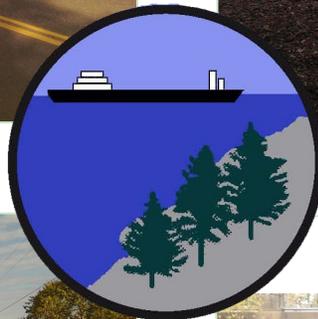


Duluth Township Trails Plan

A long-term framework to implement the community's vision for a system of nonmotorized trails connecting township residents, natural areas, community assets, and regional attractions



July 2016

Approved by the Duluth Township Planning Commission 7/14/16

DULUTH TOWNSHIP TRAILS PLAN

July 2016



Prepared by



Duluth-Superior Metropolitan Interstate Council

Duluth and Superior urban area communities cooperating in planning and development through a joint venture of the Arrowhead Regional Development Commission and the Northwest Regional Planning Commission



EXECUTIVE SUMMARY

The Duluth Township Trails Plan is a working document that serves as a long-term framework for accommodating the township's desire to move about safely and comfortably around the township. It reflects a community vision as well as an ambitious set of goals, opportunities, and strategies that will be fully realized over time. The plan takes a comprehensive look at all planned trail projects that connect with Duluth Township. However, that is not to say that work on building this trail system is far off in the future. In fact, work on a large segment of this plan can begin right away with installation of wayfinding signing along the identified trails.

The idea of a Trail Plan originated from the Duluth Township Comprehensive Plan, which calls for the creation of a network of pathways that would not only serve as a recreational use; but also would provide viable connections to township community gathering places and points of interest.

In order to accomplish this idea, the goal of the Trail Plan is to devise a system of multiple use trails connecting township residents, natural areas, community assets, and regional attractions; thereby, creating a network of pedestrian, bicycle, and other multiple use non-motorized pathways throughout Duluth Township.

While the focus of this trail plan is Duluth Township, the plan looks outside of township's boundaries as well. This plan takes into account proposed trails from planning efforts already undertaken, including those by the Duluth Master Trails and Bikeways Plan, the Lake County Trails Plan, and the Superior Hiking Trail, the Gitchi Gami State Trail, and the North Shore Scenic Drive.

Therefore, this plan provides the design of a seamless, interconnected system of non-motorized trails that link community gathering places with residents and ties a ribbon of trails throughout Duluth, Two Harbors, St. Louis County and Lake County.

The plan includes a general implementation timeline, based on short (0-5 yrs), mid (5-10 yrs), and long-range (10+ yrs) timeframes and is designed as a guide for all the jurisdictions, organizations, and groups in their efforts to implementing this regional, interconnected trail system.

Special thanks to all who contributed to the development of the Duluth Township Trails Plan, including:

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Duluth Township residents discussing their ideas at the Trails Plan Public Meeting

Approved by Duluth Township on July 14, 2016

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Map Disclaimer

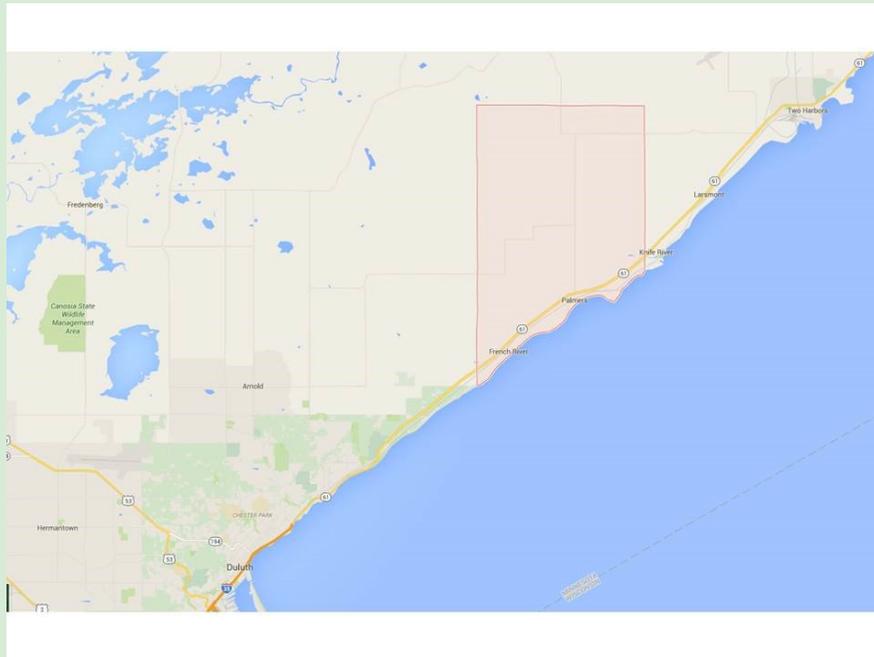
The information contained in the following maps is a compilation of data from various federal, state, county, regional, and municipal sources. Geographic information has limitations due to the scale, resolution, date and interpretation of the original source materials. Users should consult available data documentation (metadata) to determine limitations and the precision to which the data depicts distance, direction, location or other geographic characteristics. These maps and/or data are not legal survey documents to be used for describing land for the purpose of ownership or title.

INTRODUCTION

The Duluth Township Trails Plan takes an internal look at Duluth Township and focuses on creating a complete and cohesive non-motorized transportation network focused on but not limited to the desire of a safe and comfortable place for people who walk, bicycle, inline skate, and train with skis on the public township roadway network.

Regional Perspective & Connections

But this is not possible by just focusing within the township alone. Duluth Township is not an island unto itself, but one piece of a regional system. Therefore, this plan also focuses on how to interconnect with the state trails (Munger Trail and the Gitchi Gami, the Lake County Trail network, the Superior Hiking Trail and the North Shore Scenic Drive.



Background

Duluth Township's Comprehensive Plan calls for the development of a number of multiple use non-motorized trails in various locations through out the township.

