Pavement and Bridge Targets

2026-2029 Performance Period

September 30, 2026

Introduction

Through the Moving Ahead for Progress in the 21st Century (MAP-21) Act, Congress required the establishment of measures to assess performance in several areas, including pavement condition of the Interstate and non-Interstate National Highway System (NHS), codified in 23 CFR 490.307, and bridge condition of the NHS, codified in 23 CFR 490.407. State Departments of Transportation (DOTs), as well as Metropolitan Planning Organizations (MPOs) with applicable roadways within their metropolitan planning areas, set targets for the following performance measures, known as "PM2."

1. Percentage of pavements of the Interstate System in Good condition
2. Percentage of pavements of the Interstate System in Poor condition
3. Percentage of pavements of the non-Interstate NHS in Good condition
4. Percentage of pavements of the non-Interstate NHS in Poor condition
5. Percentage of NHS bridges classified as in Good condition
6. Percentage of NHS bridges classified as in Poor condition

Targets are set for all roadways on the applicable system within a state or MPO, regardless of ownership. Target setting occurs for 4-year periods, with the first targets established in 2018 for the performance period of calendar years (CY) 2018-2021. States must now set 2- and 4-year targets for the third performance period of CY 2026-2029. Once states establish targets, MPOs will have 180 days to either support the state's 4-year targets or set their own.

Pavement

Data Collection

Iowa DOT collects pavement data on Interstates every year, the remainder of the NHS and Iowa DOT highways every two years, and all other paved roads in the state every four years. Local jurisdictions can choose to fund participation in more frequent collection than every four years if desired. Data from these inspections forms the basis for determining condition levels and helps owners determine pavement maintenance needs. More information about NHS pavements and how they are managed can be found in Iowa DOT's Transportation Asset Management Plan (TAMP).

Target Setting Methodology

Targets are set based on 0.1-mile sections of the through travel lanes of mainline highways on the applicable highway systems. The Federal Highway Administration (FHWA) classifies pavement condition as good, fair, or poor based on three attributes: the pavement section's International Roughness Index (IRI), the pavement's cracking condition, and the pavement's rutting rating (concrete) or faulting rating (asphalt). Per FHWA's definitions, a pavement section is considered "poor" if two of these three ratings are poor. A pavement section is considered "good" if all three ratings are good. Otherwise, it is considered "fair." Pavement that is part of a bridge deck is excluded from metric calculation. Missing, invalid, or unresolved data is also excluded from the calculation and is not to exceed five percent of the system's mileage. The

good and poor measures are determined by summing the total lane-miles of good or poor highway segments and dividing by the total lane-miles of all highway segments on the applicable system.

To develop targets, Iowa DOT's pavement management team reviewed historical condition data and used an internal pavement management tool to forecast the metrics. The tool can provide an optimized program of pavement projects based on condition information, decision trees and treatment options, benefits and costs, and projected budgets for pavement work. The tool also provides forecasted condition based on the FHWA good/fair/poor definitions. The forecasts were reviewed and the estimated performance for the 4-year period was used to set targets. Targets were adjusted up or down as appropriate to allow for a conservative approach, since factors such as the following may impact actual performance.

- With the Infrastructure Investment and Jobs Act (IIJA) expiring September 30, 2026, long-term federal funding is uncertain.
- While the extreme supply chain issues and construction cost increases that followed the 2020 pandemic have largely abated, economic uncertainty remains an issue.
- Regarding pavement data, 2027 is the final year of the current pavement data collection contract. If there is a change in vendor in 2028, that could result in minor changes to condition data.
- The forecasted condition is based on optimal project selections. Many other factors influence the specific projects and treatments that are ultimately chosen.

Figures 1 and 2 show the historical condition, forecast condition, prior targets, and 2026-2029 targets for pavement condition for both the Interstate System and the non-Interstate NHS. Table 1 summarizes Iowa DOT's PM2 pavement targets. The 2- and 4-year targets were held constant, though the 4-year targets will be reviewed at the midpoint of the performance period and adjusted if appropriate.

