

ST. CLAIR COUNTY
METROPOLITAN
PLANNING
COMMISSION

St. Clair County :Trail Conditions

Pavement Evaluation for Trails









Summer 2019

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Part 1
Project Overview

Background

St. Clair County Trail System

Bridge to Bay Trail

St. Clair County and the Community Foundation of St. Clair County are working in conjunction with 13 local units of government to develop the 54-mile paved trail from Lakeport State Park to New Baltimore. St. Clair County helps plan and promote the trail while each local unit of government is responsible for constructing their section of the trail. Most trail construction projects are funded by grants. The St. Clair County Parks and Recreation Commission usually helps to fund the local match required for trail construction grants.

St. Clair County's eastern border is unique. It showcases over 50 miles of shoreline along some of the freshest water in the world - Lake Huron, the St. Clair River, and Lake St. Clair. Along that shoreline, we have urban areas, open vistas, beaches, parks, attractions, an international bridge and ferries to Canada, giant lake freighters and a linear trail - the Bridge to Bay Trail, which will be a paved pedestrian/bike path spanning 54 miles once completed.

The Bridge to Bay Trail extends from St. Clair County's northern border; under the Blue Water Bridge; through Port Huron, Marysville, St. Clair, Marine City, and Algonac; past state and municipal parks, museums, gazebos, and lighthouses. Sometimes the trail is within reach of the water's edge and sometimes a few miles inland. It connects community with community for walkers, joggers, strollers, and bicyclists of all ages. It can potentially link to the Wadhams to Avoca Trail within St. Clair County, the Millennium Legacy Trail, the Discover Michigan Trail, the Macomb County Trail Network, and – via ferry – the St. Clair Parkway Trail in Lambton, Ontario, Canada.

Before roads, native inhabitants and early European explorers traveled St. Clair County by water. They canoed, fished, and trapped along the area's rivers and creeks. Overland routes were paths that generally bordered the waterways. Then



came plank trails wide enough for horses and wagons, paved roads for automobiles, and eventually super highways that link St. Clair County with the rest of North America.

As St. Clair County has developed toward a mobile automotive society, we sought a balance within nature and a peace that comes from traveling at a slower pace under our own power — by foot or by bike. The result has been a re-emergence both in St. Clair County and throughout the United States to build and utilize trails for pleasure, recreation, physical fitness, and solitude.

The Bridge to Bay Trail began with an observation in the early 1990's that numerous municipal, township, and state parks line St. Clair County's eastern border. If connected by a trail, these parks would become a "strand of pearls."

Members of St. Clair County's then Parks and Recreation Advisory Council (PRAC) and a few government officials suggested constructing a trail for non-motorized travel along the coast from the Blue Water Bridge to Anchor Bay. The

idea received initial support from bicyclists, hikers, and equestrians.

Taxpayers also approved the idea. In 1994, a majority of voters passed the county's first millage devoted exclusively to parks and recreation projects. This millage also helped establish the county's first Parks and Recreation Commission (PARC).

In the mid-1990's, East China Township pioneered the first three parts of the path: a modest one-mile length along M-29 between Bree and Puttygutt roads, a beautiful meandering section within East China Township Park, and a 2.5 mile stretch of abandoned railroad bed from the park south to Marine City.

The original trail concept began in 2000 and it continues to become reality. Six completed sections and lateral spurs cover roughly 26 miles of the proposed 54-mile Bridge to Bay Trail. Running right next to, or a few miles inland from, the county's much-admired shore, these trail sections connect many pearls - parks and beaches, schools and playgrounds, residential neighborhoods and commercial centers, libraries and government buildings, and tourist attractions.

Residents value the Bridge to Bay Trail for its convenience and relaxing recreational value. Tourists and visitors consider it a welcome attraction.

The Bridge to Bay Trail is diverse in style, landscape, and purpose. Various sections include boardwalks, river walks, rail trails, safety paths, and bike paths.

Parts of the trail share transportation corridors with state highways and county thoroughfares, while other sections pass through quiet wood lots and wetlands.

In some places, natural vegetation, birds, crickets, and frogs abound. In other sections, the sound of children playing is prevalent. Along the shore, sailboats and powerboats grace the beautiful coastal waterway and lake freighters offer mighty and moving majesty.



Some sections - in and around the Algonac State Park, the East China Township Park, and Pine Grove Park - are purely recreational. Other sections link neighborhoods with either the country or a nearby community.

In total, the beauty of the Bridge to Bay Trail is its functionality - to get away or get to, or simply be. The Bridge to Bay Trail's recreational popularity is shared by residents and tourists, by walkers (and their pets), bikers, and rollerbladers, by the young, elderly, and families.

The Bridge to Bay Trail is a cooperative trail program involving the St. Clair County Parks and Recreation Commission and local units of government in the county's shoreline communities. Individual communities are responsible for designating trail routes, developing and constructing their trail sections, and maintenance, regulation, and policing.

Funding for the Bridge to Bay Trail comes from St. Clair County Parks and Recreation millage, local government funds, and grants. Grant money for the trail has been provided by the United States government through the Transportation Equity Act for the Twenty-first Century (TEA-21), and by the State of Michigan through the Michigan Department of Transportation (MDOT), the Michigan Department of Natural Resources (MDNR), and the Michigan Natural Resources Trust Fund (MNRTF).

Wadhams to Avoca Trail

The Wadhams to Avoca Trail utilizes more than 12 miles of a historic rail line formerly owned by the CSX Company. The trail offers a variety of opportunities for walkers, rollerbladers, bikers and even horseback riders. The scenic beauty of the Wadhams to Avoca Trail also makes it great place to do some bird watching or see the fall colors.

The centerpiece of the trail is the 640-foot long Mill Creek Trestle. Built in the late 1800's, the 60-foot high trestle has been decked and railed to provide safe access for walkers and bicyclists. Four overlook areas have also been installed on the trestle so the trail users can enjoy the beautiful views up and down the Mill Creek Valley.

At the south end of the trail in Kimball Township, over five miles of trail have been paved starting at McLain Road running southeast to Griswold Road. The paved section of the trail passes through a developing residential area and is already being heavily used by residents. To ensure user safety, a pedestrian-activated traffic signal was installed at the Wadhams Road crossing.

