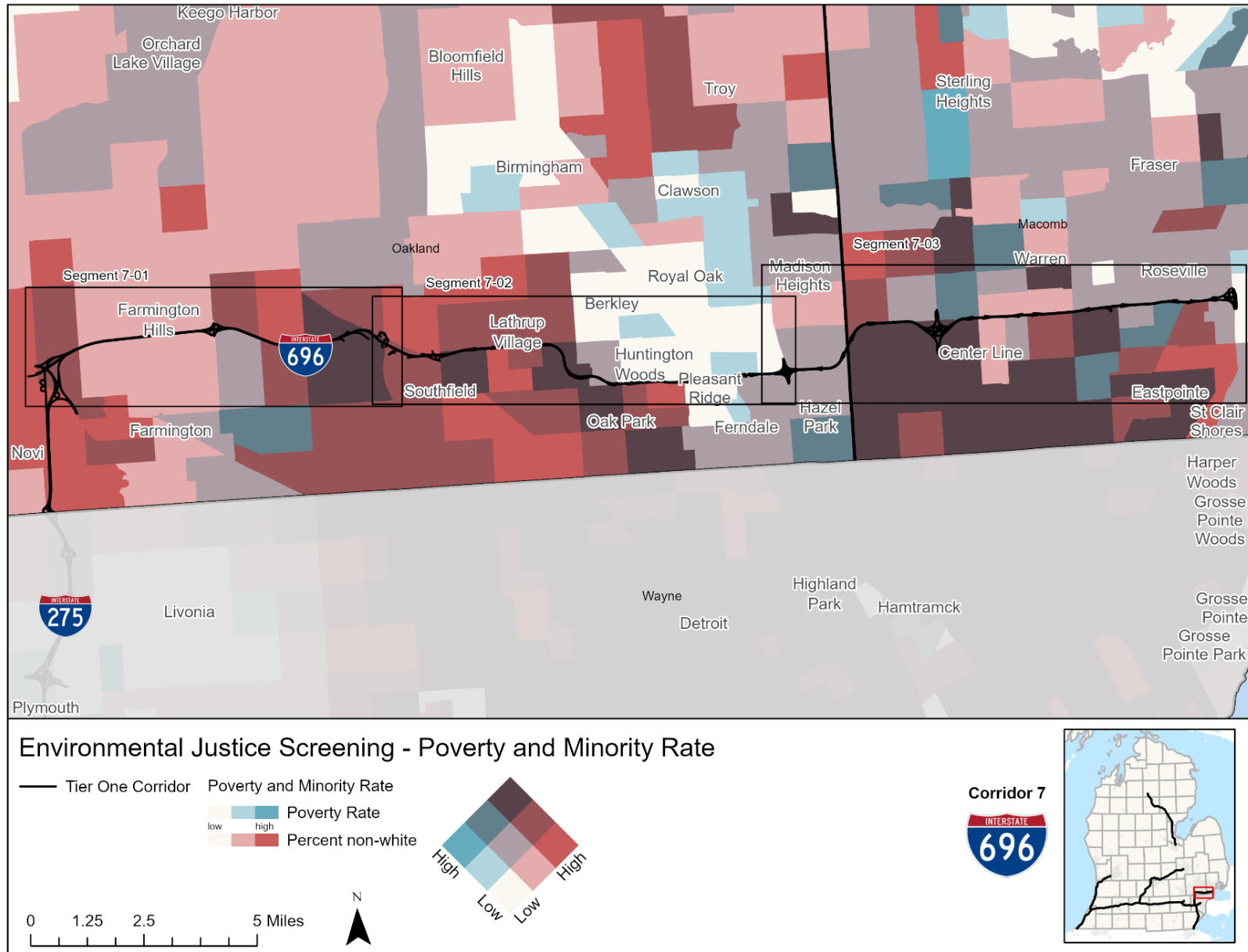


Figure 26: Corridor 7 I-696 Low Income Population Map

