



Monroe County
Land Conservation Department



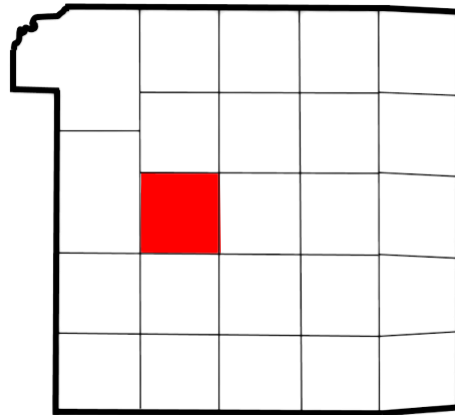
820 Industrial Drive, Suite 3, Sparta WI 54656

Phone - 608/269-8973

Email - bmicheel@co.monroe.wi.us

www.co.monroe.wi.us

Town of Angelo Stream Crossing Survey



7/6/2023

D. Ellefson, D. Lueck

The average Overall Score in Angelo is 16.80, indicating that most road-stream crossings have good flood resiliency. Preemptive efforts should focus on reinforcing or replacing crossings with overall scores of 22 or higher. Many factors should be considered when choosing structures for replacements, such as overall score, structure condition, road traffic, and aquatic passability. Design of new structures should focus on sizing standards, alignment with the stream, and protecting the embankments near the crossing.

All road-stream crossings in Angelo are barriers to aquatic life. Barriers can prevent fish movement upstream to potential spawning beds and diminish organic energy and matter throughout the system. This can be prevented by eliminating perches and decreasing water velocity through properly designed structures. Efforts should focus on crossings lower in the water shed in order to increase connectivity to more stream miles.

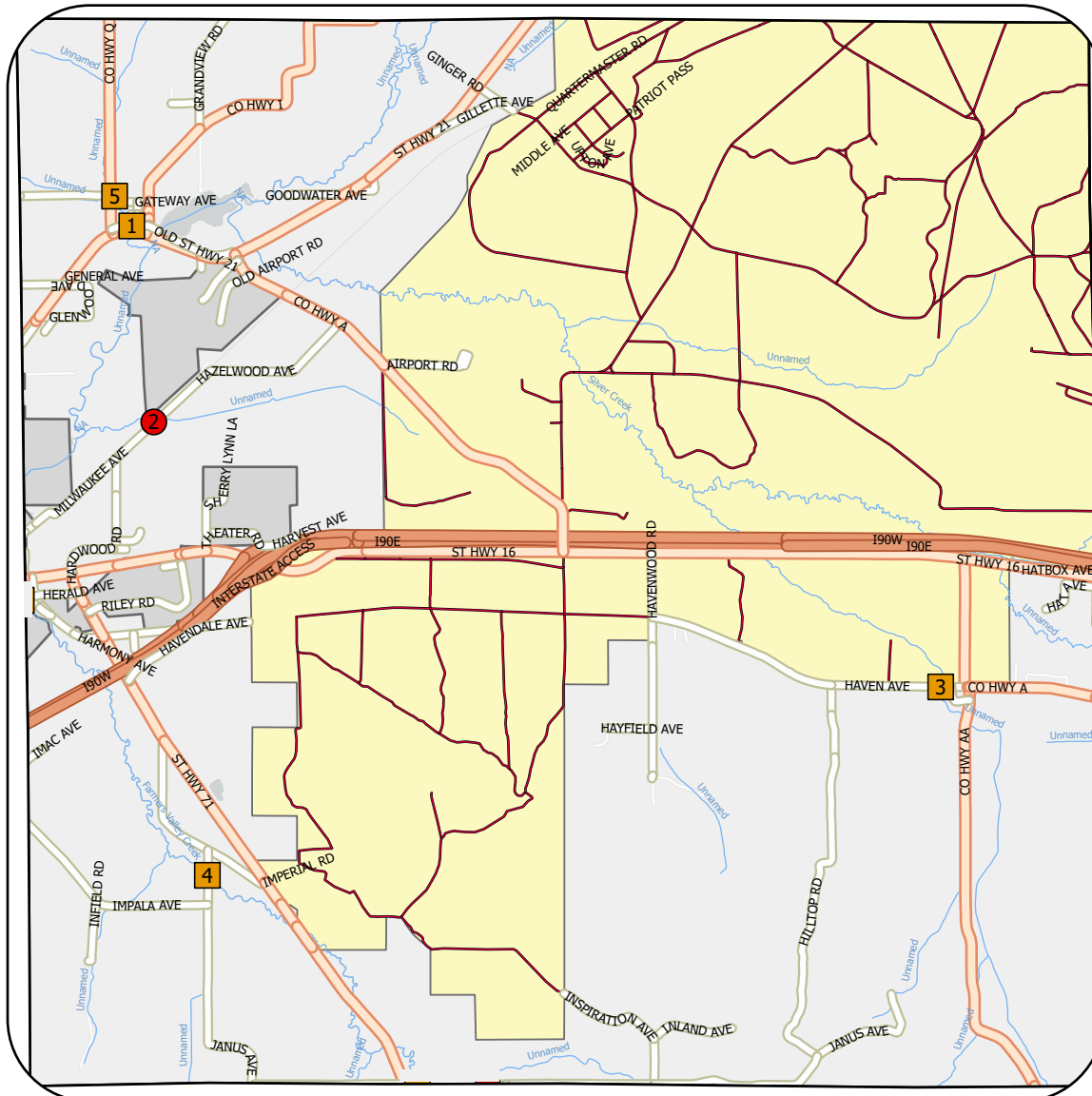
Rank	Crossing Name	Score	Recommended Action
1	Old State Highway 21	22	Closely Monitor
2	Hazelwood Avenue	20	Annual Assessment
3	Haven Ave and CTH-A	18	Annual Assessment
4	Janus Avenue N of intersection with Impala Avenue	16	Annual Assessment
5	Gateway Avenue	8	None