Figure 1: Interstate pavement historical condition, forecast condition, prior targets, and 2026-2029 targets

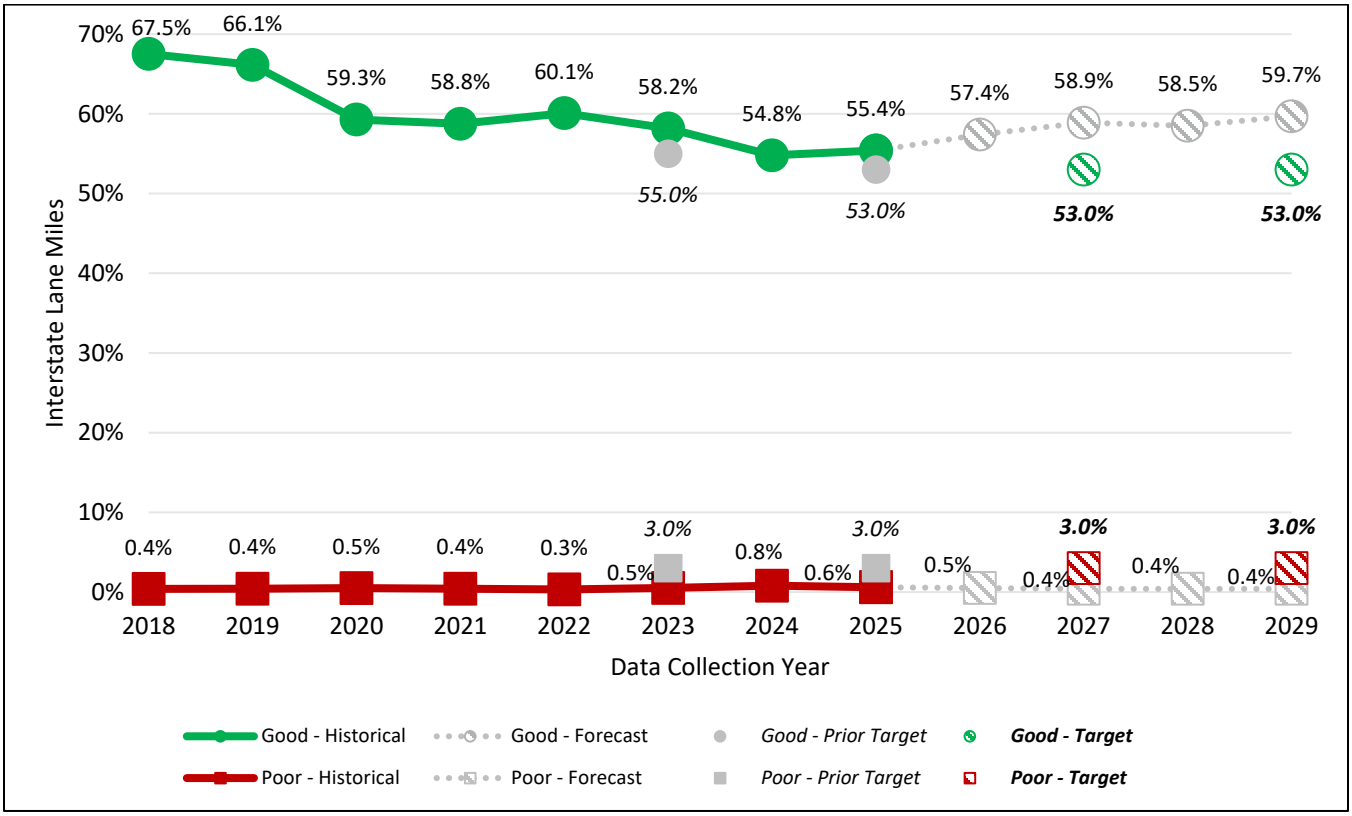

Figure 2: Non-Interstate NHS pavement historical condition, forecast condition, prior targets, and 2026-2029 targets

