

House Public Works & Highways Committee

2017-2026 Draft Ten Year Plan Overview
January 27, 2016

Presented By:

Victoria Sheehan, Commissioner

Christopher Waszczuk, Director of Project Development

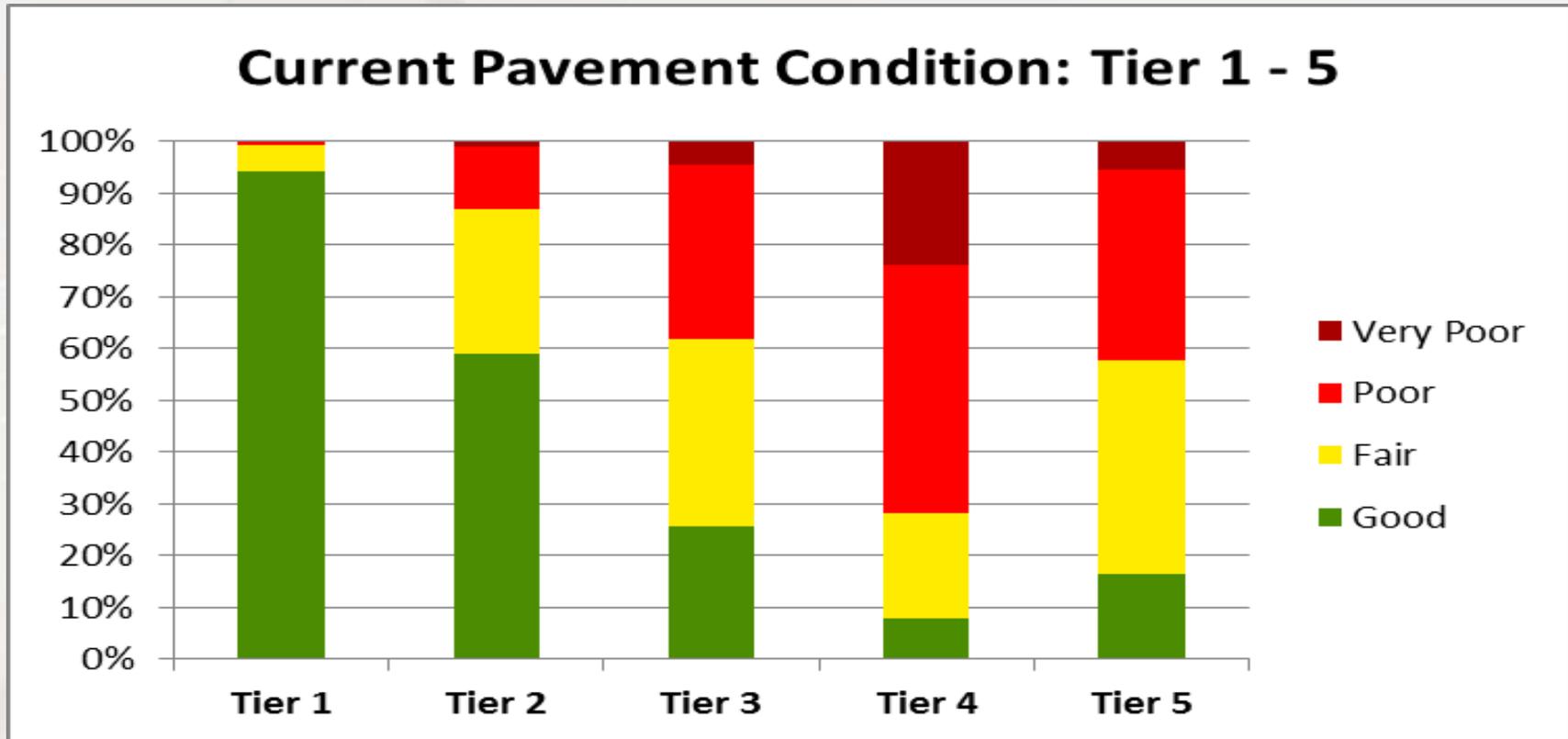
Meeting Goals

- Ten Year Plan process
- State of Infrastructure Summary
- Proposed TYP highlights
- TIFIA Pledged Paving & Bridge Work
- Unfunded Needs
- A Look Ahead

Ten Year Plan Process

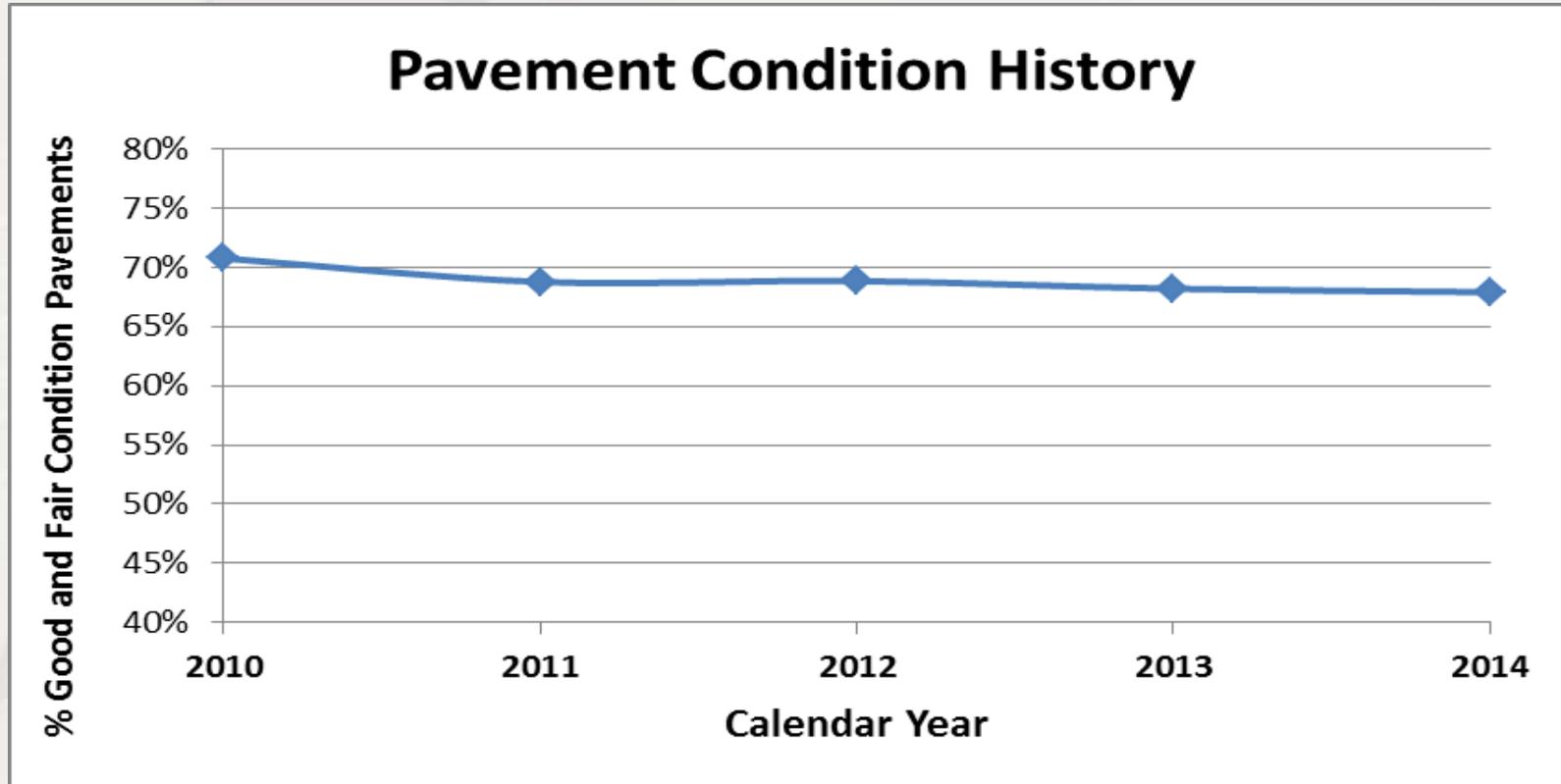
- **April – August 2015 - Community outreach & regional prioritization by RPCs and coordination with NHDOT**
- **July 22, 2015 and August 26, 2015 – GACIT 2017-2026 TYP Kickoff meetings and Document Release**
- **September – October 2015 – 16 Public Hearings**
- **November 12th & 30th – GACIT TYP meetings**
- **December 16, 2015 – GACIT TYP transmittal to Governor**
- **January 14, 2016 - Governor's TYP transmittal to Legislature**
- **January - May 2016 - Legislative review & revisions**
- **June 2016 – Final TYP (2017-2026) Adopted into Law**

