

# STATE OF GOOD REPAIR PRIORITIZATION PROCESS UPDATE

Kimberly Pryor, Infrastructure Investment Director

Greg Henion, P.E., State Structure and Bridge Engineer

June 17, 2024

# Existing State of Good Repair Program

- **The State of Good Repair (SGR) Program was established by VA Code § 33.2-369 to address deficient state and locally owned bridges and pavements**
- **Defines “state of good repair purposes” as improvement of deficient pavement conditions and improvement of structurally deficient (poor) bridges**
- **Specifies eligible uses**
  - **Reconstruction and replacement of poor bridges**
  - **Reconstruction and rehabilitation of pavement on the Interstate and Primary Systems, including municipality-maintained primary extensions**
- **Requires an equitable and needs based distribution of funding, with no district receiving more than 17.5% or less than 5.5% of total funding available in any year**

# Existing State of Good Repair Program (continued)

- **Specifies extraordinary conditions under which the Board may authorize a waiver of the cap or allocation of funds for paving on the Secondary System prior to the needs-based distribution**
- **Requires a priority ranking system that takes into consideration**
  - **Number, condition, and costs of poor bridges**
  - **Mileage, condition, and costs to replace deteriorated pavements**
- **Allocates funds to 4 categories within each district based on need**
  - **VDOT Bridges**
  - **Locality Bridges**
  - **VDOT Pavements**
  - **Locality Pavements**
- **The CTB last approved the SGR Prioritization Process on February 17, 2021**

# Existing State of Good Repair Program (continued)

- The current SGR program has been extremely successful in decreasing the number and percentage of poor bridges (VDOT and locality owned bridges)
- The 2019 Maintenance and Operations Comprehensive Review found that if Virginia changed its bridge management model from the current “worst- first” approach to a “preservation-focused” approach, Virginia could expect to maintain its bridge inventory at an acceptable level of service for the next 50 years with existing levels of funding
- In 2021, the Joint Legislative Audit and Review Commission’s (JLARC) Transportation Infrastructure and Funding Report to the Governor and General Assembly included a recommendation that the SGR statute be amended to allow use of SGR funding for bridges that are on the cusp of becoming poor

# House Bill 1254

- **HB1254, amending § 33.2-369, was enacted into law (Chapter 415) during the 2024 General Assembly Session**
  - Expanded the pool of bridges eligible for SGR funding to include cusp bridges
  - Expanded the types of work to improve bridges eligible for SGR funding
  - Applies to new project allocations made after June 1, 2025
- **Revisions to the Board's SGR Prioritization Process are needed to address Chapter 415 changes**

# Explanation of SGR Bridge Changes

## BRIDGE GENERAL CONDITION RATINGS (GCR)

GCR	*NBIS	FHWA	ALTERNATE TERMS	CHARACTERISTICS
9	EXCELLENT	GOOD		
8	VERY GOOD			no problems noted
7	GOOD			minor problems noted
6	SATISFACTORY	FAIR	CUSP	elements show minor deterioration
5	FAIR			elements are sound but have minor section loss, cracking, spalling or scour
4	POOR	POOR	<b>**STRUCTURALLY DEFICIENT</b>	elements have advanced section loss, deterioration, spalling or scour
3	SERIOUS			section loss, deterioration, spalling or scour have seriously affected primary structural components. Fatigue cracks in steel or shear cracks in concrete may be present. Bridge is closed.
2	CRITICAL			advanced deterioration of primary structural components. Fatigue cracks in steel or shear cracks in concrete may be present. Bridge is closed.
1	IMMINENT FAILURE			major deterioration or section loss in critical structural components or obvious vertical or horizontal movement affecting stability. Bridge is closed.

