

NHDOT Balanced Scorecard 2011

*Measuring, Managing and Communicating
NHDOT's Transportation Performance*

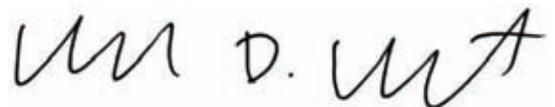
May 4, 2012

Welcome to the new New Hampshire Department of Transportation (NHDOT) Annual Performance report – The NHDOT Balanced Scorecard. In this document, the Department reports on 30 performance measures to provide you with information on the Department’s efforts in 2011. These measures do not cover all aspects of NHDOT’s activities. They were chosen because they are important, are understandable, can currently be measured, and are key indicators of progress toward NHDOT’s twelve strategic objectives. For each performance measure, the Scorecard reports current data for 2011, forecasts data for 2012, and provides projections and goals for 2014 and 2016. Additional information for each performance measure is contained in the performance summary section of the report. Each measure has a summary, which discusses the individual measure’s importance, data source, and improvement status.

Information provided in the NHDOT Strategic Plan and Strategy Map diagram, links the 30 performance measures, through the 12 strategic objectives, and four strategic goals, to the Purpose and Vision and, ultimately, the Mission of NHDOT – “Transportation excellence enhancing the quality of life in New Hampshire”.

The Balanced Scorecard was chosen because it is a tool that cannot only report performance, but also link performance to strategic management, and, most importantly, communicate this information to customers, elected officials, and transportation partners. Better communicating the condition and performance of the transportation system, how NHDOT invests public dollars, and our strategies for improvement helps the transparency and accountability of NHDOT. I hope you find this report useful.

Sincerely,

A handwritten signature in black ink that reads "C. D. Clement". The signature is stylized and cursive.

Christopher D. Clement, Sr.
Commissioner

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Introduction - 2011



NHDOT's Performance Measurement Approach

NHDOT has been measuring the performance and condition of the transportation system for many years. Pavement condition, bridge condition, congestion levels, and the number of fatalities are measures for which there is lots of history. Over three years ago, Commissioner George Campbell convened a Working Group to expand the measures collected and to connect them to the Department's strategy. He suggested that the group use a "Balanced Scorecard" approach since that tool addressed three priorities: performance measurement, strategic management, and communication.

The working group first revisited the Department's Mission and Vision and established a Purpose Statement. Final versions are depicted on the NHDOT Strategic Plan graphic. Supporting the Mission, Purpose, and Vision were four Strategic Organizational Goals: Employee Development, Effective Resource Management, Performance, and Customer Satisfaction. To implement these broad strategic goals, twelve objectives were defined as a means of connecting the goals to the work of the Department.

These goals and objectives are depicted on the NHDOT Strategy Map Graphic. Definitions for each goal and objective were created by the Working Group and reviewed by the Executive Group. The final forms are displayed on this report's subject dividers.

Finally, thirty performance measures were identified to track progress in achieving each objective. The performance measures chosen do not cover all aspects of NHDOT activity. The measures were chosen because they are key indicators of progress toward an objective, are important, are understandable, and have data currently available. The measures chosen along with the objectives and goals they support are depicted on the Balanced Scorecard Matrix. A guide to using the Balanced Score Matrix is shown on page?

Performance Targets and Results

Several sets of data are shown for each performance measure:

- 2011 actual – data for the current year
- 2012 expected – forecast data based on 2012 budget, programs, and staffing levels
- 2014, 2016 projections - trended performance based on 2012 budget, programs, and staffing levels.
- 2014, 2016 goals – the preferred level of performance for the given year

Additional information for each performance measure is shown in the set of thirty performance summaries. These are one or two page summaries providing information on the individual measure's importance, data source, and improvement status. Summaries are organized in the latter section of this document by Goal and Objective area.

NHDOT uses the strategic goals, objectives, and performance measures to guide the Department's planning, decision making and investments recognizing not only the travel trends and needs of today, but also transportation's impact on economic competitiveness, environmental stewardship, and quality of life. Competing priorities and resource constraints may impact progress. The NHDOT Balanced Scorecard will be a useful tool to communicate constraints, choices made, and the impact of those decisions.

Performance Highlights

This summary describes NHDOT's 2011 performance. Areas of strength and weakness highlight the results of choices made. The challenge section describes performance areas or trends worthy of consideration.

Strengths

Average Level of Service on Selected Highway Segments

This highway congestion measure depends on the number of travel lanes and the volume of traffic. The economy, gas prices, and increase in transit ridership have contributed to level or reduced traffic volumes. If the number of lanes on these selected segments increases due to completion of planned projects (I-93 Salem to Manchester, and Newington-Dover for example), and traffic volumes continue level, the level of service will continue to improve.

Highway Fatalities (Five Year Moving Average toward Zero Deaths)

The Department's goal is to have 0 fatalities. However, highway fatalities are random occurrences and very complex to address. The Department can make improvements to the infrastructure to address locations with groupings of fatal crashes with the current Highway Safety Improvement Program (HSIP) funding of \$6 million. Fatal crashes also have a behavioral aspect that cannot be fully addressed with infrastructure improvements. They require all agencies and organizations with a role in highway safety to work together in their specific areas including training, enforcement, and marketing if these types of crashes are to be reduced. Toward that end, the Department has dedicated a portion (~ 10% allowed by FHWA) of the HSIP funding for training and

marketing to address the behavioral side of fatal crashes. It is anticipated that these efforts to improve infrastructure and modify poor driving behavior will reduce fatal crashes by 50% over 20 years.

Snow and Ice: Average Time to Achieve Bare Lanes (Major Routes)

The Customer Survey indicated that the area of NHDOT scoring the highest in customer satisfaction was winter maintenance. The intent is to continue to provide the current level of winter maintenance service with no changes to policy or practices on major routes.

Completed LEAN Initiatives

LEAN is a process improvement approach to make work easier, faster and more efficient through elimination of waste. To date, most LEAN initiatives at NHDOT have been major, Department wide efforts involving lots of staff, process, and meetings. The scope of the problems addressed, complexity of solutions, and limited number of LEAN trained individuals have combined to keep the number of completed LEAN initiatives low.

Strong support by the executive office in and of itself is projected to increase the number of completed LEAN initiatives. To exceed the projections for future years will require a number of strategies: to increase LEAN awareness throughout the agency; to offer tiered training to key individuals in each bureau and district as LEAN resources; and to make LEAN simpler and more responsive to smaller problems within or between bureaus and districts. This combination of strategies is currently underway with the expectation that our projections will be exceeded.

Projects on Time by Advertising Schedule Construction Bid within 5% of Final Construction Cost

Improvements in the management of projects has resulted in more projects advertised on time and completed within budget. Maintaining critical timelines, improving communication and coordination with partner agencies, and careful monitoring of current and future fluctuations in the price of major items have all contributed to these improvements.

Employees Who Understand and Feel Their Job Contributes to the Mission of the Department (From Respondents to Employee Survey).

The improvement in this performance measure is tracked by responses to the biennial Employee Survey. Current and expected improvement is dependent on improved communication. A number of communication initiatives have been implemented: new hire orientation and on-boarding, Lunch and Learn Sessions, Management Roundtable Sessions, the introduction of a Labor/ Management committee, Town Hall forums, LEAN process improvement, and the Balanced Scorecard initiatives.

Weaknesses

State Highway Pavement in Good or Fair Condition

There are 4,559 miles of state-maintained roads in New Hampshire. The Department's goal is to resurface 500 miles each year resulting in pavement resurfacing for all roads approximately once every 10 years. This resurfacing schedule will maximize pavement life across the state system.

