

State of New Hampshire's
**TEN YEAR TRANSPORTATION
IMPROVEMENT PLAN SUPPLEMENTS
2013 – 2022**

SUBMITTED TO THE GOVERNOR,
BY THE GOVERNOR'S ADVISORY COMMISSION ON
INTERMODAL TRANSPORTATION (GACIT)

PURSUANT TO
RSA 228:99 AND RSA 240 OF THE LAWS OF NEW HAMPSHIRE



PREPARED BY THE NEW HAMPSHIRE
DEPARTMENT OF TRANSPORTATION



June 11, 2012

Rev 1.0

Summary

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2013-2022 Ten Year Plan Executive Summary

The New Hampshire Ten Year Transportation Improvement Plan (RSA 240) was established by Governor Sununu to serve as the guideline for planning and developing transportation projects in the state for the subsequent ten year period in 2002. The 2013-2022 Ten Year Plan philosophy encompasses strategic priorities and a fiscally disciplined approach to ensure a financially constrained and credible plan for highway, bridge, bicycle/pedestrian, railroad, transit, and airport projects. The Ten Year Plan is a living document that is updated every two years. Projects in the plan are in various stages of planning, engineering design (including preliminary engineering and right of way acquisitions), or construction.

The State of New Hampshire's Ten Year Plan is a result of collaboration among Regional Planning Commissions, the Department of Transportation (NHDOT), the Governor's Advisory Commission on Intermodal Transportation (GACIT), the Governor, and the State Legislature. The range of perspectives covered by this collaborative process helps ensure the plan is comprehensive and meets as many of the transportation needs and expectations as possible within the boundaries of fiscal constraint.

Ten Year Plan Overviews

Funding Overview

The 2013-2022 Ten Year Plan is reasonably financially constrained to anticipated federal funding levels. There remains much uncertainty in the level of federal funding which ranges from maintaining current funding levels (approximately \$140million/year) to up to a 30% reductions of funds (approximately \$100 million/year). This Ten Year Plan is predicated on conservative \$100 million/year, and the continued reliance on turnpike toll credits in lieu of hard match dollars for the state match. Existing preservation and maintenance efforts are maintained, as well as continued prioritization of Red List bridge work, and remaining I-93 priority improvements are included. With state and federal funding challenges there are resulting changes in the plan including the delay or deferment of a number of other projects and reductions to mandated federal program funding levels. Furthermore, while the remaining I-93 priority components have been included in the plan, I-93 capacity improvement projects are included but are not funded.

The 2013-2022 Ten Year Plan contains highway, bridge, rail, transit and airport projects totaling an estimated \$2.76 billion. With anticipated revenue of approximately \$2.43billion (conservative estimates of a 30% reduction in Federal Aid), the Ten Year Plan is underfunded over the life of the plan by approximately \$336 million. The highway funded and largest portion of the plan contains projects totaling \$1.85 billion, with conservatively projected base revenue of approximately \$1.51

billion and a potential deficit of about \$336 million. As mentioned, future federal funding levels are extremely uncertain and, should they be funded closer to current funding levels this deficit would correspondingly be reduced. The final Ten Year Plan contains projects totaling close to present funding levels of approximately \$140 million/year. Short term, continuing resolutions which merely extend current transportation authorization and funding levels are anticipated in the near term.

The Betterment Program involves a reduction of approximately \$15 million/year (from approximately \$37 million/year to \$22 million/year) to reflect the sun-setting of the motor vehicle registration fee surcharge. Program areas within the Betterment Program, most notably District resurfacing which addresses the major portion of the annual state repaving needs, have been reduced accordingly.

The Turnpike Expansion and Renewal/Replacement Programs remain largely the same as in the previous plan. There are several capital projects in the plan, (remaining Newington-Dover project work on Dover side, Bedford Toll Plaza) previously authorized but contingent on toll increase for funding, that result in a deficit of approximately \$81.3 million in the Turnpike Expansion Program. In addition, there are a number of Turnpike Capital needs that have been identified and discussed through the Ten Year Plan process that are contingent on future system wide toll increase, and as such are not included in the financially constrained plan. The initial study/engineering phase of some of these major future capital improvements are however, included in the Plan.