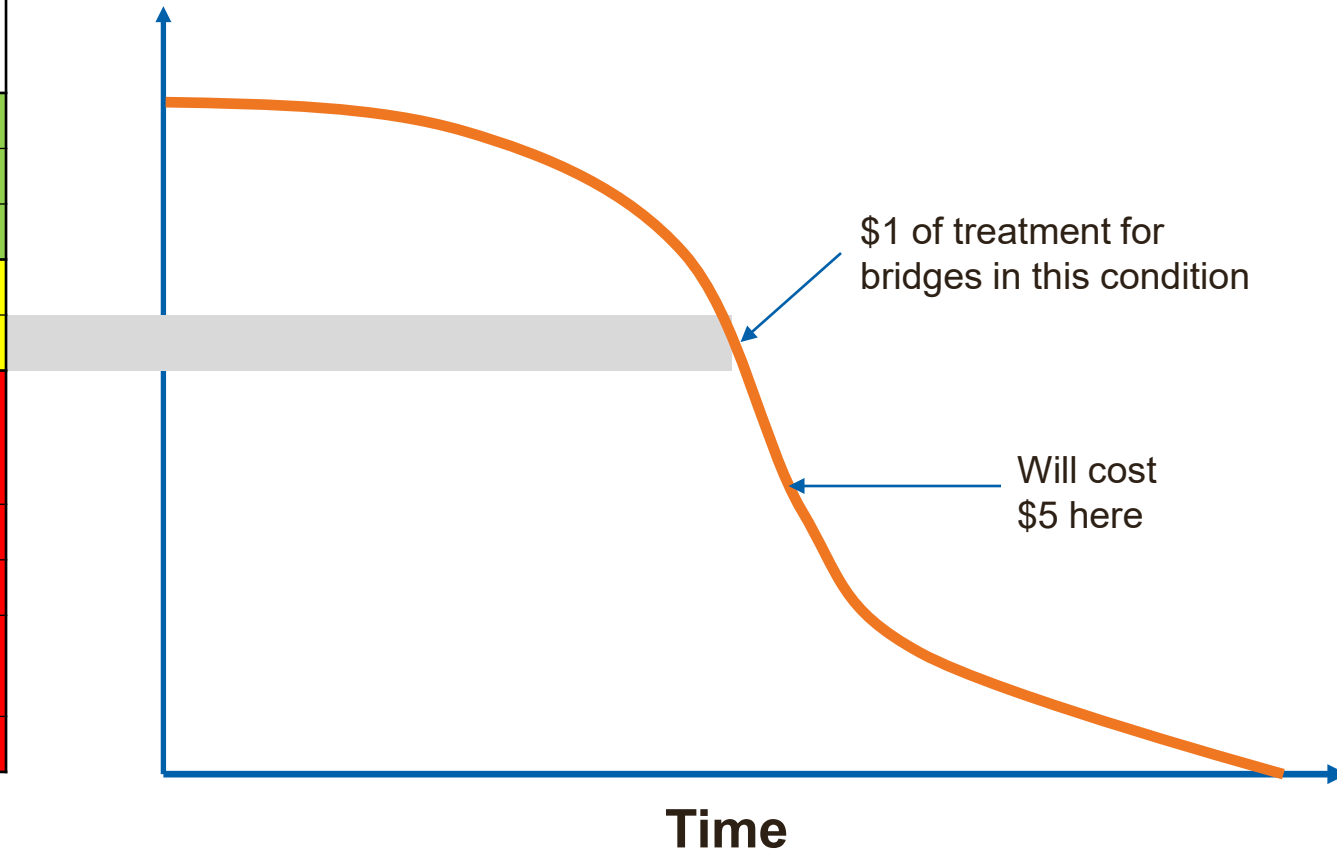
\*NBIS – National Bridge Inventory System

\*\*STRUCTURALLY DEFICIENT - term has fallen out of favor of FHWA. VDOT no longer uses it.

# Bridge Preservation Benefits

Condition Category	General Condition Rating (GCR)	Description
Good	9	Excellent
	8	Very Good
	7	Good
Fair	6	Satisfactory
	5 (Cusp)	Fair
Poor	4	Poor
	3	Serious
	2	Critical
	1	Imminent Failure
	0	Failed

## Condition



Rehabilitation and preservation generally cost 5 to 6 times less than replacement while adding decades of service life. Cusp bridges are generally better candidates for rehabilitation and preservation than poor bridges.

