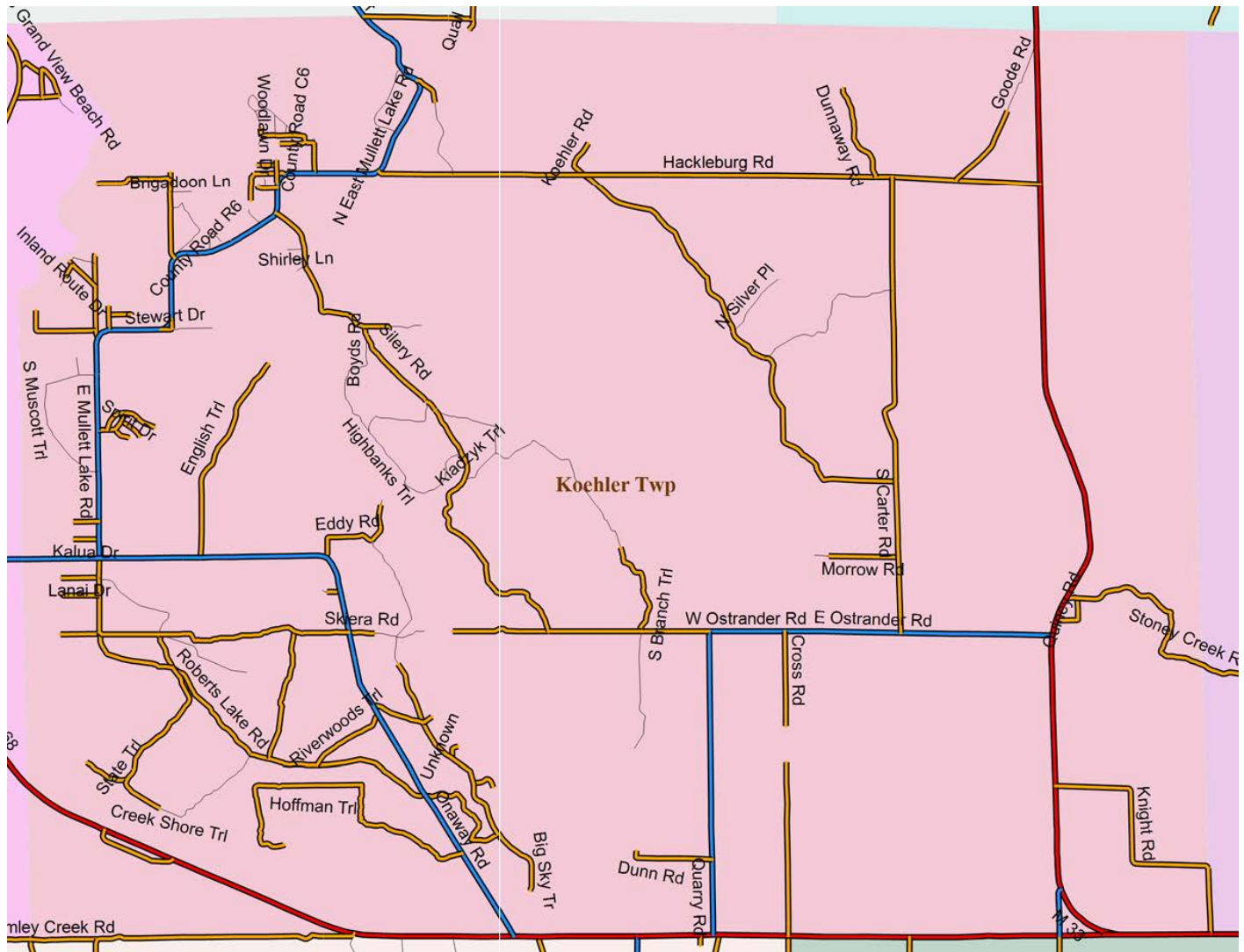


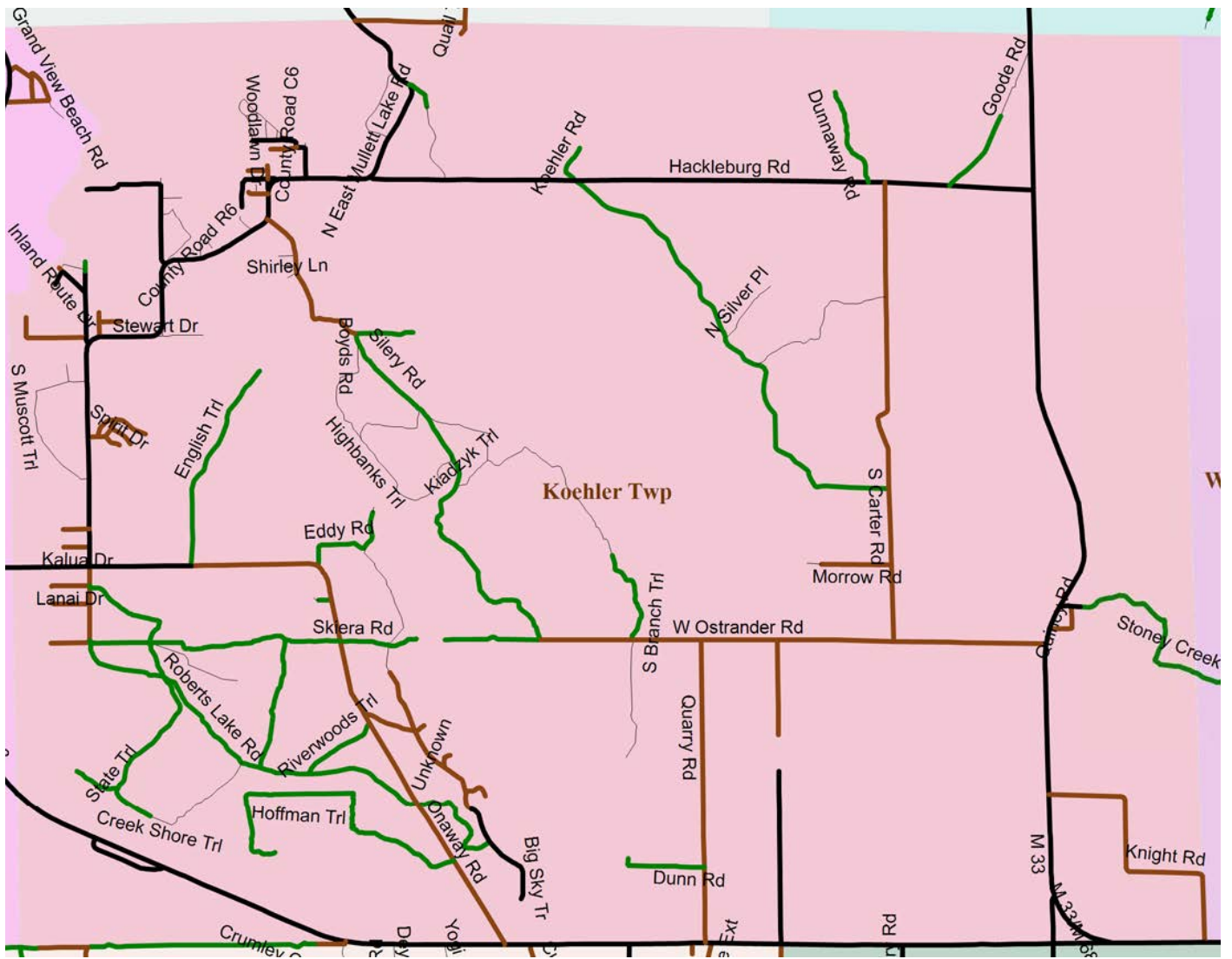
Cheboygan County Road Commission
Koehler Township Local Road Ratings Report for 2020

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

Road Rating Systems

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

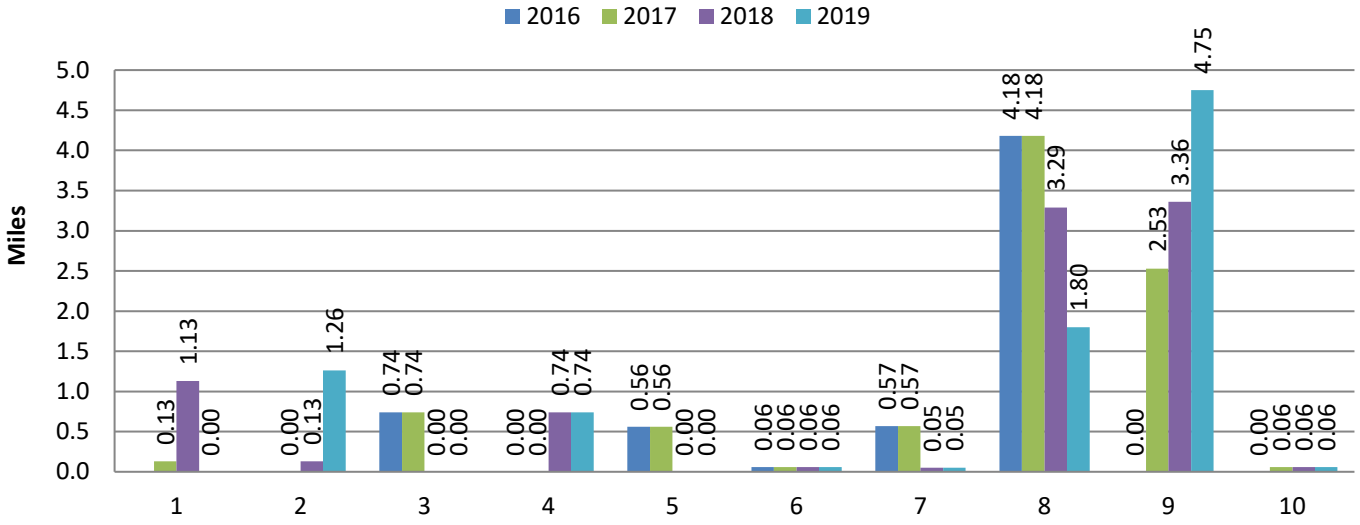
Road Rating	Existing Condition / Recommended Repair	Estimated Cost per Mile
10	No maintenance necessary. New Road	\$ 0
8 – 9	Good crown and drainage throughout. Adequate gravel for traffic. Maintain with grading and dust control.	\$ 500
6 - 7	Existing crown with drainage on 50% or more of roadway. Additional 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