Other programs remain largely the same as the previous plan. Airport and transit programs are similar to the Federal Aid Highway Program, subject to the same uncertainty in federal funding levels however due to the relative size of these programs, is considered to be somewhat more acceptable. Lastly, improvements and capital costs associated with the capitol corridor rail initiative are not funded and have been removed from the plan.

Development Overview

The New Hampshire Department of Transportation (NHDOT) is responsible for developing the Draft Ten Year Plan, based on the previously approved Plan (2011-2020). Projects are reaffirmed, selected, and reprioritized, or removed based on the strategic priorities and assessments of conditions and performances against strategic goals and measures.

The Draft Plan then undergoes an iterative review and adoption process through GACIT, before going to the Governor for his review and approval. The Governor submits the Ten Year Plan to the Legislators, where is subjected to review and further modifications before being adopted into law.

Strategic Priorities

The guiding principle of the strategic priorities is based on the Department of Transportation’s Mission to achieve,

“Transportation excellence enhancing the quality of life in New Hampshire.”

The Draft Ten Year Plan strives to increasing mobility, improving system safety and security along with improving transportation for personal mobility, delivery of freight, and delivery of services in all the transportation systems.

Transportation System Elements



The development of the Ten Year Plan starts with the review of the strategic priorities from the previous Plans.

2011- 2020 Strategic Priorities



Assessments

The Department performs three essential decision support assessments in the development of the Ten Year Plan;

- **Technical analysis**
- **Funding resource**
- **Customer and transportation partner inputs.**

Technical Analysis

The technical analysis included an overview of the transportation elements and assessment of condition and performance.

Overview by Transportation Element



Highway System

- Over 28 million vehicle miles traveled each day on the State's highways
- 4,599 miles of state highway
- 2,127 state owned bridges
- 60% of state owned highway pavement are in good or fair conditions
- 149 red list bridges (state and municipal owned)



Bicycle and Pedestrian System

- Over 4000 miles of paved highways and non-motorized multi-use paths that permit pedestrian and bicycle travel



Transit and Park & Ride

- 26 state owned park and ride lots (with and without bus terminals)
- 5,255 parking spaces
- More than 100 human services providers



Railroad

- 443 miles of active railroad lines
- 202 miles of state owned railroad lines
- 103 miles of railroad lines capable of handling speeds of 40 mph



Airports System

- 24 public owned airports
- 23.44 runway miles
- Average runway condition is good

The Department measures system condition and performance, mobility, and safety and security in a Balanced Scorecard process. The Balanced Scorecard is a strategic management approach to align business needs with the vision and strategy of the organization and to monitor performance against strategic goals and measures.

Professional judgment and technical analysis was used to project conditions and performances out to the year 2016 (with the assumptions of maintaining or preserving 2012 budget levels, staffing, and priorities). Evaluations of resources necessary to achieve the various goals are used to consider alterations to the Ten Year Plan. In general, the condition and performance of the State’s transportation assets are trending downward. The goal of the Ten Year Plan is to keep the system’s assets at their current levels or reduce the rate of deterioration.

