

AASHTO TSP2 Southeast Bridge Preservation Partnership Meeting

Virginia's Structure Performance Measures/Goals and Dashboard

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Structure and Bridge Division April 15, 2015

Presentation Outline

- > State Maintained Bridges and Culverts in Virginia
- Performance Measures
- Performance Goals
- Dashboard

DOT

State Maintained Bridges and Culverts in Virginia

Number of Bridges	Number of Culverts	Total
11916	7551	19467

Performance Measures

VDOT's global performance measure for structures is based on the percentage of Structurally Deficient (SD) structures in the Department's inventory. VDOT's goal is to have no more than eight (8%) percent of the structure inventory rated as SD. The number of SD structures in the VDOT NBI/non-NBI inventory at the end of the previous Fiscal Year was 1,453 (6.9%), of which 1,052 are NBI structures.

Performance Goals

- VDOT performs an annual analysis in order to determine and report on the monetary needs for each of its assets. The monetary needs for any particular asset are defined as the amount of funding required to reach stated performance goals which maintain and improve the condition of Virginia's bridges.
- The Structure and Bridge Division uses three sets of performance goals in determining its program's monetary needs. These performance goals address structures in various condition categories. True system preservation extends the service life of structures, which requires a balanced approach that places emphasis on structures in good, fair and poor condition. For consistency and ease of measurement, structures are placed in one of the three condition categories based on the minimum General Condition Rating of each structure, as assigned during the structure's most recent safety inspection.

Performance Goals

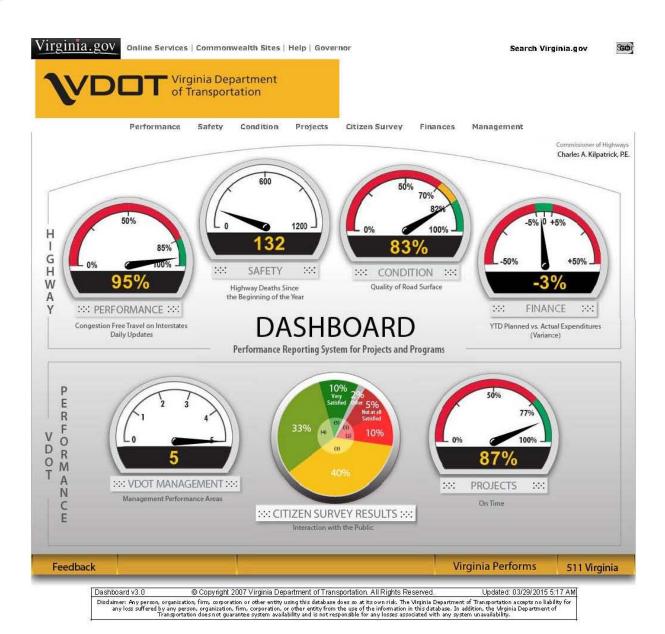
- The minimum GCR for each bridge or culvert is used to define its condition category (good, fair or poor) as follows:
 - Good Structures: Minimum GCR ≥ 6
 - Fair Structures: Minimum GCR = 5

■ Poor Structures: Minimum GCR ≤ 4

Performance Goals

- The general work needs for a balanced approach to bridges in good, fair or poor condition are shown in VDOT's Structure and Bridge Guidance:
 - Maintain 90% of expansion joints in a Condition State of 1.
 - Eliminate 2% of the expansion joints in each District in each fiscal year.
 - Perform maintenance activities on at least 6% of structures with a minimum GCR of 5 in each District in each fiscal year.
 - Perform maintenance activities on at least 2% of structures with a minimum GCR of 6 in each District in each fiscal year.
 - For each highway system no more than the following percentage of structures can be structurally deficient:
 - Interstates 3%
 - Primaries 6%
 - Secondaries 11%
 - All 8%

Dashboard



8

Dashboard

Virginia.gov Online Services	Commonwealth Sit	es Help Governo	or Sear	ch Virginia.gov	SED
	jinia Departmen ransportation	t			
Performance Safety Con HOME HELP QUICK START FEEDBACK	dition Projects	Citizen Survey	Finances	Management	
HOWE HELP QUICK START FEEDBACK					
Garrett W. Moore, P.E. Deputy Commissioner Chief Engineer Condition	Kevin Gregg State Maintenance		al R. Walus, P Structure and	.E. I Bridge Engineer	
District	ncies 🔘 Cities 🛛 R	oad System			
All Districts All Counties	• 7	All Road Systems 🔻			
Pavement Condition	Bridge Co	ondition		Ride Quality	
Target 82%	Target 92% Non-	-Red (Non-SD)		Target 85%	
50 % 25%	R	1370		50 % 35%	
1000 1000 1000 1000 1000 1000 1000 100	V	4909	20	100	
Last Year	G	14806	4%	Last Year	
Current: 83% Last Year: 83%	Green and Yellow	Percent: 93.5%	Current: 88%	Last Year:	89%
Details Trends Paving					