In order to accomplish this non-motorized transportation focus, the creation of a completely interconnected and seamless network of trails, including both on-road and off-road pathways was envisioned. These trails would connect the community gathering places,

This plan has taken into account trail planning efforts by:

- City of Duluth Parks
- City of Two Harbors
- Lake County
- Superior Hiking Trail Association
- North Shore Scenic Drive Council
- Minnesota Dept of Natural Resources

including the North Shore Community School and Town Hall, natural areas, community assets and regional attractions. This trail system would create overall bicycle and pedestrian path system in Duluth Township; thereby, providing safe and comfortable use of non-motorized modes of transportation within the township.

The following is the specific language from the Duluth Township Comprehensive Land Use Plan:

2021 Community Vision for trails

“The trail and open space system consists of motorized and non-motorized trails. It has been designed to serve Township residents and follow strategic community roads and public and private land where landowner’s desire. The trail system also connects users to the Superior Hiking Trail and the Scenic Highway 61 bike trail.”

Duluth Township Comprehensive Plan Policies:

Infrastructure:

- 1. Establish and maintain a transportation system capable of providing safe, efficient, and economical travel patterns through the town.*
- 4. Whenever possible and safe, provide bike lanes where appropriate, and minimize right-of-way widths to maintain rural character as well as to minimize disruption to wildlife.*

Recreation/Open Space

- 3. Encourage an accessible and interconnected community –wide trail and open space system that is designed for responsible, multiple use by residents.*

Tourism

- 3. Support low impact recreation activities, such as hiking, cross-country skiing, and wildlife watching, kayaking, and canoeing in the management of North Shore corridor public areas.*

Planning Process

This document has primarily been prepared in collaboration with the Trails Plan Steering Committee. Beginning in the Spring of 2015, the Steering Committee met to identify relevant departure and destination points and determine viable trail alignments. Two public Open House meetings were held at Duluth Town Hall to gather input on the key destinations and trail alignments. Based on these discussions, a number of refinements were made to the trail alignments.

Process Timeline:

2014

Initial conversations on the Duluth Township Trail Plan.

2015

Project Scope & Process is defined

May 14—Call for citizens to join steering committee

June 11—Town Board Appoints Steering Committee

July 22—Trails Plan Survey is sent out through Township Newsletter

June 29—Steering committee organizational meeting

July 16—Input Gathering Open House

July 24—Township Survey Closes

July 30—Steering Cmte meeting

Aug. 1—Steering Cmte meeting

Aug. 20—Steering Cmte meeting

Sept. 17—Steering Cmte meeting

Oct. 15—Draft Plan Open House

Oct. 26—Steering Cmte meeting

Nov. 19—Presentation of Draft Plan to Planning Commission

2016

Final document compiled and approvals.

March 24 —Final Plan is presented to Duluth Township Planning Commission.

June 9—Final Plan is presented to Duluth Town Board for approval.

July 14 —Final Plan is approved by Duluth Town Board.

DECISION CRITERIA

In development of this plan, decision making followed a systematic process. With each step in the development of the plan, input was sought before moving forward. The Steering Committee reviewed all comments, held discussions and made decisions to proceed. In addition, the location, type and priorities of trails followed an inclusive process. This process began with the direction given by the Comprehensive Plan, opened up a broad conversation with the township residents, and over the course of this planning process and with continued discussions narrowed down to specific recommendations. The following goals, objectives and criteria provide the over-arching guidance for the entirety of the trail system identified in this plan.

Trail Plan Goal

Identify potential on & off-road non-motorized route segments to provide a cohesive network of pedestrian, bicycle, inline skating, and other multiple use paths throughout Duluth Township linking with regional attractions.

Trail Plan Objectives

- 1. Connect important points in the township**
- 2. Connect to other regional trail systems**
- 3. Identify most feasible types of trail based on existing conditions**
- 4. Priority order for trail system development**

Trail Plan Timeframe

This trail system will be developed overtime as opportunities arise. The plan has a vision of the trail system and provides direction of how this can be developed over a 20-year timeframe. However, as changes occurs, whether they be new development, funding opportunities, township preferences or other unforeseen circumstance at this time, this plan should be updated to incorporate these changes. This plan in not meant to be a static shot of one moment in time, but a living document.

The recommendations, including specific trail segments, types of trail facilities and priorities in this trail plan is based on the following guiding criteria.

Location of Trail Segments

Key to this trail plan is to connect where township residents to township destinations, including community gathering spaces and scenic areas. The important points in Duluth Township to connect are as follows:

- ◇ Duluth Town Hall
- ◇ North Shore Community School
- ◇ McQuade Harbor
- ◇ Stoney Point
- ◇ French River
- ◇ Sucker River
- ◇ Knife River
- ◇ Stoney Point

Each point is to be connected in a seamless and direct path that will both be comfortable and safe for residents to traverse along.

Type of Trail Segments

- A. Off Road Natural Surface (Class V gravel or equivalent)
- B. On Road Gravel Surface
- C. On Road Paved—Shared travel lane with motor vehicles
- D. On Road Paved Shoulders
- E. Bridges