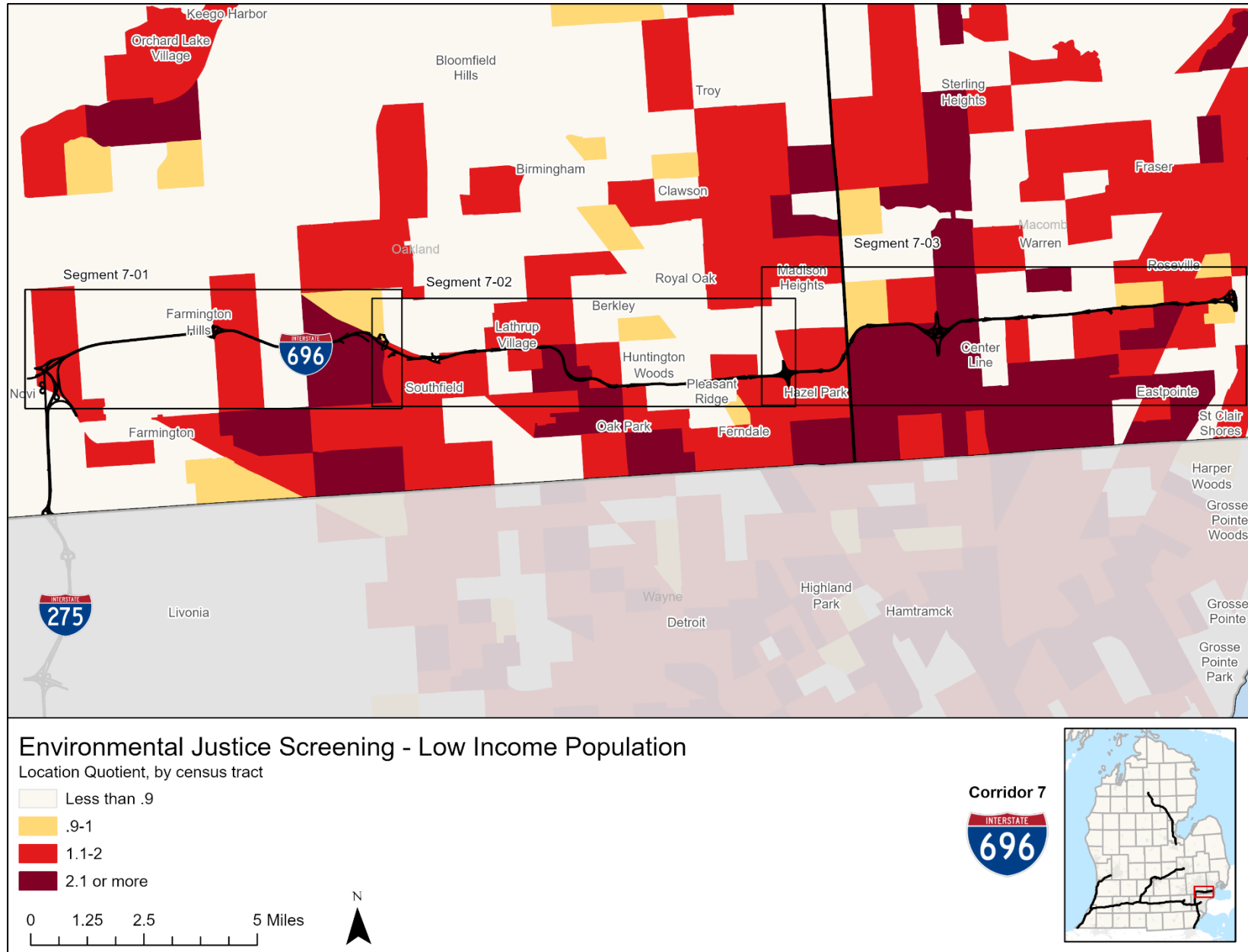


Figure 27: Corridor 7 I-696 Minority Population Map