Current State of Infrastructure



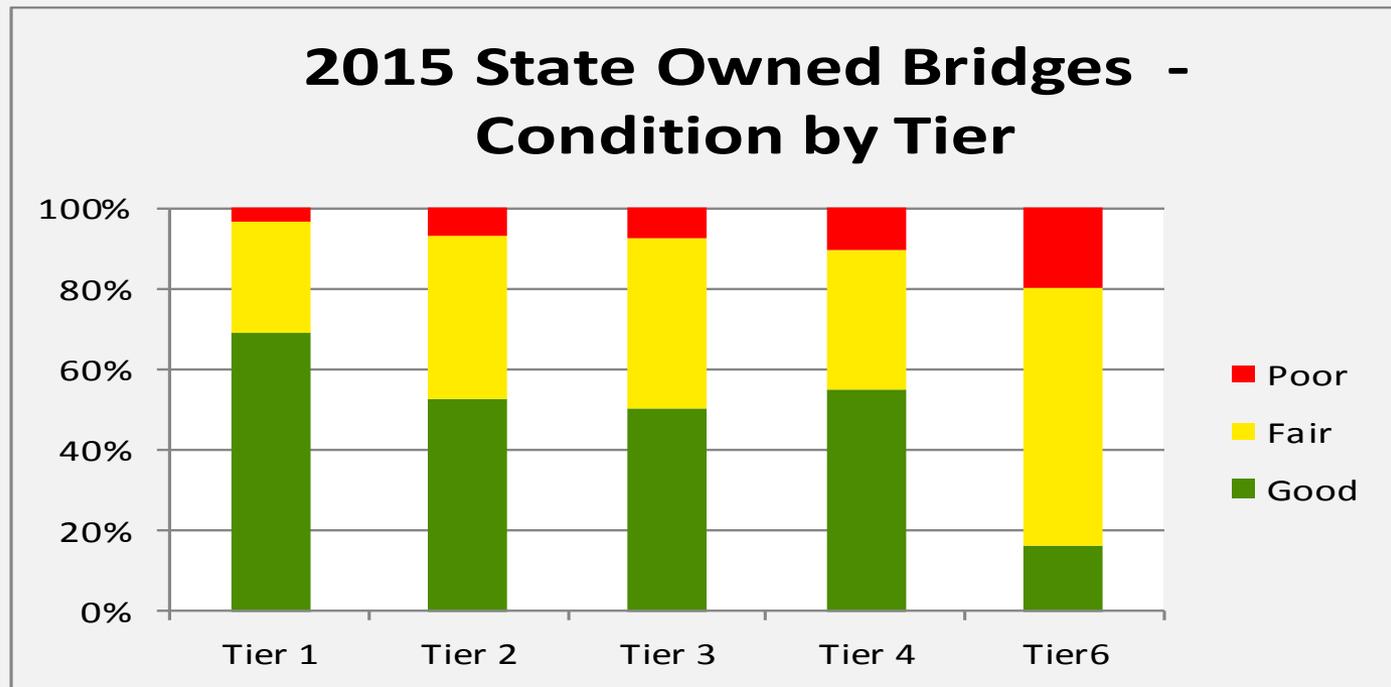
- Tiers 1 & 2 – 91% of roads are in good or fair condition
- Tiers 3 & 4 – 49% of roads are in good or fair condition
- Overall, 68% of NH's roads (state & municipal) are good/fair
Conversely, 32% (1,345 miles) are poor/very poor condition

Current State of Infrastructure (con't)



- Overall % of Good & Fair Roads has dropped over last five years (2010 – 2014)
- Level of investment has not kept pace with level of pavement deterioration

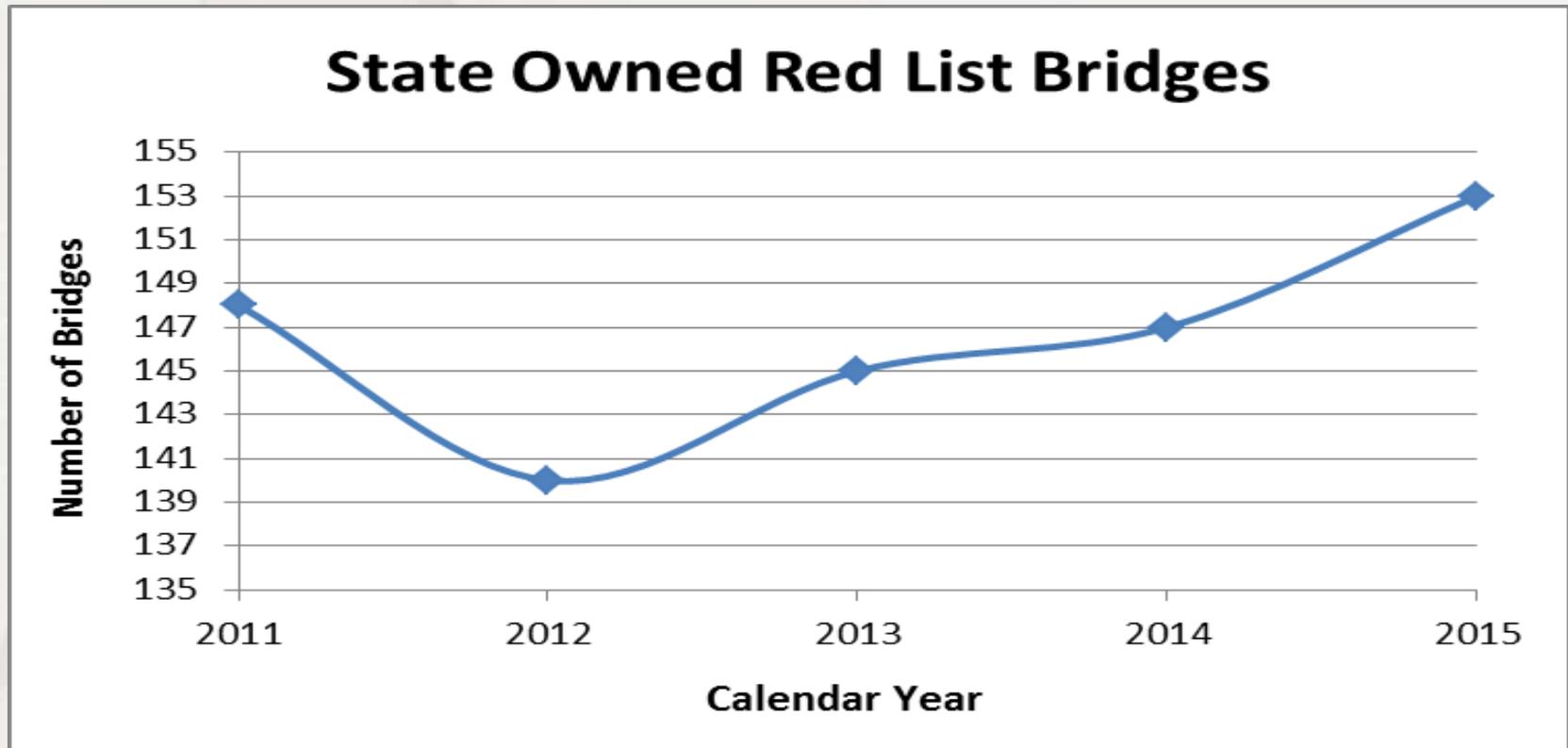
Current State of Infrastructure (con't)