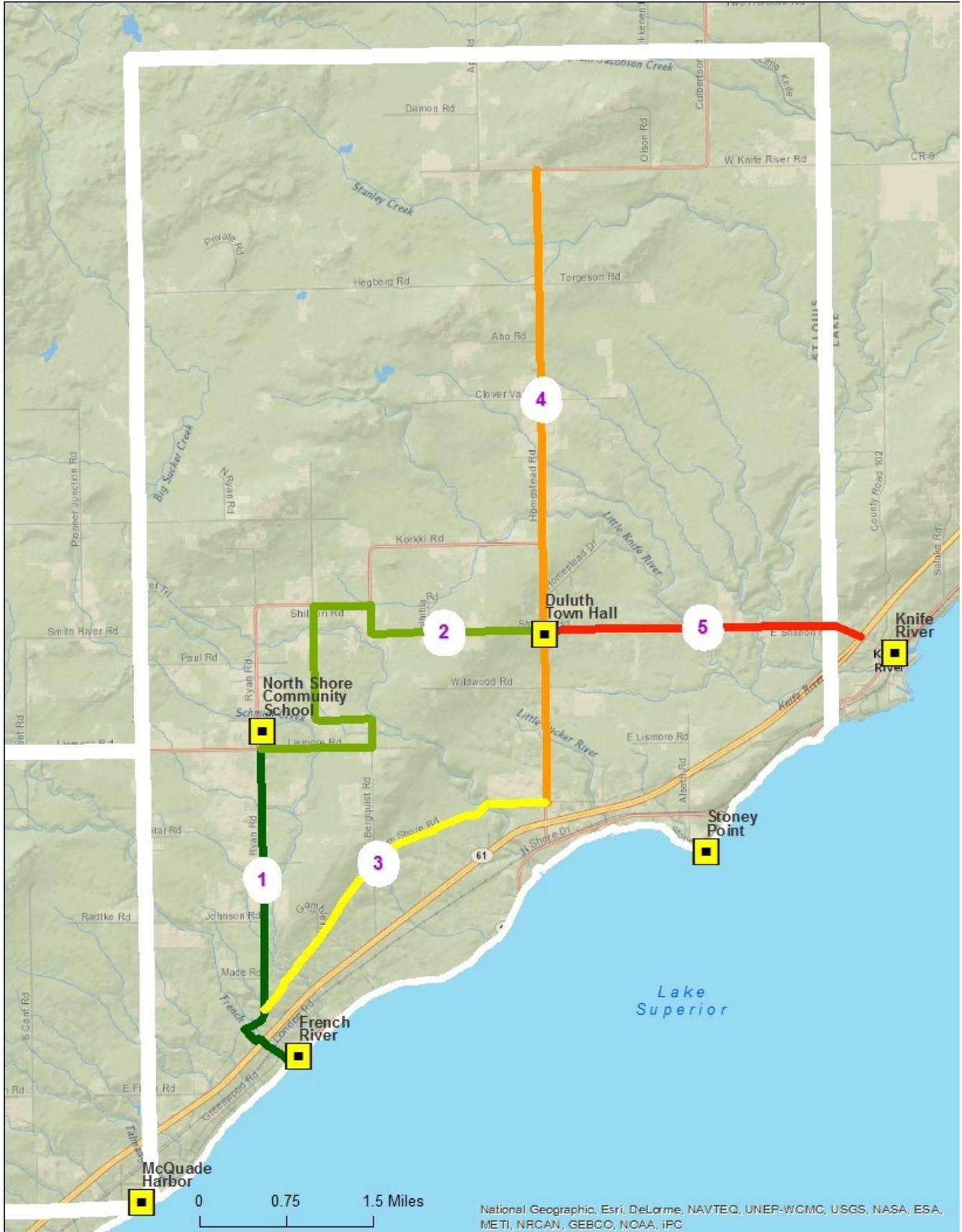
Priorities

- A. Potential upcoming road work by St. Louis County (where trail plan goals can be reached)
- B. Costs for Construction
- C. Maintenance Costs

Factors which guided the overall development of this Trails Plan

- * **High Speed Traffic**—most traffic is traveling at over 45 mph on the paved roads, which is not a conducive for safety nor comfort for pedestrians.
- * **Limited Site Lines**—frequent small hills that limit view of people ahead.
- * **Traffic Volume**—while not large in number, township roads have a continuous flow of traffic without long periods of no cars.
- * **No Shoulders**—most roads have little to no shoulder and ditch systems with limited space for pedestrians.
- * **Right-of-Way**—exists only for the improved portion of the road and the accompanying drainage system. Does not extend beyond the roadway.
- * **Public Land**—very little public land is available in the Township.
- * **Roadway Ownership**—the major roadways are owned and maintained by St. Louis County, and not in township control.

TRAIL SYSTEM



Overview Trail System Matrix

The trail system for Duluth Township is to provide non-motorized connections across the entire township. To accomplish this, the system is divided up into trail corridors. Within each corridor, the trails are divided into segments based on the level of need to provide a trail network that is safe, convenient and comfortable to utilized for all township residents regardless of age or ability.

The number corresponds to the order of priority for the township. While these are Duluth Township priorities, improvements will also depend on opportunities as they present themselves in the future.

Order of Priority

This system is separated into 5 trail segments and prioritized as follows:

- 1) Ryan Road Trail
- 2) Community Connector
- 3) Old North Shore Road
- 4) Homestead Road Trail
- 5) Knife River Connector



At the beginning of the trail planning process, township residents marked their destination points and routes on the above map in the first public meeting.

TRAIL SYSTEM

Name	Create Needed Connections in Town	Connect to Regional System	Type of Trail Surface	Length	Infrastructure Needed	Estimated Cost of Construction	Priority
Ryan Road Trail	North Shore School	North Shore Scenic Drive	Paved Natural Surface Gravel	3.05 mi	Paved Trail Natural Surface Path	\$200,000	1
Community Connector	Town Hall School	North Shore Scenic Driver	Natural Surface Gravel	4.93 mi	Natural Surface Path	\$730,00	2
Old North Shore Road	Scenic	Historic route up the Lake Superior North Shore	Gravel	3.24 mi	Pedestrian Bridges (2)	\$245,000	3
Homestead Road Trail	Town Hall	Superior Hiking Trail	Natural Surface	1.50 mi	Natural Surface Path	\$75,000	4
Knife River Connector	School Town Hall Knife River (town)	North Shore Scenic Driver	Gravel	2.77 mi	Natural Surface Path & Pedestrian Bridge (1)	\$242,000	5

General Trail Details

The following trail detail items pertain to all the trails discussed in this plan.

