



Bridge Needs Assessment

Overview of Needs Analysis

The Federal Highway Administration (FHWA) requires that State DOTs and MPOs establish 2-year and 4-year targets for a 4-year performance period for the condition of infrastructure assets including bridges on the National Highway System (NHS).

The two performance measures for assessing bridge condition are:

- Percent of NHS bridge deck area in Good Condition; and
- Percent of NHS bridge deck area in Poor Condition.

It's important to note here that an MPO is not subject to the consequence or penalty imposed upon the State DOT for not achieving State targets regardless of whether the MPO elected to support the State target or develop an MPO boundary target.

Process for Determining and Addressing Needs

MDOT set the following targets in coordination with MPOs, and GVMC elected to support State targets for this reporting period with the baseline condition as a starting point.

Table 1 - State Bridge Performance Targets

	Baseline	2-year Target	4-Year Target
Percent of NHS Bridge deck area in Good Condition	22.1%	15.2%	12.8%
Percent of NHS Bridge deck area in Poor Condition	7%	6.8%	5.8%

For GVMC, according to 2021 data, 26% of its bridge deck area on NHS is in Good condition and 6% is in Poor condition.

According to the National Bridge Inventory (NBI) rating system that looks at other factors than just deck area, GVMC's bridges compare to the state in the following Table with 32% being in the Good category. Compared to the state our MPO is slightly better than the state percentage of Good at 28%.

Number of NHS bridges by Condition			
	Good	Fair	Poor
Statewide (2020)	838	1933	196

Grand Valley Metropolitan Council (2021)			
MDOT	111	213	15
Local	20	37	5

Identified Needs/Deficiencies

Bridges in the GVMC region are in better condition than the state as a whole. However, maintaining and improving bridge conditions in the region through the horizon of this plan is dependent on local jurisdictions receiving local bridge funding, which is a MDOT-run program and subject to change.

Using statewide prediction models and estimating how the deck area is expected to deteriorate over a bridge's live cycle, 10.6% of NHS deck area is predicted to leave Good condition, and 1.9% is expected to enter Good condition during the same time period. This paints a grim future for Michigan bridges and emphasizes the importance of monitoring this program moving forward.