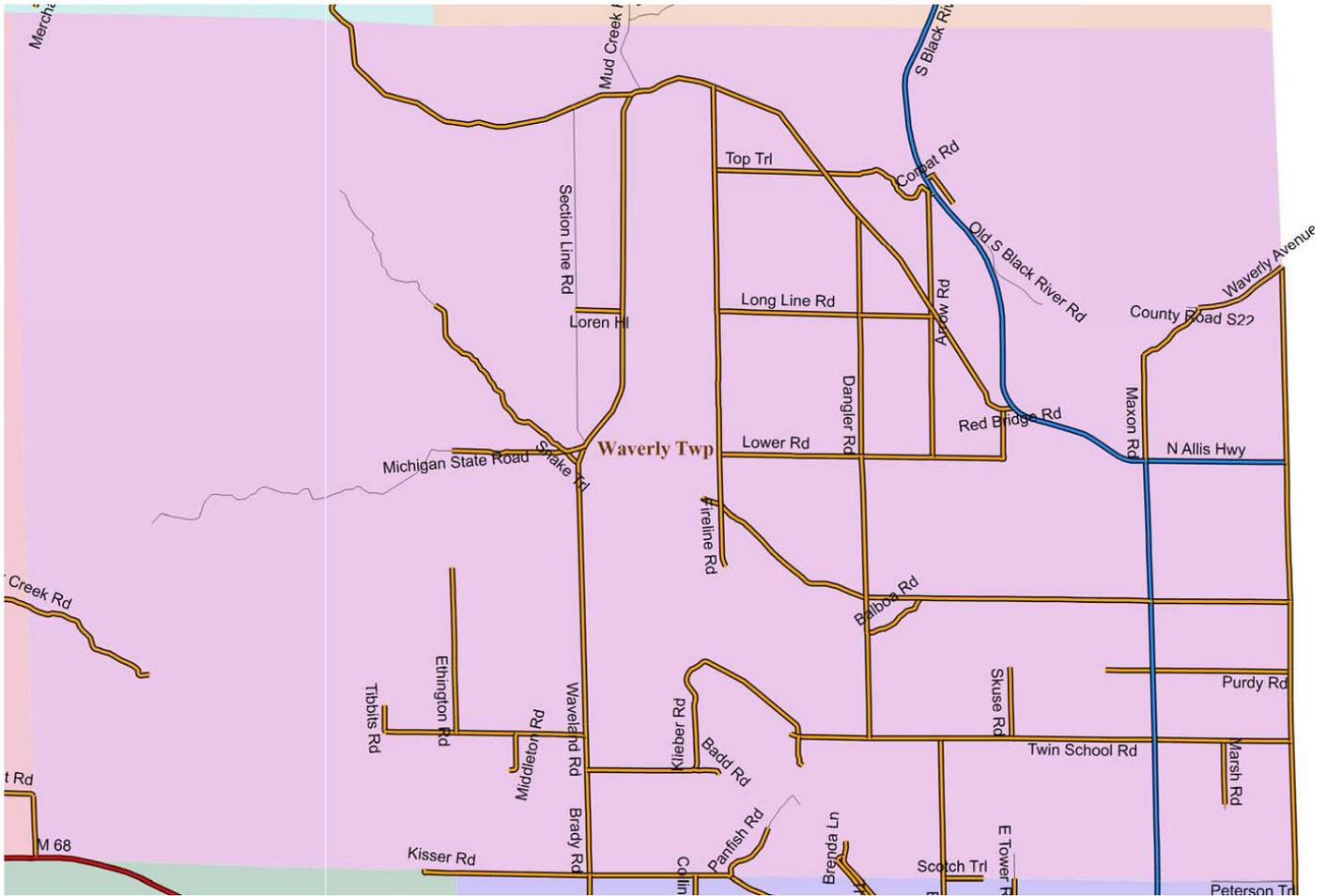


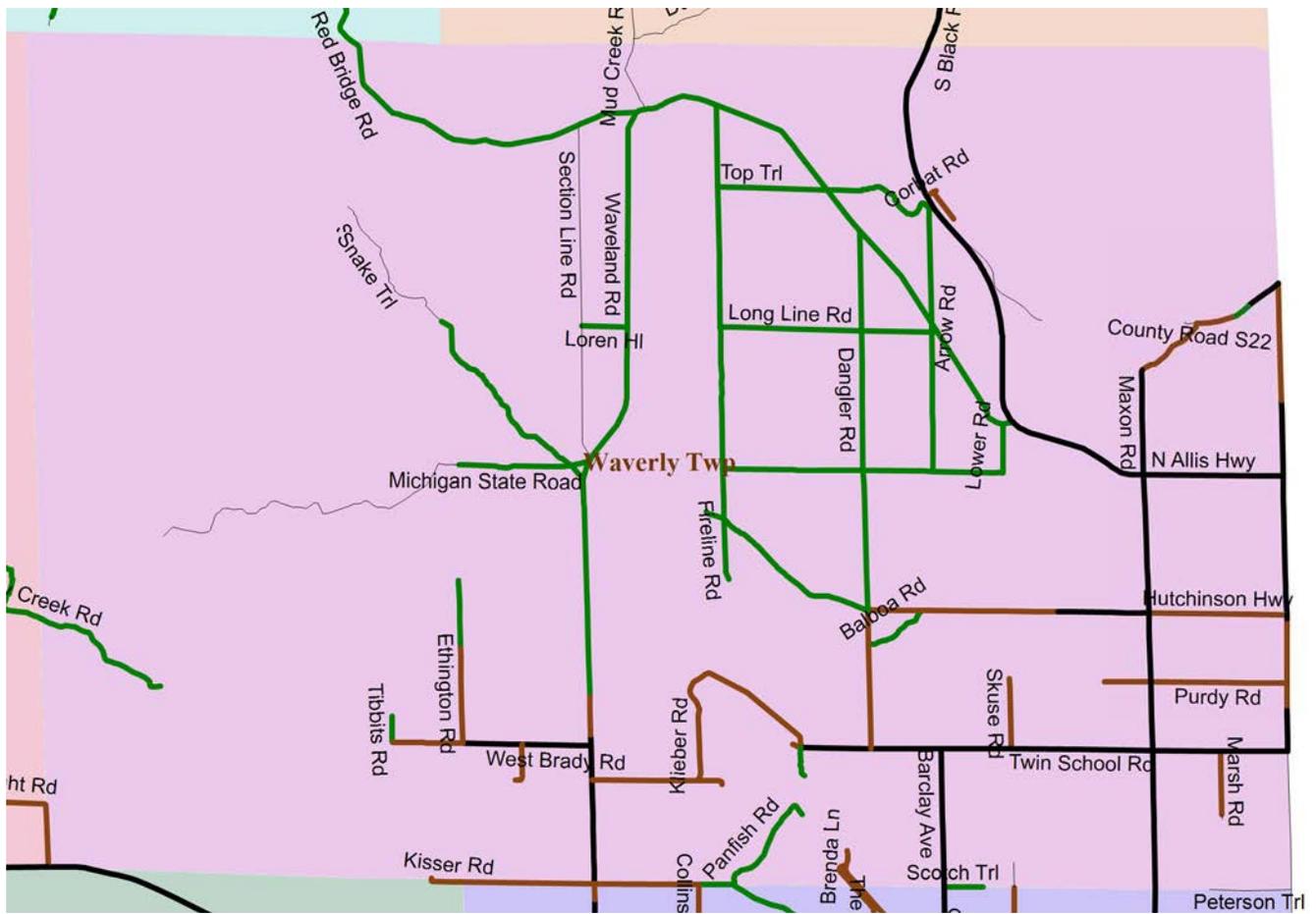
Cheboygan County Road Commission
Waverly Township Local Road Ratings Report for 2020

The goal of the Road Commission is to use Asset Management Strategies when planning projects for the roads under the jurisdiction of the Cheboygan County Road Commission. Asset management, as defined by Public Act 199 of 2007, is an “ongoing process of maintaining, upgrading and operating physical assets cost-effectively, based on a continuous physical inventory and condition assessment. Using asset management will allow the Road Commission and Township to invest the available road funds in a manner that will provide the greatest return.