Designated off-road parking areas are located at the Wadhams Road, Lapeer Road, Imlay City Road and Avoca Road Trailheads.

Cities and Townships

Several local communities have independent trails that they have constructed and continue to maintain. These local trails are not part of the Bridge to Bay Trail or the Wadhams to Avoca Trail. Communities with their own internal trail systems include Burtchville Township, Fort Gratiot Township, City of Port Huron, Port Huron Township, and the City of Marysville.

Countywide Trail Planning Initiatives

Beginning in Summer 2018, the St. Clair County Metropolitan Planning Commission (MPC), the St. Clair County Parks and Recreation Commission (PARC), and the Community Foundation of St. Clair County teamed up to advance three key trail planning initiatives to advance the regional trail network in St. Clair County. Those initiatives include:

St. Clair County Trails Plan

St. Clair County, along with the Community Foundation of St. Clair County and numerous local and regional partners, developed an updated Trails Strategy and Action Plan that identifies existing gaps in countywide non-motorized trail networks, identifies preferred alternatives to eliminate those gaps, and prioritizes the timing and sequencing for completing needed connections. The overarching goal of the Trails Plan is to complete the Bridge to Bay Trail and Wadhams to Avoca trail networks, which includes connecting to the Macomb Orchard Trail in Richmond - part of the larger, statewide Great Lake-to-Lake Trail Route #1, which runs from South Haven (on Lake Michigan) to Port Huron (on Lake Huron).

The County hired SmithGroup, a consulting firm out of Ann Arbor, to carry out this project. Funding assistance for the project was provided through a Multi-Community Planning Assistance Grant from the Southeast Michigan Council of Governments (SEMCOG) and a grant from the Community Foundation of St. Clair County.

The Economic Impact Study

St. Clair County has a rare opportunity to substantially advance its trail network due to a confluence of events that will likely result in both an infusion of funding and an increased focus on development from regional and statewide trail organizations. These efforts will build off existing routes and plans developed by local leaders.

Against this backdrop, the Community Foundation of St. Clair County, with funding support provided by the Ralph C. Wilson, Jr. Foundation (RCWJRF), commissioned Public Sector Consultants (PSC) to evaluate the user patterns and economic significance of trail

systems in similar communities. This effort was intended to help partners in the county evaluate the potential value of further developing the regional trail system. PSC researched lessons learned from leading practice communities to identify successful strategies that could be used in St. Clair County. Additionally, they identified lessons learned and pitfalls to avoid based on the experiences in those similar communities.

PSC analyzed six communities from across the country with best-in-class trail systems and management models to identify user trends, the economic significance of trails, and common practices for successful trail development to determine whether these approaches can be replicated in St. Clair County. The six communities are:

- Erie County, Pennsylvania
- Fayette County, Pennsylvania
- Grand Traverse County, Michigan
- Midland County, Michigan
- Northwest Arkansas
- Wright County, Minnesota

Each region features unique characteristics and organizations with varying levels of capacity and interest in trail development. Organizational structures have emerged in each region that reflect and respond to these differences. Though each is distinct, many common themes emerged as leading practices for communities seeking to transition from a series of independent, disconnected trails to an interconnected system.

The full Economic Impact Study (as well as the St. Clair County Trails Plan) can be accessed online at the Community Foundation of St. Clair County's website: http://www.stclairfoundation.org/news/more/st._clair_county_trails_planning.

Trail Pavement Evaluation Study (PET)

Lastly, the working group determined that it would be wise to analyze and rate the existing trail network. MPC staff used their experience and expertise to develop a rating scale similar to PASER (Pavement and surface evaluation rating) system, which is a statewide uniform rating system that is used to rate the pavement condition of roadways in St. Clair County and the rest of the State.

MPC staff developed a rating system unique to non-motorized trails and went out in the field to rate the current conditions of trail segments and collect data about the system. The purpose of this document is to present the findings and explain the method used in carrying out the current conditions analysis.

Rating and Evaluation System

The project team used a scale of one to ten, similar to the PASER scale, which is further explained in the next section. They also took the opportunity to evaluate other key components of the trail system including, but not limited to:

- Pavement Conditions;
- Signage (or lack thereof);
- Marked Road Crossings/Complete Streets;
- Benches;
- Trash Receptacles;
- Bathrooms; and
- Drinking Fountains

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Part 2
Rating Methodology

Methodology and Rating System

The manpower for this project consisted of two planners from the St. Clair County Metropolitan Planning Commission who have several years of experience in the PASER rating technique. The rating process took three full days and three half days to complete - roughly 33 hours to rate the trails and collect data on the countywide trail system.

MPC staff worked with the Parks and Recreation Commission to coordinate the usage of PARC's John Deere Gator and Polaris Ranger utility vehicles to rate the non-motorized separated paths. For the bike lanes along the busier State trunklines (M-routes) the planners used a vehicle for safety reasons.

To enter the ratings and other data, staff utilized an Apple iPad - but any mobile device would work with the GIS Collector application developed by ESRI. The application lined up with the County's web-based GIS system (Geocortex). As the team collected the data, it would be saved real-time in the cloud; once back in the office with an Internet connection, the collected data could be synced to the online map and would be integrated with the County's GIS data. This synchronization action was performed each day when the team returned from the field.

Three Surface Types were Evaluated:

- Concrete: A composite material composed of fine and coarse aggregate bonded together with a fluid cement (cement paste) that hardens over time.
- Asphalt: A mixture of dark bituminous pitch with sand or gravel, used for surfacing roads.
- Fines: Crushed Limestone.

Three Types of Trails were Evaluated:

- Shared Use Path: A shared use path provides a travel area separate from motorized traffic for bicyclists, pedestrians, skaters, wheelchair users, joggers, and other users. Shared use paths can provide a low-stress experience for a variety of users using the network for transportation or recreation.
- Sidewalk: Path along the side of the road; little protection from the road and usually only for pedestrians.
- Bike Lane: Bike lanes or cycle lanes are types of bikeways with lanes on the roadway for cyclists only.







