



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 DeIDOT-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'.

DeIDOT is responsible for 1,782 NBI & State bridge structures. DeIDOT 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. DeIDOT's Bridge Inspection Program includes NBI & State bridges.

Annual Budget:

DeIDOT spent ~\$168.8M in 2022 on bridge preservation activities and the expected average annual budget for the next 3 years is \$96.5M. This includes \$19.3M of State funds, and \$78.2M 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 DeIDOT's bridge assets is estimated to be \$2.65B with the culvert bridge population accounting for ~14.6%.

STATE OF GOOD REPAIR

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

DeIDOT 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

DeIDOT 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

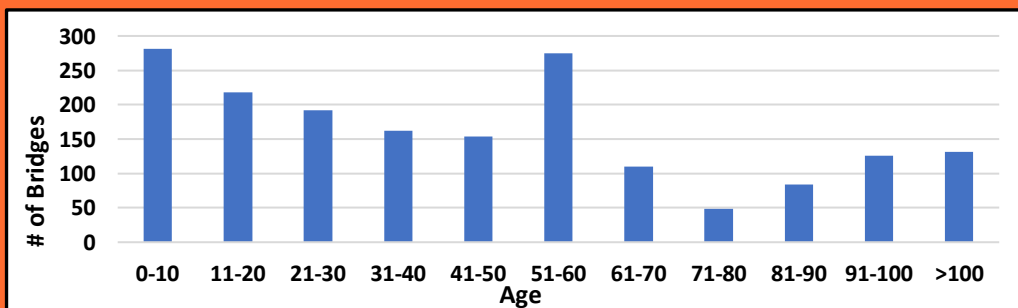
2022 Bridge Condition Rating Summary

Condition Rating	All DeIDOT Bridges		DeIDOT NBI Bridges		DeIDOT State Bridges	
	# of Bridges	% of Bridges	# of Bridges	% of Bridges	# of Bridges	% of Bridges
Poor (\leq 4)	27	1.52%	8	1.0%	19	2.0%
Fair = 5	241	13.52%	135	16.0%	106	11.3%
Good (\geq 6)	1514	84.96%	699	83.0%	815	86.7%
Total =	1,782	100.0%	842	100.0%	940	100.0%

2022 NHS Bridge Condition Rating Summary

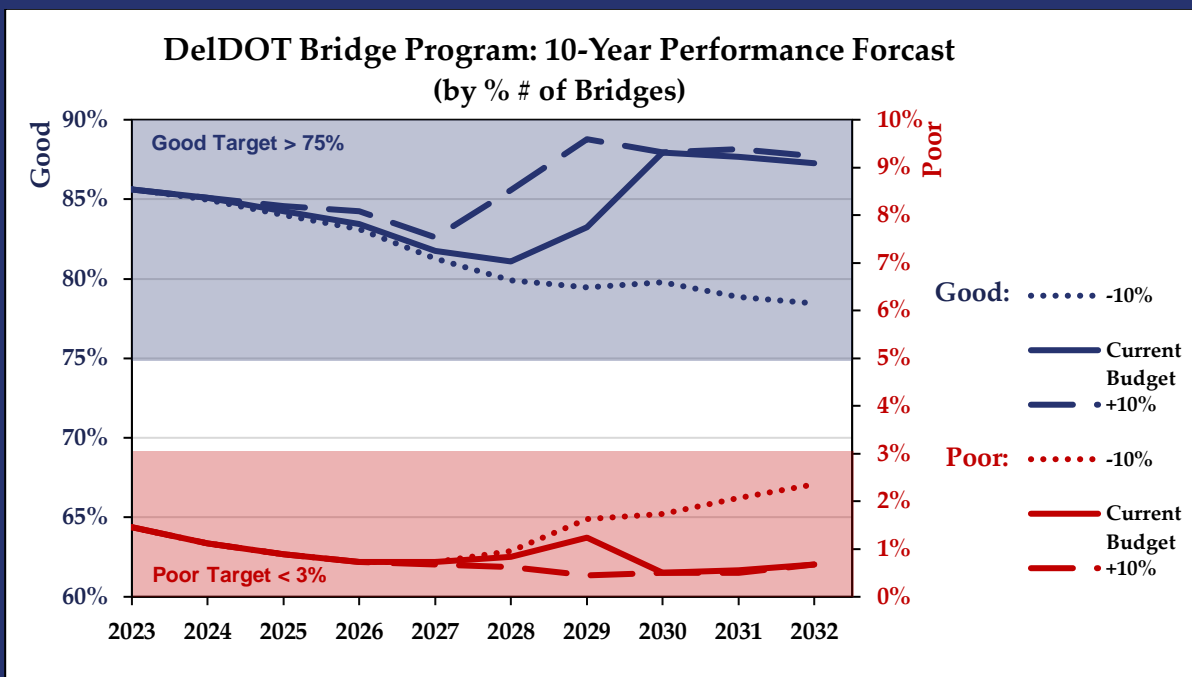
Condition Rating	All NHS Bridges		DeIDOT Bridges		Army Corps Bridges		DRBA	
	Deck Area (ft ²)	% Deck Area	Deck Area (ft ²)	% Deck Area	Deck Area (ft ²)	% Deck Area	Deck Area (ft ²)	% Deck Area
Poor (\leq 4)	-	0.0%	-	0.0%	-	0.0%	-	0.0%
Fair = 5 & 6	6,255,753.45	77.1%	4,229,578.69	70.4%	723,663.44	100.0%	1,302,511.32	93.8%
Good (\geq 7)	1,862,976.55	22.9%	1,777,149.40	29.6%	-	0.0%	85,827.15	6.2%
Total =	8,118,730.00	100.0%	6,006,728.09	100.0%	723,663.44	100.0%	1,388,338.47	100.0%