Township Roads by Legal System

Red = State Highways – Blue = County Primary Roads – Orange = County Local Roads



Roads by Surface Type

Black = Pavement – **Brown** = Gravel – **Green** = Seasonal

PASER Road Rating System

All the local paved roads are rated each year using the PASER Road Rating system in the Township (seasonal roads are not included). PASER, or Pavement Surface Evaluation and Rating, is the rating system that is used in collecting data for RoadSoft. The roads are rated on a scale of 1 to 10 according to surface conditions of the pavement. The tables below show the rating and the suggested maintenance that would be required to preserve the road along with an estimated cost of repair.

PASER Rating and Treatments for Paved Roads

Road Rating	Recommended Repair	Estimated Cost per Mile
10	No maintenance necessary. New Road	\$ 0
9	No Maintenance necessary. Smooth Surface.	\$ 0
8	Minor Crack Sealing	\$ 600
7	General Crack Sealing and/or Minor Patching	\$ 3,200
6	Patching and Sealcoat	\$ 29,000
	Ultra-thin Asphalt Overlay	\$ 63,000
5	Asphalt Wedging	\$ 47,000
	Asphalt Wedging and Sealcoat	\$ 75,000
	Asphalt Wedging and Ultra-thin Asphalt Overlay	\$ 106,000
4	Asphalt Wedging and Overlay	\$ 142,000
3	Pulverize, gravel and pave	\$ 240,000
2	Reconstruction.	\$ 350,000
1	Reconstruction. Failed Road.	\$ 350,000

Gravel roads are rated using the Inventory-Based Rating System™ for Gravel Roads (IBR). The IBR system considers three characteristics of a road segment to determine a rating for the segment. Surface width, drainage adequacy and structural adequacy are all evaluated to determine the segment rating. From this evaluation a rating of 1 to 10 is calculated.

IBR Rating and Treatments for Gravel Roads

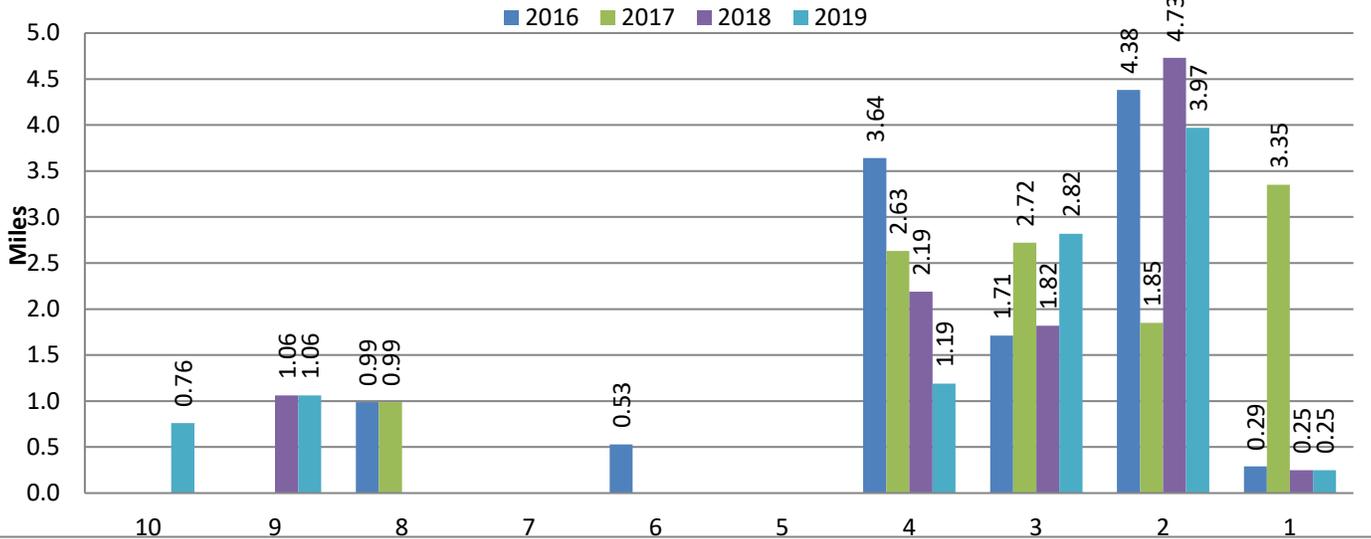
Road Rating	Existing Condition / Recommended Repair	Estimated Cost per Mile
10	No maintenance necessary. New Road	\$ 0
8 – 9	Good crown and drainage throughout. Adequate gravel for traffic. Maintain with grading and dust control.	\$ 500
6 - 7	Existing crown with drainage on 50% or more of roadway. Additional gravel needed in some areas along with ditching.	\$ 55,000
3 - 5	Little or no crown. Ditched on less than 50% of the road. Additional gravel needed on entire road along with ditching.	\$ 95,000
1 - 2	Failed road. Reconstruction.	\$ 250,000