Goal	Objective	Measure	Units	2011 Actual	2012 Expected	2014 Projection	2014 Goal	2016 Projected	2016 Goal	
Customer Satisfaction	Increase Customer Satisfaction	Overall Customer Satisfaction	percent satisfied	85%	85%	83%	100%	80%	100%	
		Customer Satisfied with Constituent Response	percent satisfied	82%	82%	84%	100%	86%	100%	
Performance	Improve Asset Conditions	State Highway Pavement in Good or Fair Condition	miles	2,695	2,611	2,526	2,695	2,440	2,695	
		Red Listed State Bridges	number	149	152	161	149	174	149	
		Rail Lines Capable of Speeds of 40 mph	miles	103	103	103	139	103	186	
		Airport Runway Surface Conditions	average condition	good (4.0)	good (3.5)	good (3.2)	good (3.5)	good (3.1)	good (3.5)	
		Remaining Useful Life of Transit Buses	% of vehicle life remaining	49%	49%	27%	40%	5%	40%	
	Increase Mobility	Transit Ridership	# total riders	3,415,291	3,743,873	4,104,067	4,646,466	4,498,915	5,419,638	
		Rail Ridership	# total riders	210,231	216,538	229,725	426,626	243,716	1,030,588	
		Air Ridership	total enplanements and deplanements	2,831,673	2,831,673	2,831,673	2,917,476	2,831,673	2,976,117	
		Total Freight Shipped Via All Modes	tons	68,667,213	68,667,213	68,667,213	69,353,885	68,667,213	71,455,377	
		Average Level of Service on Selected Highway Segments	level of service	C (.68)	C (.68)	C (.66)	C (.65)	C (.62)	C (.60)	
	Improve System Safety and Security	Highway Fatalities (Five Year Moving Average - Goal Towards Zero Deaths)		number	122	118	110	0	102	0

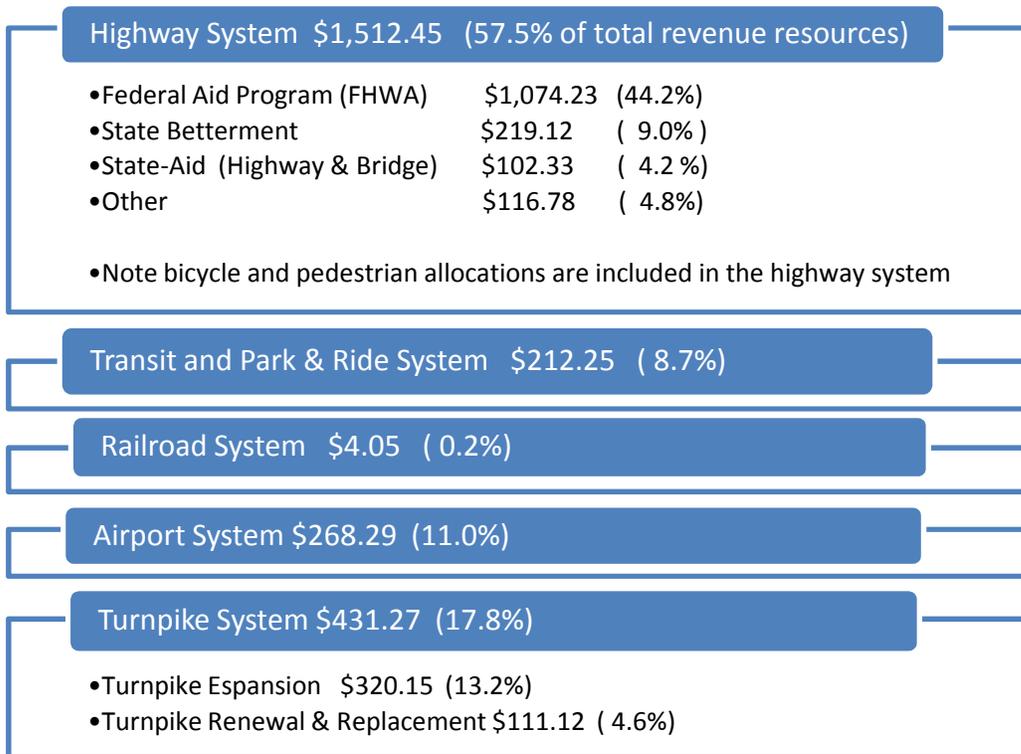
Funding resources

Funding resource allocations are assessed for all anticipated funding sources. The 2013-2022 Plan's total budget is \$2.428 billion based on assumed revenue allocations by transportation system elements. The federal aid and state program funding make up the largest portion of the Ten Year Plan budget of \$1,512 million (Federal \$1.074 billion, State \$321 million, plus \$117 million from other sources, such as grants, other state cost shares, and municipal match) that is administered by the Department of Transportation.