DISCLAIMER!

The stream crossing survey is **NOT** a comprehensive evaluation of all crossings in Monroe County. Crossings that were not surveyed include: crossings on dry or intermittent streams, crossings on private property, crossings deemed inaccessible or unsafe to survey, and crossings that were not identified or located. Additionally, some crossing may be missing information due to accessibility.

Replacement Priority Ranking at Road Stream Crossings

Town of Angelo



The average Overall Score in Angelo is 16.80, indicating that most road-stream crossings have good flood resiliency. Preemptive efforts should focus on reinforcing or replacing crossings with overall scores of 22 or higher. Many factors should be considered when choosing structures for replacements, such as overall score, structure condition, road traffic, and aquatic passability. Design of new structures should focus on sizing standards, alignment with the stream, and protecting the embankments near the crossing.

All road-stream crossings in Angelo are barriers to aquatic life. Barriers can prevent fish movement upstream to potential spawning beds and diminish organic energy and matter throughout the system. This can be prevented by eliminating perches and decreasing water velocity through properly designed structures. Efforts should focus on crossings lower in the water shed in order to increase connectivity to more stream miles.

Rank	Crossing Name	Score	Recommended Action
1	Old State Highway 21	22	Closely Monitor
2	Hazelwood Avenue	20	Annual Assessment
3	Haven Ave and CTH-A	18	Annual Assessment
4	Janus Avenue N of intersection with Impala Avenue	16	Annual Assessment
5	Gateway Avenue	8	None