Waverly Township Paved Local Road Ratings

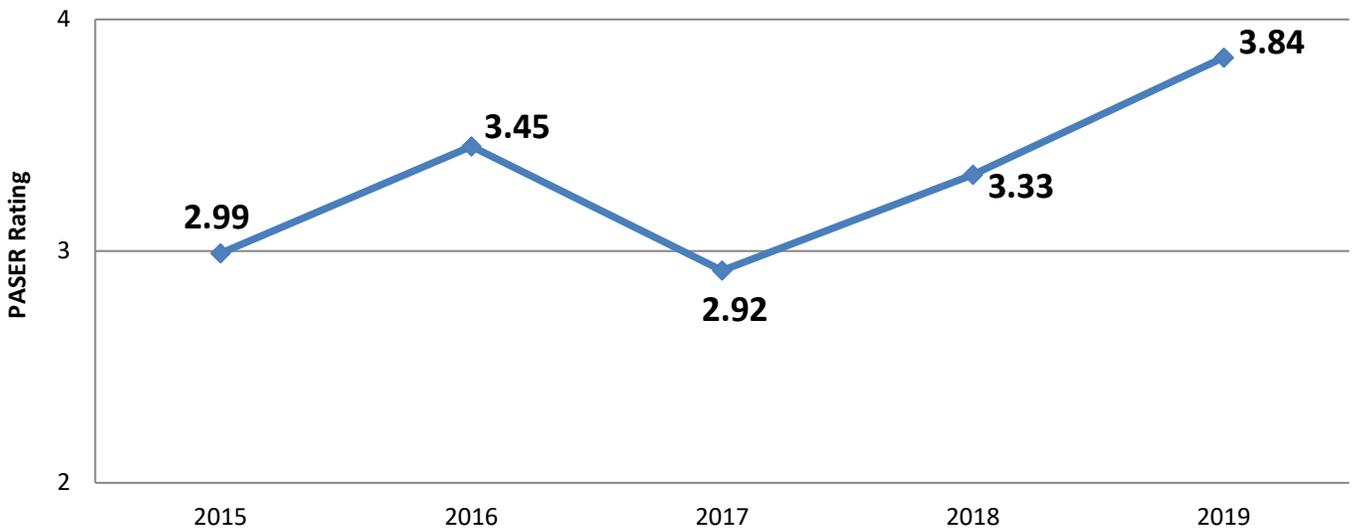
Current Road Ratings

PASER Rating	Road Name	Limits	Length (miles)
10	Maxon Road	North Allis Highway to Stewarts Beach Road.	0.76
9	Twin School Road	Klieber Road to Barclay Avenue.	1.06
8			
7			
6			
5			
4	County Line Road Hutchinson Highway	North Allis Highway then north to end of pavement. Black River Road then west to end of pavement.	0.54 0.65
3	Barclay Avenue Twin School Road Waverly Avenue	Scotch Trail to Twin School Highway. Barclay Avenue to Black River Road. County Line Road westerly to end of pavement.	0.98 1.51 0.33
2	Brady Road County Line Road Twin School Road Waveland Road	Kisser Road to Ethington Road. Hutchison Highway to North Allis Highway. County Line Road to Black River Road. Brady Road to end of pavement.	1.91 1.00 0.96 0.10
1	County Line Road	Twin School Road then north to end of pavement.	0.25