- **Proposed Trails**—the map identifies which trails proposed. Trails that are using roads are comprised of a shared road component for higher speed (road) bicyclists, inline skaters, etc and a natural surface component for pedestrians and slower moving bicyclists including children.
- **Pedestrian Easements** - all of the off-street trails options will require purchase of pedestrian easements., these costs are unknown.
- **Trail Surface**—for each trail segment on the subsequent pages, the existing conditions (paved, gravel & loose rock, grassy, undeveloped, natural surface, etc) of the trail surface is identified, as well as the proposed trail surface (paved, unpaved, crushed limestone, natural, etc).
- **Cost Estimate**—does not include easement or land purchase, that will be necessary to fully develop this trail network.

TRAIL SEGMENT — RYAN ROAD TRAIL



RYAN ROAD TRAIL

Connects the North Shore Scenic Drive (Scenic 61) to North Shore Community School.

Trail Surface:

- Ryan Road— North Shore Scenic Drive (Scenic 61) to MN Hwy 61 (Two Harbors Expressway) - paved should 5-8foot width.
- Ryan Road—MN Hwy 61 (Two Harbors Expressway to Lismore Road—natural surface 5-8 foot width

Details:

- This segment is expected to be the highest used segment
- Connects major points of interest, North Shore Community School, North Shore Scenic Driver, Old North Shore Road and the French River and largest population density within township.