The pavement in good/fair condition for 1996 through 2010 reached an all-time high of 3,064 miles in 2000 and has since steadily declined, reaching an all-time low of 2,653 in 2008. If funding is kept at the current level, it is predicted that an additional 255 miles will decline to a poor condition from 2010 to 2016.

A key ingredient of asphalt pavement is asphalt cement. The average price of asphalt cement has risen steadily from \$110 per ton in 1992 to \$590 per ton in 2011, which amounts to a 425% increase. Due to this cost increase, the miles of pavement resurfacing has steadily declined, reaching an all-time low of 290 miles paved in 2008, 58% of the Department's goal of 500 miles per year.

With the current cost of asphalt cement and current funding levels, it will not be possible to meet the 500 miles per year goal or maintain the good/fair roadways at the current level. Based on pavement deterioration projections, funding will need to be increased from \$57M to \$69M per year in constant dollars in order to maintain the current level of roadway miles in good/fair condition. If funding levels are not increased, the downward trend will continue.

As the roadway network is allowed to continue to deteriorate, the cost of restoring the roadway back to good condition increases exponentially. While employing newer technologies and pavement preservation techniques will be effective in reducing the overall cost of maintaining pavements, there is an urgent need to develop a permanent sustainable means to achieve roadway maintenance goals.

Red Listed State Bridges

The service life of a bridge is influenced by a number of variables including design life, design details, quality of construction and construction oversight, quality of materials used, traffic volumes and loading, the level of maintenance, and the number and frequency of bridge preservation activities performed on the structure. Federal Highway Administration (FHWA) is currently developing predictive models for bridge deterioration rates, however, there are presently no predictive models available, which makes it difficult to estimate the future condition of bridges. The average Red List bridge is 65 years old and was designed assuming a 50-year service life. The average age of all state owned bridges is 58 years.

There are a total of 3,816 bridges in New Hampshire, 2,138 of which are state owned and maintained. At the start of 2011, there were 148 bridges on the state Red List

(6.9%), and 256 bridges one-step away from being added to the Red List. At current funding levels, it is projected that 20 bridges will be added to the Red List and 18 removed during each fiscal year. The Department's goal is to maintain or reduce the current number of Red Listed bridges.

The Department uses a number of strategies to reduce the number of bridges on the Red List. These include rehabilitating or replacing the Red List bridges, performing maintenance activities on near-Red List bridges to extend their useful service life, and performing preservation activities on good bridges (keeping good bridges good).

The anticipated cost to repair/replace all current Red Listed bridges is \$715M or \$71.5M per year over the next 10 years. There currently is a \$15M annual shortfall of available funding to address these needs. If this trending is not addressed, bridge conditions will worsen exponentially in the future.

Distribution of Expenditures by Lane Miles (Highway Fund)

Transportation funding is a complicated topic. The measure, "Distribution of Expenditures by Lane Miles (Highway Fund)" was chosen because it provides an assessment of the Highway Fund's financial condition and helps identify existing or emerging financial issues. The distribution of expenditures is analyzed by construction, maintenance, municipal aid, project development, administration, debt, other agency, and miscellaneous expenditures. The expenditure trends are compared on a per Lane Miles basis to provide an objective measure of cost for operating, maintaining or improving the transportation network.

The current expenditure per lane mile goals are higher than the projections for 2014 and 2016. This is not a reflection that the NHDOT is projected to become less efficient at its activities. In fact, administrative, project development and maintenance activities are projected and planned to do more with less purchasing power over time. The bulk of the increase is a budgetary plan and goal to restore the appropriation authority to fund the State of New Hampshire's match of the federally funded capital construction activity. For several years, this has been covered with turnpike toll credits, which is not sustainable.

Also, with regard to the increase per lane mile, there is a budgetary reality that debt service on existing capital projects will increase during the same period, and for projected new issuance of GARVEE bonds to fund I-93 construction.

The increases of expenditures projected do not take into account further expenditures that are projected to be required for instance, to be able to not have substantial increases in red-list bridges (\$15 million per year to stay at the same rate), or to maintain pavement conditions at present levels (\$12 million per year).

Challenges

Each of NHDOT's Strategic Goal areas faces challenges. The response to these challenges will determine whether the outcome is a strength or a weakness.

Salt Usage (Five Year Moving Average)

New Hampshire's winter maintenance relies heavily on the use of salt (as Sodium Chloride) to achieve acceptable road conditions for the motorist. New Hampshire was the first state in the nation to begin using salt in their winter operations and the use of this material has spread nationwide as a common deicing chemical. There are two factors that impact the Department's goal to reduce the use of this chemical: material cost and environmental impact. Balancing the reduction in salt must also include no reduction in the level of service for the motorist. Winter roadway conditions during a storm and following the storm impacts the safety of the motorist as well as the mobility of the public in general. A reduction in highway mobility will directly impact the economy of the state, especially when businesses are relying on "just in time" deliveries and the general populace has an expectation of ready mobility no matter what the conditions.

For several years, NHDOT has been involved in a chloride reduction program along the I-93 corridor from Salem to Manchester and has tracked salt usage against the corresponding Winter Severity Index (WSI). Through the implementation of a number of initiatives, such as Maintenance Decisions Support System (MDSS), ground speed control spreaders, prewet systems, and employee and hired truck operator training, the Department has been able to consistently reduce the salt usage while maintaining the level of service traditionally experienced. Funding will be required to continue this reduction due to the need to upgrade the current level of equipment. Without the required funding for equipment upgrades and training, this savings will be difficult if not impossible to achieve while maintaining the expected level of service and associated safety for the traveling public.

Total Freight Shipped Via All Modes

There are many factors affecting the number of tons of freight shipped in New Hampshire: the demand for goods, the strength of the regional and national economy, the availability and condition of transportation infrastructure, the health of the freight industry, and competition within the freight industry. At this time, the vast majority of freight in New Hampshire is shipped by truck transport. Freight demand (measured in tons) is expected to double by the year 2025, nationwide. To accommodate this growth, continued funding of important capacity project such as I-93, and rail, port, and airport modernization and expansion will allow New Hampshire to remain competitive with surrounding New England states.

Workforce Represented in Completed Workforce Planning

While the extent of transportation systems and the number of users has grown, NHDOT has 1658 authorized positions, 17% fewer today than in 1992. Of the current workforce, 78% are 40 years of age or older. More than half of the existing workforce will be eligible for retirement after 2015.

NHDOT has begun workforce planning to assess its current competencies against current and future needs. Over the next three years, each NHDOT Bureau will assess its needs, analyze its demographics, skills and gaps, and create a development plan to meet its needs.

NHDOT's employees are the fundamental resource in achieving the Department's objectives, goals and mission. Workforce planning and development is critical to maintaining this resource.

Customer Satisfaction

Those who depend on transportation for personal mobility, delivery of freight, or delivery of services ultimately decide if NHDOT is achieving its Mission of Transportation Excellence. In NHDOT's first customer survey, winter maintenance and overall condition of the state's highways were the areas of greatest satisfaction and highest needs priority. The accessibility of alternative modes of transportation was the area of least satisfaction, but also ranked lower in needs priority.

For a number of reasons discussed previously, winter maintenance will remain a top priority. Conflicting priorities and resource constraints will likely result in an overall decrease in the condition of highways and bridges, and likely the satisfaction of customers.