Anticipated federal aid revenues were conservatively estimated at \$100 million, an approximate 30% reduction from the previously anticipated \$140 million. Additionally, based on state budgeting decisions and forecasts state match funds for federal funds are not anticipated and continued reliance on turnpike toll credits to meet match requirements is projected which in effect reduces the federal aid program by an additional 15 to 20%. The conservative \$100 million a year funding estimate is based on:

- Uncertainty in federal gas tax revenues and insolvency of the highway trust fund
- No long term highway fund reauthorization by Congress
- Potentially reduced federal aid

Funding Allocations By Transportation Elements



Customer and Transportation Partner Inputs

Finally, customer and partner inputs are used to gauge satisfaction with the condition and performance of the transportation system and agreement with priorities recommended for improvement projects. This input is gathered through customer surveys, partner surveys, direct feedback from the 9 Regional Planning Commissions and their community representatives Technical Advisory Committees (TAC'S) and a variety of public meetings throughout the process.

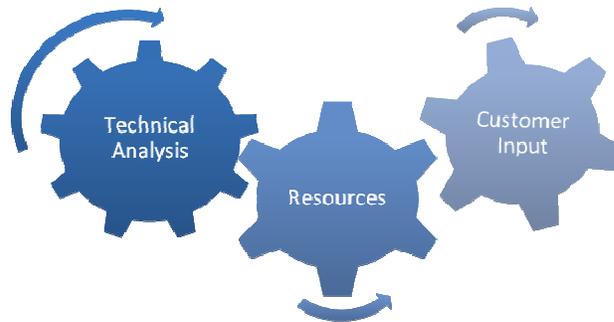
The percentage of customers who were very satisfied, satisfied, or neutral in their opinion of the Department of Transportation is 86%. The survey indicated that maintenance and rehabilitation of highways and bridges to minimize long term costs was ranked the highest priority over such categories as improving and expanding capacity, and expanding other modes of transportation, as shown in the Customer Satisfaction summary below.

<h1>Customer Satisfaction</h1>	
Average Ranking	Transportation Need
1 st	Maintenance and rehabilitation of highways and bridges to minimize long term costs
2 nd	Improving the safety of the state highways and interstates
3 rd	Operating the system to maximize safety and efficiency
4 th	Improving and expanding the capacity to keep people moving on the roads
5 th	Improving and expanding the capacity to keep freights and goods moving on the roads
6 th	Expanding other modes of transportation
7 th	Reducing the environmental impact of transportation projects

Development of the Ten Year Plan

Development of the Draft Ten Year Plan required the balancing of needs and goals such as improved condition, safety, and mobility with available funding resources.

To find the right balance, the Department took a strategic approach using professional judgment with data decision support from three essential information areas 1) technical analysis, 2) funding resources, and 3) customer input to identify strategic priorities, to apportion funding resources.



The 2013-2022 Ten Year Plan identified three strategic priorities, which are consistent with the previous 2011-2020 Plan. The strategic priorities focus on the preservation of existing facilities, repair or replacement of red list bridges, and completion of I-93 reconstruction and widening.

Strategic Priorities

Preservation	Red List Bridges	I-93
<ul style="list-style-type: none"> of the existing transportation infrastructure 	<ul style="list-style-type: none"> repair or replacement of critical bridges 	<ul style="list-style-type: none"> reconstruction and widening from Salem to Manchester