Red List Bridges	19	42	38	44	10
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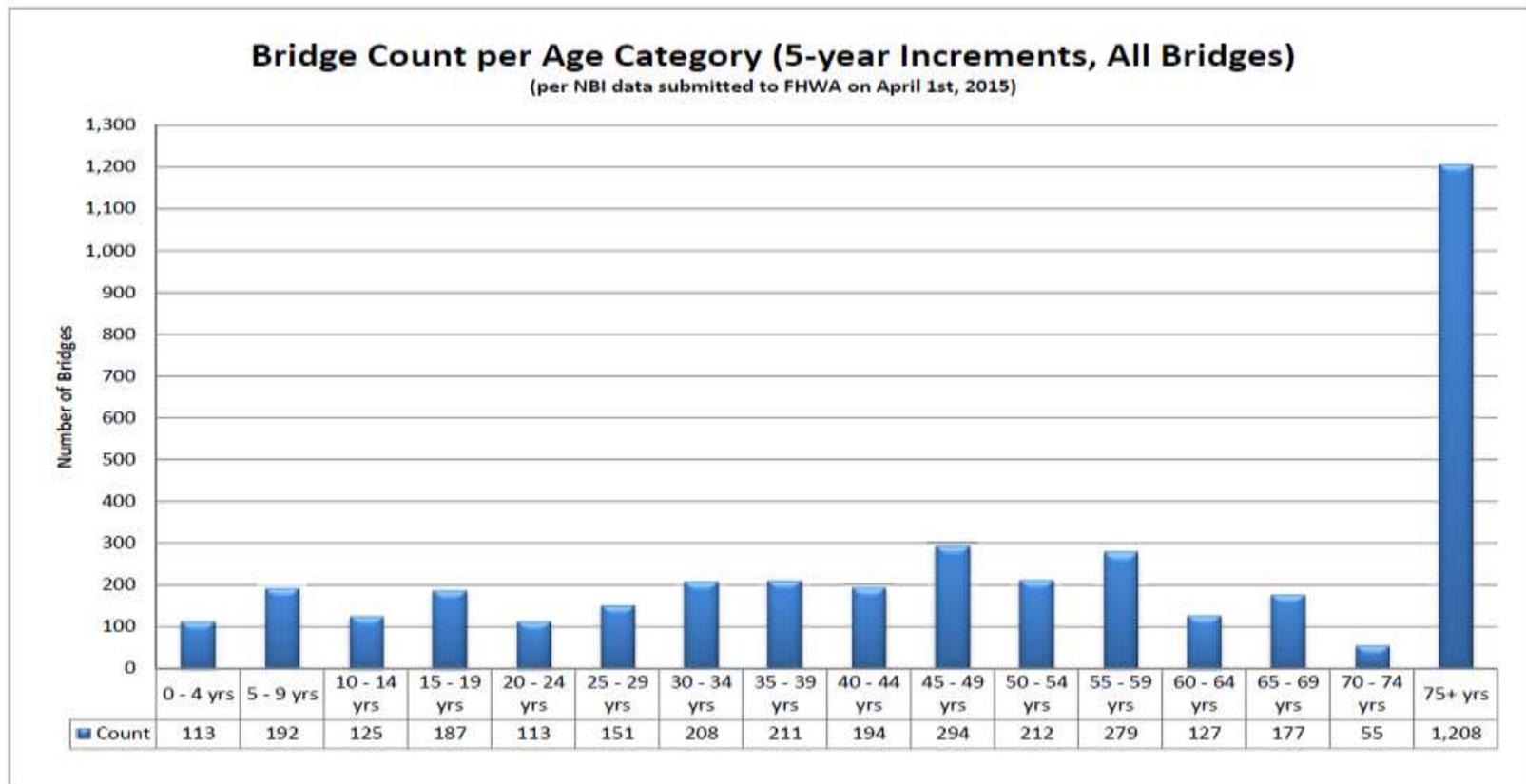
- Presently (2015) - 153 State Red-List Bridges
- Tiers 1 & 2 – 5.3% (61 bridges) in poor condition (red list)
- Tiers 3 & 4 – 8.7% (82 bridges) in poor condition (red list)
- Additionally 344 Municipal Red-List Bridges (2015)

Current State of Infrastructure (con't)



- The number state owned redlist bridges (poor condition) has trended upward over the last 3 years.
- Over the last 5 years, on average 23 bridges per year added to redlist with 21 bridges per year removed from the redlist
- Today (2015), 7% of the State's bridge or 153 are in poor condition.

Current State of Infrastructure (con't)



- Of the 3,846 State & Municipal Bridges, 1,208 are 75 years or older
- Major Looming Liability if we do not invest in bridge maintenance and preservation efforts.

Proposed draft TYP Highlights

1. Focus on Pavement Preservation
 - “Keeping good roads good”
 - Maintenance and Preservation strategies on existing system
2. Focus on Red List Bridges & Bridge Preservation
 - Increased funding to address State’s Red List Bridge backlog
 - Increased funding for bridge preservation work to extend bridge life
3. Dedicated TIFIA pledged funds for rural roads & bridges
 - Funding allocated for paving poor & very poor (1160 miles) Tier 3 & 4 roads
 - Funding allocated for 23 Red List Bridges
4. Completion of I-93 & Funding for Exit 4A
5. Heightened Financial Constraint
 - FAST Act federal funding thru FY20, Level federal funding FY21-FY26
 - Fully Funded, Fully financially constrained TYP
 - Increased level of accountability, predictability & ability to deliver

Proposed TYP Funding Synopsis

Typical Annual Funding Utilization

Federal Funding typically \$171M/yr - \$183M/yr

- Preservation & Maintenance (Roads & Bridges): \$80M - \$85M
- Mandated Federal (CMAQ, TA, SPR, HSIP, LTAP, etc): \$34M
- I-93 GARVEE Debt Service: \$16M - \$18M

Annual Dedicated Funding: \$130M - \$135M

- Individual Projects (remainder of federal funding): \$40M - \$50M

Betterment Funding typically \$22M/yr

- Preservation & Maintenance (Roads & Bridges): \$22M

Turnpike Funding for Capital & TRR ranges \$30M - \$60M/yr

- TRR- Preservation & Maintenance (Roads & Bridges): \$10M - \$12M
- Turnpike Capital Improvements: \$20M - \$45M

Proposed TYP Funding Synopsis (con't)

SB367 Funding for I-93 Expansion, SAB, Potential TIFIA

- \$34M per year (12% to Block Grant Aid)
- \$30M per year net of Municipal Block Grant Aid
- State Aid Bridge: \$6.8M/year
- I-93 Debt Service: Averages \$2.0M/year (first 9 yrs)
- TIFIA Pledged Paving & Bridge Work: \$12M/year (paving)
\$ 8M/year (bridges)

Transit Funding (FTA) averages \$33M/yr

Airport Funding (FAA): averages \$26M/yr

General Financial Constraint Considerations for draft TYP (2017 – 2026)

- **Formula Federal Funds Programmed at average \$180M/year**
 - CMAQ program funded at 75% level (FY17-FY20), balance transferred to 'flexible' categories for other projects/programs to help address pavement and bridge priorities (approx. \$2.7M/year)
 - Other mandated federal programs 100% funded (TA, HSIP, Off-system bridge, etc.)
 - Some existing projects needed to be delayed/cash-flowed to help achieve constraint by year
 - Includes approximately \$47M for additional Individual RPC projects in FY25/FY26
 - Funds \$50M for I-93 Exit 4A (PE & ROW acquisition, Construction start FY19)
 - Funds two major Connecticut River Bridges with \$60M GARVEE Bonds
 - Provides additional \$45M for bridge maintenance & preservation over ten-year period
 - Provides \$15M (\$5M/year in FY22-FY24) for future red list bridges
 - Provides additional \$10M for statewide culvert replacements