Though the survey indicated that customers were less satisfied with the availability of alternate modes of transportation, addressing this issue was less a priority than some other needs. As New Hampshire's population continues to age, access to transportation other than the personal automobile will likely rise in priority. Future surveys will continue to explore these topics.

NHDOT Strategic Plan

NHDOT's Purpose Statement, created by a cross agency strategic planning committee, describes the core work we do in support of our Mission.

Mission

Transportation excellence enhancing the quality of life in New Hampshire

Purpose

Transportation excellence in New Hampshire is fundamental to the state's sustainable economic development and land use, enhancing the environment, and preserving the unique character and quality of life. The Department provides safe and secure mobility and travel options for all of the state's residents, visitors, and goods movement, through a transportation system and services that are well maintained, efficient, reliable, and provide seamless interstate and intrastate connectivity.

Vision

Transportation in New Hampshire is provided by an accessible, multimodal system connecting rural and urban communities. Expanded transit and rail services, a well-maintained highway network and airport system provide mobility that promotes smart growth and sustainable economic development, while reducing transportation impacts on New Hampshire's environmental, cultural, and social resources. Safe bikeways, sidewalks, and trails link neighborhoods, parks, schools, and downtowns. Creative and stable revenue streams fund an organization that uses its diverse human and financial resources efficiently and effectively.

Our planning, decision-making, and investments must support this purpose in a comprehensive way. To accomplish this, NHDOT has adopted a strategic business approach that recognizes not only the travel trends and needs of today, but also transportation's effect on economic competitiveness, environmental stewardship, and quality of life. Our approach is built on four strategic goals and their supporting objectives:



Customer Satisfaction – our work will be transparent and responsive to our customers – those residents and visitors to our state who depend on transportation. We will strive to provide a transportation system and services that support our quality of life;

Objective: Increase customer satisfaction.

Performance – we will continue to improve: the condition of all elements of the transportation system; the performance (mobility, safety, and security) of the transportation system; the efficiency of the Department; and the effectiveness of our partnerships;

Objectives: Improve asset conditions
 Increase mobility
 Improve system safety and security
 Improve Department efficiency
 Identify, communicate, and collaborate with partners

Effective Resource Management – we will make effective use of our financial resources; use our workforce strategically; and protect and enhance the environment;

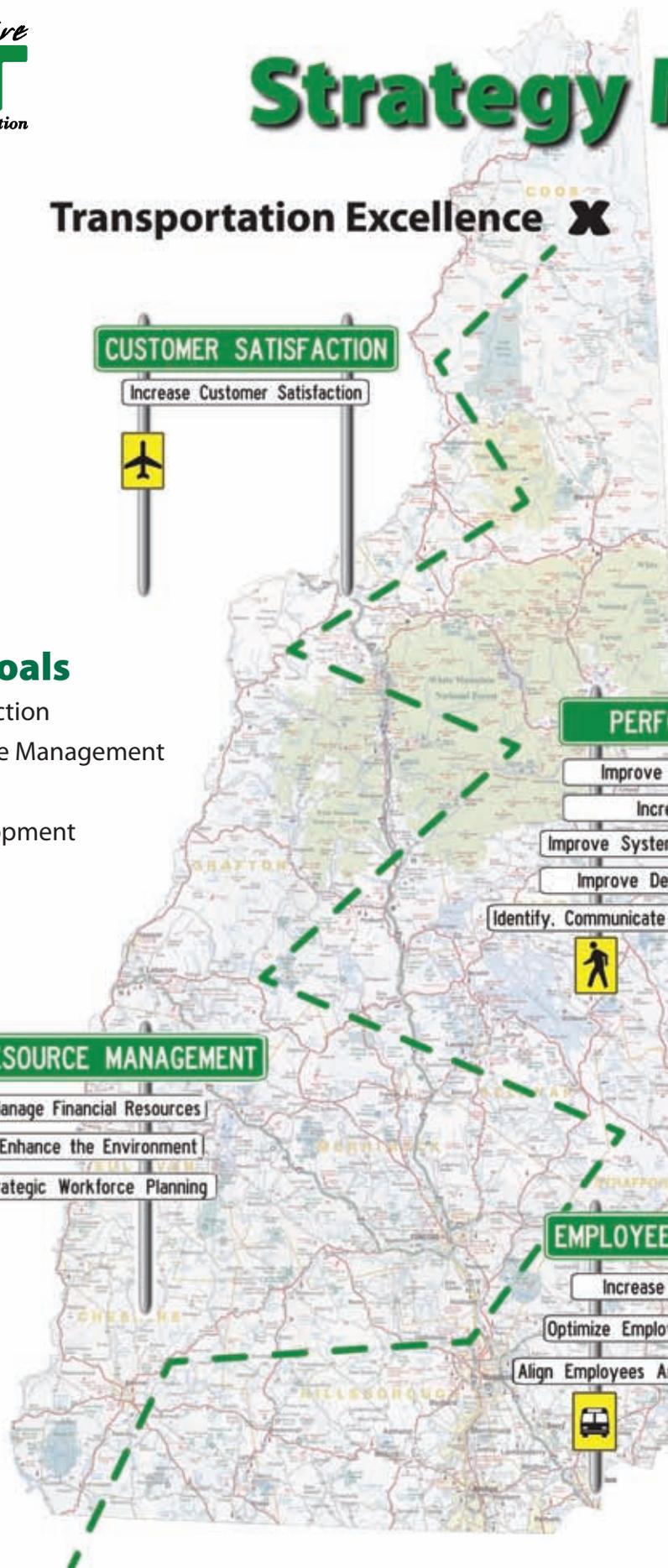
Objectives: Effectively manage financial resources.
 Implement strategic workforce planning
 Protect and enhance the environment

Employee Development – our workforce must be prepared for new challenges due to changes in technology and the expected vacancies due to retirement; focus will continue on improving employee health and safety, and aligning our employees with the Department's Mission and Purpose through improved communication.

Objectives: Increase bench strength
 Optimize employee health and safety
 Align employees around Department's mission

Strategy Map

Transportation Excellence **X**



CUSTOMER SATISFACTION

Increase Customer Satisfaction



PERFORMANCE

Improve Asset Conditions

Increase Mobility

Improve System Safety and Security

Improve Department Efficiency

Identify, Communicate and Collaborate with Partners



EFFECTIVE RESOURCE MANAGEMENT

Effectively Manage Financial Resources

Protect and Enhance the Environment

Implement Strategic Workforce Planning



EMPLOYEE DEVELOPMENT

Increase Bench Strength

Optimize Employee Health and Safety

Align Employees Around Department's Mission



Strategic Goals

- Customer Satisfaction
- Effective Resource Management
- Performance
- Employee Development

Understanding the NHDOT's Balanced Scorecard



4 - Strategic Goals supporting NHDOT's Mission, Purpose and Vision

(They are defined on divider pages)

12 - Strategic Objectives are the means of implementing the Goals

(They are defined on divider pages)

30 - Performance Measures track progress in achieving Objectives

(Each is described in a performance summary. The summaries are organized by Goal and Objective later in the document)

Units - the measure of performance

NHDOT Balanced Scorecard - 2011

2012 Expected - expected performance based on established 2012 budget, programs, staffing levels, advertisement schedule.
 2014 Projected, 2016 Projected - trended performance based on maintaining 2012 budget levels and funding splits, 2012 staffing levels, and 2011-2020 TYP priorities.
 2014 Goals, 2016 Goals - the preferred level of performance. January 20, 2012