Koehler Township Paved Local Road Ratings

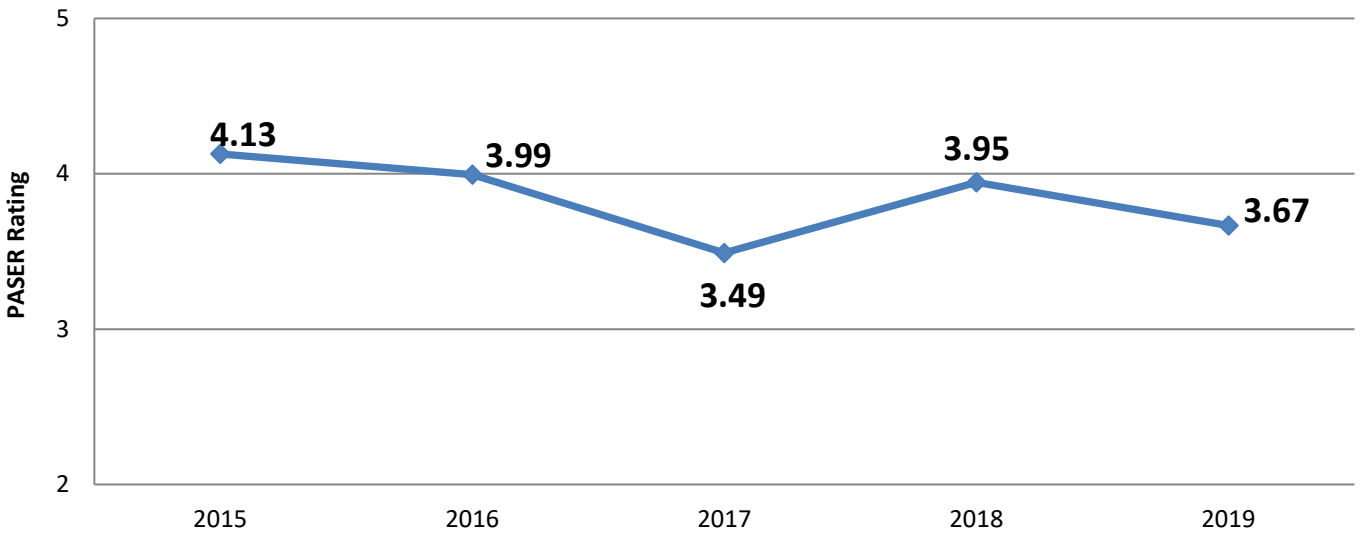
Current Road Ratings

PASER Rating	Road Name	Limits	Length (miles)
10			
9	Stoney Creek Road Temple Road	M-33 to end of asphalt. East Mullett Lake Road to end.	0.13 1.13
8			
7	Big Sky Trail	South end then north to end of pavement.	0.74
6			
5	Lynn Drive	East Mullett Lake Road to Lebeau Drive.	0.06
4	Bowersock Road	East Mullet Lake Road to Modock Road.	0.05
3	Hackleburg Road	Feathering Trail to Dunnaway Road (west). Dunnaway Road (east) to M-33.	0.78 1.02
2	Bowersock Road Hackleburg Road Inland Route Drive Kateri Lane Lynn Drive Parrott Point	Modock Road to end of road. East Mullett Lake Road to Feathering Trail. Dunnaway Road (west) to Dunnaway Road (east). Bowersock Road to the end of road. M-68 to M-68. Lebeau Drive to end of road. East Mullet Lake Road to Lakeside Trail.	0.52 1.08 1.43 0.30 0.55 0.27 0.60
1	Lebeau Drive	Lynn Drive south to end of road.	0.06