BRIDGE AGE DISTRIBUTION

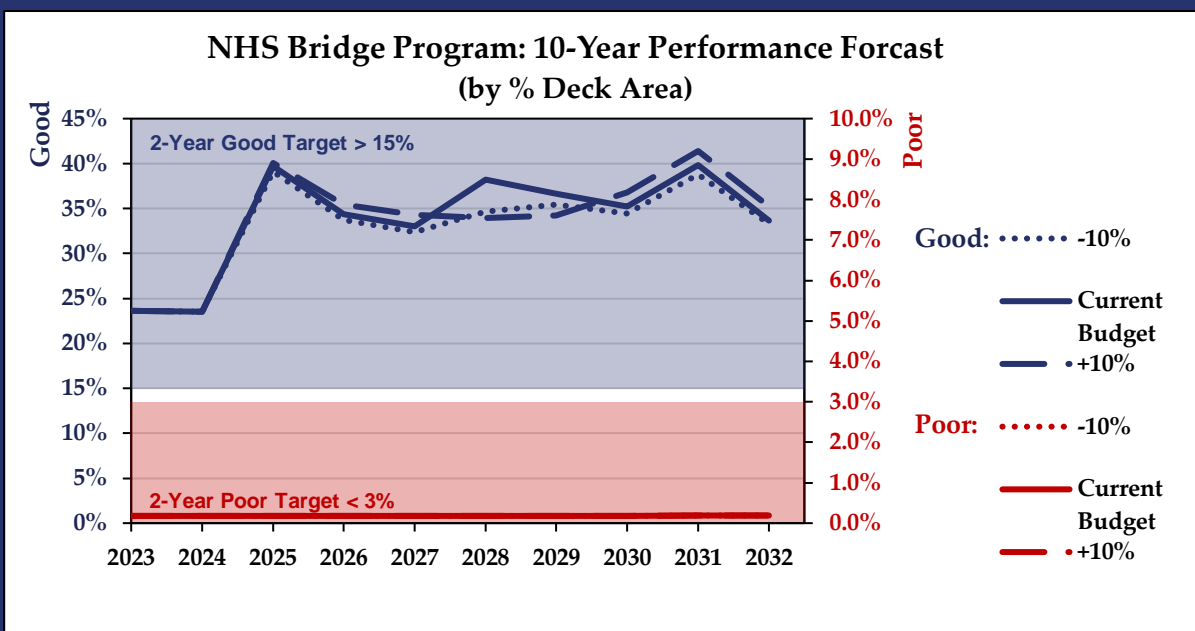




BRIDGE PERFORMANCE PROJECTIONS



Note: The +/-10% increase/decrease to the Current Budget was only applied in years 2026-2032.



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.