2016 - 2019 PASER Ratings for Paved Local Roads



Average PASER Rating for Paved Local Roads

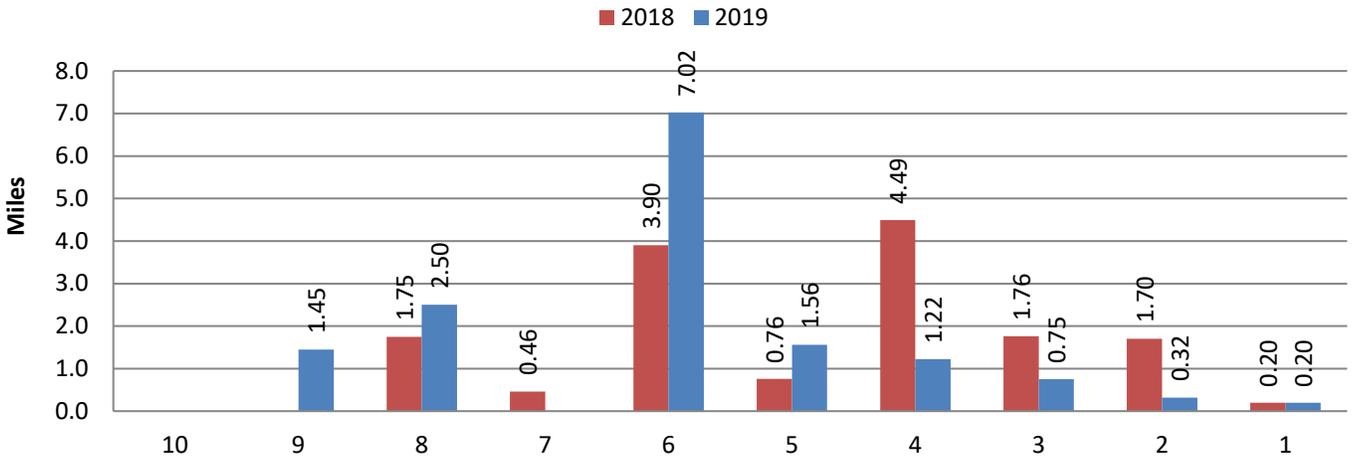


Waverly Township Gravel Local Road Ratings

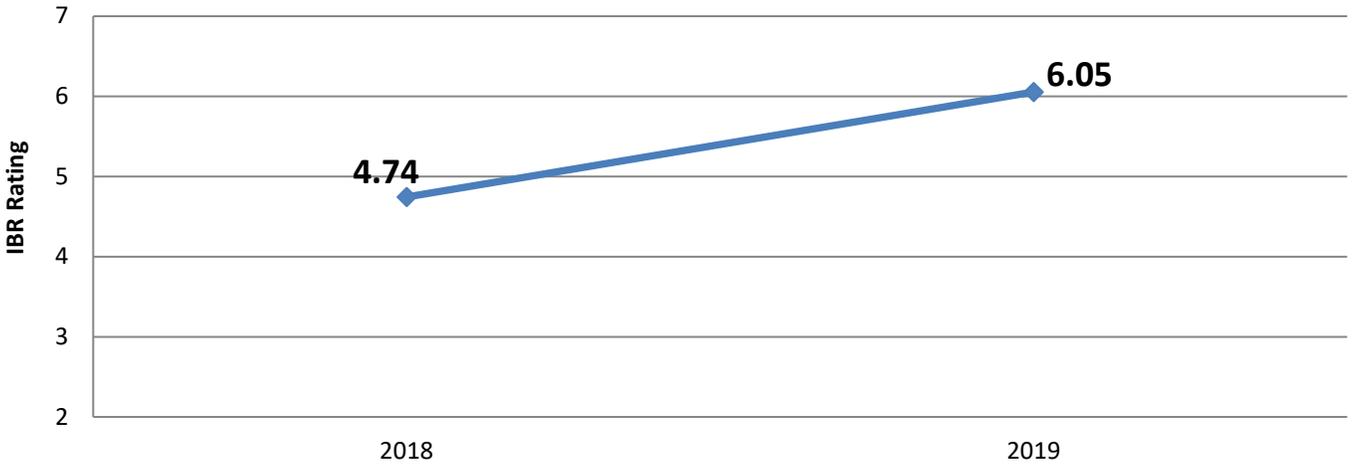
Current Road Ratings

PASER Rating	Road Name	Limits	Length (miles)
10			
9	County Line Road Hutchinson Highway	Stewart Beach Highway then south to end of pavement. Black river Road to County Line Road.	0.46 0.99
8	Brenda Lane Kleber Road Purdy Road West Brady Road	Township Line to end of road. Brady Road to Badd Road. County Line Road to Black River Road. Ethington Road to Tibbits Road.	0.27 0.76 0.97 0.50
7			
6	Dangler Road Hutchinson Highway Kisser Road Kleber Road Mero Road Purdy Road Stewarts Beach Road Waveland Road	Twin School Road to Hutchinson Highway. Dangler Road east to pavement. Brady Road then west to end of road. Badd Road to Twin School Road. Brenda Lane to Township Line. County Line road then west to end of road. Maxon Road to end of road. Brady Road to start of seasonal road.	1.00 1.35 1.18 1.73 0.20 0.33 0.88 0.35
5	Kisser Road Middleton Road Skuse Road	Brady Road to Collins Road. Brady Road then south to end of road. Twin School Road then north to end of road.	0.76 0.30 0.50
4	Ethington Road Marsh Road Twin School Road	Brady Road north to seasonal road. Twin School Road then south to end of road. Kleber Road then west to end of road.	0.71 0.45 0.06
3	County Line Road	Hitchinson Highway then south to pavement.	0.75
2	Corbat Road	Black River Road to end of road.	0.32
1	Badd Road	Kleber Road east to end of road.	0.20

2018 - 2019 IBR Ratings for Gravel Local Roads



Average IBR Rating for Gravel Local Roads