● Culvert

Bridge

Monroe County LCD
Created: June 2023
Created By: D. Lueck

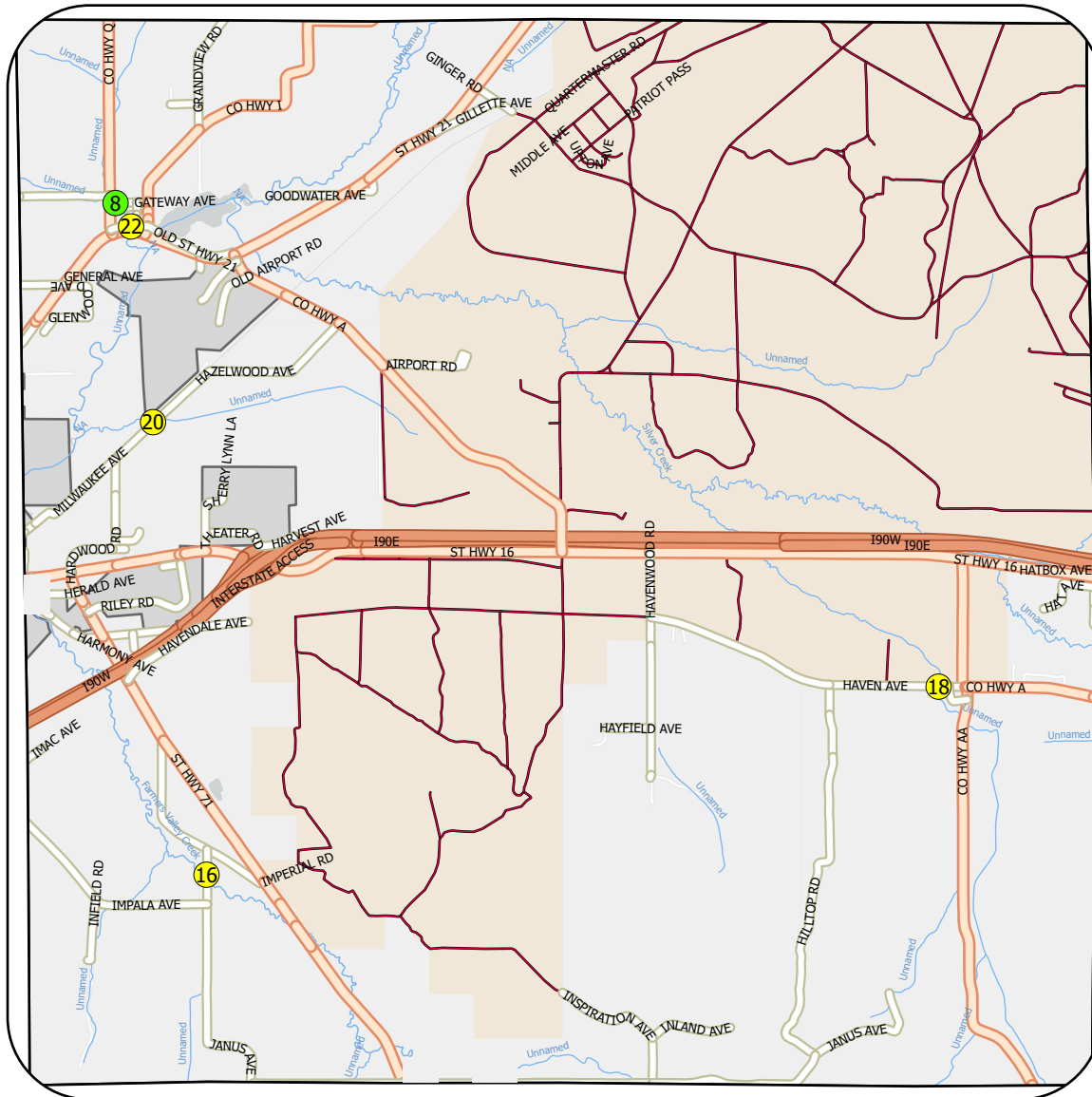
Data Sources:
Monroe County LIO
Great Lakes Stream Crossing Inventory

For more info about road stream crossings visit the Great Lakes Stream Crossing Inventory