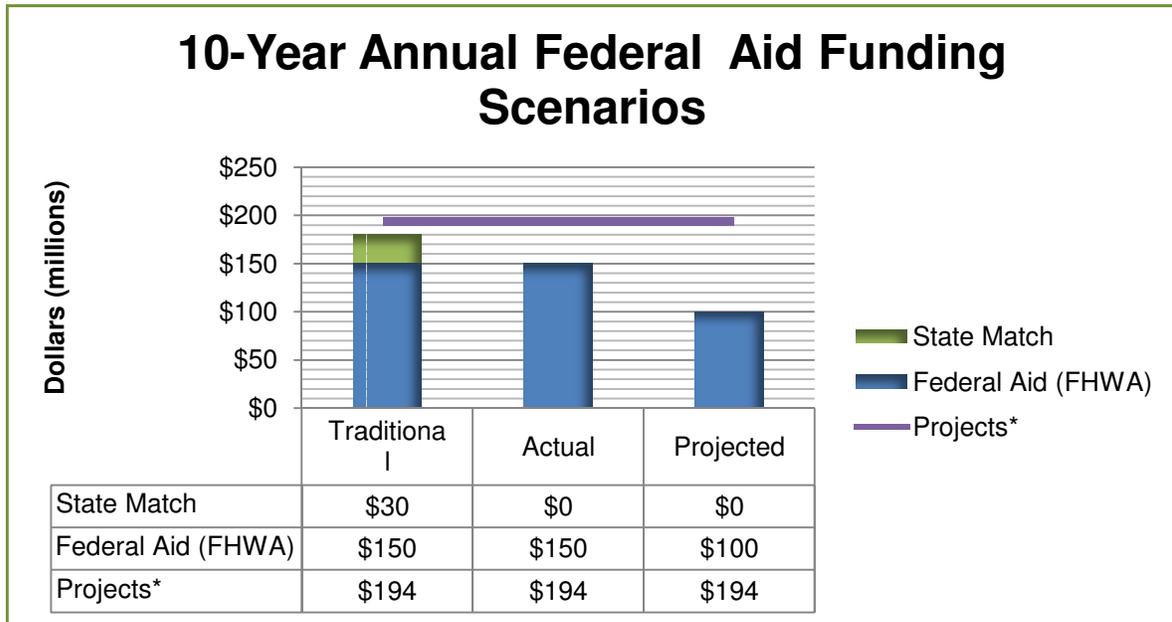
The 2013-2022 Draft Plan uses revenue assumptions conservatively estimated at \$100 million per year over the Ten Year Plan period based on Federal funding uncertainties:

- Uncertainty in federal gas tax revenues
- No long term highway fund authorization by Congress
- Potentially reduced federal aid

Funding Scenario

Historically, the Ten Year Plan has been built with the projection of the state funds continuing to be available to match the federal funds NHDOT receives (typically an 80/20 split). This is shown in the chart below as the “Traditional” funding scenario for the Ten Year Plan. However, state matching funds have not been appropriated through the budget, which results in the “Actual” funding scenario for the Ten Year Plan as noted below. In both of these scenarios, NH has received approximately \$150 million per year in federal transportation funds.

The “Projected” funding scenario shown below represents the \$100 million annual projection (33% reduction) that is anticipated to be available for the 2013-2022 Ten Year Plan. This update of the Ten Year Plan is based on the potential reduction of federal funding levels to approximately \$100 million, and continued use of turnpike toll credits in lieu of state hard match.



* Average funding level of the 2011-2020 Ten Year Plan projects

Federal Aid Programs and Funding Allocations

The 2013-2022 Ten Year Plan contains programs for highway, bridge, rail, transit and airport projects totaling an estimated \$2.760 billion, as submitted by the governor to the Legislature. With anticipated revenue of approximately \$2.430 billion (conservative estimates of a 30% reduction in Federal Aid) the Ten Year Plan is underfunded over the life of the plan by approximately \$330 million.

