



## DELDOT BRIDGES

### Description:

A NBI (National Bridge Inventory) bridge is any bridge carrying vehicular traffic on a public roadway with a total length > 20'. State bridges are comprised of any DelDOT-owned bridge with a total length < 20' and includes pedestrian bridges regardless of length and any structure with a hydraulic opening greater than 20 square feet and a minimum vertical clearance of 4'.

DelDOT is responsible for 1,786 NBI & State bridge structures. DelDOT has 326 NBI bridges on the National Highway System (NHS), with an additional 12 owned by DRBA and 2 owned by the USACE.

A comprehensive Bridge inspection program is required as per the Code of Federal Regulations (NBIS) by the FHWA for NBI bridges only. DelDOT's Bridge Inspection Program includes NBI & State bridges.

### Annual Budget:

DelDOT spent ~\$147.5M in FY23 on bridge preservation activities and the expected average annual budget for the next 3 years is \$109.6M. This includes \$29M of State funds, and \$80.5M of Federal funds. This excludes projects that are funded through special pots of money, grants, or funding outside of the Bridge Program.

### Asset Valuation:

The current valuation of DelDOT's bridge assets is estimated to be \$3.04B with the culvert bridge population accounting for ~12.4%.

## STATE OF GOOD REPAIR

SOGR for bridges is defined using the minimum assigned NBI Condition Rating. DelDOT defines SOGR as follows:

### DelDOT Bridge Program

Good Condition: NBI Rating  $\geq 6$

Poor Condition: NBI Rating  $\leq 4$

### NHS Bridge Program

Good Condition: NBI Rating  $\geq 7$

Poor Condition: NBI Rating  $\leq 4$

## TARGETS AND MEASURES

### DelDOT Bridge Performance Goals

# of Bridges in Good Condition > 75%

# of Bridges in Poor Condition < 3.0%

### NHS Bridge 2-Year Performance Targets

Deck Area in Good Condition > 15%

Deck Area in Poor Condition < 3%

## INVENTORY & CONDITION

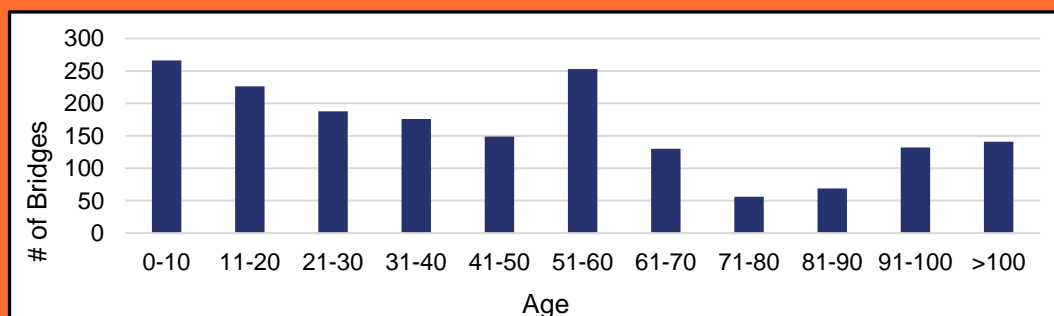
### 2023 Bridge Condition Rating Summary

Condition Rating	All DelDOT Bridges		DelDOT NBI Bridges		DelDOT State Bridges	
	# Bridges	% Bridges	# Bridges	% Bridges	# Bridges	% Bridges
Poor ( $\leq 4$ )	29	1.62%	8	0.95%	21	2.22%
Fair = 5	196	10.97%	103	12.26%	93	9.83%
Good ( $\geq 6$ )	1561	87.40%	729	86.79%	832	87.95%
Total =	1,786	100.0%	840	100.0%	946	100.0%

### 2023 NHS Bridge Condition Rating Summary

Condition Rating	All NHS Bridges		DelDOT Bridges		Army Corps Bridges		DRBA	
	Deck Area (ft <sup>2</sup> )	% Deck Area	Deck Area (ft <sup>2</sup> )	% Deck Area	Deck Area (ft <sup>2</sup> )	% Deck Area	Deck Area (ft <sup>2</sup> )	% Deck Area
Poor ( $\leq 4$ )	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Fair = 5 & 6	6,197,015	76.3%	4,157,019	69.2%	723,663	100.0%	1,316,333	94.8%
Good ( $\geq 7$ )	1,921,715	23.7%	1,849,709	30.8%	-	0.0%	72,006	5.2%
Total =	8,118,730	100.0%	6,006,728	100.0%	723,663	100.0%	1,388,338	100.0%