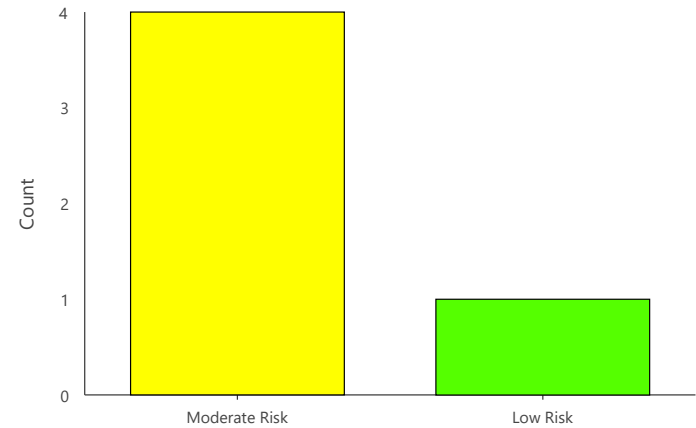
Crossings are ranked by order of need for replacement based on a weighted combination of flood risk, structure condition and aquatic passability. Flood risk is weighted the heaviest and aquatic passability the lightest.

Flood Resiliency at Road Stream Crossings

Town of Angelo



Example of a high flood risk stream crossing (score of 35) at the 1st crossing from Co Hwy J and a trib to the Little La Crosse.



Crossings are at increased risk of failure from flooding if the structure is undersized, not aligned with the stream, or has unprotected embankments. Minimum size recommendations are 1.2 times the bankfull width of the stream with ideal sizing of 1.2 times the bankfull width + 2ft.

- High Risk (>23)
- Moderate Risk (14-23)
- Low Risk (<14)

N



0 0.5 1 2 Miles

Monroe County LCD
Created: June 2023
Created By: D. Lueck

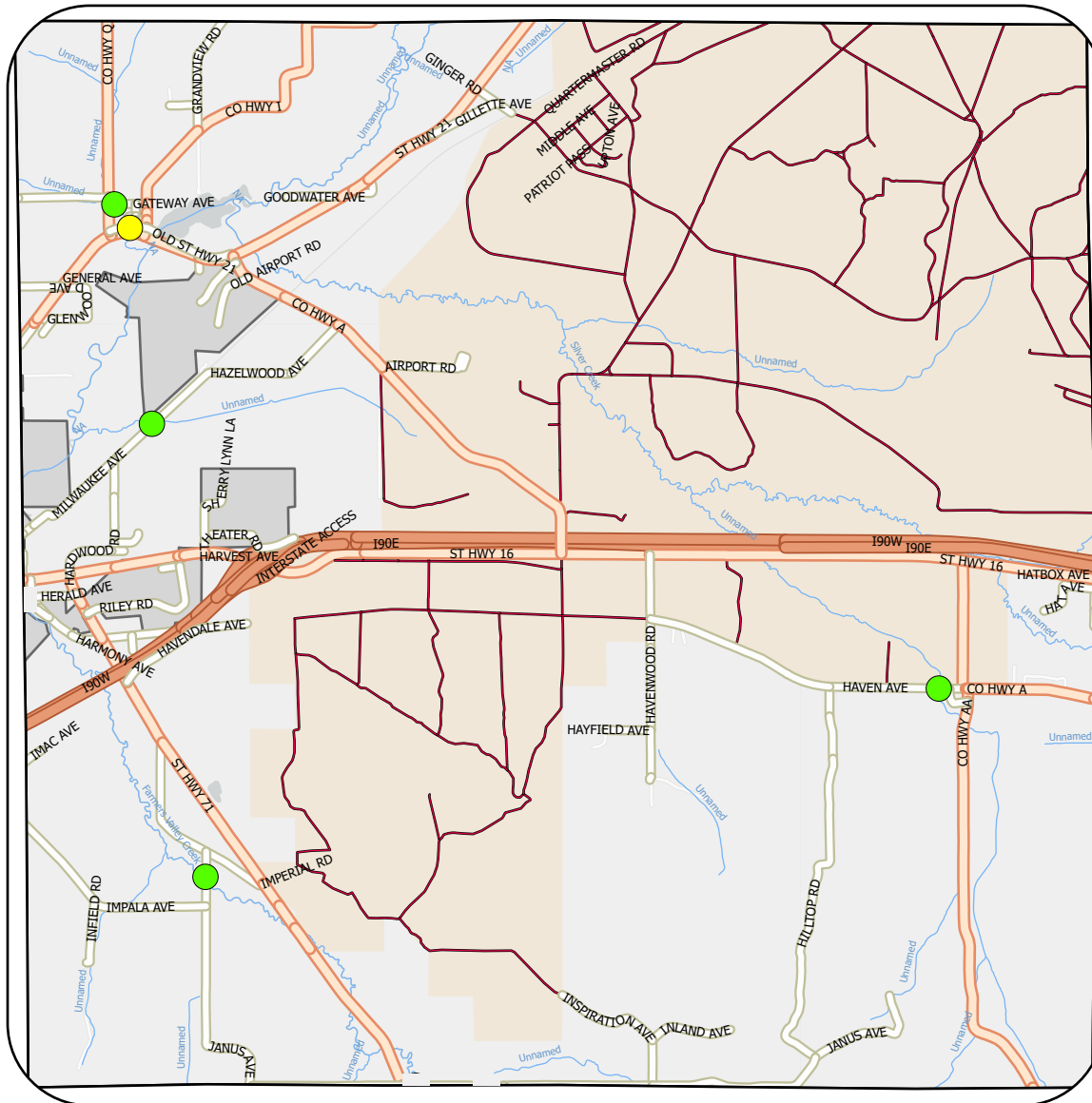
Data Sources:
Monroe County LIO
Great Lakes Stream Crossing Inventory



