



GHG Assessment Impacts on Transportation Projects

Last biennium, the Minnesota Legislature established a new requirement for an assessment of greenhouse gas emissions (GHG) and vehicle miles traveled (VMT) for certain capacity expansion or grade separated interchange projects on the trunk highway system.

Capacity expansion projects are defined as major highway projects, with a cost of \$15 million or more in the metro area, and \$5 million or more in Greater Minnesota, that add highway traffic capacity or provide for grade separation at an intersection, excluding auxiliary lanes with a length of less than 2,500 feet.

For a project or portfolio of projects covered by the new law, if the project or portfolio is not in conformance with GHG and VMT reduction targets, there must be:

- A change in the scope or design of any projects within the portfolio and a revised assessment must be performed, or
- Sufficient impact mitigation interlinked to the project, or
- A halt to the project development and exclusion of the project in the State Transportation Improvement Program (STIP).

We understand that the transportation sector has a role to play in reducing greenhouse gases and the impacts on climate change, but stopping or delaying critical safety and mobility improvements will lead to increased roadway fatalities and injuries while hurting the state's economic growth and making it harder for Minnesotans to get around and live their lives.

Example:

Constructing a new interchange at US-169 and MN 282 in Jordan, Minnesota. MnDOT estimates that will increase GHG emissions by 19,076 metric tons over 20 years.

Mitigation options include:

\$ Building 68 miles of bikeway at a cost of \$34 million.

\$ Building 225 miles of new sidewalk/pedestrian facilities for \$22.5 million.

\$ Adding 66,933 hours of fixed transit service for \$11.9 million.¹

¹ Based on \$179/hour from figures in a 2018 FTA Report.

Options for Mitigation

Over the interim, a technical advisory committee has been meeting to define how to assess the GHG and VMT impacts and measure options for mitigation, which may include:

- Travel demand management,
- Adding bike and pedestrian facilities,
- Increasing transit options, or
- Rezoning to increase residential density.

All of these options have flaws – for example, travel demand management (TMD) can't account for increased VMT due to significant regional growth and in-migration, as is forecasted in the suburban communities by the Met Council. The addition of protected bike lanes cost anywhere from \$300,000-\$750,000 per mile. And neither TMD nor residential density are practical options in rural Minnesota.

Concerns

- Roadway improvements that reduce fatalities should not be shelved if GHG and VMT targets cannot be met; no exemptions are provided for safety-related projects.
- The type of fuels used to power the state's fleet will have a bigger impact on GHG reductions than VMT; VMT should not be considered in isolation of the fuel powering the fleet. Some projects that will reduce GHG emissions will also increase VMT. The current policy makes it harder to reduce overall GHG emissions in these situations.

MnDOT is estimating mitigation could increase highway project costs by 20-40%.

There is no identified revenue source to pay for these increases, and most of the mitigation options cannot be paid for with trunk highway funds. Local governments with limited resources cannot afford to have their cost-participation increase to pay for the mitigation.

Example:

Adding 3-mile expansion of MN 5 in Victoria for a total of 6 additional lane miles. This results in 8.2 million more VMT per year which equates to an additional 35,500 metric tons of additional GHG emissions over 20 years.

Mitigation options include:

\$ Building 167 miles of off-road bike trail would cost \$37.8 million, which is over 30% of the project cost.

\$ Adding 124,561 hours of fixed transit service for \$22.3 million.