Dashboard

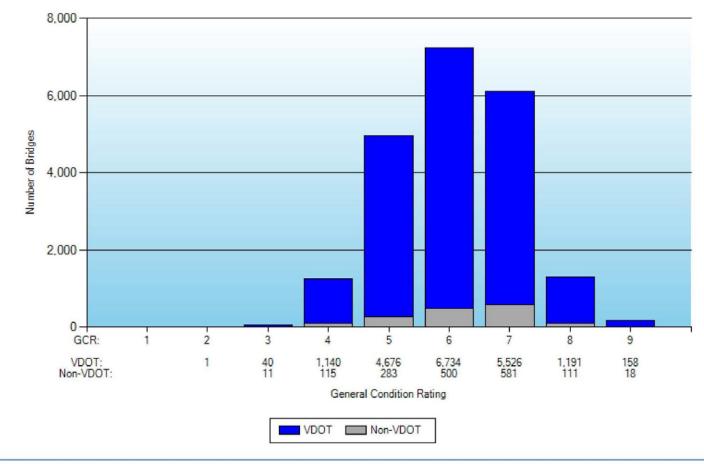
Virgin		ТО	Virginia D of Transpo					h Virginia.		
	rformand		Condition EDBACK	Projects Citize	en Survey	Finan	ces	Managem	ent	-
Co	mmissior ndit	Ocunties	Kevin ineer State M	Maintenance Engined	er State S	I R. Wa Structur		E. Bridge Eng	ineer	
All Districts	•	All Counties		 All Road S 	Systems 🔻					Ra
Pa	avement	Condition		Bridge Conditio	n		F	ide Quali	ty	Me
	Targe	et 82%	т	arget 92% Non-Red (Nor	n-SD)			Target 85%		ca
	50°	A Star		Y 4:	370 909 806	c	0% est	50%	ast Year	se St De
Current: 83%	6	Last Ye	ear: 83%	Green and Yellow Percent: 9	3.5%	Current:	88%		Last Year: 89%	Ge Ge
			Bridge	es and Structures (All C	onditions)					Co
Detail	Charts / 1	rends								Ra
Deficient	All	-	Condition Rating	All 🔻	Report Date	e * [Cur	rent]		•	
NBI		-	Bridge/Culvert A	AII 👻	Open/Post		-			
Route		7	Bridge		Rating Meth		cturally	Deficient	•	
					-		•	Maintained		
Bridge	District	Jurisdiction	Responsibility	Feature Inters	ected	Route	GCR	Condition	Health Index	
0002940	Bristol	Bland County	VDOT	CRAB ORCHARD	CREEK	00052	6	G	94	
0002944	Bristol	Bland County	VDOT	SPRING BRA		00042	7	G	100	
0002945	Bristol	Bland County	VDOT	SPRING BRA	NCH	00042	7	G	99.37	

Rating Method can be selected as Structurally Deficient or General Condition Rating

Dashboard

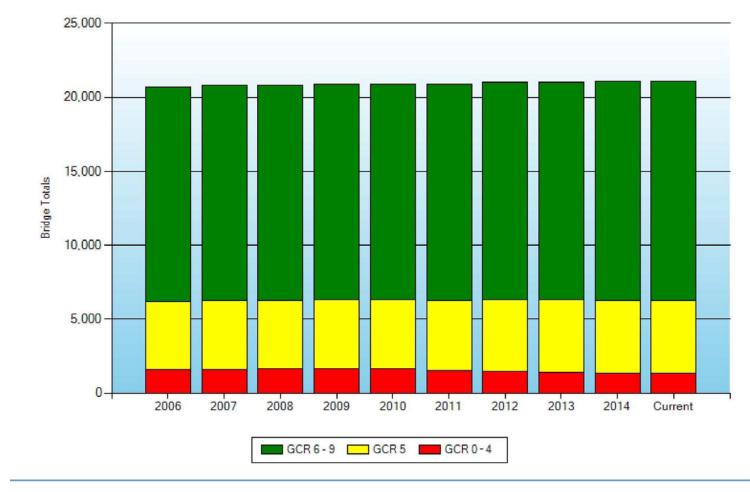
Deficient	All	•	Condition Rating	All	-	Report Date *	[Current]
NBI	All	•	Bridge/Culvert	All	•	Open/Posted	All
						Rating Method	General Condition Rating (GCR)
						Include	e Non-VDOT Maintained 🔽 🛛 Search
			Pie C	hart		•	
				14,819			

Dashboard



This data reflects the selections made with the drop-down lists, filters, and radio buttons. This chart refers to the General Condition Rating (GCR), which is different from the default view seen on the rest of the Bridge measure. For each structure, a rating from zero through nine is assigned to each of the deck, substructure, and superstructure. The minimum of the three ratings becomes the General Condition Rating for the structure. For a culvert, only one overall rating is assigned. The rules for GCR are: Red = 0 - 4, Yellow = 5 and Green = 6 - 9. This will not match the R/Y/G "lights" at the top of the page.

Dashboard



This data reflects the selections made with the drop-down lists and radio buttons. When the General Condition Rating (GCR) is chosen from the "Rating Method" list, the Red/Yellow/Green status is based on GCR of 0 - 4 = Red; 5 = Yellow; 6 - 9 = Green. This will not match the R/Y/G "lights" at the top of the page.



Thank you for your time and attention

Questions??

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