Rating Scale: Asphalt and Concrete Surface

Surfacing Rating	Distress Description	General Condition/ Treatment Measure
10 Excellent	None	NEW Construction
9 Excellent	None	Like New. Recent Overlay, Construction in the last 1 or 2 years.
8 Very Good	Little to no cracking, surface starts to oxidize	No maintenance needed.
7 Good	More frequent cracking, most cracks are sealed, other isolated distortions, first signs of cracking	First signs of aging. Maintain with sealant, Fix isolated "bad" areas
6 Good	Slight Raveling, Occasional patching (in good condition), Cracks are open less than a ¼"	More signs of aging, still has a sound structure. Crack seal and sealant
5 Fair	Moderate to severe raveling, Longitudinal and transverse cracks are open more than ¼", More frequent patching	More surface aging, Sound structural condition, Needs crack seal & sealant
4 Fair	Multiple longitudinal and transverse cracks and secondary cracking with raveling. Rutting and other distortions. Potholes and/or Bump outs. Cracks are open a ½" or more.	Significant aging and first signs of structural deterioration. Would benefit from a structural overlay.
3 Poor	Closely spaced cracks- raveling and erosion. Severe Block Cracking, Alligator Cracking (less than 25%), Patches are not in good condition, Moderate rutting and distortion. More Potholes and/or bump outs	Needs patching and repair, prior to major overlay. Heavy Rehab.
2 Very Poor	Extensive Cracking, Severe Rutting or other distortions (2" or more deep), Extensive patching.	Severe Deterioration, Needs reconstruction with extensive base repair.
1 Failed	Loss of surface integrity, Severe Distress, No pavement to save	Failed. Needs TOTAL reconstruction.

Rating Scale: Crushed Limestone/Fines

Surfacing Rating	Distress Description	General Condition/ Treatment Measure
5 Excellent	None	None. Brand New
4 Good	None	None. Recently resurfaced.
3 Fair	Loss of Fines	Severe deterioration. Rehabilitation needed.
2 Poor	Significant loss of fines and coarse aggregate	Needs reconstruction with base repair
1 Failed	Loss of surface integrity, Severe Distress	Failed. Needs TOTAL reconstruction



RATING: 10

RATING: 9





RATING: 8

RATING: 7





RATING: 6



RATING: 5

RATING: 4



RATING: 3





RATING: 2



RATING: 1



Part 3
Ratings by Community

PET

This section provides a summary of the ratings and a description of the data collected on the countywide trail system. The county was divided into five sections to allow for easier analysis of the data based on geographic areas:

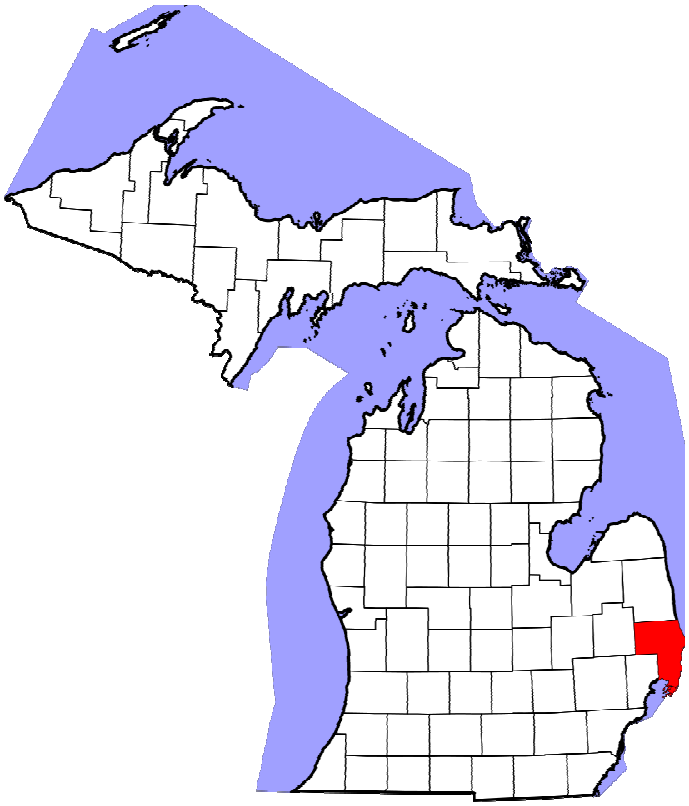
- Burtchville Township/Fort Gratiot Township
- City of Port Huron/Port Huron Township/ City of Marysville
- Wadhams to Avoca Trail
- St. Clair Township/City of St. Clair/East China Township
- Marine City/City of Algonac/Southern Townships

Each section includes a summary of the area and includes some general notes about identified strengths and weaknesses. Maps are provided for each geographic area to allow for "zooming" in on the trail system in that particular area.