Goal	Objective	Measure	Units	2011 Actual	2012 Expected	2014 Projection	2014 Goal	2016 Projection	2016 Goal	
Customer Satisfaction	Increase Customer Satisfaction	Overall Customer Satisfaction	percent satisfied	85%	85%	83%	100%	80%	100%	
		Customers 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	percent 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 riders	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)	State Population with Access to Multimodal Transportation	percent	24%	24%	24%	25%	24%	26%
			Highway Fatalities (Five Year Moving Average - Goal Towards Zero Deaths)	number	122	118	110	0	102	0
	Improve Department Efficiency	Snow and Ice: Average Time to Achieve Bare Lanes (Major Routes)	Completed LEAN Initiatives	number	6	12	16	20	24	30
			Projects On Time By Ad Schedule	percent	69%	75%	80%	80%	85%	85%
			Construction Bid within 5% of Final Construction Cost	percent	89%	90%	91%	91%	92%	92%
Identify, Communicate and Collaborate with Partners	Partners Satisfied	Partners Satisfied	percent	72%	72%	75%	100%	78%	100%	
		Private Sector Jobs Sustained by Federal and State Transportation Capital Investment	# jobs supported	1627 jobs supported	1627 jobs supported	1627 jobs supported	1952 jobs (with \$300 increase in Fed Funding via grants and redist)	1627 jobs supported	1952 jobs (with \$300 increase in Fed Funding via grants and redist)	
Effective Resource Management	Effectively Manage Financial Resources	Distribution of Expenditures by Lane Miles (Highway Fund)	\$ per lane mile	\$63,558	\$61,143	\$54,825	\$60,916	\$60,916	\$67,008	
		Workforce Represented in Completed Workforce Planning	percent	0%	40%	70%	100%	90%	100%	
	Protect and Enhance the Environment	Environmental Audits in Compliance at Operations Facilities	percent	67%	92%	96%	96%	100%	100%	
		Salt Usage (Five Year Moving Average)	tons	158,315	166,813	166,813	160,140	166,813	153,735	
		Energy Usage of NHDOT Facilities	kbtu	72,907,094	72,257,094	70,957,094	70,957,094	69,657,094	69,657,094	
Employee Development	Increase Bench Strength	Energy Usage of NHDOT Vehicles	gallons	1,534,230	1,518,888	1,488,662	1,488,662	1,459,037	1,459,037	
		Employees Engaged in Individual Development Plans	percent	0%	10%	12%	15%	17%	20%	
	Optimize Employee Health and Safety	Employee Injury Incident Rate	percent	4.8%	3.6%	2.1%	0%	1.6%	0%	
		Employees Who Completed Health Risk Assessments	percent	70%	75%	80%	100%	85%	100%	
Align Employees Around Department's Mission	Employees Who Understand, and Feel Their Job Contributes to the Mission of the Department. (From Respondents to Employee Survey)	Employees Who Understand, and Feel Their Job Contributes to the Mission of the Department. (From Respondents to Employee Survey)	percent	83%	85%	87%	100%	89%	100%	

2011 Actual - current data for each measure

2012 Expected - performance based on 2012 budget levels, funding splits, staffing levels, and TYP priorities

2014, 2016 Projections - based on 2012 budget levels, funding splits, staffing levels, and TYP priorities

2014, 2016 Goals - the preferred level of performance

NHDOT Balanced Scorecard - 2011

2012 Expected - expected performance based on established 2012 budget, programs, staffing levels, advertisement schedule.
2014 Projected, 2016 Projected - trended performance based on maintaining 2012 budget levels and funding splits, 2012 staffing levels, and 2011-2020 TYP priorities.
2014 Goals; 2016 Goals - the preferred level of performance

January 20, 2012

Goal	Objective	Measure	Units	2011 Actual	2012 Expected	2014 Projection	2014 Goal	2016 Projection	2016 Goal
Customer Satisfaction	Increase Customer Satisfaction	Overall Customer Satisfaction	percent satisfied	85%	85%	83%	100%	80%	100%
		Customers 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	percent 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 emplanements 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
	Improve System Safety and Security	Average Level of Service on Selected Highway Segments	level of service	C (.68)	C (.68)	C (.66)	C (.65)	C (.62)	C (.60)
		State Population with Access to Multimodal Transportation	percent	24%	24%	24%	25%	24%	26%
	Improve Department Efficiency	Highway Fatalities (Five Year Moving Average - Goal Towards Zero Deaths)	number	122	118	110	0	102	0
		Snow and Ice: Average Time to Achieve Bare Lanes (Major Routes)	hours	N/A	2.5	2.5	2.5	2.5	2.5
		Completed LEAN Initiatives	number	6	12	16	20	24	30
		Projects On Time By Ad Schedule	percent	69%	75%	80%	80%	85%	85%
	Identify, Communicate and Collaborate with Partners	Construction Bid within 5% of Final Construction Cost	percent	89%	90%	91%	91%	92%	92%
		Partners Satisfied	percent	72%	72%	75%	100%	78%	100%
Private Sector Jobs Sustained by Federal and State Transportation Capital Investment		# jobs supported	1627 jobs supported	1627 jobs supported	1627 jobs supported	1952 jobs (with \$30M increase in Fed Funding via grants and redistr.)	1627 jobs supported	1952 jobs (with \$30M increase in Fed Funding via grants and redistr.)	
Effective Resource Management	Effectively Manage Financial Resources	Distribution of Expenditures by Lane Miles (Highway Fund)	\$ per lane mile	\$63,558	\$61,143	\$54,825	\$60,916	\$60,916	\$67,008
	Implement Strategic Workforce Planning	Workforce Represented in Completed Workforce Planning	percent	0%	40%	70%	100%	90%	100%
	Protect and Enhance the Environment	Environmental Audits in Compliance at Operations Facilities	percent	67%	92%	96%	96%	100%	100%
		Salt Usage (Five Year Moving Average)	tons	158,315	166,813	166,813	160,140	166,813	153,735
		Energy Usage of NHDOT Facilities	kbtu	72,907,094	72,257,094	70,957,094	70,957,094	69,657,094	69,657,094
	Energy Usage of NHDOT Vehicles	gallons	1,534,230	1,518,888	1,488,662	1,488,662	1,459,037	1,459,037	
Employee Development	Increase Bench Strength	Employees Engaged in Individual Development Plans	percent	0%	10%	12%	15%	17%	20%
	Optimize Employee Health and Safety	Employee Injury Incident Rate	percent	4.8%	3.6%	2.1%	0%	1.6%	0%
		Employees Who Completed Health Risk Assessments	percent	70%	75%	80%	100%	85%	100%
	Align Employees Around Department's Mission	Employees Who Understand, and Feel Their Job Contributes to the Mission of the Department. (From Respondents to Employee Survey)	percent	83%	85%	87%	100%	89%	100%

Understanding the NHDOT's Performance Summaries

Each **Performance Summary** is displayed in a standard template. A description of each section follows:

Strategic Goal

Strategic Objective

Performance Measure

Purpose - measure description/why is this important?

Performance - 2011



Improve Asset Conditions
Red Listed State Bridges

Purpose:
The Federal Highway Administration (FHWA) requires all states to report the condition of federal definition bridges within their state on an annual basis. The FHWA defines a bridge as a structure with a span greater than 20'. The state of New Hampshire further defines a bridge as a structure with a span of 10' or greater. In accordance with the National Bridge Inspection Standards (NBIS), the condition of the major structural elements of a bridge are rated on a scale of 0 to 9, with 9 representing excellent condition, 4 representing poor condition, and 0 representing failed or closed. In general, a bridge is considered to be **structurally deficient** when any of its major structural elements (deck, superstructure, substructure, or culvert) is rated as **4 (poor condition)** or lower.