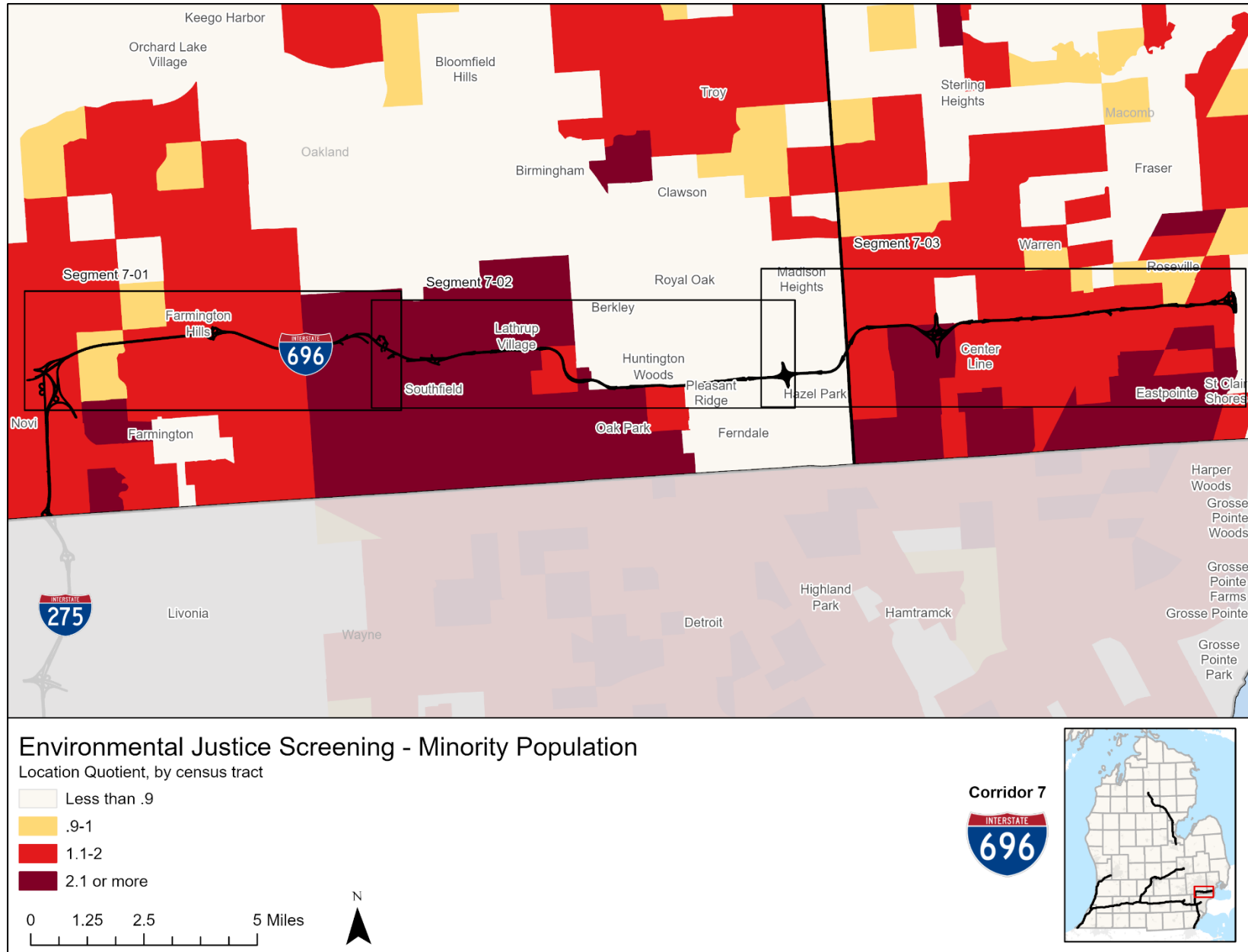
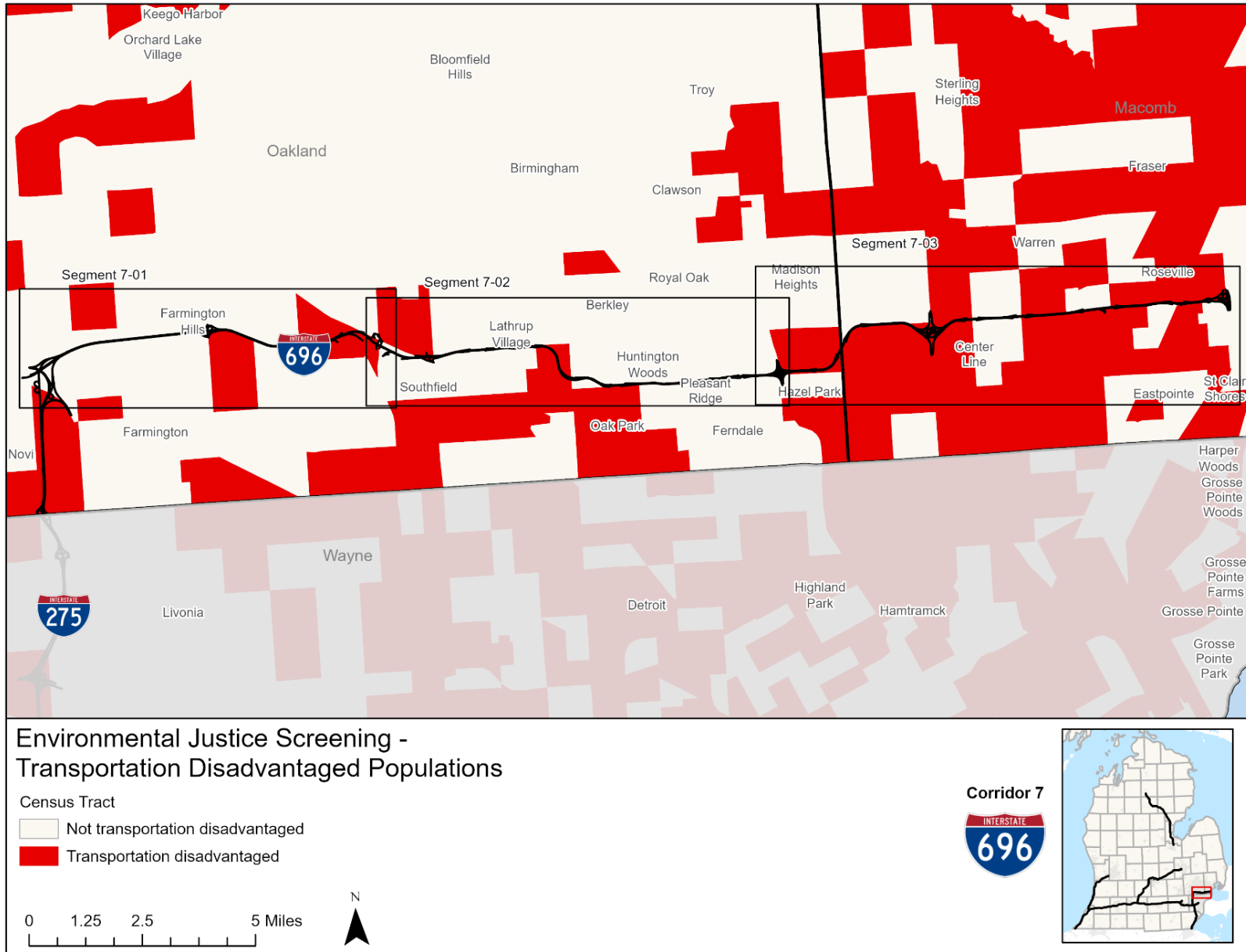