General Financial Constraint Considerations for draft TYP (2017 – 2026)

- **Turnpike Capital and R&R Programs**

- Turnpike Capital Work averages \$35M/year with two unfunded priority projects starting construction in 2024 & third unfunded priority project starting construction in 2026.
- Turnpike Renewal & Rehabilitation (TRR) program averages \$11M/year for paving, bridge, & other preservation/maintenance work

- **Other Programs**

- Betterment funded at traditional levels
- Aeronautics funded at traditional levels
- Transit funding higher due to anticipated increase in FTA grants
 - \$4M in FTA UZA funds for Capital Corridor

Draft TYP (2017 – 2026) Funding

Draft 2017-2026 Ten Year Plan Total Program Dollars by FY

FY	Highway and Bridge										Other Modes						TYP FY Total	% of Total Program
	Highway Funded					Non-Highway Funded					Turnpike ⁷ Improvement	Turnpike R&R	Rail ⁵	Transit ⁶	Airport			
	FHWA ^{1,4,5}	TIFIA Financing I-93	Connecticut River Bridges GARVEE	Betterment ²	SAB ²	I-93 Debt Service	TIFIA Pledged Paving & Bridge	SAH ²	Other ³ Matching Funds	Sub Total								
2017	178.17	53.74	0.00	20.83	9.36	0.48	14.27	3.89	14.56	295.30	29.76	9.85	0.60	29.72	31.32	396.55	10.6%	
2018	178.31	52.85	0.00	20.83	9.05	1.15	20.51	2.50	11.84	297.04	28.47	11.75	0.60	29.90	29.59	397.36	10.6%	
2019	183.08	51.12	13.85	20.83	8.85	1.82	20.79	2.90	6.28	309.51	21.70	11.90	2.10	29.24	26.06	400.51	10.7%	
2020	184.48	15.60	24.98	20.83	10.06	2.37	23.65	2.86	9.26	294.09	31.51	10.40	0.60	31.25	67.60	435.45	11.6%	
2021	184.80	0.00	22.14	20.83	9.26	2.54	20.56	2.50	1.54	264.19	36.57	10.60	0.60	31.43	18.55	361.94	9.7%	
2022	184.06	0.00	0.00	20.83	10.49	2.56	19.81	2.50	10.86	251.12	38.44	10.80	2.10	32.43	22.24	357.13	9.5%	
2023	183.82	0.00	0.00	20.83	9.55	2.56	20.15	2.50	0.96	240.37	26.00	11.00	0.60	33.47	11.80	323.24	8.6%	
2024	183.84	0.00	0.00	20.83	9.93	2.56	22.16	2.50	0.72	242.54	44.50	11.30	0.60	34.54	21.14	354.63	9.5%	
2025	190.37	0.00	0.00	20.83	9.95	2.55	19.53	2.50	1.05	246.78	35.90	11.50	2.10	35.65	11.83	343.76	9.2%	
2026	187.42	0.00	0.00	20.83	9.93	23.60	0.00	2.50	0.05	244.34	57.50	11.70	0.60	36.79	20.66	371.58	9.9%	
Program Total	1,838.34	173.30	60.97	208.35	96.43	42.18	181.43	27.15	57.12	2,685.27	350.35	110.80	10.50	324.43	260.80	3,742.15	100.0%	
% of Total Program	68.5%	6.5%	2.3%	7.8%	3.6%	1.6%	6.8%	1.0%	2.1%	100.0%								
Revenue ⁹	1838.29	173.30	60.97	220.00	307.39				27.15	57.12		350.35	110.80	10.50	324.43	260.80	3742.15	
Surplus/Deficit	-0.05	0.00	0.00	11.66	-12.66				0.00	0.00		0.00	0.00	0.00	0.00	0.00	-12.71	

• FY17-FY26 Estimated Program Expenditures

- Federal Funded (Formula, Earmarks, Other) - \$178M to \$190M per year
- Highway Funded (state & federal) - \$240M to \$310M per year
- Turnpike Funded – Average \$46M per year for TRR & Tpk Capital
- Other Modes - Average \$60M per year
- \$3.74 Billion Program

Draft TYP (2017 – 2026) Funding

Draft 2017-2026 Ten Year Plan All Funding

FISCAL YEAR	PAVEMENT	BRIDGES	I-93 EXPANSION	MANDATED FEDERAL	INDIVIDUAL PROJECTS	ROADSIDE	RAIL	TRANSIT	AIRPORTS	DEBT SERVICE	GRAND TOTAL
2017	75.07	79.06	62.86	29.93	60.36	8.47	2.60	27.26	31.32	19.61	396.55
2018	78.19	93.43	61.74	33.07	42.78	8.47	2.60	27.20	29.59	20.28	397.36
2019	72.85	103.40	66.65	32.48	39.07	8.47	2.10	28.47	26.06	20.95	400.51
2020	72.39	117.65	25.70	32.59	50.56	8.47	0.60	30.45	67.60	29.44	435.45
2021	77.83	110.34	11.00	34.86	40.46	8.47	0.60	31.43	18.55	28.41	361.94
2022	75.05	71.75	16.50	34.72	65.75	8.47	2.10	32.43	22.24	28.12	357.13
2023	72.19	67.03	0.00	34.68	67.17	8.47	0.60	33.47	11.80	27.84	323.24
2024	72.55	47.96	0.00	34.41	107.41	8.47	0.60	34.54	21.14	27.54	354.63
2025	82.65	58.95	0.00	34.41	82.49	8.47	2.10	35.65	11.83	27.21	343.76
2026	71.31	70.79	0.00	34.41	97.03	8.47	0.60	36.79	20.66	31.54	371.58
Total	750.09	820.38	244.45	335.58	653.07	84.65	14.50	317.70	260.80	260.93	3742.15
% Grand Total	20.0%	21.9%	6.5%	9.0%	17.5%	2.3%	0.4%	8.5%	7.0%	7.0%	100.0%

~ Dollars include indirect costs and inflation (3.2%)