Approved 2013-2022 Ten Year Plan
 Total Dollars by Program by Fiscal Year

FY	Highway Funded						Rail	Transit ¹	Airport ¹	Turnpike Expansion ²	Turnpike Renewal & Replacement ²	TYP FY Total ³	% of Total Program
	FHWA ^{4,5}	Batterment ²	State Aid Bridge	State Aid Highway	Other	Subtotal							
2013	145.96	21.20	8.58	4.31	4.88	184.93	0.81	20.40	14.81	89.73	5.38	316.07	11.4%
2014	151.59	21.20	5.44	5.83	55.20	239.26	0.40	19.53	15.77	78.70	11.99	365.64	13.2%
2015	148.70	21.20	9.19	3.74	22.81	205.63	0.84	20.07	25.68	66.04	10.80	329.05	11.9%
2016	154.64	21.20	4.05	2.68	27.81	210.38	0.40	20.53	34.84	43.03	11.60	320.78	11.6%
2017	142.89	21.20	8.20	2.54	4.72	179.55	0.40	20.91	43.23	17.16	11.50	272.76	9.9%
2018	137.69	21.20	9.49	2.54	0.04	170.96	0.40	23.20	27.37	9.66	11.85	243.45	8.8%
2019	128.35	21.20	12.14	2.54	0.56	164.79	0.40	21.44	23.35	13.95	12.00	235.95	8.5%
2020	138.49	18.20	11.96	2.54	0.68	171.86	0.40	21.76	24.22	1.87	12.00	232.11	8.4%
2021	132.37	18.20	5.96	2.54	0.04	159.10	0.00	22.09	25.23	0.00	12.00	218.41	7.9%
2022	132.39	21.20	5.96	2.54	0.04	162.12	0.00	22.42	33.78	0.00	12.00	230.32	8.3%
Total	1,413.07	206.00	80.96	31.78	116.78	1,848.58	4.05	212.35	268.29	320.15	111.12	2,764.55	100.0%
% of Total Program	51.1%	7.5%	2.9%	1.1%	4.2%		0.1%	7.7%	9.7%	11.6%	4.0%	100.0%	
Revenue ⁶	1,074.23	219.12	102.33	116.78			4.05	212.35	268.29	320.15	111.12	2,428.42	
Surplus/ (Deficit)	(338.84)	13.12	(10.41)	0.00			-	-	-	-	-	(336.13)	

¹ Figures are in Millions of dollars.

- ¹ I-93 priority improvements partially included based on GARVEE Bonds and associated Debt Service
- ^{1B} Capacity improvements (widening north of Exit 3) are not included due to funding constraints
- ² Batterment program maintained at current budget level
- ³ Figures include inflation
- ⁴ Self-funded programs, projects limited to available funds
- ⁵ Based on approved 2013-2022 TYP
- ⁶ Revenue based on existing base budget conditions

The FHWA highway funded and largest portion of the plan contains projects totaling \$1.41 billion. Federal funding allocations for the 2013-2022 Draft Ten Year Plan duration were based on the three strategic priorities: 1) Preservation, 2) Bridges, and 3) I-93. Below is the breakdown of project funding by category:

**Approved State of New Hampshire
 2013-2022 Ten Year Plan**

Project Funding By Categories

FY	Preservation-Maintenance	Bridges	Red List Bridges	I-93	Mandated Federal	Interstate Maintenananc	Other Projects	Eng & ROW	Grand Total
2013	34.50	5.42	30.04	26.14	17.12	10.83	14.65	7.72	146.41
2014	34.05	6.12	34.50	17.28	17.07	10.28	23.23	9.52	152.05
2015	34.00	1.02	37.47	18.15	11.83	21.02	16.49	9.18	149.16
2016	34.00	3.19	37.44	22.45	11.67	18.49	17.72	10.15	155.10
2017	35.80	5.69	29.35	16.58	11.43	16.65	16.44	11.41	143.35
2018	36.50	18.61	13.29	16.58	15.66	16.58	12.01	8.91	138.15
2019	38.10	17.81	2.49	16.58	14.76	22.87	6.03	10.16	128.81
2020	39.00	20.95	2.12	17.05	14.76	22.13	12.35	7.67	136.02
2021	39.00	10.99	17.71	18.07	14.76	14.87	5.55	11.42	132.37
2022	39.00	4.35	19.58	15.62	14.76	15.15	12.47	11.45	132.39
	363.95	94.14	223.98	184.50	143.80	168.88	136.94	97.61	1413.81

Notes:

- 1) Scenario 1C
- 2) Inflated

Project Selection

Projects are reaffirmed, selected, and reprioritized, or removed based on the strategic priorities and assessments of conditions and performances against strategic goals and measures within available federal aid program funding allocations and constraints.

The Plan's project listing is alphabetically ordered by project location. A project description, location information, the estimated cost (including inflation), the funding source, the proposed timeframe, and project category are included with each project listing.