Figure 28: Corridor 7 I-696 Transportation Disadvantaged Census Tracts Map



Corridor 8: I-75

Table 8: Corridor 8 I-75 Demographic Summary Table

	Total Population	Low Income	Minority	Limited English Proficiency	Age 65 Years or Older	Children Under 5	Persons with a Disability
Corridor 8 (sum of counties)	607,672	104,083; 17.1%	142,452; 23.4%	2,121; 0.3%	119,048; 19.6%	33,559; 5.5%	109,271; 18.0%
Genesee County	406,211	72,532; 17.9%	122,728; 30.2%	1,577; 0.4%	70,935; 17.5%	23,961; 5.9%	71,472; 17.6%
Bay County	103,856	16,500; 15.9%	13,045; 12.6%	127; 0.1%	20,944; 20.2%	5,072; 4.9%	15,658; 15.1%
Arenac County	15,002	2,146; 14.3%	1,083; 7.2%	55; 0.4%	3,741; 24.9%	687; 4.6%	2,852; 19.0%
Gladwin County	25,386	3,783; 14.9%	1,556; 6.1%	173; 0.7%	6,775; 26.7%	1,369; 5.4%	5,242; 20.6%
Ogemaw County	20,770	3,280; 15.8%	1,502; 7.2%	62; 0.3%	5,355; 25.8%	921; 4.4%	4,854; 23.4%
Roscommon County	23,459	3,663; 15.6%	1,576; 6.7%	93; 0.4%	7,786; 33.2%	855; 3.6%	6,218; 26.5%
Crawford County	12,988	2,179; 16.8%	962; 7.4%	34; 0.3%	3,512; 27.0%	694; 5.3%	2,975; 22.9%
Michigan	10,077,331	1,337,256; 13.3%	2,781,680; 27.6%	134,740; 1.3%	1,712,841; 17.0%	568,326; 5.7%	1,400,782; 13.9%