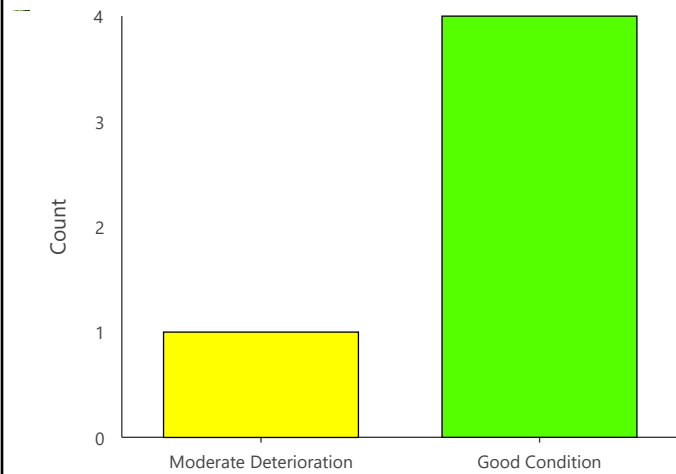
For more info about road stream crossings visit the Great Lakes Stream Crossing Inventory

Structure Condition at Road Stream Crossings

Town of Angelo



Example of major deterioration of a bridge crossing on Neptune Road.



Structure conditions are considered good if there is no evidence of corrosion, abrasion, cracking, spalling, chipping or shape changes.

Moderate deterioration is identified patches of corrosion or abrasion on less than 5% of the structure or minor cracks, spalling, chipping or shape changes.

Major deterioration is identified patches of corrosion or abrasion on greater than 5% of the structure or medium to large cracks, spalling, chipping or shape changes.

