



SF1218 • March 2023

State Trail Rehabilitation



The Research Bike is an electric-assist bicycle outfitted with sensors and cameras. We use it to collect data on the user experience of paved bicycle trails, and it provides trail managers and lawmakers with the information they need to make informed policy decisions. The Research Bike uses an app that senses the roughness of pavement and also collects photos to visualize conditions and create virtual trail tours. We used the Research Bike to collect data on every paved mile of State Trail.

360° Virtual Trail Tours



- Free to view on Google Maps
- 8.1 million views

Trail Condition Photos



- Captured 65,000 trail photos
- Visual inventory of conditions

Trail Roughness Index

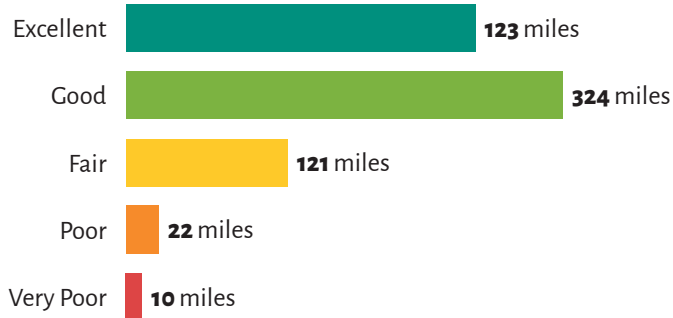


- Sensor to measure bumps
- Objective, statistical measure of trail roughness

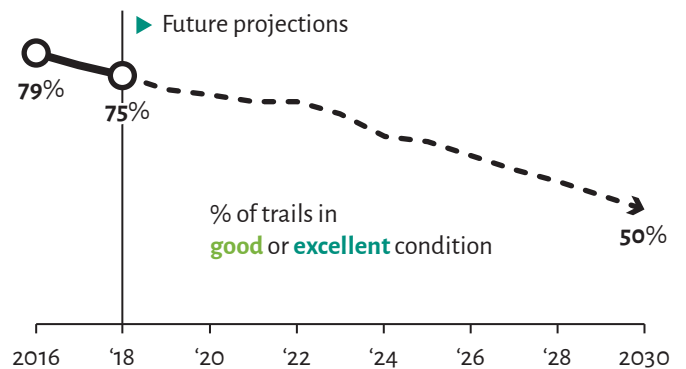
What we've learned from our Research Bike:

Minnesota's paved state trails are in relatively good condition, but if current rehabilitation trends continue, conditions are projected to steadily decline.

State Trail Pavement Conditions (2018)



Projected State Trail Conditions



SF1218 provides critical funding to fix trails in poor condition.

These repairs address critical public safety issues, improve recreation opportunities, make Minnesota a better place to live and work, and promote tourism.