



Conservation Resource Alliance

September 8, 2024

Chestonia Township Board
PO Box 295
3995 Second Street
Alba, MI 49611

To Whom it May Concern,

With this letter, the Conservation Resource Alliance (CRA) follows up on our August 22, 2024 letter sent to the Chestonia Township Board regarding the proposed Chestonia Township ORV/ATV Ordinance. Over the last two weeks CRA staff collected studies on the impacts of ORV/ATV use and visited the proposed sections of Cascade Road and Penney Bridge Road in the Jordan Valley. We have compiled the following information for your use in making this important decision.

Here are some findings from several studies that are further detailed in the attached list:

- ORV use near waterbodies threatens water quality through gasoline and motor oil pollution.
- Wildlife, including birds, reptiles and large ungulates, respond to disturbance with accelerated heart rate and metabolic function which can lead to mortality and reproductive failure (*note that white-tailed deer are a large ungulate*).
- Wildlife will avoid areas with high disturbance levels.
- Direct impacts include increased wildlife mortality by accidental collisions.
- Rolling wheels on soil increases compaction which decreases water infiltration therefore increasing runoff and erosion.
- Loamy sands and gravelly soils with wide range of particle sizes most susceptible to compaction.
- Greater erosion documented in areas with ORV use following a flood, gravel was lost and moved from areas where ORV traffic had followed alongside river bed versus low disruption from at an unimpacted island.
- ORV increases overland flow sediment transport capacity.
- ORV tracks can form continuous rills and channels which grow into continuous gullies.
- ORVs reduce perennial and annual plant cover and density, and overall above ground biomass.
- ORVs spread thousands of invasive spotted knapweed seeds up to 10 miles away.

Highlighted below are photos taken on September 2, 2024 of some current areas of concern on Penney Bridge and Cascade Roads that could be further compromised:

- Soft, sandy road shoulders with signs of runoff problems are common in the Jordan Valley.



- There are 5-6 stream crossings many with limited road embankments & culverts that are already undersized and/or deteriorating & need replacement.
- These crossings are often narrow, without much roadway room for passing vehicles.



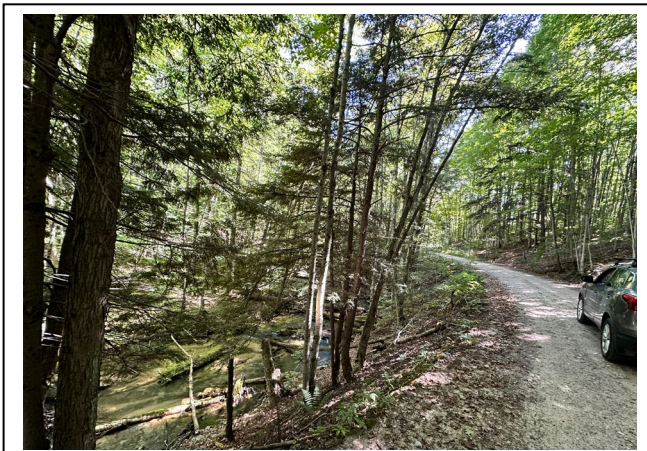
- Increased road runoff & dust is a concern for Jordan tributaries at stream crossings.



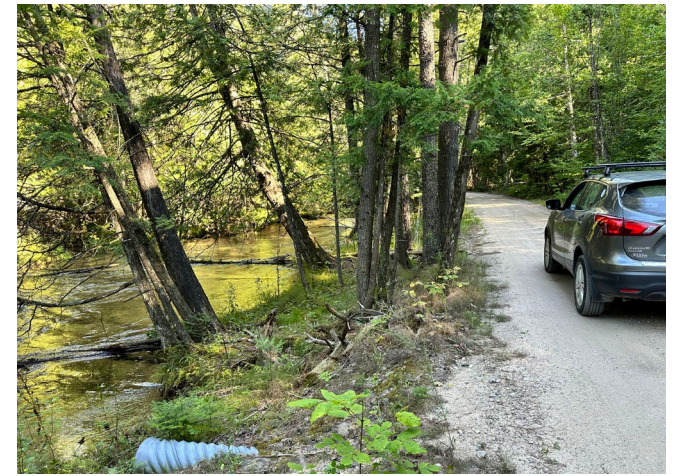
- Note how narrow Cascade Road is at this crossing, with steep ravines on either side.
- In the right photo the culvert inlet is unseen & completely buried with sediment.



- Cascade Road runs along Cascade Creek & its steep valley; the right photo shows few, older wooden posts placed to keep vehicles off the road embankments.



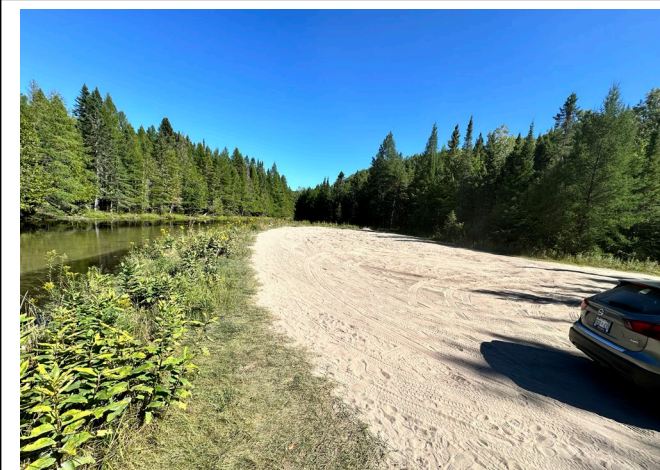
- The road follows the Jordan River closely for 2.5 miles with some locations within 5'-10' of the river; there is concern for increased road runoff & dust entering the river.
- The road embankments are essentially the streambanks in some locations; there is concern for increased erosion & limited space for passing hikers, bikers, vehicles.