2016 - 2019 PASER Ratings for Paved Local Roads



Average PASER Rating for Paved Local Roads



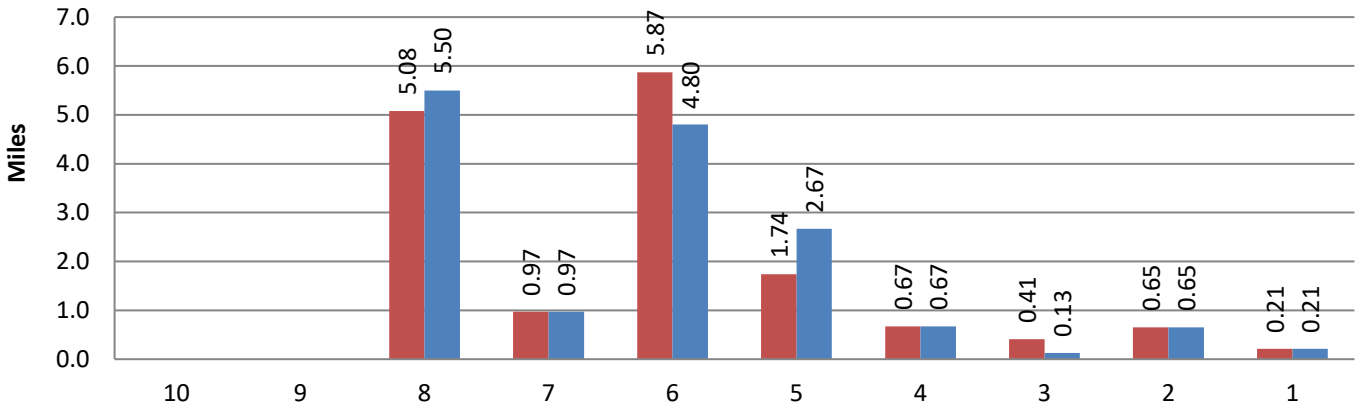
Koehler Township Gravel Local Road Ratings

Current Road Ratings

IBR Rating	Road Name	Limits	Length (miles)
10			
9			
8	Aloha Drive Bali Hai Drive Carter Road Commanchee Road Iverson Trail East Mullett Lake Road Kalua Drive Lanai Drive Skiera Road	East Mullett Lake Road to end of road. East Mullett Lake Road to end of road. Ostrander Road to Hackleburg Road. Hatchet Road then easterly to end of road. Hatchet Road to end of road. Onaway Road to end of road. East Mullett Lake Road to end of road. East Mullett Lake Road to end of road. East Mullett Lake Road then west to end.	0.25 0.17 3.05 0.17 0.42 0.50 0.17 0.25 0.52
7	Cross Road Morrow Road	Ostrander Road then south to seasonal road. Carter Road to the end of road.	0.51 0.46
6	Harold B Street Hatchet Road Knight Road Modock Road Ostrander Road Pancheck Road Quincy Road Spirit Drive Trembly Drive	Parrot Point Road to end. East Mullett Lake Road to Iverson Trail. M-33 to M-68. Bowersock Road to the end of road. Silery Road to Quarry Road. Lebeau Drive to end of road. M-33 to Stoney Creek Road. Hatchet Trail to end of road. East Mullett Lake Road to end of road.	0.17 0.20 1.92 0.53 1.19 0.20 0.31 0.12 0.16
5	Big Sky Trail Lebeau Drive Quail Trail Silery Road Sunderland Road	Riverwoods Trail then south to pavement. Lynn Drive to end of road. Schramm Road to end of road. East Mullett Lake Road to Briarwood Trail. Trembly Road then east to end of road.	1.01 0.08 0.18 1.24 0.16
4	Big Sky Trail Riverwoods Trail	Riverwoods Trail then north to end of road. Onaway Road to big Sky Trail	0.42 0.25
3	Red Pine Road	East Mullett Lake Road to end of road.	0.13
2	Crumley Creek Road	Hatch Road to end.	0.65
1	Crumley Creek Road	M-68 then west to seasonal road.	0.21

2018 - 2019 IBR Ratings for Gravel Local Roads

■ 2018 ■ 2019



Average IBR Rating for Gravel Local Roads



v

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.