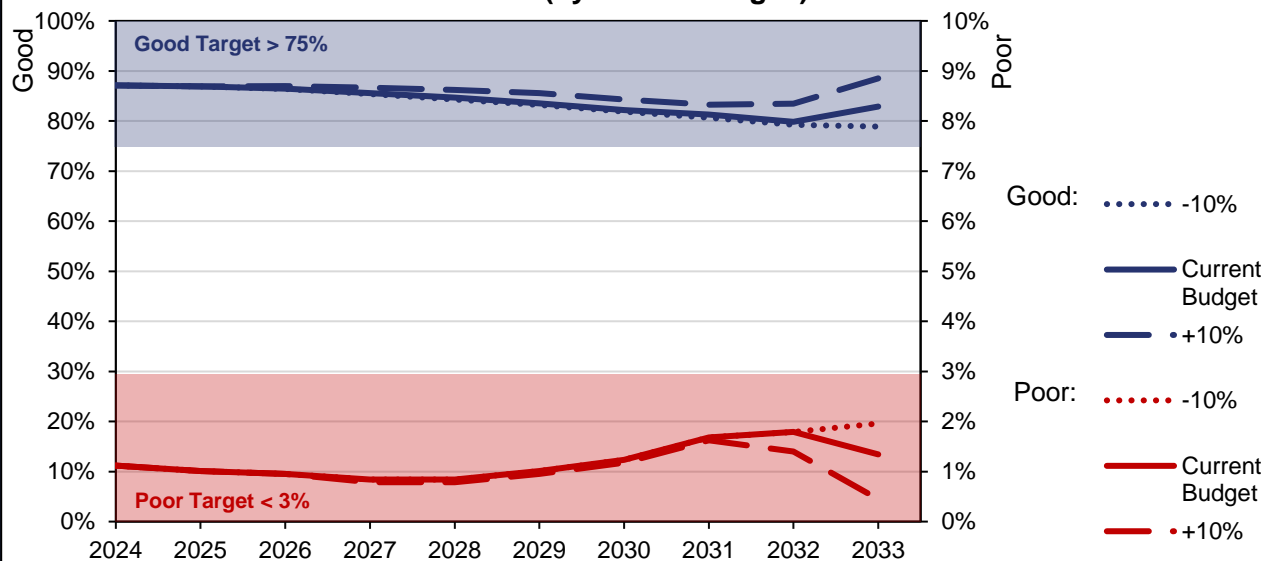
## BRIDGE AGE DISTRIBUTION





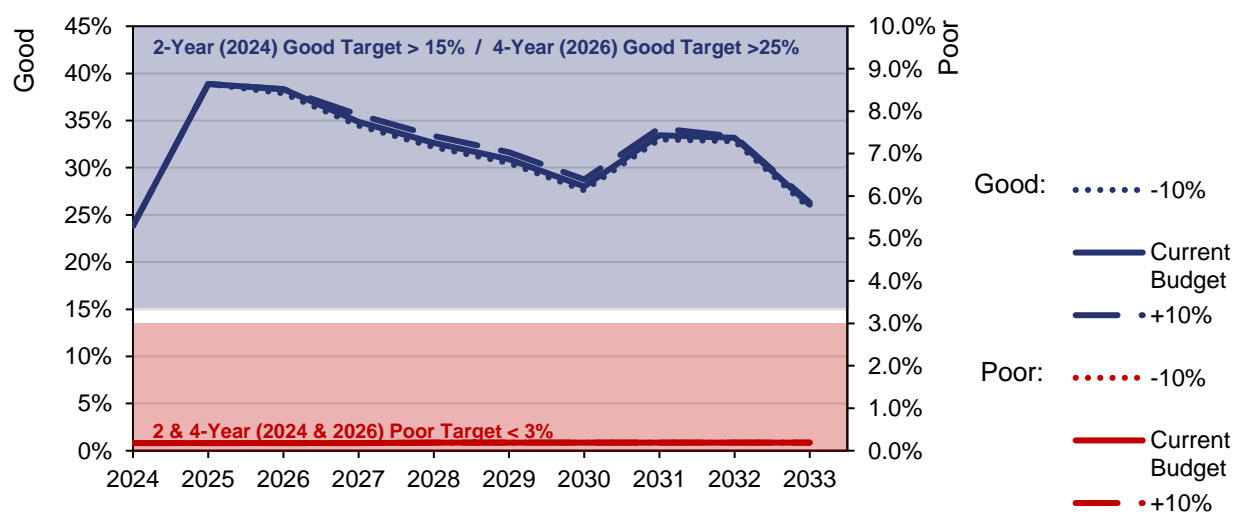
# BRIDGE PERFORMANCE PROJECTIONS

**DeIDOT Bridge Program: 10-Year Performance Forecast  
(by % # of Bridges)**



Note: The +/-10% increase/decrease to the Current Budget was only applied in years 2027-2033.

**NHS Bridge Program: 10-Year Performance Forecast  
(by % Bridge Deck Area)**



## POTENTIAL RISKS

**Non-Redundant Steel Tension Member Bridges:** These are steel bridges that contain members whose failure would cause partial or full failure of the bridge. These bridges require in-depth inspections to monitor for fatigue cracking to prevent damage and potential failure.

**Scour Critical Bridge Population:** These are bridges that have either been identified as having the potential to scour beyond the footings/piles through analysis or a pre-screening evaluation, or have advanced scour damage that requires monitoring.

**Large Rain/Storm Events:** These types of events may result in increased water flow or overtopping that can cause advanced scour, settlement of the bridge, or a complete bridge failure.

**Traffic Impact:** Overheight trucks that strike overpass bridges are a concern for the structural integrity of the bridge, as well as, safety of motorists driving over or under the overpass bridge.