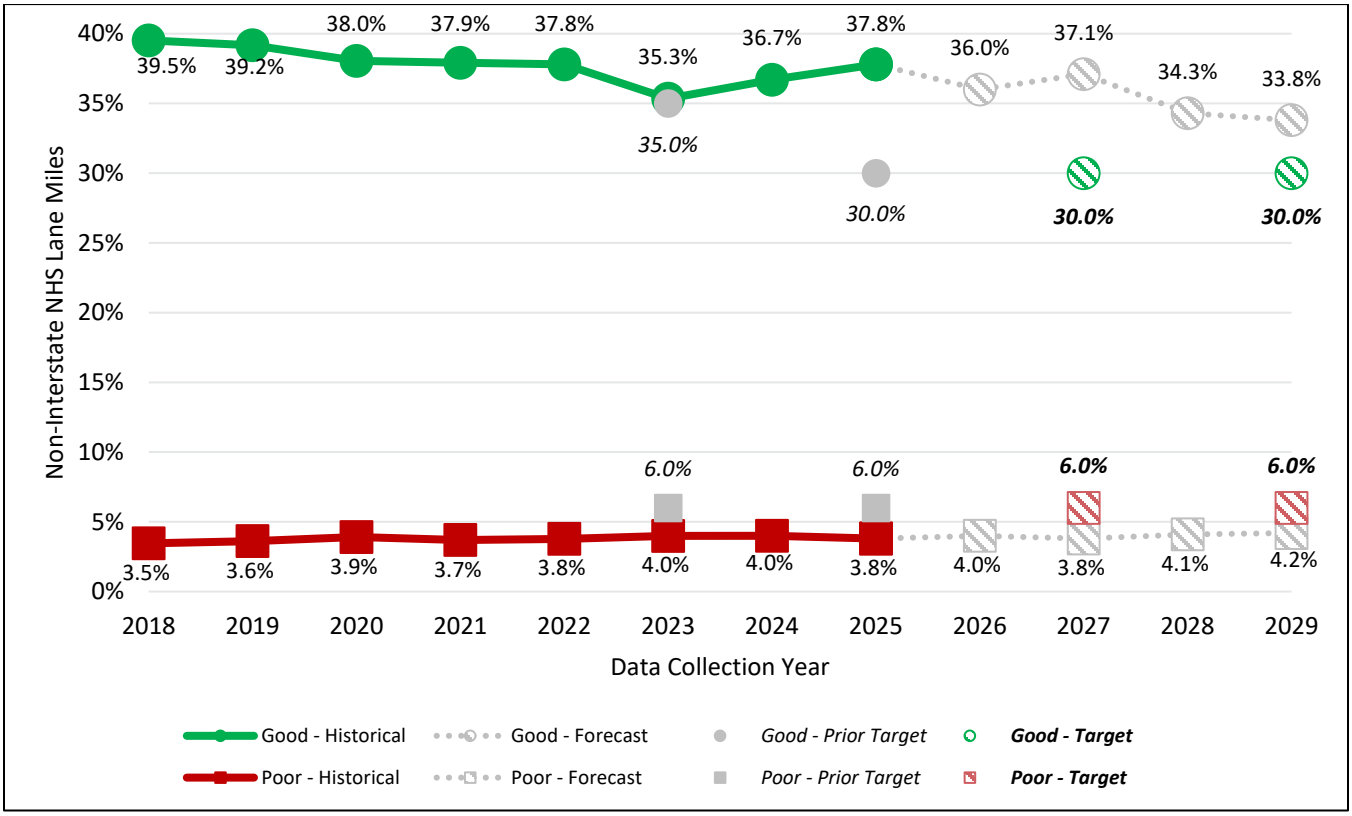

Table 1: Iowa DOT PM2 pavement targets for 2026-2029

Performance Measure	Baseline (CY 2025)	2-year Target (CY 2027)	4-year Target (CY 2029)
Percentage of pavements of the Interstate System in Good condition	55.4%	53.0%	53.0%
Percentage of pavements of the Interstate System in Poor condition	0.6%	3.0%	3.0%
Percentage of pavements of the non-Interstate NHS in Good condition	37.8%	30.0%	30.0%
Percentage of pavements of the non-Interstate NHS in Poor condition	3.8%	6.0%	6.0%

Note: the years represent the calendar year in which data was collected. Data is reported through the Highway Performance Monitoring System (HPMS) the following year. For example, the baseline data of CY 2025 was reported to the HPMS in CY 2026.

It is important to note that these targets are based on FHWA definitions of good and poor, which have been nationally defined to achieve a standard measurement across states. These definitions of good and poor may not be the same as other pavement condition metrics used by the Iowa DOT to evaluate system condition and may not be the best indicator of what a typical traveler considers to be good or poor pavement condition.