# Explanation of SGR Bridge Changes

- **Eligible Bridges**
  - **Increases the number of eligible bridges by ten-fold (300 vs. 3,000)**
  - **Aligns the SGR Program with VDOT's preservation-focused bridge management approach.**
- **Eligible Improvement Types**
  - **Broadens the scope of eligible work, to ensure treatments necessary to address both poor and cusp bridges are captured**
  - **These treatments (e.g., deck overlays and replacements, bridge painting, beam end reconstruction, joint reconstruction, scour fortifications, etc.) can be implemented for 15-20% of the cost of replacement and extend the useful life of bridges up to 30-40 years**



# Types of Work: Elimination of Leaking Deck Joints

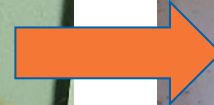
Leaking Joint Allows Salt & Water Under Bridge



**Protects Girders and Bridge Supports from Chlorides and Water**  
**35 to 50 years additional service life for protected elements**



# Types of Work: Repairing Corroded Beam Ends



- **50 Years of additional service life when joints are properly addressed**
- **Must be performed before too much corrosion has occurred**

# Types of Work: Painting

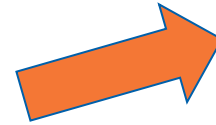


## Much More Than an Aesthetic Treatment: Extends Service Life

- Serves as the primary protective element against corrosion
- Corrosion of steel girders is the leading cause of bridge replacement
- Paint can extend service lives of steel elements by 15 to 20 years



# Types of Work: Rehabilitating Culverts



Or



## Culverts

May receive flow liner or full liner depending on condition (20 years additional service life)

# Estimated Impact to Needs-Based Funding Distribution

District	Current Percentage (no cusp bridges)	Estimated New Percentage (includes cusp bridges)
Bristol	13.4%	11.6%
Culpeper	6.0%	6.2%
Fredericksburg	9.1%	8.1%
Hampton Roads	17.5%	17.5%
Lynchburg	7.8%	6.7%
Northern VA	9.8%	10.3%
Richmond	17.5%	17.5%
Salem	8.2%	10.9%
Staunton	10.8%	11.3%

Needs will be updated in Summer 2024

# Recommended Prioritization Process Change for SGR Local Paving

- **Current prioritization process includes a cap of \$1.5M per year per locality**
- **Available funding could exceed the total amount of possible allocations**
- **Recommend revision to allow an increase in the cap per locality if the amount of funding available for distribution in that district in a fiscal year exceeds the amount possible to allocate**

# Recommended Prioritization Process Change for SGR Local Paving

## Hampton Roads District

~\$21M per year for SGR Local Paving

11 eligible localities:

$$11 \times \$1.5M = \$16.5M$$

This leaves ~\$4.5M unavailable to allocate to projects each year

- **VDOT is actively working with eligible localities in Hampton Roads to identify additional primary extension segments up to a \$2M cap per locality**
- **Projects would be considered by the Board for amendment to the SYIP in July**

# Summary of SGR Prioritization Process Changes

- **SGR Bridge**
  - **Conforms SGR Prioritization Process to revised Code language pertaining to eligible bridges and eligible bridge treatment types**
  - **Requires prioritization of all poor bridges as well as cusp bridges recommended by the State Structure and Bridge Engineer (VDOT bridges) or locality (Locality bridges)**
- **Separates the CTB resolution from the Prioritization Process**
- **Includes minor technical edits**
- **Eliminates outdated background language in the last approved State of Good Repair (SGR) Prioritization Process February 17, 2021**



# Summary of SGR Policy Changes

- **SGR Local Paving**
  - Includes language permitting an increase in the maximum allowable allocation per locality in the event the amount of funding distributed to that district in a fiscal year exceeds possible allocations based on the number of eligible localities in that district
- The draft revised prioritization process does not include any new or revised provisions not already included in another CTB Policy, federal or state code, or existing funding program requirements

# Next Steps

- **In July, the CTB will be requested to formally approve, by resolution, the updated SGR Prioritization Process**
- **In July, the CTB will be requested to formally approve, by resolution, the amendment of additional SGR Local Paving projects in the Hampton Roads District**
- **Implement the revised process in the FY2026-2031 SYIP update**