The Department has established a bridge Red List that includes all federal and NH definition bridges with one or more major structural elements in poor condition or worse. The Red List also includes bridges that require weight limit postings. Currently there are 2,138 state owned bridges and 148 (6.9%) are on the Red List. The number of bridges on the Red List is a good indication as to how the Department is doing at addressing its bridges that are in the poorest condition.

Data:
The table below is a snapshot of the overall number and condition of all highway bridges in New Hampshire, including municipally owned bridges. The bridges that are on the Near Red List (also known

As the 'Pink List') have one or more major structural elements rated as 5 (fair condition). In other words, there are 256 bridges that are just one step away from being placed on the Red List. This group of near red list bridges is 173% larger than those on the Red List and could greatly affect the list in the future.

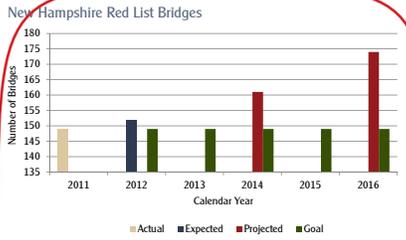
NHDOT Bridges, 10' and greater			
	State	Municipal and other	Total
Total	2138	1678	3816
Red List	148	359	507
Near Red List	256	292	548
Green List	1694	975	2669
Closed	40	52	92

The Department's Bureau of Bridge Design inspects all public highway bridges at least once every two years. State owned Red List bridges are inspected twice per year, and municipally owned Red List bridges are inspected once a year. FHWA requires NHDOT to submit our National Bridge Inventory (NBI) data to them annually, by April 1st each year. Based on the allotted 90-day reporting window for inspection review and processing, annual NBI data collected through December 31st 2010 is reported to FHWA on April 1st 2011. In an effort to maintain consistency with our FHWA NBI submission, the Department also summarizes its Red List data at the same time.

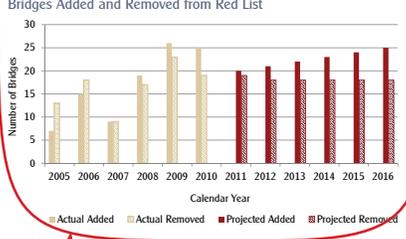
make it challenging to reduce the number of bridges on the Red List going forward.

The Department's current strategy is to continue to focus on rehabilitating and/or replacing Red List bridges and to efficiently preserve the remaining non-Red List bridges.

New Hampshire Red List Bridges



Bridges Added and Removed from Red List



Improvement Status/Background - status of measure today

Data - explanation/source of data

Supporting graphics, displaying history, current status, projected and goal data

Customer Satisfaction

The Department's work must be transparent and responsive to its customers - those residents and visitors to New Hampshire who depend on transportation. NHDOT will strive to provide a transportation system and services that support quality of life.

Objective:

- Increase Customer Satisfaction

Customer Satisfaction

Increase Customer Satisfaction

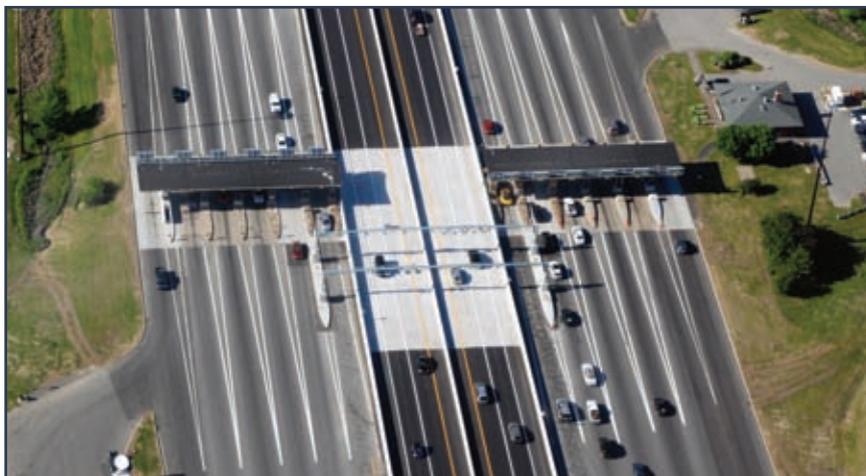
Transportation must meet the needs and expectations of the users. The Department will accomplish this through measuring and communicating performance and by focusing on safety, system condition, mobility and excellent customer service.

Measures:

- Overall Customer Satisfaction
- Customers Satisfied with Constituent Response



Customer Satisfaction - 2011



Increase Customer Satisfaction

Overall Customer Satisfaction

Purpose:

NHDOT's performance objectives are based on improving the condition of transportation assets, increasing mobility, improving system safety and security, improving Department efficiency, and identifying, communicating, and collaborating with partners. NHDOT's performance measure goals are set by Department subject matter experts based on national standards and a realistic allocation of resources. The ultimate outcome measured is whether the Department's performance satisfies its customers- those who depend on transportation for personal mobility, delivery of freight, or delivery of services. This measure tracks NHDOT's progress in satisfying our customers.

Data:

2011 is the first year in which NHDOT collected data for customer satisfaction with overall DOT performance. The data was compiled from responses to questions related to customer satisfaction included in a survey of NHDOT partners. Nearly 200 partners of NHDOT- municipalities, consulting firms, State, Federal, and Regional agencies, contractors, and transportation service providers completed the entire partner survey including the customer satisfaction component. Though respondents may have partnered with the Department intermittently, all are regular customers of our transportation system. In future years, NHDOT's customer survey will be guided from input on this year's survey and expanded to a full customer survey of randomly selected adult NH citizens.

Improvement Status

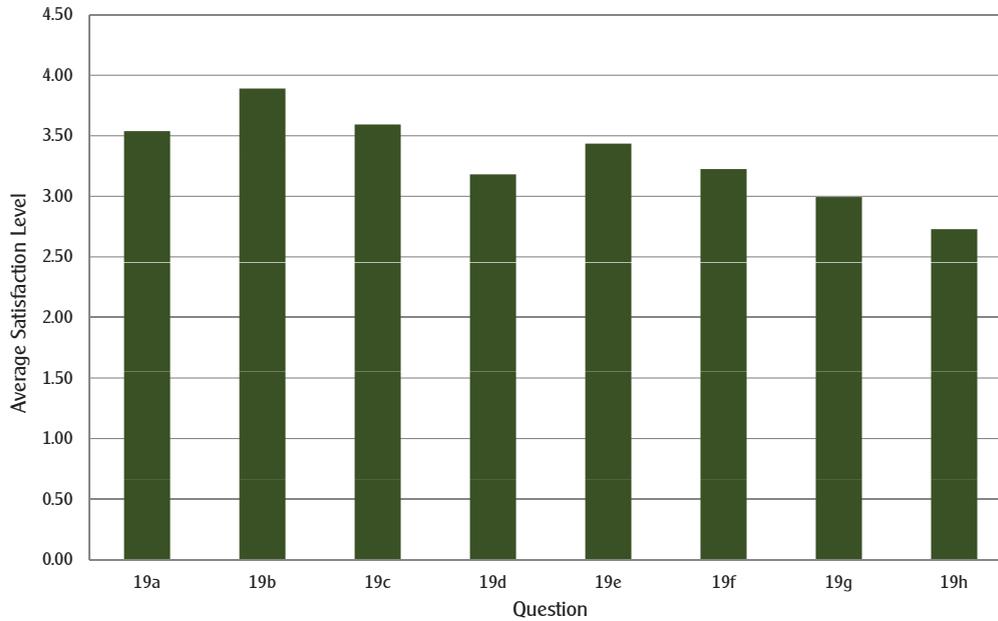
The percent of customers that were very satisfied, satisfied, or neutral with the Department is 86%. Of the 188 respondents, 40% represented cities and towns, 33% were from the consulting industry, 10% from federal agencies, 6% from state/ regional agencies, 6% from the contracting industry, 4% from transportation services, and 1% from materials suppliers. Individual satisfaction ratings ranged from 2.73/ 5.00 for "accessibility to alternative modes of transportation" to 3.89/ 5.00 for "snow/ ice removal and winter maintenance by NHDOT". The chart below depicts the results for each of the eight individual categories.