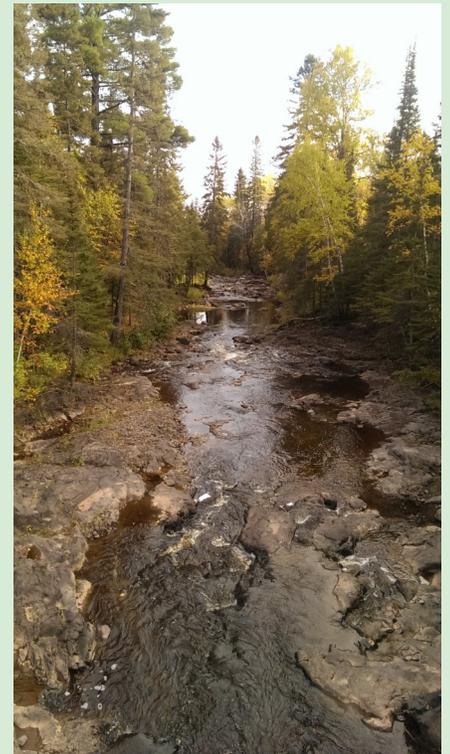
Ryan Road—looking towards Lake Superior



Clifton– French River monument sign

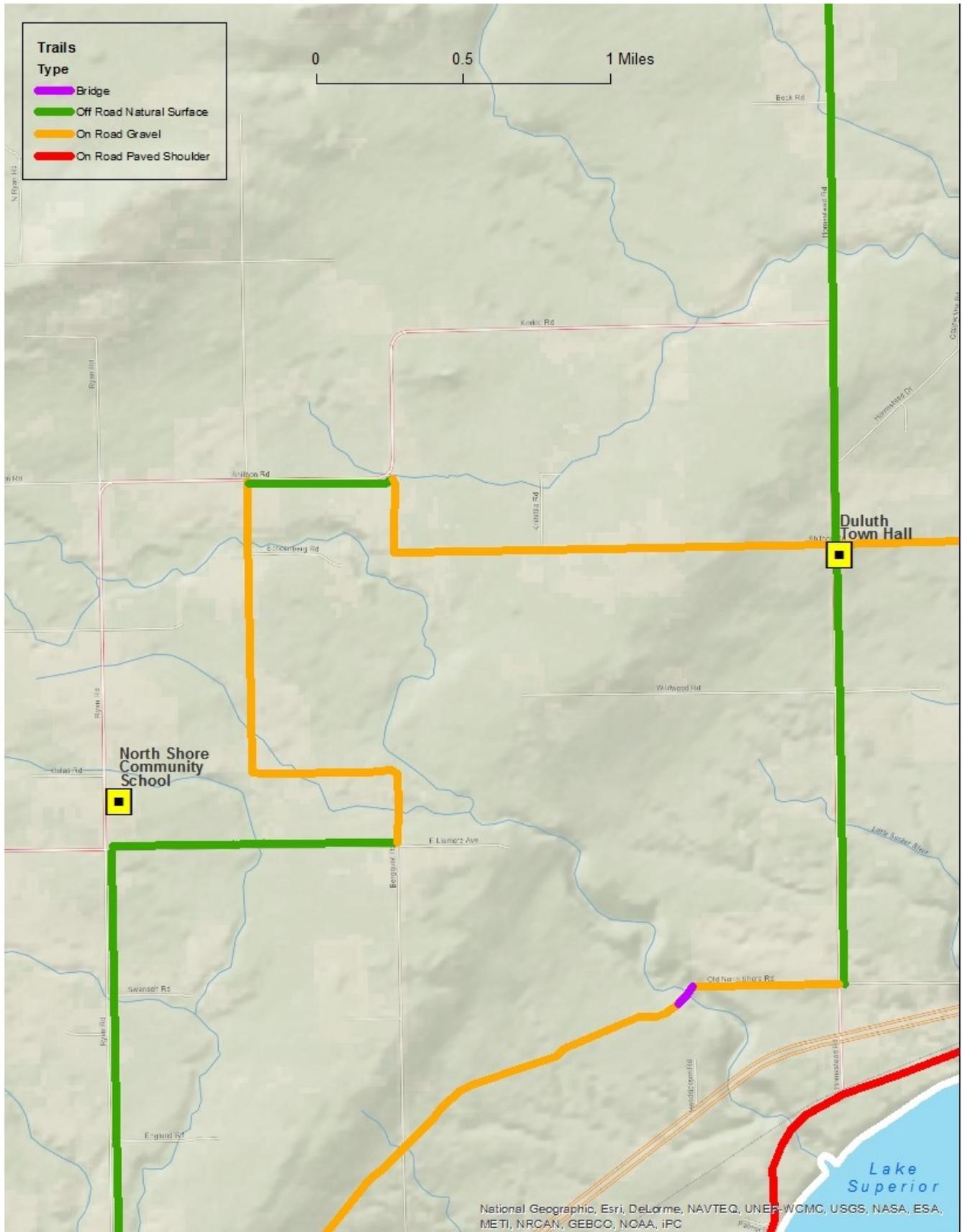


North Shore Scenic Drive bridge over the French River



French River

TRAIL SEGMENTS – COMMUNITY CONNECTOR



COMMUNITY CONNECTOR TRAIL

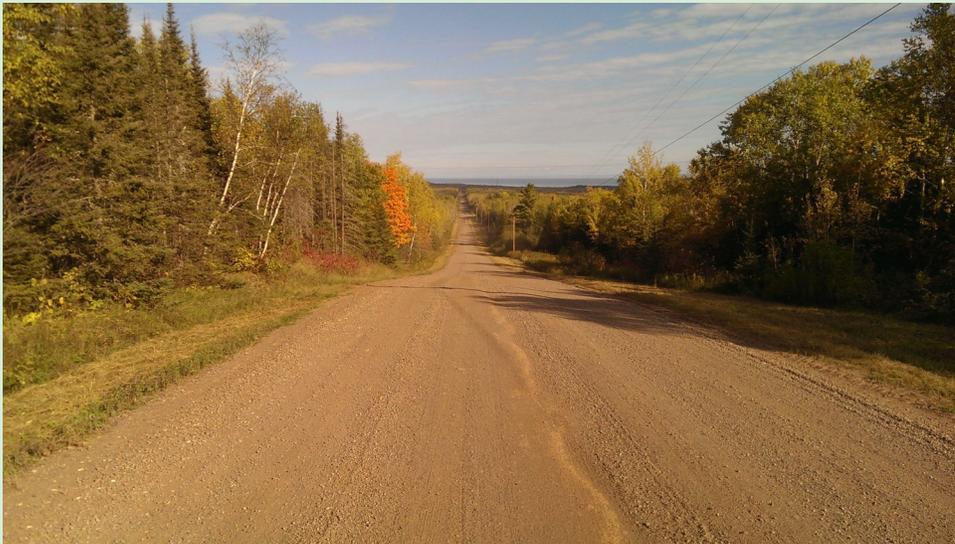
Connects North Shore Community School to the Duluth Town Hall following Lismore Road, Bergquist Road, and Shilhon Road.

Trail Surface:

- Bergquist Rd & Shilhon Rd—Existing gravel road
- Lismore Rd & Shilhon Rd—Proposed: natural surface trail—5-8-foot width minimum

Details:

- Connects the largest community gathering spaces.
- Provides an east-west route across the township connection.



Shilhon Road

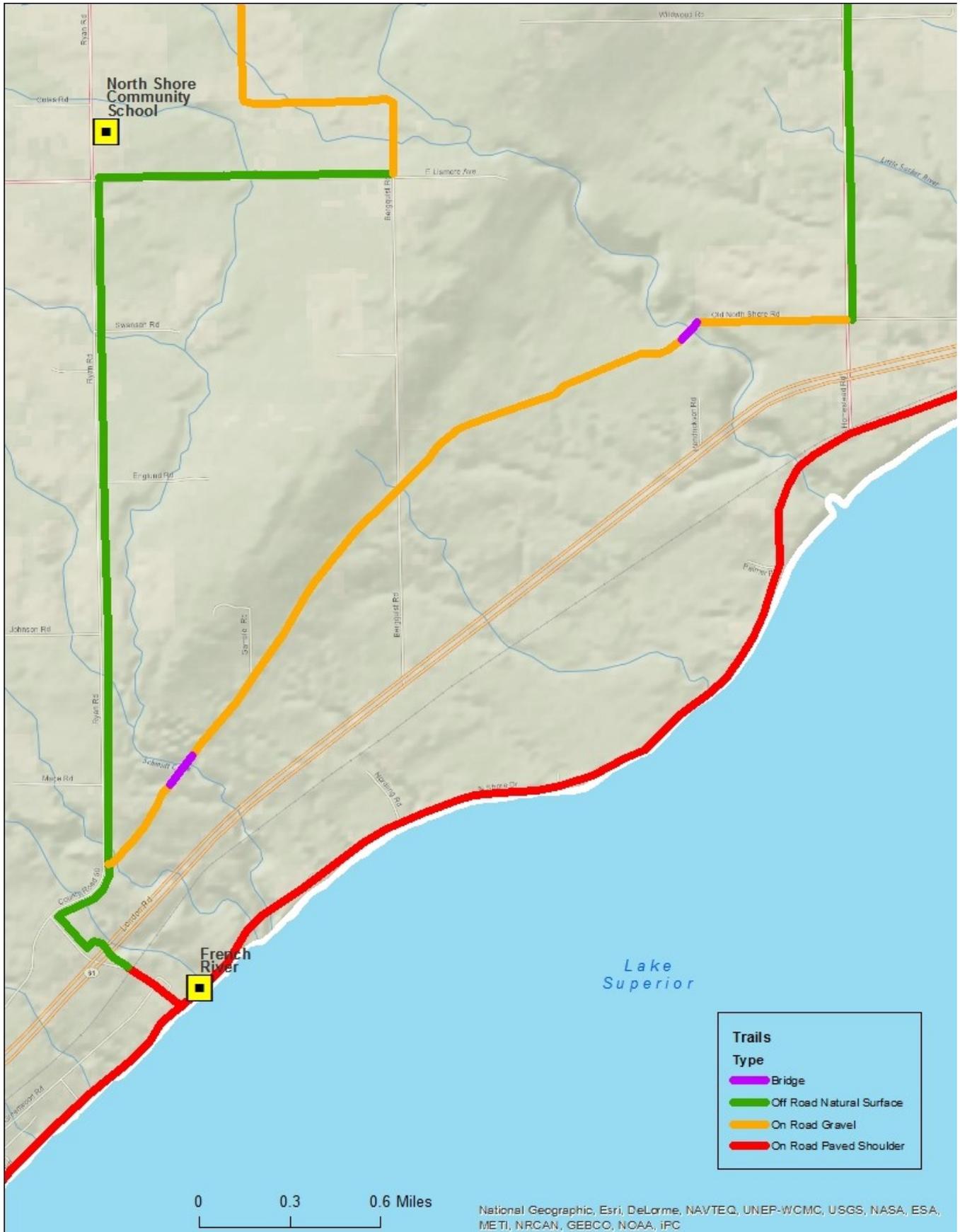


Bergquist Road



Bergquist Road

TRAIL SEGMENT—OLD NORTH SHORE ROAD



OLD NORTH SHORE ROAD TRAIL

Connects Ryan Road and the French River to Homestead Road.