TEN YEAR TRANSPORTATION IMPROVEMENT PLAN 2013 - 2022							
**** Draft ****		Alpha Sort		1/13/2012 1:00:13 PM			
(Inflation Included)							
Project Name#/Id	Route/Road:	Location; Scope of Work	IS(M)	Previous Proj. Yr.	Previous Total\$	Comments:	
ACWORTH 16301 [6641]	NH 123A	REPLACE BRIDGE OVER BOWERS BROOK - 113/044 (Red List) [Oct 2005 Flood] (Bridge Rehab = 14540T, FY 2007)					Bridge repaired following flood damage. 2011 Bridge Priority #12.
<u>Red List Bridges</u>							
		C 2020 L1C0 - BRIDGE PROGRAM - ON/OFF SYSTEM	1.287	2018			
		P 2013 L1C0 - BRIDGE PROGRAM - ON/OFF SYSTEM	.206				
		R 2014 L1C0 - BRIDGE PROGRAM - ON/OFF SYSTEM	.320				
Highway and Bridge			I-Total:	1.813		1.000	
ALEXANDRIA 14964 [6610]	WASHBURN ROAD	BRIDGE REPLACEMENT OVER PATTEN BROOK - 160/109 (Red List) [SAB*4216] (State Aid Bridge Program)					Specific project from Statewide program, Local Administration.
<u>Red List Bridges</u>							
		C 2014 SAB - STATE AID BRIDGE (State FY), 20% = Town	1.081	2014			
		P 2014 SAB - STATE AID BRIDGE (State FY), 20% = Town	.125				
		R 2014 SAB - STATE AID BRIDGE (State FY), 20% = Town	.005				
Highway and Bridge			I-Total:	1.211		1.137	
ALSTEAD 20817 [7992]	NH 123A	REPLACE SINGLE SPAN BRIDGE OVER WARREN BROOK - 073/163 (Red List)					2011 Bridge Priority #98
<u>Red List Bridges</u>							
		C 2022 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	2.603	New Project			
		C 2022 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.014				
		P 2014 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.053				
		P 2015 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.049				
		P 2016 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.051				
		P 2017 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.012				
		R 2014 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.005				
		R 2015 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.011				
		R 2016 L240 - STP - SURFACE TRANSP. STATE FLEXIBLE IN ANY AREA	.011				
			I-Total:	2.810			

Approvals

The Ten Year Plan is a result of collaboration among the Regional Planning Commissions, the Department of Transportation (NHDOT), the Governor’s Advisory Commission on Intermodal Transportation (GACIT), the Governor, and the State Legislature. The Draft Plan undergoes an iterative review and adoption process through GACIT, before going to the Governor for his review and approval. The Governor submits the Ten Year Plan to the Legislature, where it is subjected to review and further modifications before being adopted into law.



In April, 2011 the 9 Regional Planning Commissions (RPC), through community outreach, provided their priorities and recommendations on the Ten Year Plan update to the Department for consideration.

Based on the RPCs input the Department developed a Draft Ten Year Plan based on anticipated reduced federal aid funds and state funding and provided a draft Ten Year Plan update to GACIT in September, 2011.

Between September and October 2011, GACIT held 27 public hearings to present the Draft Ten Year Plan and to receive input and comments, followed by public hearings to discuss the public

input received. GACIT made several modifications to include some of the most pressing needs identified through the public hearings.

In December 2011, GACIT presented its recommended update to the Ten Year Plan to the Governor. The Governor reviewed the plan and made some minor corrections before submitting the Plan to the legislature in January 2012.

Between January and March 2012, Legislative Committees reviewed and revised the Draft Plan. The most notable are the inclusions of the remaining I-93 priority improvements, associated GARVEE bond debt service and proposed increase in the GARVEE bonding limit to facilitate the I-93 capacity improvements. These inclusions were based on an optimistic outlook of federal funding remaining closer to existing funding levels.

The New Hampshire Legislature approved the Ten Year Transportation Improvement Plan and the Governor signed the Plan into law on June 11, 2012.