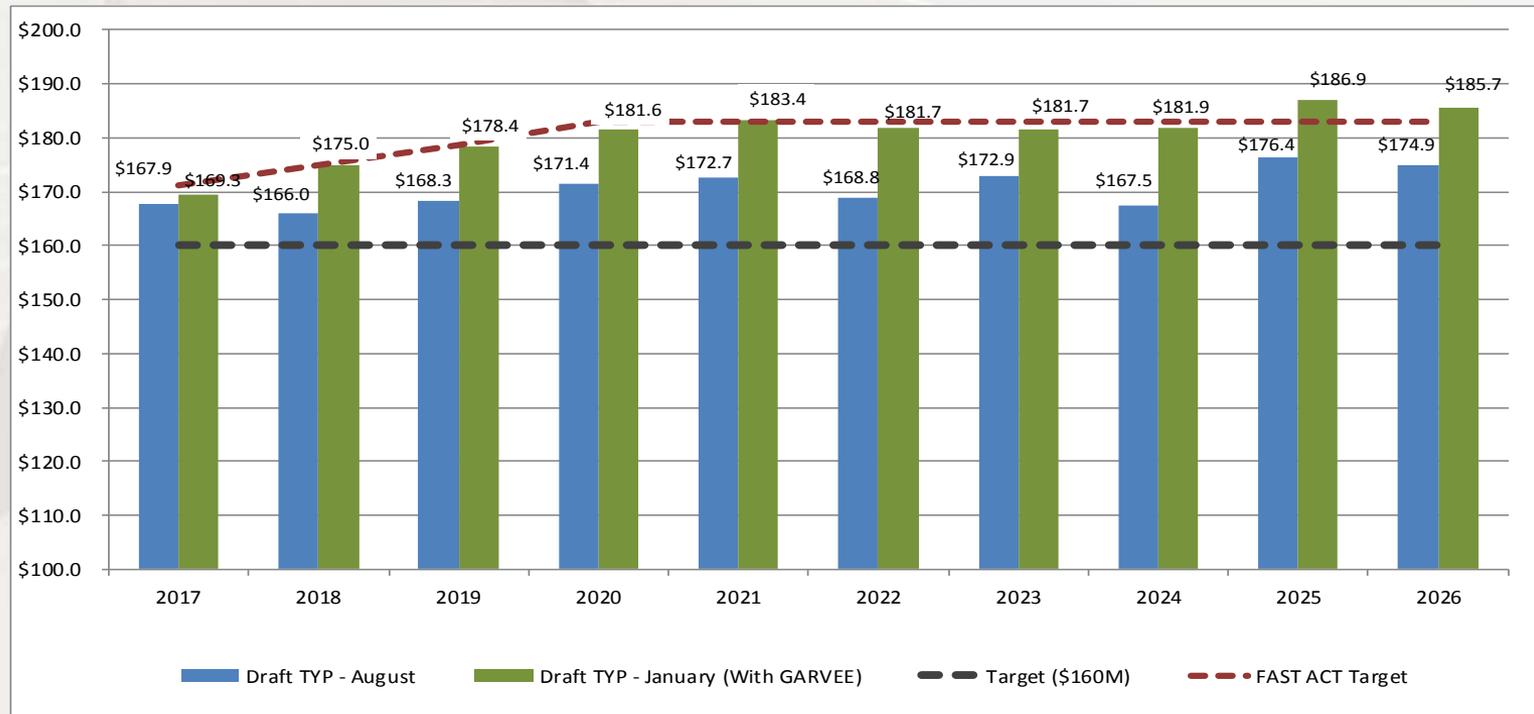
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• FY17-FY26 Estimated Program Expenditures

- Pavement (state & federal) – averages \$75M per year
- Bridges (state & federal) – averages \$82M per year
- I-93 Expansion - \$245M over ten-year period
- Mandate Federal – averages \$34M per year
- Individual Projects- \$654M over ten-year period
- Transit & Airports - \$580M over ten-year period
- Total Program - \$3.74B

Draft TYP (2017 – 2026) Fed Formula

Draft 10-Year Plan
 Federal Aid (Formula) Program
 August Compared to January (with GARVEE)
 HSIP (100%) and CMAQ (75%) Restored FY 2021-2026 & Increased to FAST ACT Levels



August Total = \$ 1,706.8 (in millions)
January Total = \$ 1,805.6 (in millions)
FAST ACT Estimated Revenue = \$ 1,805.6 (in millions)

Notes

CMAQ, HSIP, RecTrails, TAP Programs increased to FAST ACT funded levels (with exception of CMAQ at 75% 2017-2020)

TIFIA Program, Status & Impact

- “Transportation Infrastructure Finance and Innovation Act”
- NHDOT submitted a Letter of Interest to USDOT/FHWA in January 2015
- Awarded Rural Rate of Finance May 2015
- Enables NH to finance \$200M remainder of I-93; pave 40 percent of NH rural roads and fix 23 red list bridges while costing NH \$20M less than financing \$200M for I-93 alone through capital markets
- Financial close anticipated May 2016

TIFIA Program, Status & Impact

PRAG
09/24/15

STATE OF NEW HAMPSHIRE
SB 367 - AMENDMENT #2015-1810s BY THE SENATE AND HOUSE PASSED 2016-2017 BUDGET
BUDGETARY ESTIMATES WITH TIFIA FINANCING

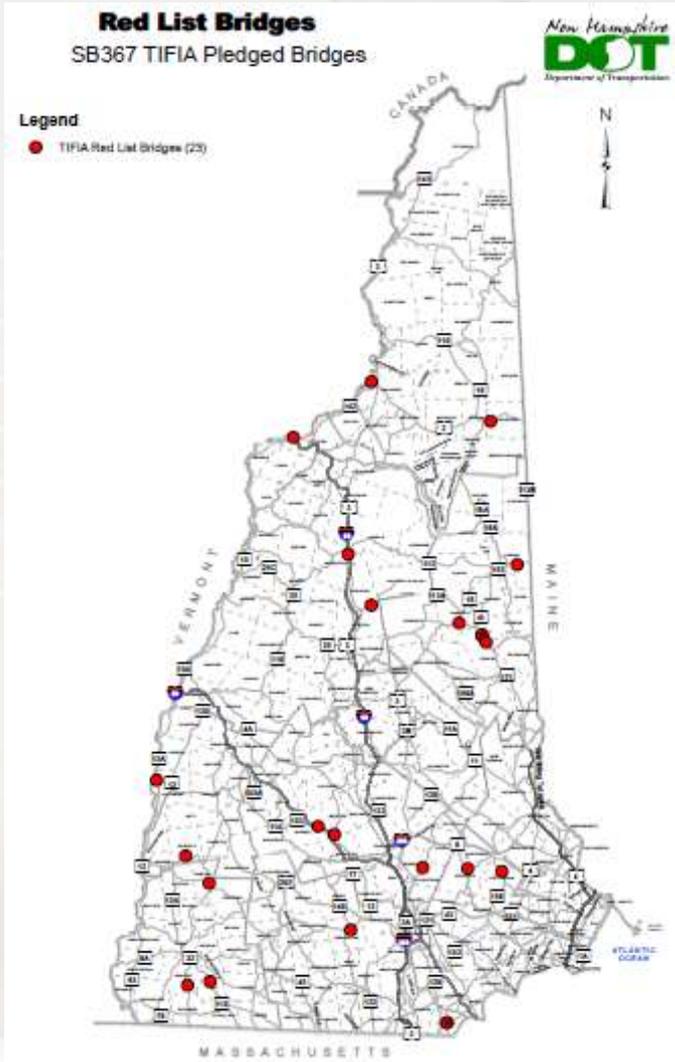
Fiscal Year	\$0.042 Dedicated Road Toll Increase ¹	Municipal Block Grant Aid (12% FY Revenue)	Debt Service & Cost of Issuing Bonds Due on \$200M TIFIA Financing ² for I-93	Additional State Aid for Municipal Bridges	TIFIA Pledged Paving and Bridge Repair ³	Highway Bridge and Betterment District Rehabilitation Program	Highway Bridge and Betterment District Resurfacing Program	DOT Operating Budget
2015 Actual	\$34,317,587	-	-	\$9,117,587	-	\$12,000,000	\$13,200,000	-
2016 Budget	\$34,425,781	\$4,118,110	\$300,000	\$6,800,000	\$14,907,671	-	-	\$8,300,000
2017 Budget	\$34,425,781	\$4,131,094	\$478,357	\$6,800,000	\$14,716,331	-	-	\$8,300,000
2018	\$34,325,946	\$4,131,094	\$1,152,511	\$6,800,000	\$22,242,342	-	-	-
2019	\$34,226,401	\$4,119,114	\$1,819,030	\$6,800,000	\$21,488,258	-	-	-
2020	\$34,127,144	\$4,107,168	\$2,368,078	\$6,800,000	\$20,851,898	-	-	-
2021	\$34,028,176	\$4,095,257	\$2,541,295	\$6,800,000	\$20,591,624	-	-	-
2022	\$33,929,494	\$4,083,381	\$2,555,000	\$6,800,000	\$20,491,113	-	-	-
2023	\$33,831,098	\$4,071,539	\$2,555,000	\$6,800,000	\$20,404,559	-	-	-
2024	\$33,732,988	\$4,059,732	\$2,558,479	\$6,800,000	\$20,314,777	-	-	-
2025	\$33,635,163	\$4,047,959	\$2,551,521	\$6,800,000	\$20,235,683	-	-	-
2026	\$33,537,621	\$4,036,220	\$23,602,065	\$5,899,336	-	-	-	-
2027	\$33,440,362	\$4,024,514	\$23,602,065	\$5,813,782	-	-	-	-
2028	\$33,343,384	\$4,012,843	\$23,602,065	\$5,728,476	-	-	-	-
2029	\$33,246,689	\$4,001,206	\$23,602,065	\$5,643,418	-	-	-	-
2030	\$33,150,273	\$3,989,603	\$23,602,065	\$5,558,606	-	-	-	-
2031	\$33,054,137	\$3,978,033	\$23,602,065	\$5,474,040	-	-	-	-
2032	\$32,958,280	\$3,966,497	\$23,602,065	\$5,389,719	-	-	-	-
2033	\$32,862,701	\$3,954,994	\$23,602,065	\$5,305,643	-	-	-	-
2034	\$32,767,400	\$3,943,524	\$23,602,065	\$5,221,811	-	-	-	-
TOTAL	\$673,366,408	\$76,871,881	\$231,297,853	\$127,152,419	\$196,244,255	\$12,000,000	\$13,200,000	\$16,600,000