Trail Surface:

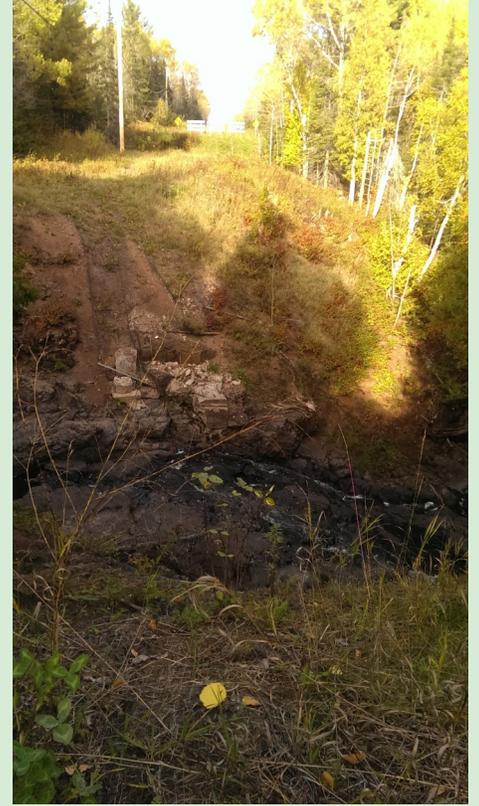
- Existing gravel road.
- Proposed bicycle and pedestrian bridges over Schmidt Creek and Sucker River.

Details:

- Historic and scenic roadway.
- Cross two streams, both roadways have been removed. New bicycle and pedestrian bridges will need to be installed.
- Low volume roadway

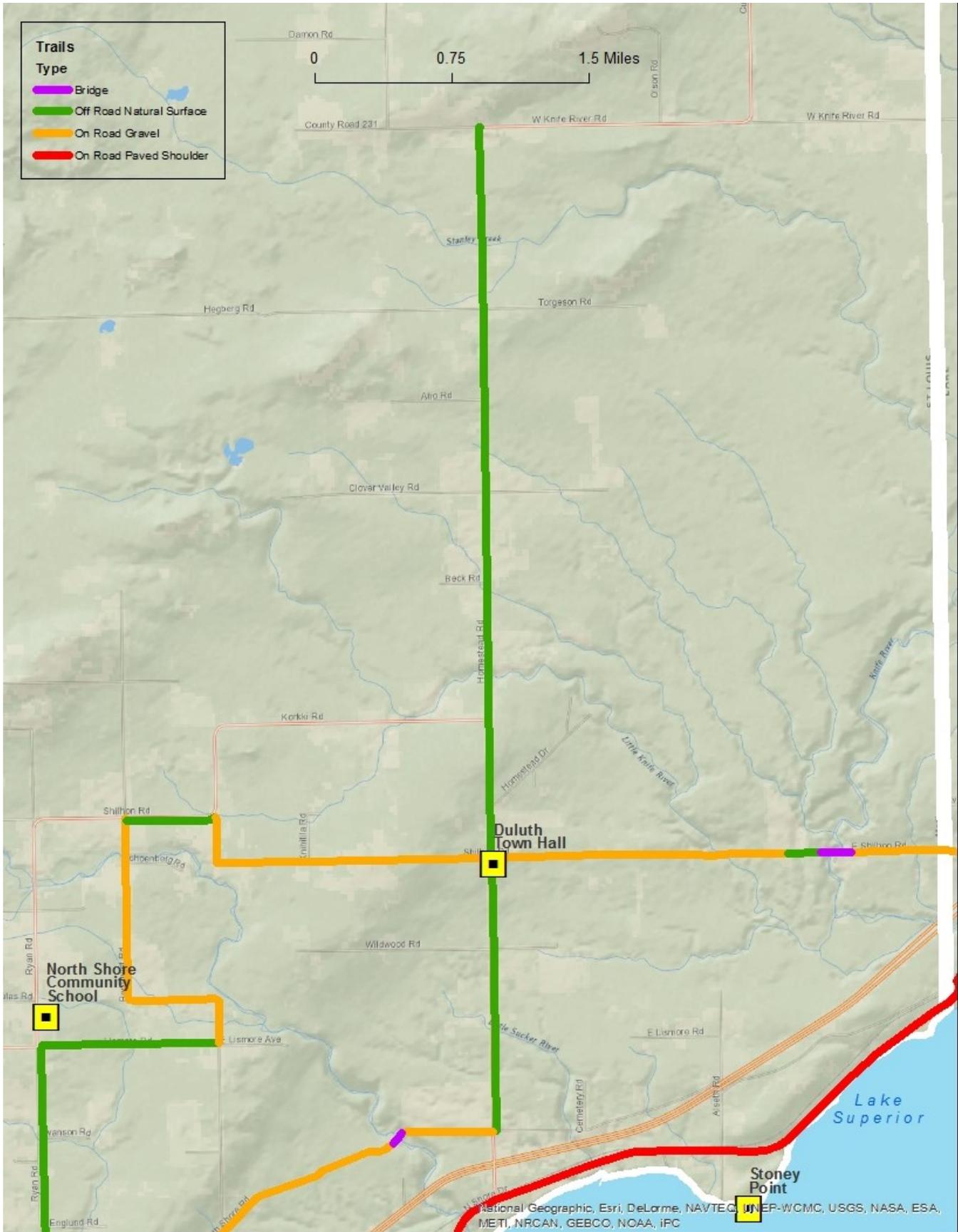


Corner of Old North Shore Road and Ryan Road



Missing bridge along Old North Shore Road

TRAIL SEGMENT — HOMESTEAD ROAD



HOMESTEAD ROAD TRAIL

Connects Duluth Town Hall at Shilhon Road along Homestead Road to Old North Shore Road.