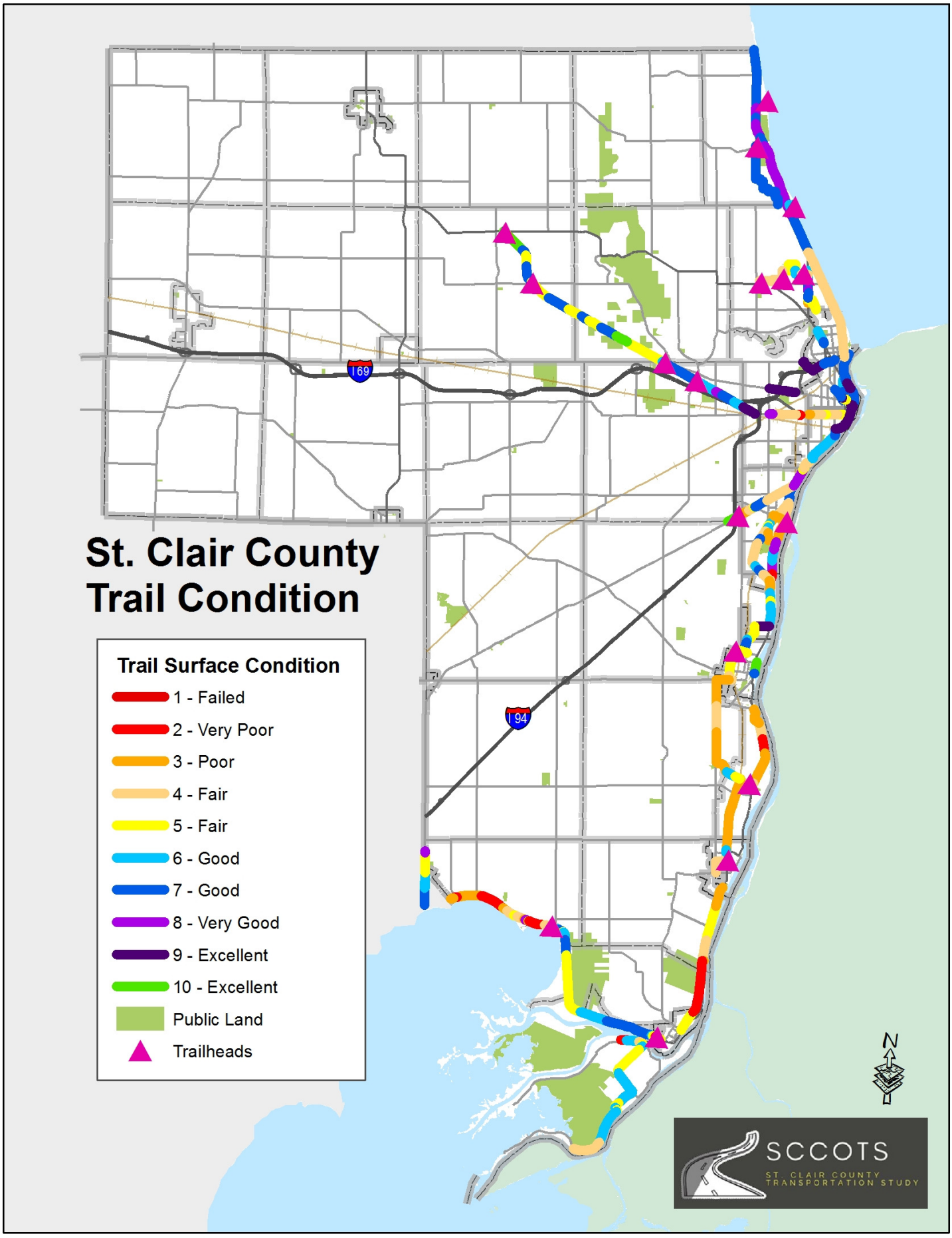











St. Clair County
Trail Condition
Trail Surface Condition
1 - Failed
2 - Very Poor
3 - Poor
4 - Fair
5 - Fair
6 - Good
7 - Good
8 - Very Good
9 - Excellent
10 - Excellent
Public Land
Trailheads
I 69
I 94
N
SCCOTS
ST. CLAIR COUNTY
TRANSPORTATION STUDY

Burtchville Township and Fort Gratiot Township

Summary

- The northernmost portion of the trail network is a bike lane along M-25, with high traffic volume and traffic traveling at higher speeds.
- Burtchville Township has a separated shared use path that starts at Township Hall at the corner of State Road and Burtch Road and goes south to Metcalf Road.
- Separated shared use path in Fort Gratiot County Park.
- Fort Gratiot Nature Preserve and Walking Trail – around the Municipal Office Center and Kettlewell Pond
- Fort Gratiot Township has a separated shared use path along its main business corridor (M-25/24th Ave) which goes from Meijer (north of Keewahdin) to Lowe's (north of Krafft).
- Fort Gratiot Township has a path that goes from Lowe's back behind the businesses and apartment complexes and ends on Krafft.

Strengths

- Pavement is in Good/Very Good condition on the northern parts of M-25
- The Burtchville Township separated path is in good condition with appropriate signage throughout the segment.
- Great signage and complete street features throughout Fort Gratiot Township.