- Moderate Deterioration
- Good Condition

N



Monroe County LCD
Created: June 2023
Created By: D. Lueck

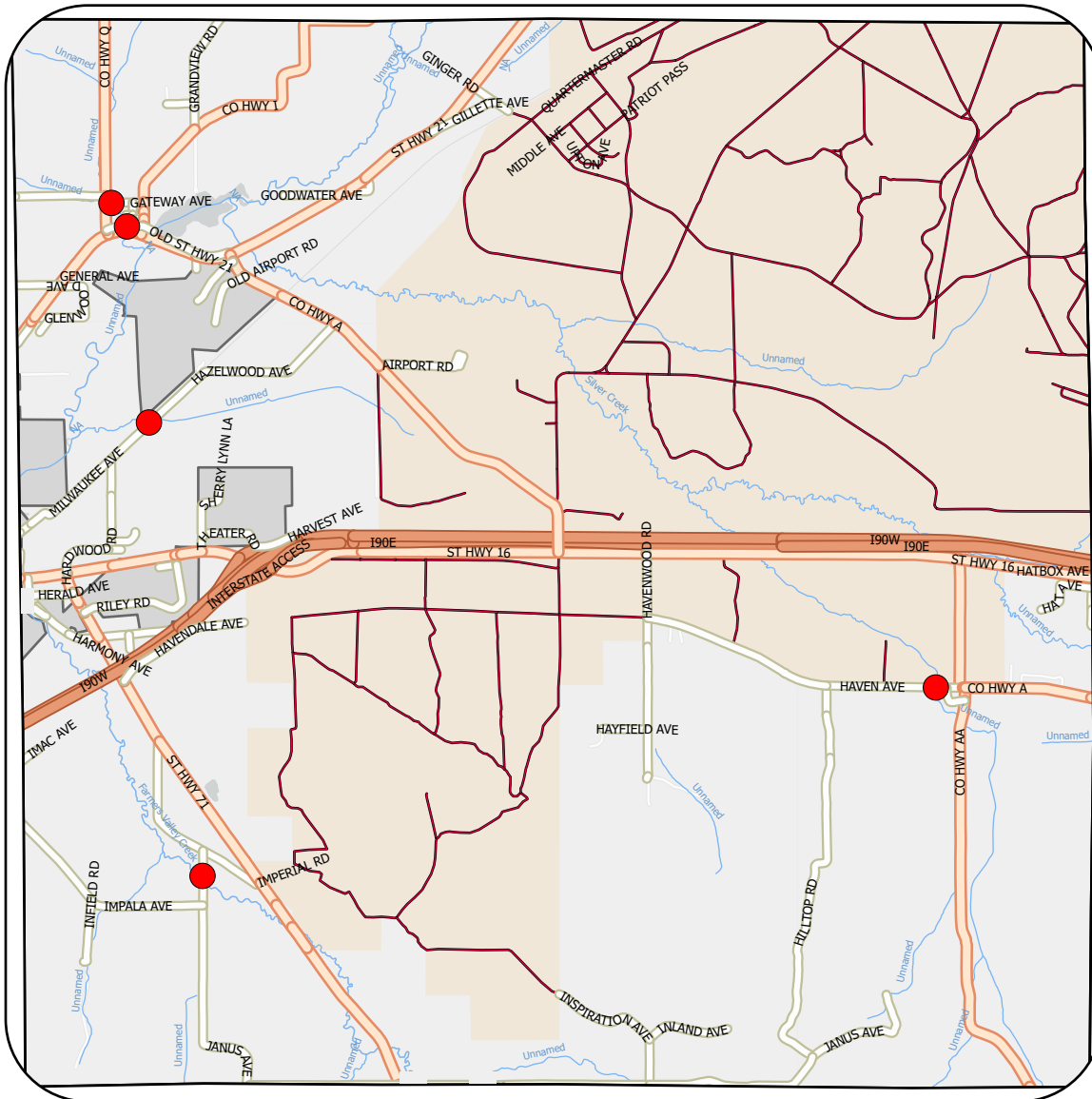
Data Sources:
Monroe County LIO
Great Lakes Stream Crossing Inventory



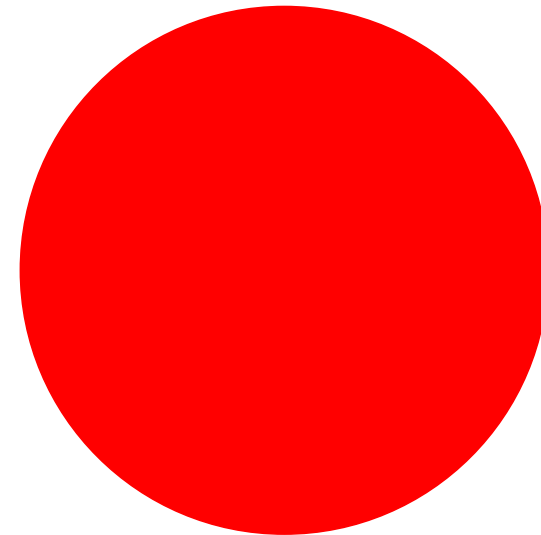
For more info about road stream crossings visit the Great Lakes Stream Crossing Inventory

Aquatic Passability at Road Stream Crossings

Town of Angelo



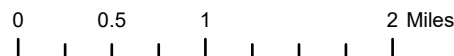
Example of an aquatic barrier due to perching at Kate Ave stream crossing of a trib to the Little La Crosse



Barrier 100.0%

Crossings can act as a barrier to fish movement and other aquatic organisms during normal stream flow conditions.