Figure 29: Corridor 8 I-75 Bivariate Map

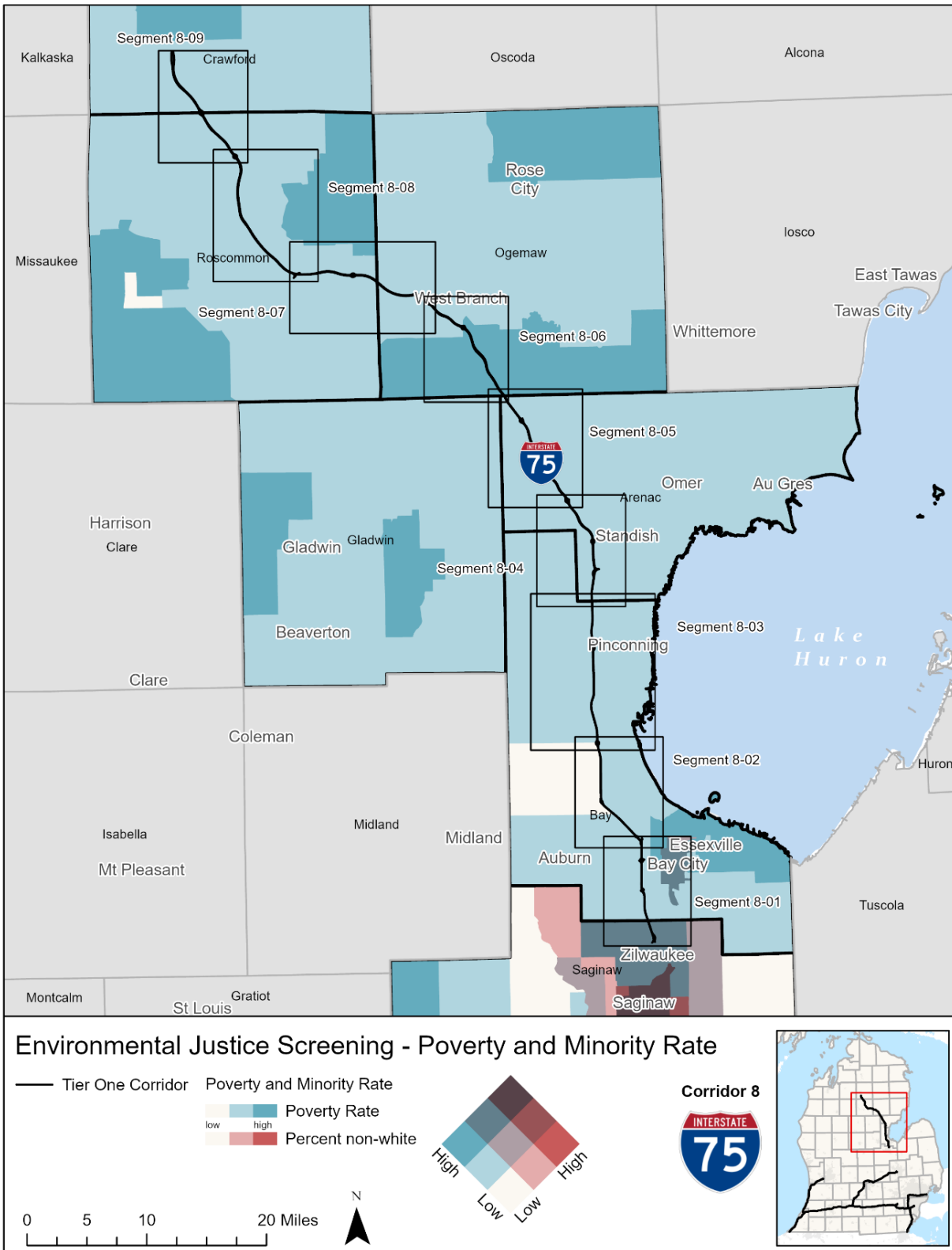


Figure 30: Corridor 8 I-75 Low