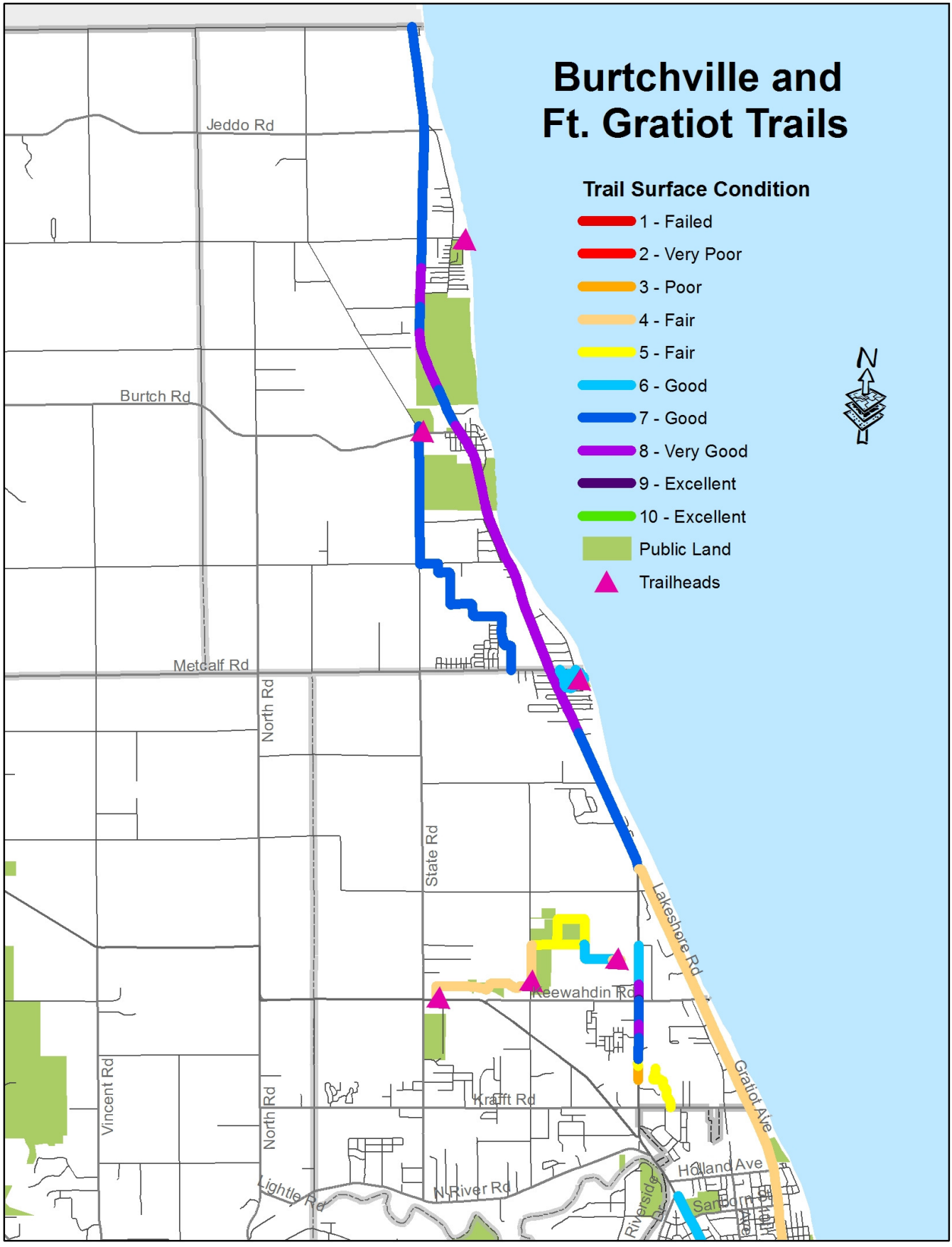
Weaknesses

- Poor signage and lane markings on the northern parts of M-25.
- The Gratiot Ave segment that is north of Holland Avenue has no buffer or shoulder at all.








Burtchville and
Ft. Gratiot Trails
Trail Surface Condition
1 - Failed
2 - Very Poor
3 - Poor
4 - Fair
5 - Fair
6 - Good
7 - Good
8 - Very Good
9 - Excellent
10 - Excellent
Public Land
Trailheads
N
Jeddo Rd
Burtch Rd
Metcalf Rd
North Rd
State Rd
Lakeshore Rd
Reewahdin Rd
Krafft Rd
Vincent Rd
North Rd
Lightle Rd
N River Rd
Riverside Dr
Holland Ave
Gratiot Ave

City of Port Huron, Port Huron Township, and City of Marysville

Summary

- City of Port Huron has the following segments:
  - Bike Lane on Gratiot Avenue (Krafft Road to Blue Water Bridge)
  - Separated Shared Use Path on Pine Grove Avenue.
  - Separated Shared Use Path along water from the Blue Water Bridge south to southern city limits including the Blue Water Riverwalk.
  - Gateway Bike Route along Griswold.
  - Two Bridges Trail that starts at Pine Grove and goes over the expressway to Water Street.
  - Black River Walk from Military Street to 10th St.
- Port Huron Township has sections of small trail segments - Lapeer Road from 32nd St to Michigan Road and Water Street from I-94 to W. Water Street (portion of the Two Bridges Trail mentioned above)
- City of Marysville has a portion of the Bridge to Bay Trail and several of its own separated paths near its riverfront park.

Strengths

- Great signage in the City of Marysville.
- City of Marysville received a Transportation Alternative Program Grant and installed a pedestrian-activated crossing light (HAWK signal) at Busha Highway.
- City of Port Huron and the City of Marysville have the beautiful water to showcase.
- The newer constructed trails in Port Huron Township on Lapeer Road and Water Street are in very good condition and have great potential to link to the larger trail network.