- Barrier
- Not Barrier



Monroe County LCD
Created: June 2023
Created By: D. Lueck

Data Sources:
Monroe County LIO
Great Lakes Stream Crossing Inventory

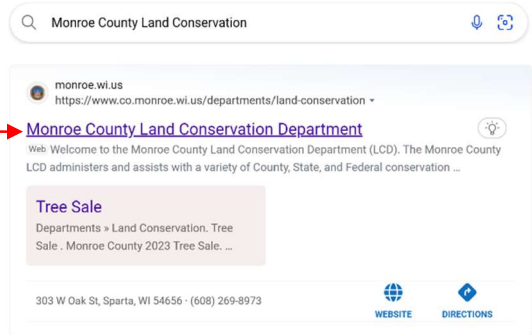


For more info about road stream crossings visit the Great Lakes Stream Crossing Inventory

The Great Lakes Stream Crossing Survey contains information about stream-road crossings (culverts and bridges) evaluated in Monroe County. A map of surveyed crossings is publicly available on the Monroe County Land Conservation website. Information regarding road condition, flood resiliency, and aquatic connectivity are summarized on the map.

To Access the survey map:

1. Search for “**Monroe County Land Conservation**” on your web browser and click the link (this should be the first link to appear)



2. Once on the Land Conservation page, scroll down to the **Road-Stream Crossing** page and click on it

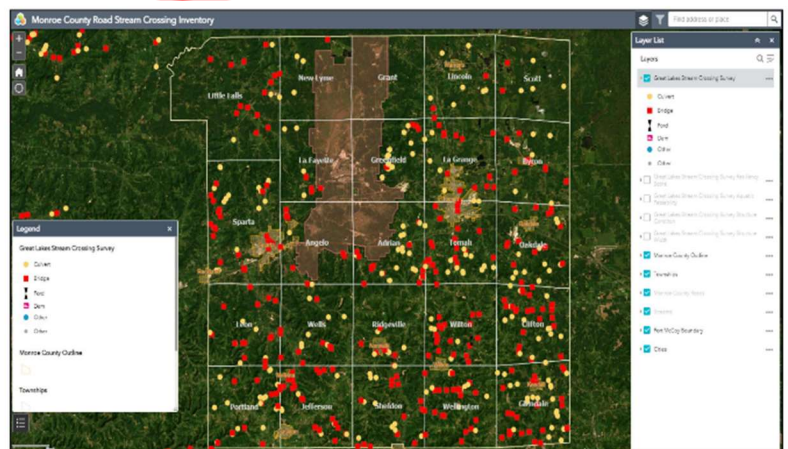


To view data click on following links:

[Monroe County Stream Crossing Viewer](#)

3. Once on the Road-Stream Crossing page, scroll down to the **Monroe County Stream Crossing Viewer** and click the blue link to enter the map viewer.

The viewer will show a map of Monroe County with outlines of the townships. The red and orange point are crossings that have been evaluated. Here, you are able to access data and pictures gathered at a specific site. For more information on how to navigate the map viewer, see page 2 of the guide.



STREAM CROSSING MAP ACCESSABILITY GUIDE

Zoom in or Out

Return to ArcGIS homepage

Search for a specific street address

Go to your current location

Chose data and markings shown on the map (only one dataset can be visible at a time)

Legend of map markings

Open/minimize map legend

Individual points can be selected to view more information

Filter for crossings in a specific town, road, or stream

See all data collected at a site, including pictures (you are able to scroll on this tab)