Interstate System Pavement Minimum Condition Level

In addition to establishing performance measures, MAP-21 also set a minimum condition level for Interstate pavements. Per 23 CFR 490.315, states are required to maintain Interstate pavements so that the percentage of the lane-miles of the Interstate System classified as poor condition does not exceed 5.0 percent. FHWA annually determines whether a state exceeds this threshold. If a state's percentage of poor condition Interstate lane-miles exceeds 5.0 percent, in the following year the state will be subject to funding penalties that require a certain amount of National Highway Performance Program (NHPP) and Surface Transportation Block Grant (STBG) funding to be used for eligible projects on the Interstate System. The percentage of Iowa's Interstate lane-miles in poor condition has consistently been less than 1.0 percent, well below the 5.0 percent threshold, and is forecast to remain below that threshold through the performance period.

Bridge

Data Collection

Bridge owners are required to inspect bridges at least every 24 months. Data from these inspections forms the basis for determining condition levels and helps owners determine bridge maintenance needs. More information about NHS bridges and how they are managed can be found in Iowa DOT's TAMP.

Target Setting Methodology

As part of the National Bridge Inventory (NBI) program, the deck, superstructure, and substructure of each bridge are rated on a scale of zero to nine. Per FHWA's definitions, a bridge is considered "poor" if one of these three ratings is less than or equal to four. A bridge is considered "good" if all the three ratings are greater than or equal to seven, and otherwise it is considered "fair." The performance measures are calculated based on the deck area for all bridges carrying the NHS, including highway bridges on ramps connected to the NHS. Bridges on state borders count toward both states' totals. The good and poor measures are determined by summing the total deck area of good or poor NHS bridges and dividing by the total deck area of the NHS.

Iowa DOT models bridge deterioration and projects future conditions using AASHTOWare BrM. BrM forecasts the future condition of each bridge in the network, estimates the impact of bridge treatment alternatives, and prioritizes treatments subject to a budget constraint. Locally owned NHS bridges are excluded from the BrM analysis. To develop targets, BrM was used to model future condition of Iowa DOT-owned bridges, and locally owned NHS bridge conditions were held constant and combined with the forecast results. The forecasts were reviewed and the estimated performance for the 4-year period was used to set targets. Targets were adjusted up or down as appropriate to allow for a conservative approach, since factors such as the following may impact actual performance.

- With the Infrastructure Investment and Jobs Act (IIJA) expiring September 30, 2026, long-term federal funding is uncertain.
- While the extreme supply chain issues and construction cost increases that followed the 2020 pandemic have largely abated, economic uncertainty remains an issue.
- The forecasted condition is based on optimal project selections. Many other factors influence the specific projects and treatments that are ultimately chosen.

Figure 3 shows the historical condition, forecast condition, prior targets, and 2026-2029 targets for bridge condition for the NHS. Table 2 summarizes Iowa DOT's PM2 bridge targets. The 2- and 4-year targets were held constant, though the 4-year targets will be reviewed at the midpoint of the performance period and adjusted if appropriate.

Figure 3: NHS bridge historical condition, forecast condition, prior targets, and 2026-2029 targets