- There are multiple locations on the roads where drainage is problematic with seeps & adjacent wetlands.



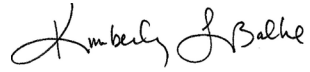
- Numerous MDNR two tracks open to vehicle traffic & closed utilizing berms access adjacent upland habitat valuable for many wildlife species.
- Open grassy areas alongside & accessible by Penney Bridge, Jordan Valley & Cascade Roads are easily accessible by ORV/ATVs.



CRA works throughout 15 counties in Northwest Michigan and roughly half of our current stream restoration projects address problematic stream crossings and contact points on our local roads in partnership with local, state, federal, tribal, and for-profit and non-profit entities. With all these projects CRA and partners are continuously striving to balance reconciling and maintaining the high quality natural resources that Northern Michigan is known for, while also providing safe transportation and proper access. The Jordan Valley is home to high quality streams, wetlands and woods, yet it also has a road system that is delicate and susceptible to the native sandy soils, steep ravines, seeps, and diverse flow conditions of the many waterways that make the Valley what it is.

Please reach out to me with any questions or if you would like to do a site visit together of the above highlighted locations plus additional ones at kim@rivercare.org or 231.946.6817. We've recorded latitude longitude coordinates of at least 38 locations of concern. Thank you for your consideration of this letter and information in your decision-making process.

Sincerely,



Kimberly L. Balke
Program Director

CC: Suzie Knoll, Conservation Resource Alliance
Burt Thompson, Antrim County Road Commission
Rich Dietrich, Friends of the Jordan River
Shannon Lott, Brian Bury & Heather Hettinger, MDNR
Heather Huffstutler & Anna McGlashen, Tip of the Mitt Watershed Council
Doug Craven & Sam Day, Little Traverse Bay Bands of Odawa Indians
Melissa Witkowski & Brett Fessell, Grand Traverse Band of Ottawa & Chippewa Indians
Melissa Zelenak, Antrim Conservation District

Taylor, Richard. "Effects of Off-Road Vehicles on Ecosystems." Texas Parks and Wildlife.

- Literature review of ORV impact on ecosystems
- Havlick, David G. 2002. No Place Distance: Roads and Motorized Recreation on America's Public Lands. Island Press. Washington D.C. 297 pp.
 - ORV use near waterbodies threatens water quality through gasoline and motor oil pollution
 - Wildlife, including birds, reptiles and large ungulates, respond to disturbance with accelerated heart rate and metabolic function which can lead to mortality and reproductive failure (*note that white-tailed deer are a large ungulate*)
 - Wildlife will avoid areas with high disturbance levels
 - Direct impacts include increased wildlife mortality by accidental collisions
- Oil observed on gravel bed at ORV ford over Nueces River
- Webb, R.H. 1983. Compaction of desert soils by off-road vehicles. Pages 51-79. in: R. H. Webb and H. G. Wilshire (eds.). Environmental effects of off-road vehicles: Impacts and management in arid regions. Springer-Verlag. New York.
 - Rolling wheels on soil increases compaction which decreases water infiltration therefore increasing runoff and erosion
 - Loamy sands and gravelly soils with wide range of particle sizes most susceptible to compaction
- Taylor, R.B. 2001. Letter to Nueces River Authority on observations on Nueces River. Unpublished. Texas Parks and Wildlife. Austin, TX.
 - Greater erosion documented in areas with ORV use following a flood, gravel was lost and moved from areas where ORV traffic had followed alongside river bed versus low disruption from at an unimpacted island
- Hinckley, B.S., R.M. Iverson, and B. Hallet. 1983. Accelerated water erosion in ORV use areas. In: Webb, Robert H. and Howard G. Wilshire (eds.), Environmental effects of off-road vehicles: Impacts and management in arid regions. Springer Verlag. New York.
 - ORV increases overland flow sediment transport capacity
- Heede, B. H. 1983. Control of rills and gullies in off-road vehicle traffic areas. Pages 245-264 in: R. H. Webb and H. G. Wilshire (eds.). Environmental effects of offroad vehicles: Impacts and management in arid regions. Springer-Verlag. New York.
 - ORV tracks can form continuous rills and channels which grow into continuous gullies
- Hall, J. A. 1980. Direct impacts of off-road vehicles on vegetation. Pages 63-74 in: P.G. Rowlands (ed.). The effects of disturbance on desert soils, vegetation and community processes with emphasis on off-road vehicles: a critical review. U.S. Dept. Interior, Bureau of Land Management, Desert Plan Staff Special Publication. Riverside, CA.
 - ORVs reduce perennial and annual plant cover and density, and overall above ground biomass
- Lacey, C.A., J.R. Lacey, P.K. Fay, J.M. Storey, and D.L.Zamora. 1997. Controlling knapweed on Montana Rangeland. Montana State University Extension Service Circular 311.
 - ORVs spread thousands of invasive spotted knapweed seeds up to 10 miles away