¹ - For FY 2016 - FY 2017, Approved Budget as passed Chapter 275 Laws of 2015; FY 2018 provided by the Department of Safety, assumes a 0.29% decrease each year thereafter.

² - As provided by the Public Resources Advisory Group (PRAG) assuming the following:
 - \$200M TIFIA Financing; 9 year deferral period for principal payments
 - All-in True Interest Cost = 1.29%
 - Includes \$15,000 annual TIFIA Administrative Fee.

³ - Pursuant to SB367 requirements, funds identified will be allocated based on RSA 235:23-a.

TIFIA Impact



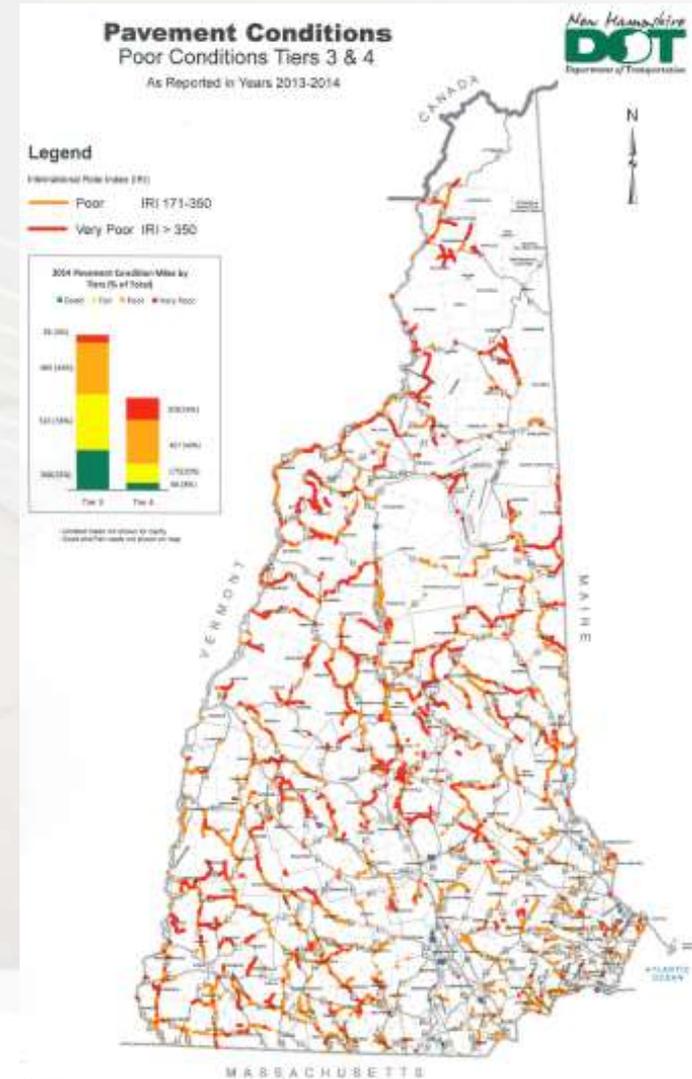
Statewide Impact

**\$181M of Pledged
Bridge & Paving
Work**

**23 Red List
Bridges**

**1160 Miles of
Tier 3 & 4 Poor
& V. Poor Roads**

**\$200M Loan for
I-93 Completion**



General Projected Outputs of Draft TYP (2017-2026)

- **Pavement Resurfacing 350 mi/year (estimated)**

- Preservation 150 mi/year
- Rehabilitate 16 mi/year
- Maintenance 185 mi/year

TIFIA Pledged Pavement Resurfacing

- Additional 200 mi/year (estimated)
- Maintenance & Roughness Paving on Poor & V. Poor Roads

- **State-Owned Bridges**

- Rehabilitate / Replace: 124 bridges (57 Red list Bridges)
- Bridge Maintenance (110 Red list Bridges over 10-year period)

TIFIA Pledged Bridge Work

- Rehabilitates / Replaces Additional 23 red list bridges

Unfunded Needs

- **Red List Bridge Backlog**
 - Currently 153 state red list bridges
 - Based on Proposed Investment Level – Estimated to address 190 Bridges
 - However, 1208 State-Owned Bridges are 75+ years old
 - Over last 5 years, 23 red list bridges added each year (21 removed each year)
- **Municipal Red List Bridge Backlog**
 - Currently 344 municipal red list bridges
 - Based on Currently Proposed SAB Investment Level – Estimated to address 90 Bridges
- **Paving Backlog**
 - Paving Deficit of 1582 miles (1999-2013)
- **Turnpike Capital Program**
 - \$325M in Unfunded Turnpike Capital Improvement Priorities Identified in approved TYP (2015-2024)
 - \$125M in Construction Funding for three unfunded priorities in 2024-2026
 - \$210M in Unfunded Capital Improvement Priorities remains Unfunded
 - \$2.5M/year for Type II Noise Wall Program is needed & not funded

Unfunded Needs (con't)

- **Bridge Investment**

- Additional investment of **\$12M/year** needed over 10-year period for Tier 1 & 2 bridge preservation needs
- Additional investment of **\$21M/year** needed to address additional 10 red list bridges per year (bridges that are anticipated to be added to red list but not addressed during this TYP period)
- Additional investment of **\$22.5M/year** to SAB Program – Estimated to address 250 municipal bridges over 10-year period