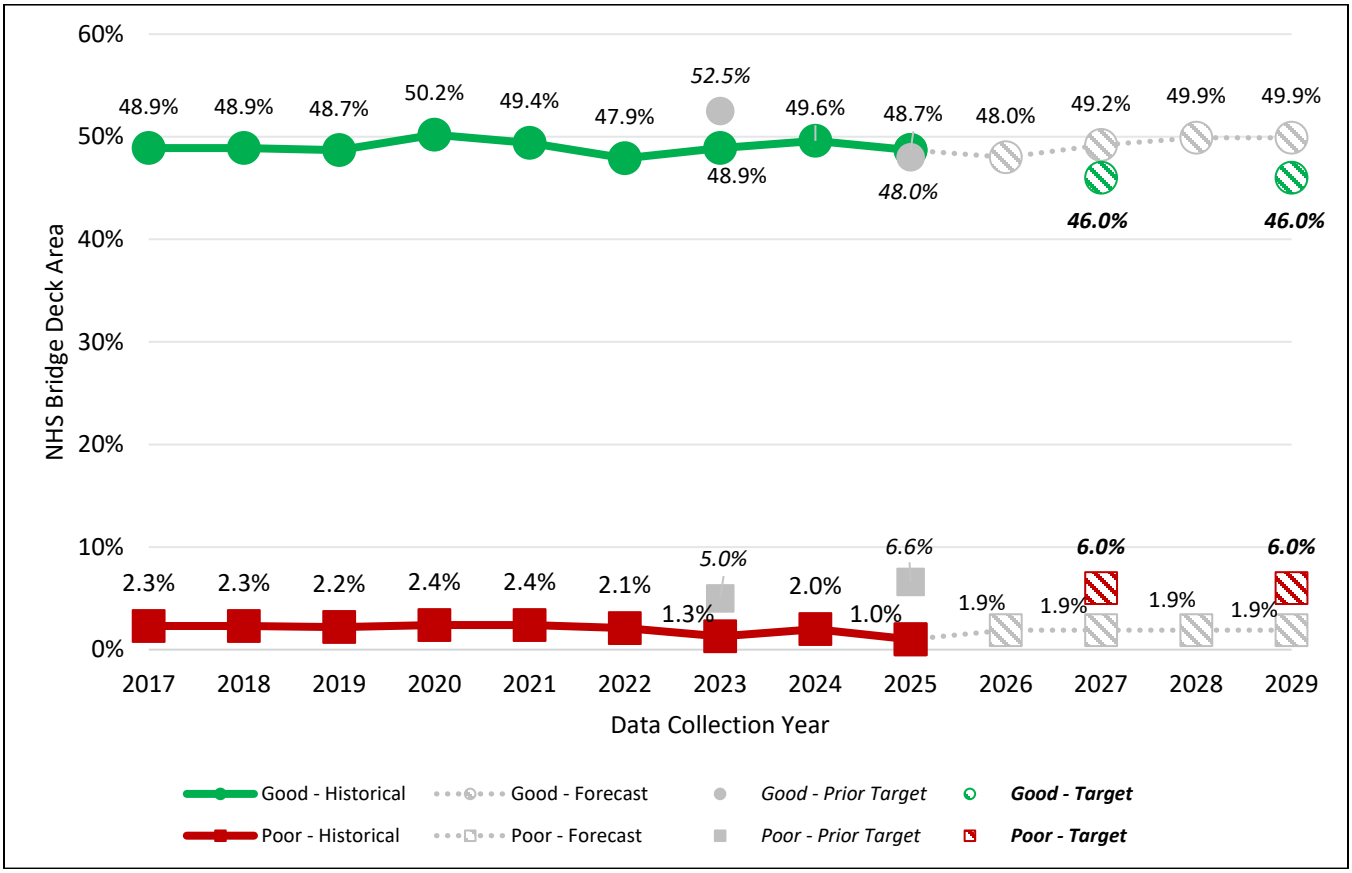

Table 2: Iowa DOT PM2 bridge targets for 2026-2029

Performance Measure	Baseline (CY 2025)	2-year Target (CY 2027)	4-year Target (CY 2029)
Percentage of NHS bridges classified as in Good condition	48.7%	46.0%	46.0%
Percentage of NHS bridges classified as in Poor condition	1.0%	6.0%	6.0%

Note: the years represent the calendar year in which data was collected. Data is reported through the NBI the following year. For example, the baseline data of CY 2025 was reported to the NBI in CY 2026.

It is important to note that these targets are based on FHWA definitions of good and poor, which have been nationally defined to achieve a standard measurement across states. These definitions of good and poor may not be the same as other bridge condition metrics the Iowa DOT uses to evaluate system condition and may not be the best indicator of what a typical traveler considers to be good or poor bridge condition.

National Highway System Bridge Minimum Condition Level

In addition to establishing performance measures, MAP-21 also set a minimum condition level for NHS bridges. Per 23 CFR 490.411, states are required to maintain NHS bridges so that the percentage of the deck area of bridges classified as structurally deficient (also referred to as "poor" for the performance measures and targets) does not exceed 10.0 percent. FHWA annually determines whether a state exceeds this threshold. If, for three consecutive years, a state's percentage of NHS bridge deck area in poor condition exceeds 10.0 percent, in the following year the state will be subject to funding penalties that require a certain amount of NHPP funding to be used for eligible bridge projects on the NHS. The percentage of Iowa's NHS bridge deck area in poor condition has consistently been less than 3.0 percent, well below the 10.0 percent threshold, and is forecast to remain below that threshold through the performance period.