Income Population Map

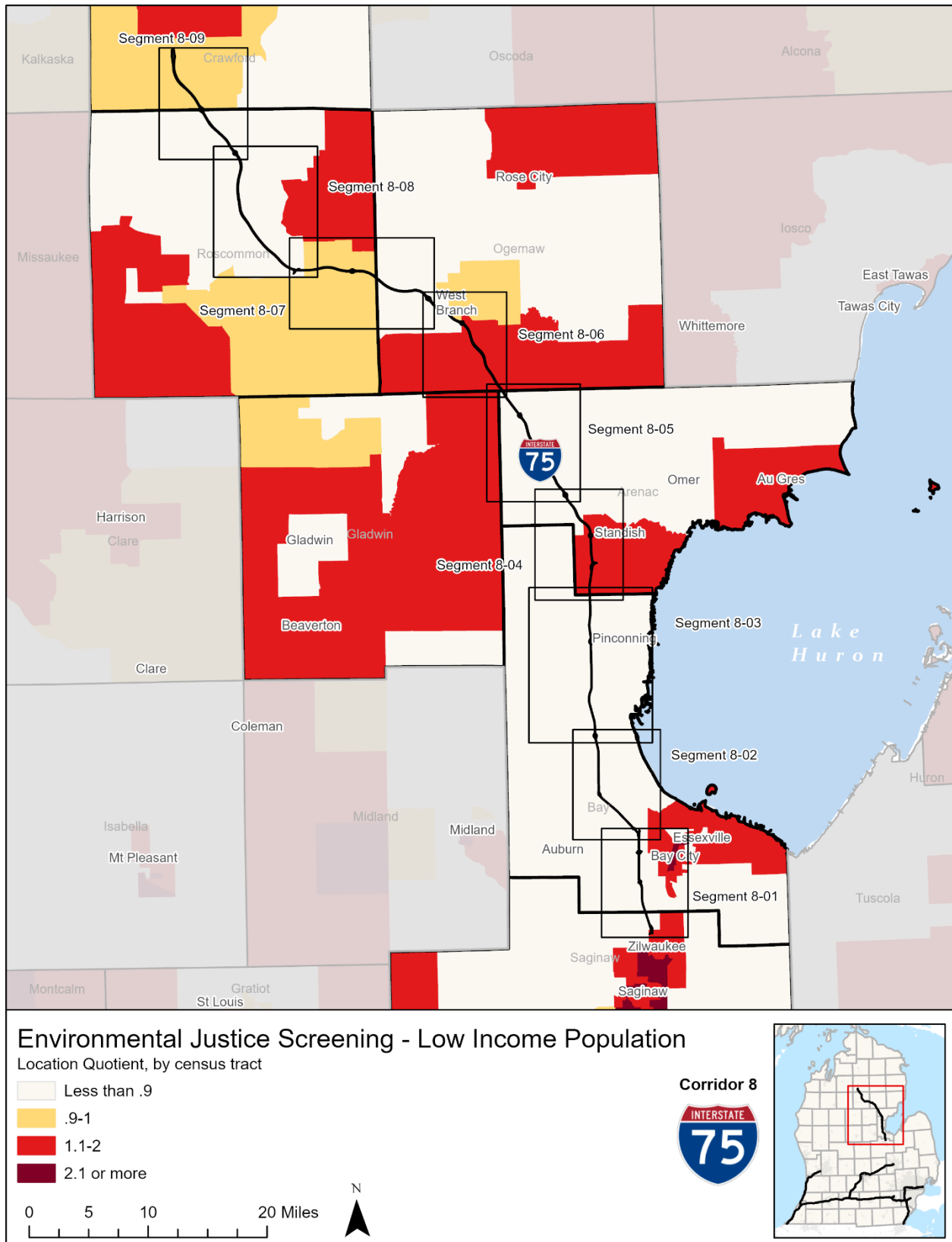


Figure 31: Corridor 8 I-75 Minority Population Map