The survey also asked the respondents to prioritize seven selected transportation needs in order of importance. The maintenance and rehabilitation of highways and bridges to minimize long term costs was ranked first; reducing the environmental impact of transportation projects was seventh.

Responses to Transportation Needs Priority

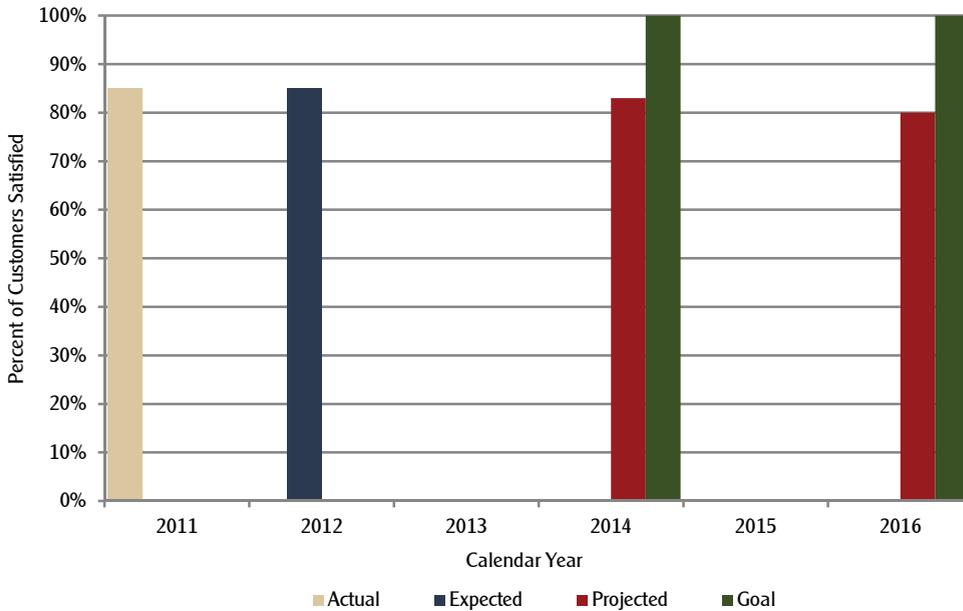
- 1st - Maintenance and rehabilitation of highways and bridges to minimize long term costs
- 2nd - Improving the safety of the state highways and interstates
- 3rd - Operating the system to maximize safety and efficiency
- 4th - Improving and expanding the capacity to keep people moving on the roads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

Customer Satisfaction Comparison



- 19a - the overall condition of the state highways
- 19b - snow/ ice removal and winter maintenance done by NHDOT
- 19c - roadway surface, guardrail repair, and summer maintenance done by NHDOT
- 19d - effectiveness in communicating what NHDOT does and why
- 19e - timeliness in responding to the public and its needs
- 19f - timeliness of completing highway and bridge projects
- 19g - allocation of transportation funds by NHDOT
- 19h - accessibility to alternative modes of transportation

Overall Customer Satisfaction



Customer Satisfaction - 2011



Increase Customer Satisfaction

Customers Satisfied with Constituent Response

Purpose:

New Hampshire DOT (NHDOT) monitors constituent response through Track It! computer software and by surveying constituents. Track It! offers the ability to monitor the progress and timeliness of NHDOT's responses to constituent inquiries, to create work orders for each constituent inquiry received, and simultaneously create a database of all inquiries NHDOT receives and send an assignment to the person best able to answer the inquiry. Administrators can monitor progress and view drafts simply by logging into their individual Track It! accounts.

While Track It! can provide data on the types and sources of inquiries NHDOT receives, it does not measure the exact time it took NHDOT to answer that inquiry or how satisfied the constituent was with the response. Supplemental surveying will poll constituents regarding their satisfaction with NHDOT's response efforts.

Data:

Data will be collected primarily through the survey results with secondary topical and geographical data being provided by the Track It! entries. The survey measures what percentage of the participants is satisfied with the constituent response efforts of NHDOT. Satisfaction is measured by both the timeliness and the quality of the response. Two surveys are envisioned at this time. The first would be included in the NHDOT Customer Survey, and the second would be directed towards individuals who

Improvement Status

NHDOT only recently started using Track It! to compile data. This data, however, when put together will give NHDOT a comprehensive picture of its constituent response status. Areas for improvement can be identified from there.

Timeliness of Response

Between June 1 and August 31, 2011, NHDOT responded to 235 constituent inquiries. The average response time over this same period was approximately five weeks (5 day work week). This average does not take into account the shortest response times, since responses that can be finished within two working days are not included. However, the fact that those which take longer than two days to address, are taking over a month exposes a major problem for NHDOT.

Some inquiries do take a long time because of the nature of the request. Traffic studies for example can take up to seven weeks alone. Requests for exemptions to permit or policy requirements need more time because they disrupt the normal procedures. Inquiries that have multiple issues or that do not have a clear issue that needs to be addressed also tend to take longer to answer. Conflicting priorities may account for some slow response times. A policy should be put into place to address reassignment of work orders when conflicting priorities interfere with meeting the expected completion date.

The problem with the work orders that took the longest, seems to be the waiting period at each stage of the inquiry as it goes through NHDOT. It is common for work orders to take a week to be assigned a week, or two, once assigned for action to be taken, and, finally, a week for approval before being sent. Every time a work order is reassigned adds to the length of time it is open. The survey data will show how this response time impacted overall constituent satisfaction.

Quality of Response

The quality of the responses can only be determined by the survey data. Track It! can provide insight on who to survey, but cannot provide a useful answer to the question of overall constituent satisfaction.

had contacted NHDOT. Sample questions for the customer survey are below:

- How satisfied were you with the quality of response NHDOT provided to your inquiry?
- How satisfied were you with the time it took for a response to be made?
- How would you describe the explanation you received?

The Track It! data is categorized by the bureau within NHDOT which addressed the constituent inquiry and a topical label consistent with the organization of that bureau. Types of inquiries that are common throughout the various bureaus are labeled uniformly throughout the system. Inquiries are also tracked for geographical locations.

Initiatives for Improvement

1. Emphasize the importance of constituent response to NHDOT employees

Making constituent response a measure of performance will emphasize the importance of issuing timely and quality responses. Making response time a part of employee evaluations will emphasize the importance of constituent response to employees.

2. Reduce the amount of time before a constituent inquiry is entered into Track It.

Each bureau should assign the duty for entering inquiries received by that bureau. Bureau administrators and directors need to quickly delegate constituent inquiries once they are received.