Trail Surface:

- Homestead Rd Proposed trail: natural surface —5-8 foot width minimum

Details:

- Separate off-road trail along a popular walking route.
- High speed motor vehicle traffic.
- Continuous flow of traffic.
- Many small hills, which makes it difficult for pedestrians, bicyclists and motorists to see oncoming traffic.
- Connects to Superior Hiking Trail
- Homestead Road Priority
 1. South Segment—Old North Shore Rd to Shilhon Rd
 - Off Road Natural Surface Segment
 - Highest level of use along corridor
 2. North Segment—Shilhon Rd to Knife River Rd
 - If and/or when shoulders are added to this segment, then add to trails plan.



Homestead Road in front of Duluth Town Hall

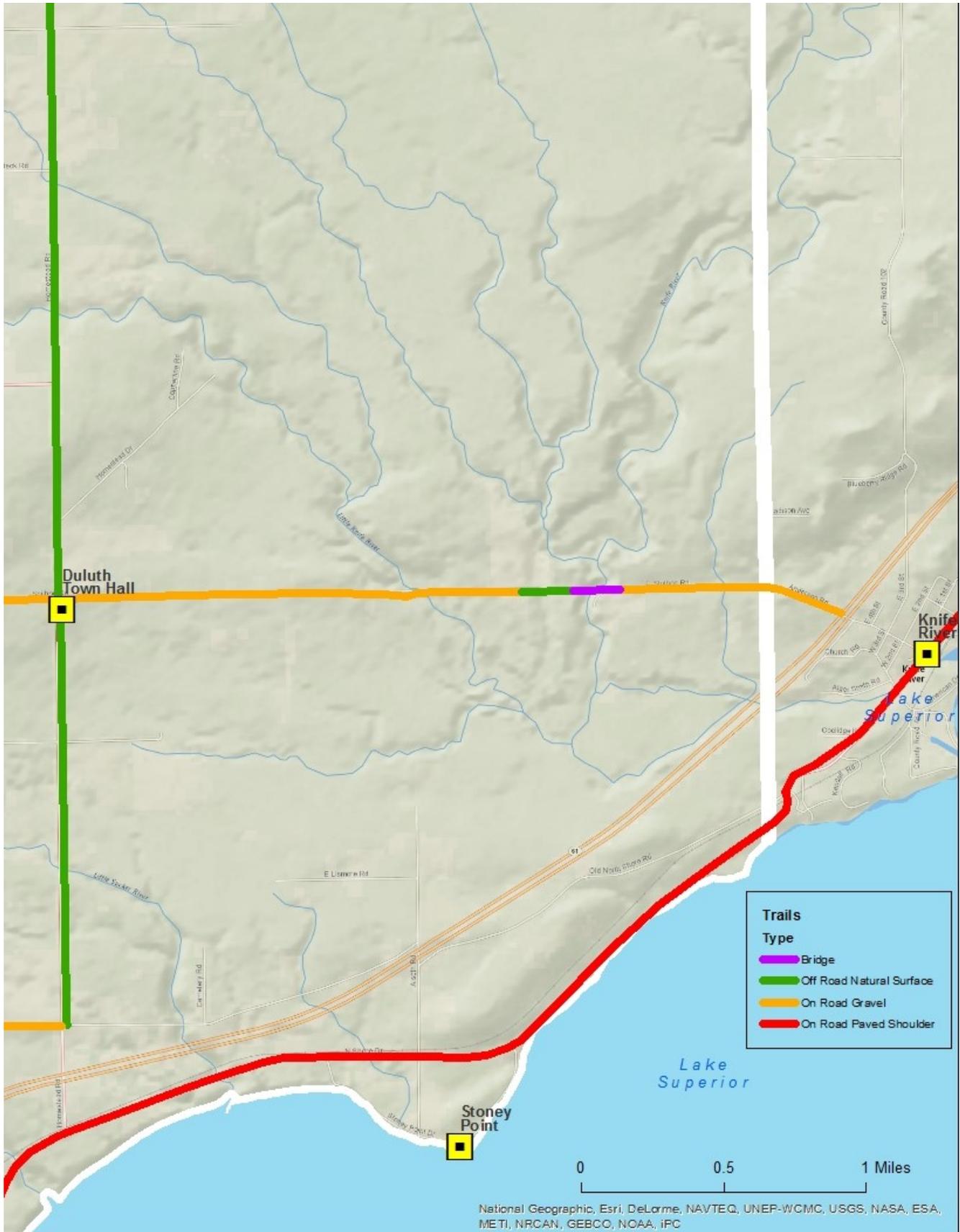


Homestead Road—looking toward Lake Superior



North Segment of Homestead Road

TRAIL SEGMENT — KNIFE RIVER CONNECTOR



KNIFE RIVER CONNECTOR TRAIL

Connects Shilhon Road at the Duluth Town Hall and Homestead Road to Knife River at Highway 61.

Trail Surface:

- Existing: gravel roadway
- Proposed natural surface trail from the end of the Knife River Road to the proposed bicycle and pedestrian bridge.
- Bicycle and pedestrian bridge across Knife River. No roadway bridge has ever been built here.

Details:

- Connects Duluth Township to the community of Knife River.
- Provides a connection to Knife River, a popular trout fishing stream along the North Shore.
- Provides a direct path to Two Harbors.