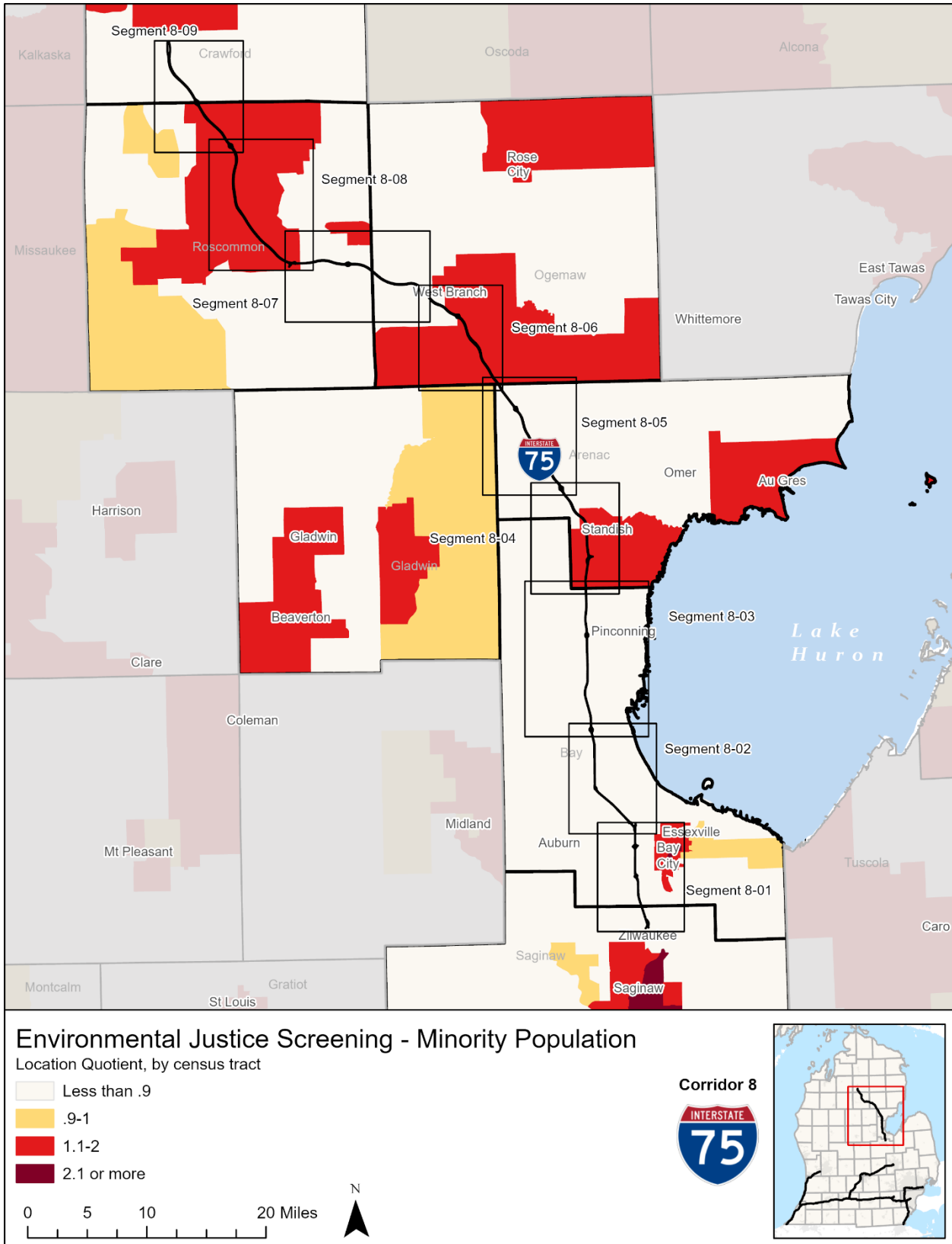


Figure 32: Corridor 8 I-75 Transportation Disadvantaged Census Tracts Map