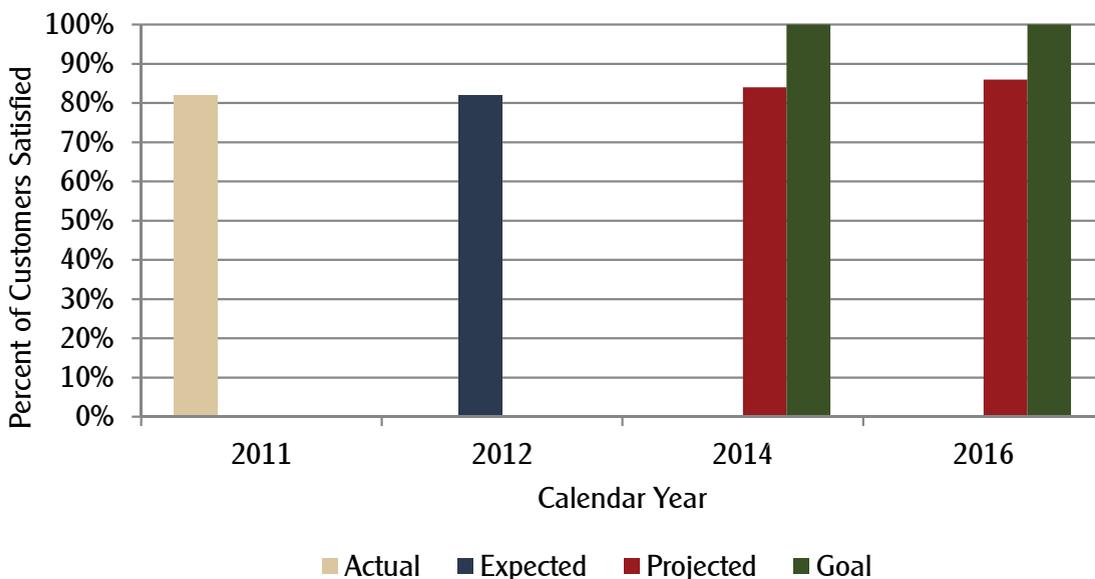
3. Make more effective use of the webpage to convey Department information to constituents.

The Department webpage is a very effective tool to convey information to constituents. Many constituents will look for information through the webpage before they would write to NHDOT. Here, Track It! is very useful because it highlights areas of interest to constituents which can be featured on the webpage.

4. Use Track It! to generate responses for repeat responses

One of the benefits of Track It! is that it serves as a database of all prior constituent inquiries and responses. Employees can search the database for the specific issue, town, or constituent for which they are responding and see what was done previously. This will provide a template to draft the current response and save time since the response will not have to be created anew each time.

Customers Satisfied



Performance

The Department must continue to improve: the condition of all elements of the transportation system; the performance (mobility, safety, and security) of the transportation system; the efficiency of the Department; and the effectiveness of its partnerships.

Objective:

- Improve Asset Conditions
- Increase Mobility
- Improve System Safety and Security
- Improve Department Efficiency
- Identify, Communicate, and Collaborate with Partners

Improve Asset Conditions

The Department must continually oversee the transportation system and optimize the maintenance, preservation, modernization, and timely replacements of transportation assets through cost effective management, programming, and resource allocation.

Measures:

- State Highway Pavement in Good or Fair Condition
- Red Listed State Bridges
- Rail Lines Capable of Speeds of 40mph
- Airport Runway Surface Conditions
- Remaining Useful Life of Transit Buses





Improve Asset Conditions

State Highway Pavement in Good or Fair Condition

Purpose:

The Ride Comfort Index (RCI) has been used by the Department since 1995 to measure, report, and monitor the pavement condition of the 4,559 miles of state-maintained roadways. The RCI is a measure of the roughness of a roadway and is reported on a scale from 0 to 5, with 5 representing the smoothest roads. The RCI is calculated from the International Roughness Index (IRI), a numerical value that is measured by the Department's data collection vehicle, and provides a representation of what motorists feel as they drive down the road. The vehicle also collects other pavement condition data such as wheel path rutting and cracking which when combined with the roughness data is used to support the Department's software driven Pavement Management System. The Pavement Management System is an asset management tool that is used to forecast future pavement conditions, set performance goals, and develop funding levels to achieve those goals.

Data:

Limits have been established to categorize pavements into "Good", "Fair", and "Poor" condition levels with a RCI greater than 3.5 defining "Good", between 3.5 and 2.5 defining "Fair", and less than 2.5 defining "Poor". Statewide pavement condition maps are based on RCI and these threshold values are published biennially in the State's Ten Year Transportation Improvement Plan.

Improvement Status

The "NH Pavement Condition" graph shows pavement condition for 1996 through 2016. The data for 1996 through 2010 is based on measured roughness data and shows that the mileage of roadways in good or fair condition reached an all time high of 3,064 miles in 2000 and has steadily declined reaching an all time low of 2,653 in 2008. The American Recovery and Reinvestment Act (ARRA) was utilized in 2009 and 2010 to boost funding for resurfacing and was able to stop the downward trend and stabilize the good/fair mileage at 2,695. The data for 2011 through 2016 represents the good/fair mileage as forecasted by the Pavement Management System and is predicted to decline by an additional 255 miles over this time period. This would represent a total decline of approximately 620 miles (approximately 14% of the total network) from the peak in 2000 to 2016. Pavement condition and forecasting condition is driven by interrelated factors: aging due to climate, deterioration and distress due to loading (traffic), construction/materials costs, miles resurfaced, and available funding.

The "Average Price of Asphalt Cement" graph illustrates the increased price of this key ingredient in hot mix asphalt (HMA) from 1992 to 2011. Since the last NH gas tax increase in 1991, the average price of asphalt cement (AC) has risen steadily from \$110 per ton in 1992 to \$590 per ton in 2011 (a 425% increase) with the majority of the increase (\$250 to \$590) occurring between 2005 and 2011. The price of AC has also been somewhat unpredictable and unstable over this same time period, reaching an all time high of \$600 per ton in 2008. The NH gas tax is set at 19.6 cents per gallon, the lowest of all the New England states.

The Department's goal is to resurface 500 miles of roadways per year that equates to resurfacing roadways once approximately every 10 years. As illustrated on the "NH Miles of Road Resurfaced" graph, the Department was consistently meeting, exceeding or coming close to this goal from 1992 to 2004. Given the marked cost increase in AC, resurfacing mileage steadily decreased from 2005 until reaching an all time low of 290 miles in 2008. The ARRA funding was utilized to increase resurfacing from 250 to 706 miles in 2009 and from 294 to 496 miles in 2010 effectively holding the good/fair mileage constant over this time period.

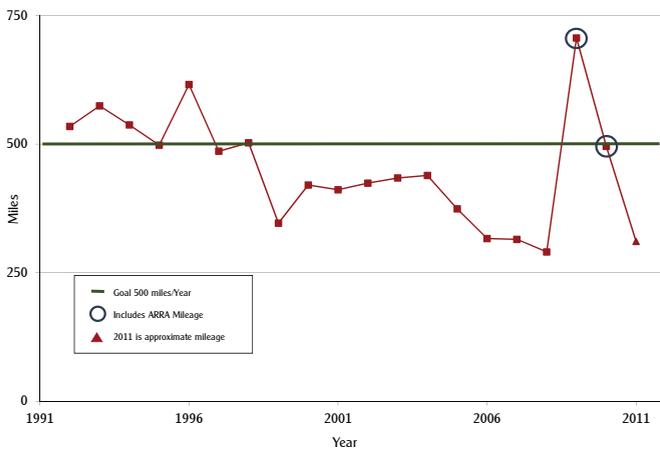
The Future:

With the current funding levels, resurfacing mileage, and unpredictable cost of AC, it will not be possible to maintain the good/fair mileage at the current level. Based on the Pavement Management System, funding will need to be increased from \$57M to \$69M per year in order to maintain the current mileage of roadways in good/fair condition. If funding levels are not increased from the \$57M, a downward trend is expected as depicted in the “NH Pavement Condition” graph. If the roadway network continues to deteriorate, the cost of restoring roadways back to good condition increases exponentially. For example, periodic resurfacing of a roadway with a thin HMA overlay costs approximately \$40,000 per mile as compared to full depth reclamation and repaving with all new HMA at a cost of approximately \$400,000 per mile.