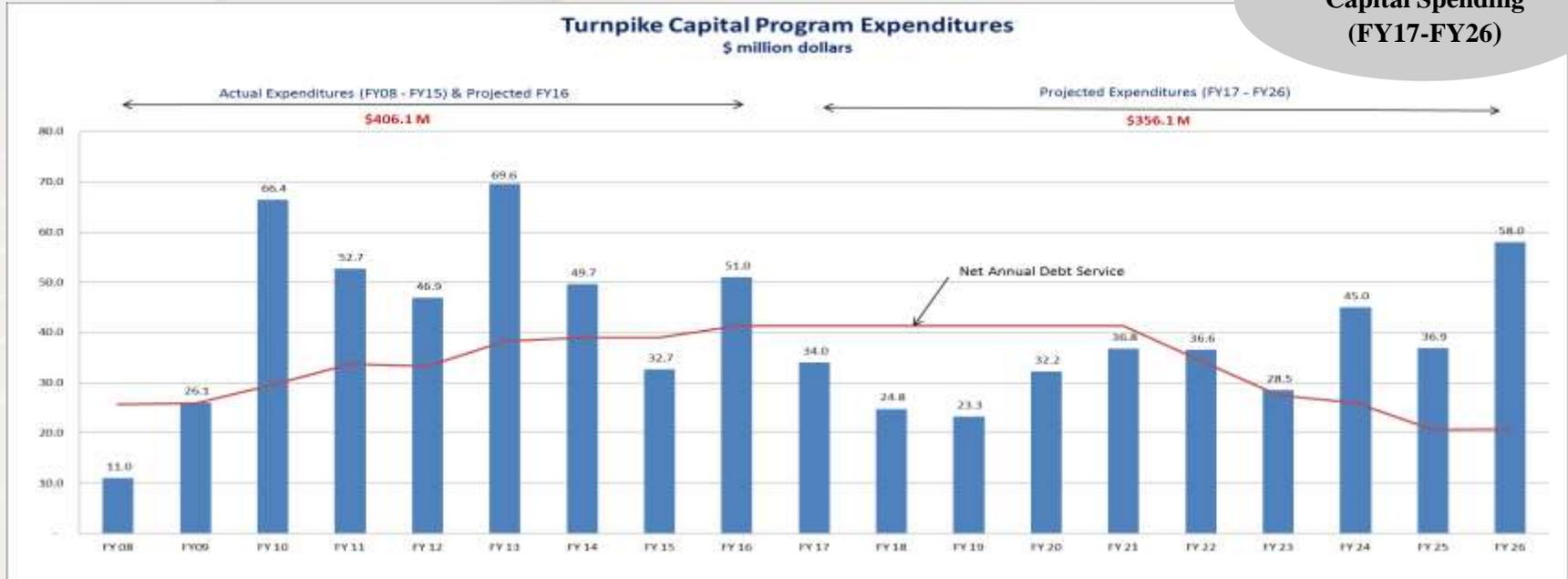
- **Pavement Investment**

- Additional investment of **\$11.5M/year** needed over 10-year period to rehabilitate poor and very poor Tier 2, 3 & 4 roads
- Additional investment of **\$3M/year** needed over 10-year period, effectively doubling the maintenance pave program, to maintain pavement condition of poor and very poor roads in fair condition

Turnpike System Capital Program

Under Current Toll Structure

\$356M Projected
Capital Spending
(FY17-FY26)

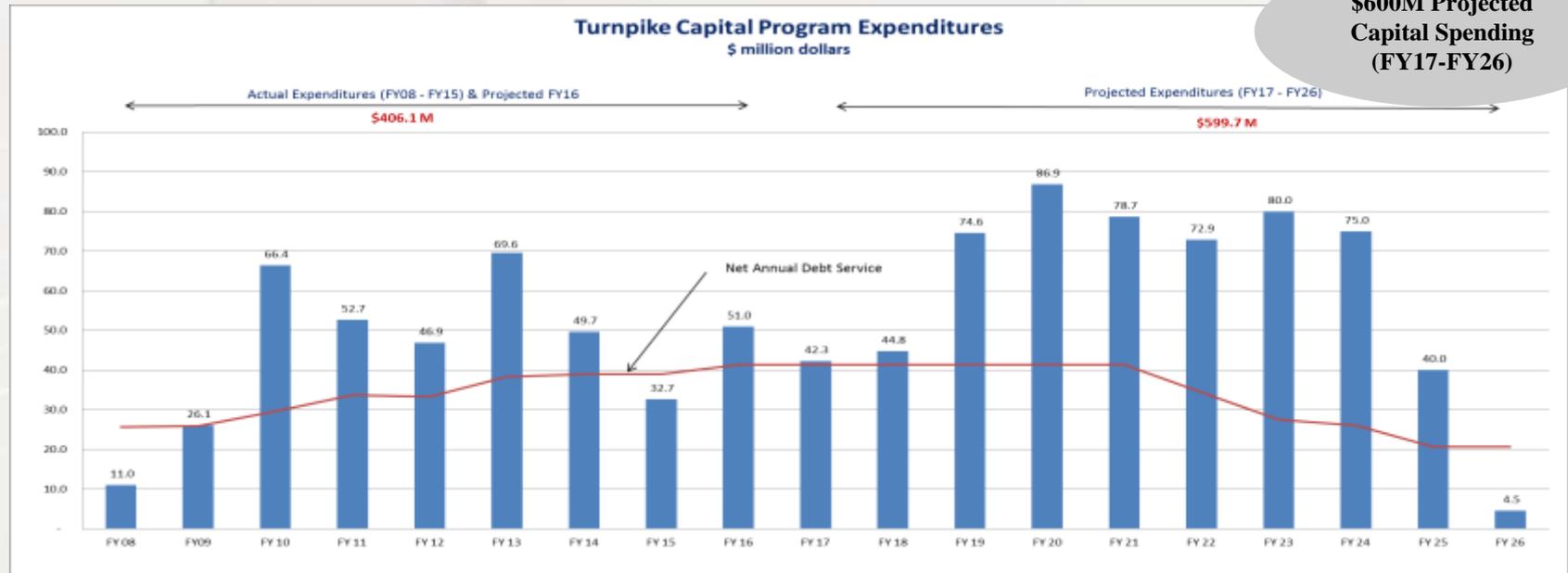


TIMETABLE FOR MAJOR TURNPIKE PROJECTS' CONSTRUCTION

- Construction Dover End & GSB Rehabilitation (\$85M): **2017 - 2021**
- Construction of FEET Widening, Merrimack-Bedford (\$70M): **2022 - 2024**
- Manchester Exit 6 Improvements & FEET Widening (\$75M): **2024 - 2027**
- Manchester Exit 7 Reconstruction (\$54M): **2026 - 2028**
- Bow-Concord: I-93 Widening (I-89 to I-393) (\$190M): **2027 - 2032**

Turnpike System Capital Program

Under New Toll Structure (28% Toll Increase)



TIMETABLE FOR MAJOR TURNPIKE PROJECTS' CONSTRUCTION

- Construction Dover End & GSB Rehabilitation (\$85M): **2017 - 2021**
- Construction of FEET Widening, Merrimack-Bedford (\$70M): **2019 - 2021**
- Manchester Exit 6 Improvements & FEET Widening (\$75M): **2021 - 2024**
- Manchester Exit 7 Reconstruction (\$54M): **2022 - 2024**
- Bow-Concord: I-93 Widening (I-89 to I-393) (\$190M): **2020 - 2025**
- **\$2.5M Annual Funding for Type II Soundwall Program**

Turnpike System Capital Program

Under New Toll Structure (28% Toll Increase)

- Hooksett ML & Bedford ML Plazas: 50 cent increase (\$1.00 toll to \$1.50 toll)
- Hampton ML Plaza: 50 cent increase (\$2.00 toll to \$2.50 toll)
- Hampton Side Plaza: 25 cent increase (\$0.75 toll to \$1.00 toll)
- Dover & Rochester ML Plazas: 25 cent increase (\$0.75 toll to \$1.00 toll)
- Hooksett Ramp Plaza: 25 cent increase (\$0.50 toll to \$0.75 toll)
- **\$35M additional annual toll revenue per year**