Service Life of Treatments

Service life is the expected time that a treatment will last before needing complete reconstruction. In the table below, an expected service life for a particular treatment is listed. Before a treatment reaches the expected service life, preventative maintenance should be performed. Preventative maintenance will extend the expected service life of the pavement and treatment.

Service Life of Treatments for Paved Roads

Road Rating	Recommended Repair	Expected Service Life (years)
8	Minor Crack Sealing	5
7	General Crack Sealing and/or Minor Patching	5
6	Patching and Sealcoat Ultra-thin Asphalt Overlay	7 7 – 10
5	Asphalt Wedging Asphalt Wedging and Sealcoat Asphalt Wedging and Ultra-thin Asphalt Overlay	7 7 – 10 10
4	Asphalt Wedging and Overlay	12 – 15
3	Pulverize, gravel and pave	15 – 25
2	Reconstruction.	25 - 30
1	Reconstruction. Failed Road.	25 - 30

For example, if a road has a PASER rating of 6, a treatment of a ultra-thin asphalt overlay is recommended (see the Table titled PASER Ratings and Treatment on page 1). The expected service life for an ultra-thin asphalt overlay is 7-10 years. Preventative maintenance in the form of crack sealing may be required after 2 years.

Expected service life may be shorter if the road is on poor soils that are not addressed as part of the treatment. If a project is selected that is not the recommended treatment, the service life listed in the table above will be shorter and preventative maintenance will need to be performed sooner.

Service Life for a gravel road is difficult to predict. Gravel road conditions can change rapidly based on weather, grading and traffic effects on the roads.