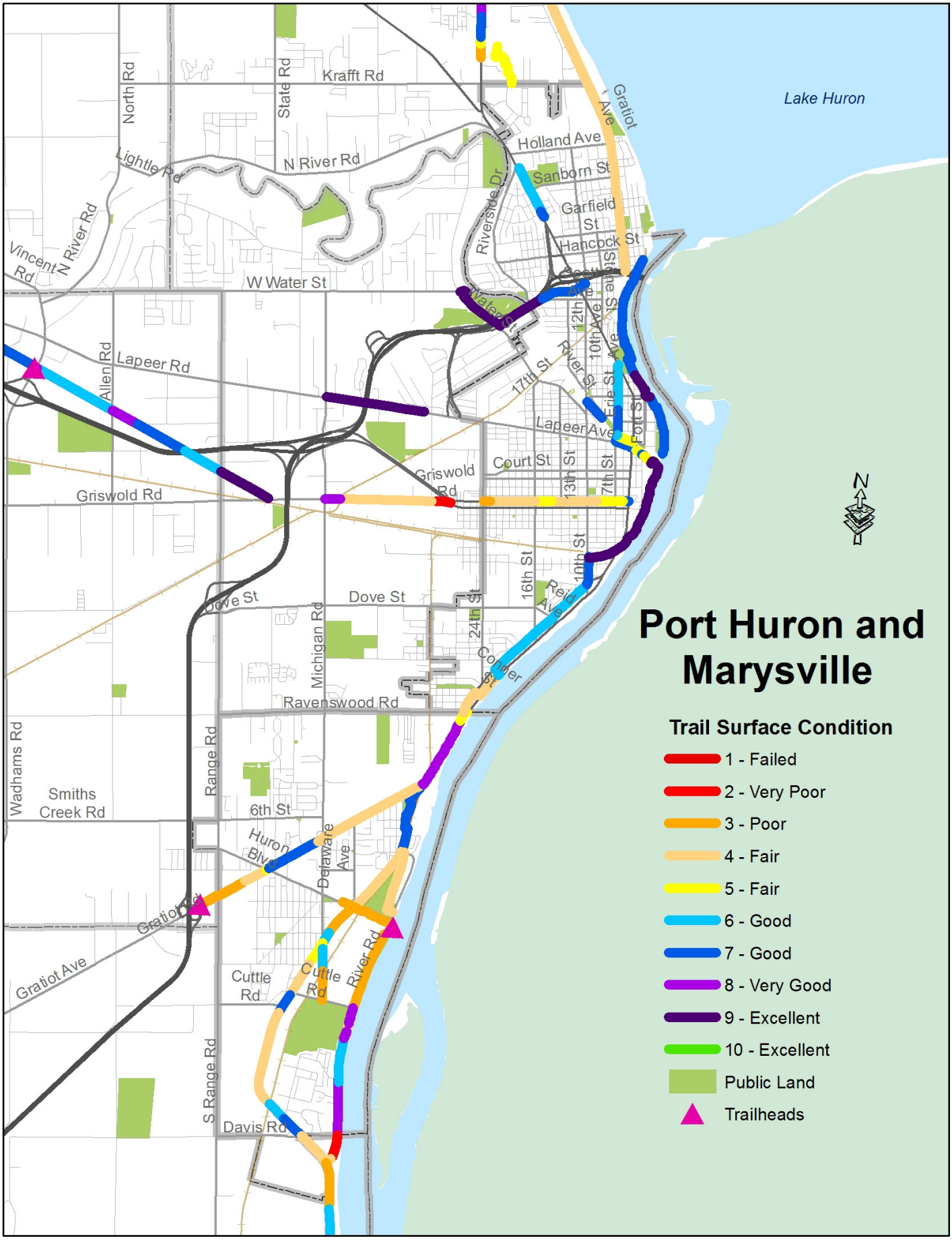
Weaknesses

- Little to no signage in the City of Port Huron. This is noticeable on the Bridge to Bay Trail, which is the main non-motorized trail in St. Clair County and often used by visitors and people unfamiliar with the area.








Lake Huron
Krafft Rd
North Rd
State Rd
N River Rd
Lightle Rd
Vincent Rd
N River Rd
W Water St
Holland Ave
Sanborn St
Garfield St
Hancock St
Riverside Dr
Gratiot Ave
Water St
12th St
10th Ave
Erie St
Fort St
17th St
River St
Lapeer Rd
Allen Rd
Lapeer Ave
Griswold Rd
Griswold Rd
Court St
13th St
7th St
10th St
16th St
Reid Ave
Dove St
Dove St
24th St
Conner St
Michigan Rd
Ravenswood Rd
Wadhams Rd
Smiths Creek Rd
Range Rd
6th St
Huron Blvd
Delaware Ave
Gratiot Rd
Gratiot Ave
Cuttle Rd
Cuttle Rd
River Rd
S Range Rd
Davis Rd
N
Port Huron and Marysville
Trail Surface Condition
1 - Failed
2 - Very Poor
3 - Poor
4 - Fair
5 - Fair
6 - Good
7 - Good
8 - Very Good
9 - Excellent
10 - Excellent
Public Land
Trailheads

Wadhams to Avoca Trail

Summary

- The Wadhams to Avoca Trail utilizes more than 12 miles of a historic rail line formerly owned by the CSX Company.
- Four designated trailheads with off-street parking: Wadhams Road, Lapeer Road, Imlay City Road, and Avoca Road.
- The centerpiece of the trail is the 640-foot long Mill Creek Trestle.

Strengths

- Over five miles of the trail are paved starting at Griswold Road to McLain Road.
- High-intensity Activated CrossWalk beacon (HAWK) signal at Wadhams Road, the first one in the County.
- Great signage and markings at road crossings.
- There is a bike “Fix-It” station at the Lapeer Road Trailhead, along with a pit toilet and information board.

Weaknesses

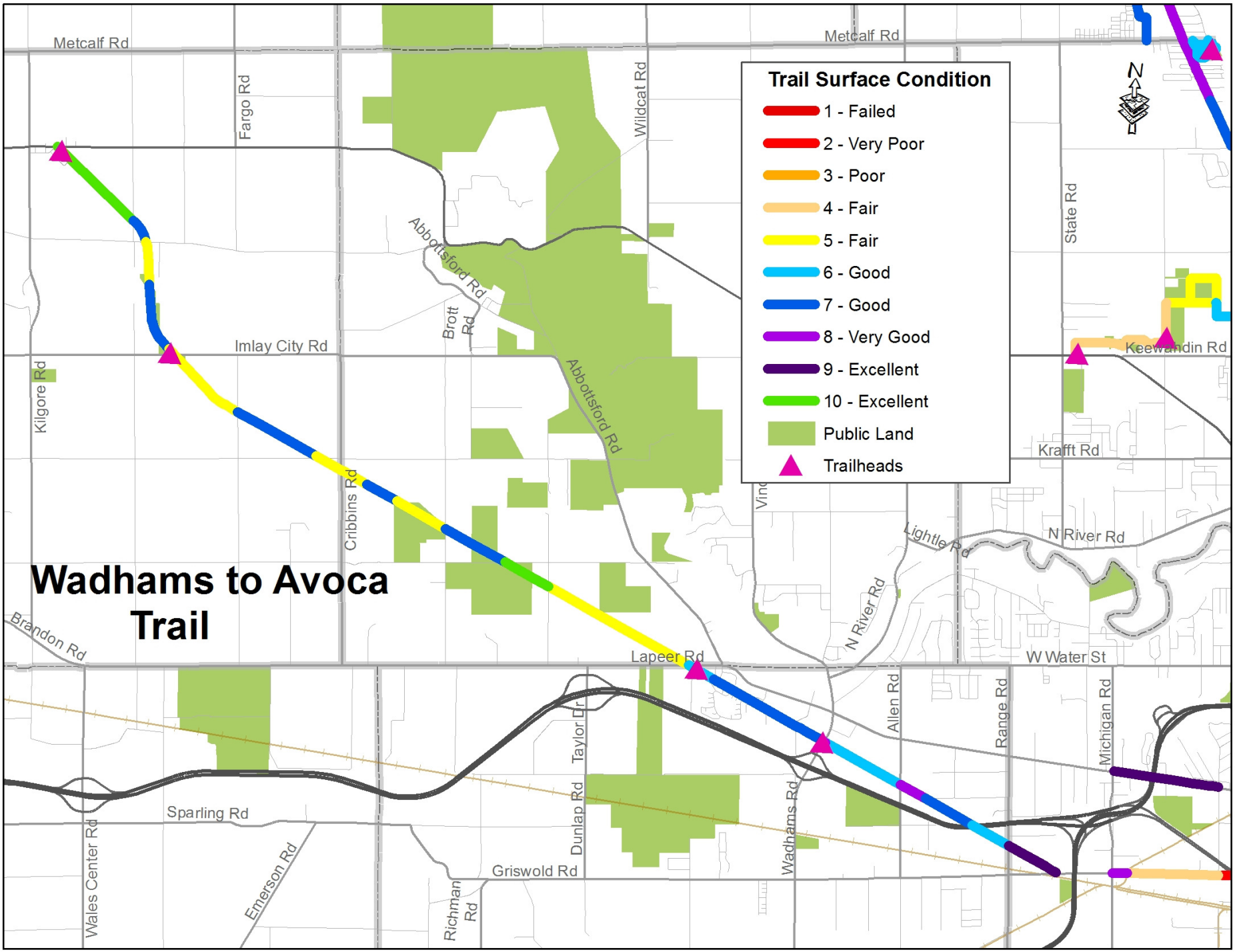
- Not completely paved, after McLain Road it is constructed of crushed limestone fines.