- **No Additional Bonding Proposed**

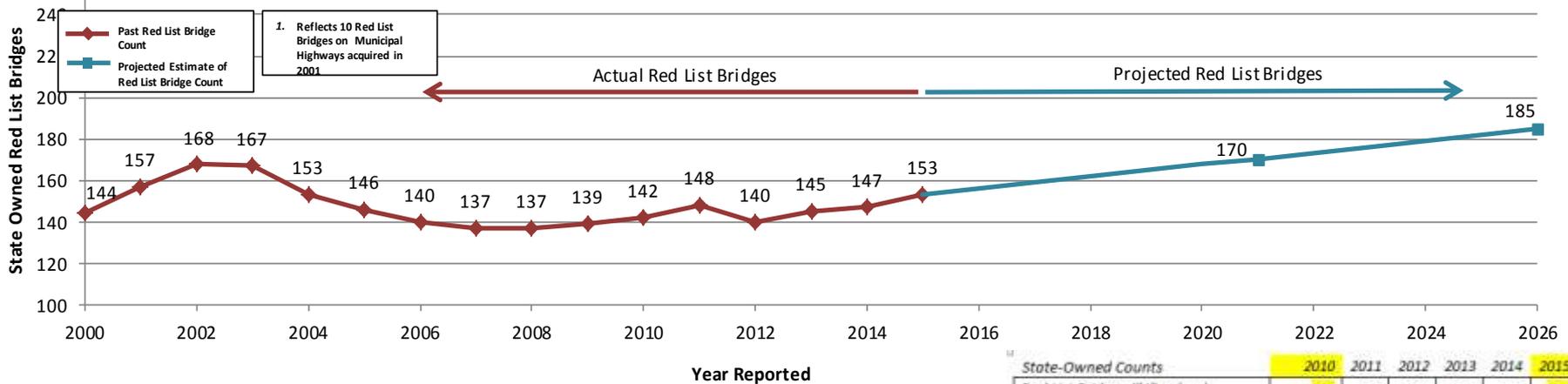
Toll Increase is paid by users of the system

- Users directly benefit from the capital investment
- **\$15.9M/Year or 45%** of additional revenue is from out-of-state travelers



A Look Ahead – Bridge Condition

State Owned Red List Bridges (2000-2026)



State-Owned Counts	2010	2011	2012	2013	2014	2015
Red List Bridges ("4" or less)	142	148	140	145	147	153
Pink List Bridges ("5")	249	257	262	265	281	289
Good & Fair Bridges ("6" thru "9")	1706	1704	1715	1717	1704	1694
Black Count (non-hwy/closed)	30	27	26	26	23	23
Total State-Owned Count	2127	2136	2143	2153	2155	2159

Based on current level of investment in draft TYP

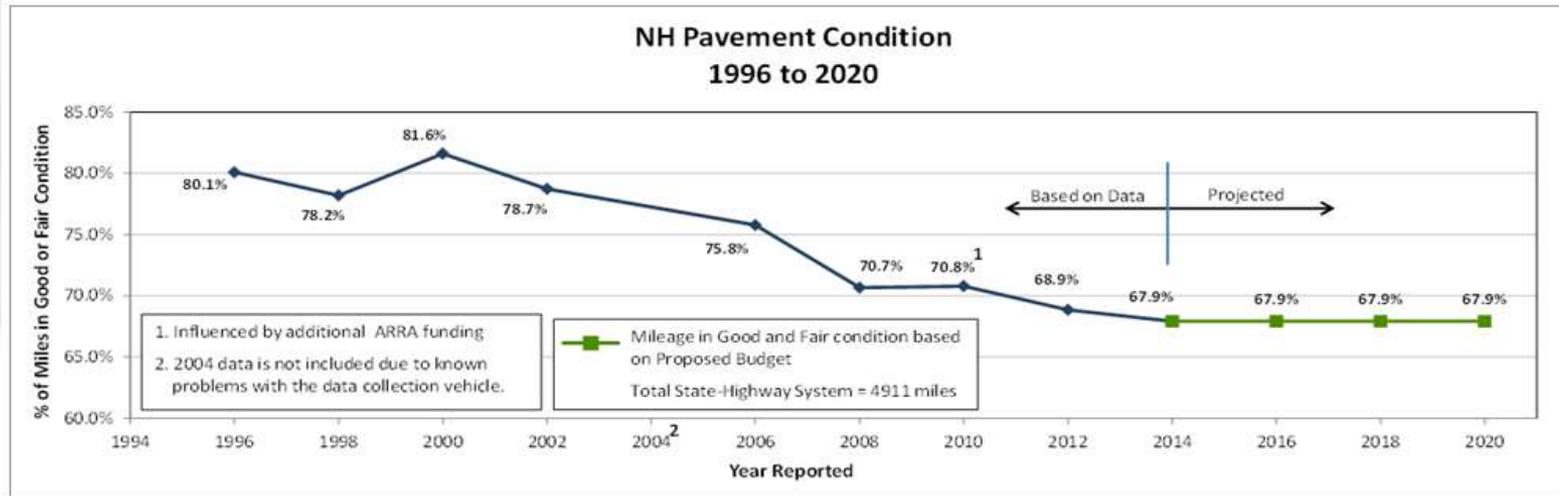
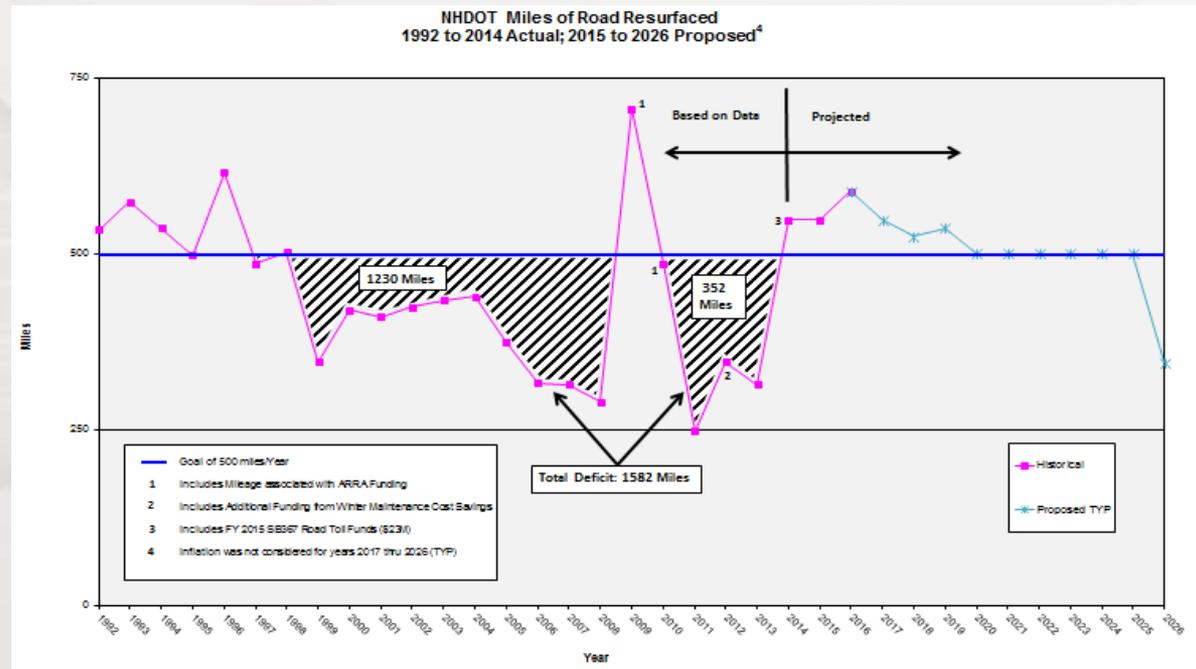
- Number of State Red List Bridges (SRL) - which is representative of bridges in poor condition (rating of 4 or lower) **is expected to increase**
- Higher number of “pink list” bridges (rating of 5) today than 5 years ago

- Current SRL bridge total - **153**
- Bridges added to SRL by 2026 - **276**
 - 23 Bridges added annually over last five years – extrapolated to 2026 projects to 276 bridges
- Bridges expected to be removed from SRL by 2026 - **244**
 - **132** removed by Bridge Maintenance forces
 - **112** removed under TYP

A Look Ahead – Road Condition

Based on current level of investment in draft TYP

- Overall Pavement condition is expected to remain unchanged
- Past years backlog of deficit paving has reduced the state's overall pavement condition from a high of 81.6% of roads in good or fair condition to a current and projected level of 67.9%



Questions / Comments