Aerial of Shilhon Road at the Knife River



Fishing the Knife River

Trail Amenities—items include signage, lighting, and support facilities.

Signage—a unified sign design with repetitive elements including scheme, colors and logos will reinforce the image of a common trail even though the trail passes through different communities.

Information Signage—located at historical and/or significant locations within the township.

- ◇ Signage within St. Louis County Highways right-of-way must meet the Manual for Uniform Traffic Control Devices (MUTCD).
- ◇ Signage off right-of-way, along off road trails does not have to meet MUTCD, and the design and materials can solely be determined by the township.

Information Signage—located at historical and/or significant locations within the township.

Support Facilities—items that are located at historic, significant places within the township as well as support regular intervals which provide support for trail users, including trailheads, orientation kiosks (“you are here” maps), drinking fountains,



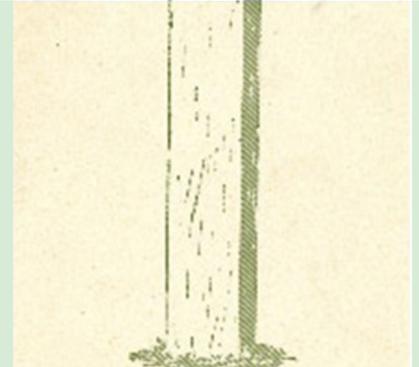
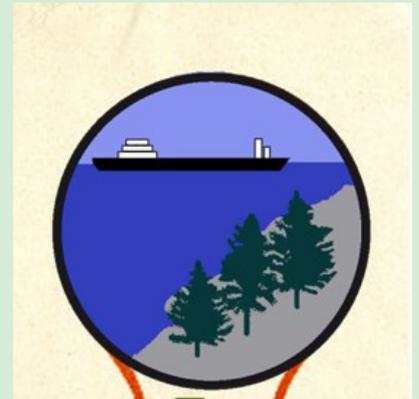
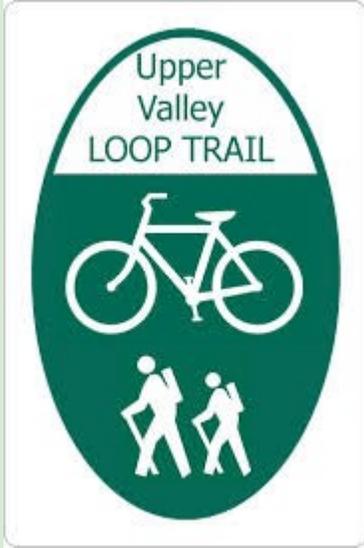
Historical monument sign along Ryan Road

benches, bike racks, and trash & recycling bins.

Possible Kiosk Locations

1. French River
2. McQuade Harbor
3. North Shore Community School

Examples of Duluth Township Trail Signage



To implement the trail projects identified in this plan, Duluth Township will be the lead agency pushing these projects forward. However, the Duluth-Superior Metropolitan Interstate Council and St. Louis County will play strategic roles in the implementation of this plan, since the trail network is intertwined within the region and transcends jurisdictional boundaries.

A critical element to implementing this plan is to forge partnerships between not only the pertinent agencies (townships, cities, county, state) but also trail groups and other interested organizations, agencies and volunteers. These entities will play an important role to collaboratively develop and, in the end, make the Duluth Township Trails Plan a successful reality.

Trail Planning Factors

Each trail segment will have to be individually examined in order to determine the improvements necessary to build the trail.

In some cases, the roadscape needs to be enhanced in order to create a bicycle and pedestrian friendly road. There are several items to specifically be taken into account when examining each trail, including existing and possible easements, the public land available, and the owners of the private property along the trail corridor, regardless of the need to purchase property/easement.

Trail Maintenance & Operations—the on-going maintenance and operations of the trail system is essential to its success and directly affects trail usage. A trail must be adequately maintained to ensure the public's safety on the trail as well as trust in the community.

One group or organization should be identified to assume to the lead and provide overall administration of the trail. This group will be responsible for trail maintenance and day-to-day operations. A collaboration between jurisdictions, community groups, and volunteers is integral to accomplishing this goal.

Take into consideration when building trail:

- ◇ Easements
- ◇ Public Land Available
- ◇ Private Property Ownership

Responsibilities:

Trails will be maintained and operated by Duluth Township.

Bicycle & Pedestrian Bridges will require maintenance and inspection schedule that follows the State of Minnesota bridge requirements.

Trail Funding—one of the major constraints for this trail plan is funding. A list of potential funding sources include:

- Transportation Alternatives
- Legacy Grant
- Lake Superior Coastal Program
- Legislative Council on Minnesota Resources
- Safe Routes to School (SRTS)
- MN DNR—Trails & Waterways Programs

Note that the type of trail and its location will determine the costs of the trail and which funding sources can be tapped into from the list above as well as from other funding sources not identified here.

Implementation Timeline

The following timeline lists all trail segments and their priority for being implemented. The trails are placed into either short, mid, or long-range timeframes.

Short-Range Timeframe—0-5 years

- Wayfinding Signage
- Ryan Road Trail
- Community Trail—School to Town Hall

Mid-Range Timeframe—5-10 years

- Homestead Road Trail
- Old North Shore Drive Trail

Long-Range Timeframe—10+ years

- Knife River Connector Trail

Note that the some of the trail improvements, particularly the shared roadway and parallel natural surface trails, will be implemented incrementally, meaning that the entire improvement (trees, landscaping, etc) will not necessarily be installed all at one time.

Amending the Trails Plan

This plan is not intended to be a static document and will undergo regular updates and plan amendments as township officials proceed with implementation.

Items in the Appendix include:

1. Community Survey Instrument
2. Community Survey Summary
3. Summary of First Community Open House—Input Gathering
4. Summary of Open House—Draft Plan
5. MIC Area Population Density
6. Duluth Township Population by Census Block
7. Existing Roads in Duluth Township