Wadhams to Avoca Trail
Trail Surface Condition
1 - Failed
2 - Very Poor
3 - Poor
4 - Fair
5 - Fair
6 - Good
7 - Good
8 - Very Good
9 - Excellent
10 - Excellent
Public Land
Trailheads
N
Metcalf Rd
Fargo Rd
Wildcat Rd
State Rd
Abbottsford Rd
Brott Rd
Imlay City Rd
Kilgore Rd
Cribbins Rd
Keewahdin Rd
Krafft Rd
N River Rd
Lightle Rd
Brandon Rd
Lapeer Rd
W Water St
Allen Rd
Range Rd
Michigan Rd
Taylor Dr
Dunlap Rd
Wadhams Rd
Sparling Rd
Wales Center Rd
Emerson Rd
Griswold Rd
Richman Rd

St. Clair Township, City of St. Clair, and East China Township

Summary

- A separated path begins along M-29 in St. Clair Township.
- A new path along Yankee Road, that goes south at St. Clair Middle School.
- Long stretches of separated paths are common in this area of the County.

Strengths

- Directional and warning/caution signage was great throughout this portion of the County.
- The paint markings and signage is well done at the road crossings.
- The City of St. Clair has emergency telephones and a bike “Fix-It” station.
- Great trail available through and around East China Township Park.
- Bike “Fix-It” Station at East China Township Park.

Weaknesses

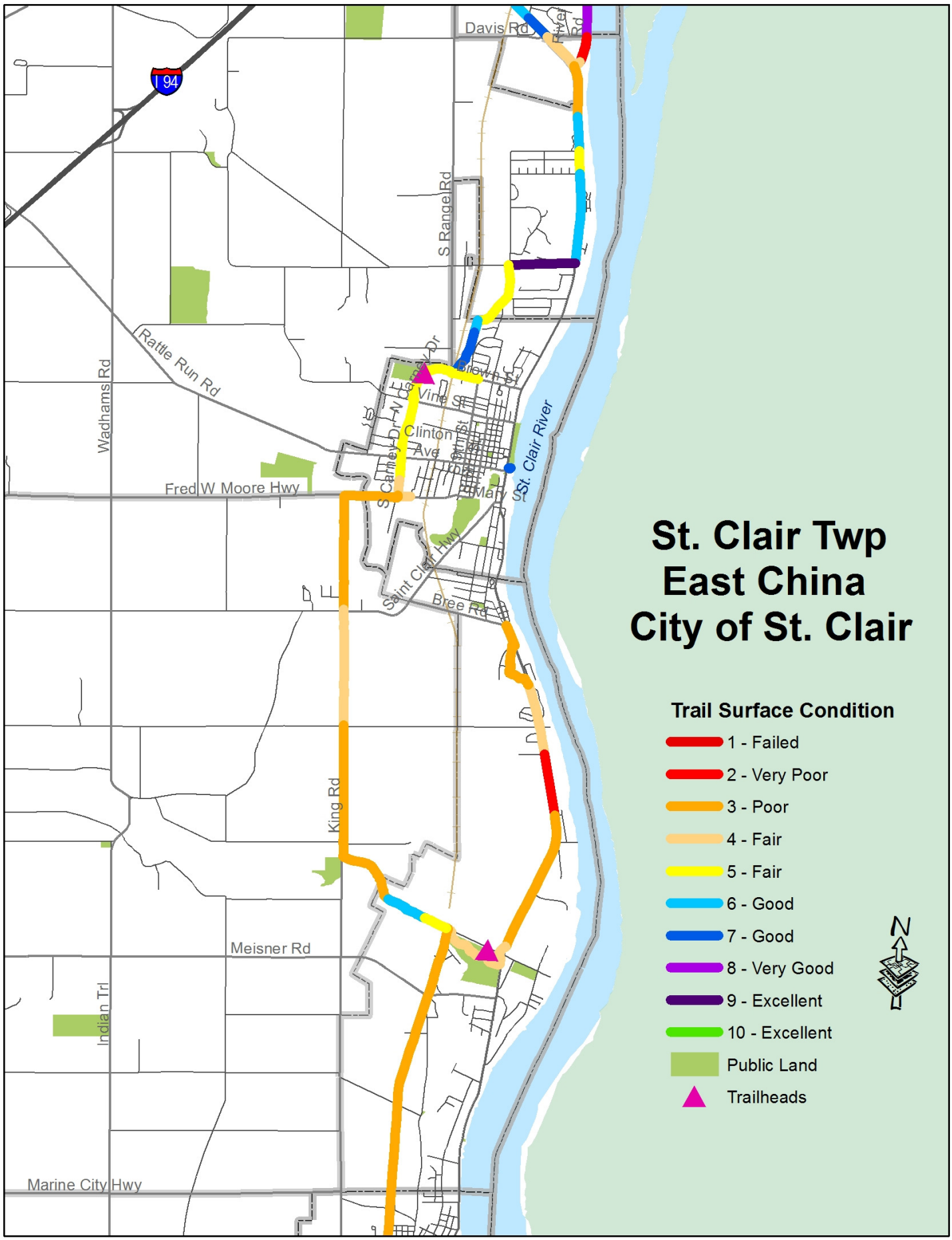
- The pavement quality significantly deteriorates at Fred Moore Highway and is rated a 3 (poor) or 4 (Fair) on King Road.
- The pavement is also rated a 2, 3, or 4 along M-29 south of the City of St. Clair in East China Township.










St. Clair Twp
East China
City of St. Clair
Trail Surface Condition
1 - Failed
2 - Very Poor
3 - Poor
4 - Fair
5 - Fair
6 - Good
7 - Good
8 - Very Good
9 - Excellent
10 - Excellent
Public Land
Trailheads
N
I 94
Davis Rd
S Range Rd
Rattle Run Rd
Wadhams Rd
Fred W Moore Hwy
Vine St
Clinton St
Ave
Mary St
St. Clair River
Saint Clair Hwy
Bree Rd
King Rd
Meisner Rd
Indian Trl
Marine City Hwy

Marine City, City of Algonac, and Southern Townships

Summary

- The city of Marine City has a separated path coming into the city limits from the north, west of M-29, from Recor Road to Chartier Road.
- The majority of the trails in southern St. Clair County are bike lanes, along busier roadways. M-29 along the coast and M-154 on Harsens Island.
- There are a couple of side paths near the City of Algonac and in Ira Township - one that travels behind Algonac State Park down to the northern part of the City Of Algonac and one on County Line Road, from M-29 north to Hobarth Road.

Strengths

- There is a pedestrian activated signal near the schools in Marine City that was funded by a Safe Routes to School Grant.

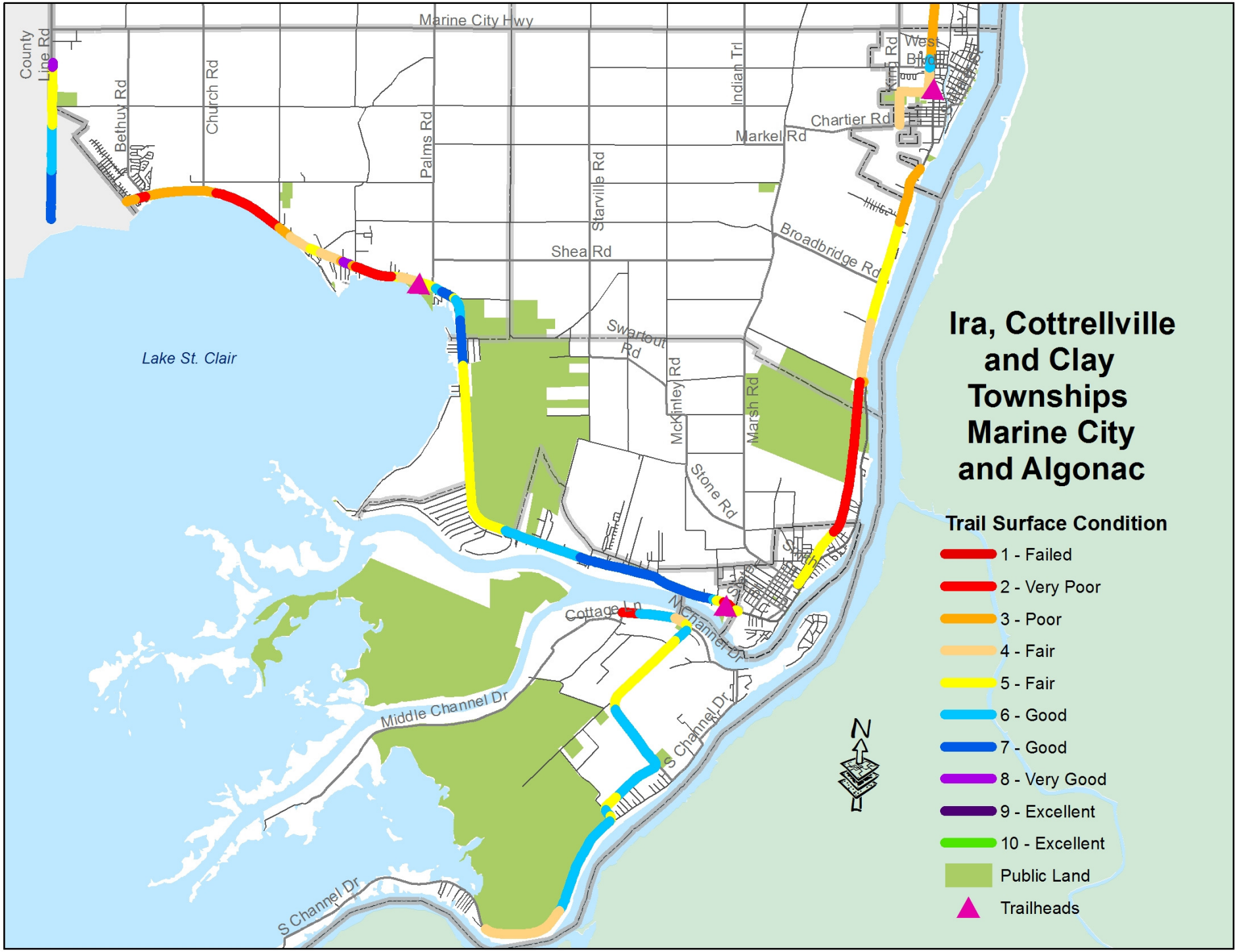
Weaknesses

- The pavement in this part of the county is in fair to poor condition.
- The separated path behind Algonac State Park is in very poor condition.
- There is no signage along the bike lanes on the major roadways (M-29 or M-154) indicating that it is part of the Bridge to Bay Trail or otherwise.








Ira, Cottrellville and Clay Townships Marine City and Algonac
Trail Surface Condition
1 - Failed
2 - Very Poor
3 - Poor
4 - Fair
5 - Fair
6 - Good
7 - Good
8 - Very Good
9 - Excellent
10 - Excellent
Public Land
Trailheads
N
Lake St. Clair
Marine City Hwy
County Line Rd
Bethuy Rd
Church Rd
Palms Rd
Starville Rd
Indian Trl
King Rd
West Bird
Chartier Rd
Markel Rd
Broadbridge Rd
Shea Rd
Swartout Rd
McKinley Rd
Marsh Rd
Stone Rd
Cottage Ln
McChannel Dr
Middle Channel Dr
S Channel Dr
S Channel Dr