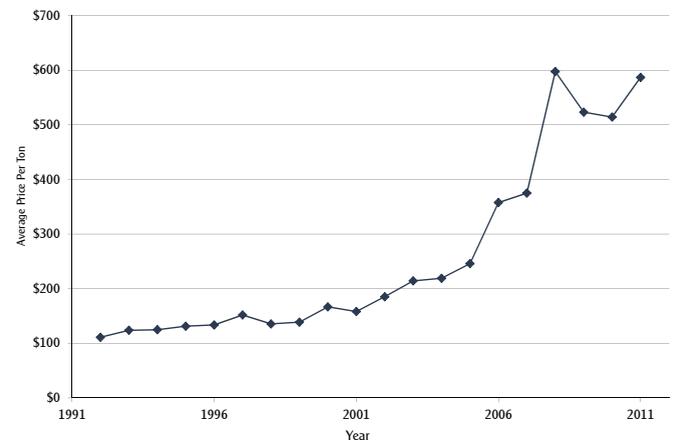
The Department’s roadway maintenance strategy is to focus resurfacing activities on higher volume roadways thus keeping them from deteriorating to poor condition. Less traveled roadways that are already in fair to poor condition will receive patching and HMA spot leveling treatments applied by Department forces in an effort to keep the roadway passable. Newer technologies and maintenance techniques that focus on pavement preservation will also be used to help counter network deterioration by increasing pavement service life while reducing life cycle costs.

While employing newer technologies and pavement preservation techniques will be effective in reducing the overall cost of maintaining pavements, there is a need to develop a permanent sustainable means to hold the existing condition level constant and prevent further deterioration of the network.

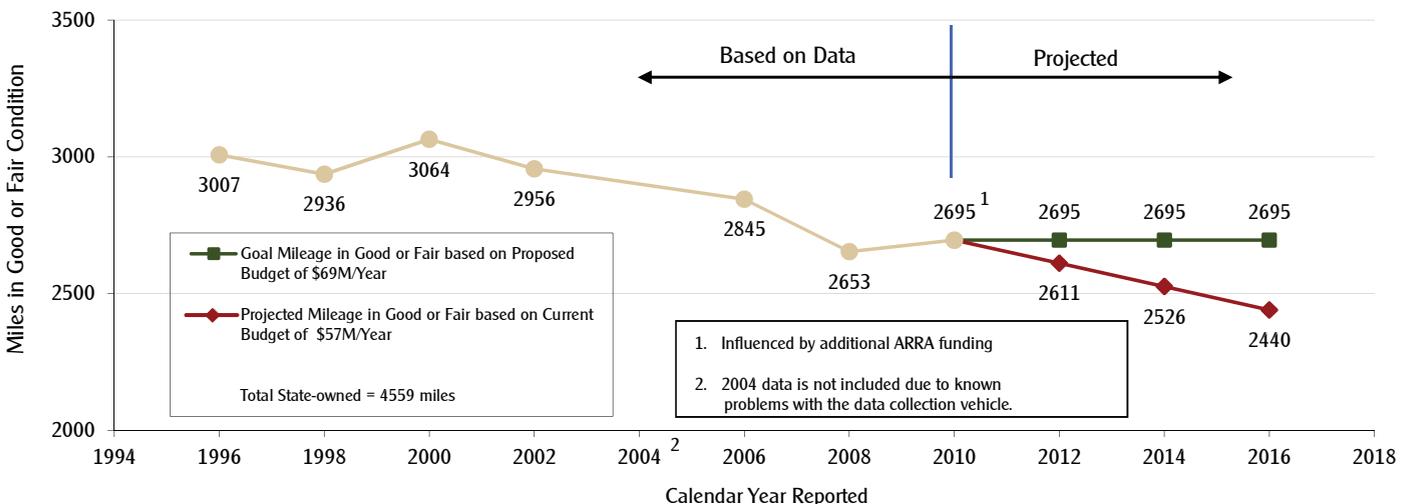
NH Miles of Road Resurfaced 1992-2011



Average Price of Asphalt Cement 1992-2011



New Hampshire Pavement Condition 1996-2016





Improvement Status

Since 2003, the Department has used a Bridge Priority List to prioritize work on the State's worst bridges. By doing this, the Department is better able to anticipate required bridgework and to focus on our commitment to reduce the number of Red List bridges. Currently there are 79 of these bridges in the 10-year plan (TYP) with an expected cost of \$684,390,000. Additionally there are 16 other bridges that need to be added to the TYP at \$31,250,000 for a total of \$715,640,000 or \$71,564,000 annually. Currently the Department expends approximately \$35,000,000 annually towards our bridge capital program.

In 2006 the Bureaus of Bridge Design and Bridge Maintenance estimated the annual bridge preservation needs of the Department at \$15M to 17.5M. This number has now increased to \$17M to 21M. The Department currently dedicates \$8M a year towards bridge preservation activities.

In addition to the capital program the Department's Bureau of Bridge Maintenance also has a big impact on both removing bridges from the Red List and preserving existing bridges to prevent them from being added to the list. In FY10 and FY11 Bridge Maintenance crews removed 30 bridges from the Red List (15 each year). In the current biennium the appropriation for Bridge Maintenance was reduced by 9% from \$8.9M to \$8.1M annually. As a result of these reductions, it is anticipated that 14 fewer bridges will be removed from the Red List by maintenance forces in FY12 and FY13.

Due to the current anticipated funding shortfalls, we expect that the number of bridges added to the Red List will remain stable, adding about 20 bridges per year and increasing slightly over time. Additionally, if all factors remain the same, we anticipate that the number of bridges removed from the list will remain the same at about 18 a year in the future. This difference will lead to an increased number of bridges placed on the Red List as time goes forward as shown on the chart.

More than 65% of the state's bridges are more than 40 years old, many of which were designed with a service life of 50 years and with lighter design vehicle standards. This statistic combined with current funding levels will

Improve Asset Conditions

Red Listed State Bridges

Purpose:

The Federal Highway Administration (FHWA) requires all states to report the condition of federal definition bridges within their state on an annual basis. The FHWA defines a bridge as a structure with a span greater than 20'. The state of New Hampshire further defines a bridge as a structure with a span of 10' or greater. In accordance with the National Bridge Inspection Standards (NBIS), the condition of the major structural elements of a bridge are rated on a scale of 0 to 9, with 9 representing excellent condition, 4 representing poor condition, and 0 representing failed or closed. In general, a bridge is considered to be **structurally deficient** when any of its major structural elements (deck, superstructure, substructure, or culvert) is rated as **4 (poor condition)** or lower.

The Department has established a bridge Red List that includes all federal and NH definition bridges with one or more major structural elements in poor condition or worse. The Red List also includes bridges that require weight limit postings. Currently there are 2,138 state owned bridges and 148 (6.9%) are on the Red List. The number of bridges on the Red List is a good indication as to how the Department is doing at addressing its bridges that are in the poorest condition.

Data:

The table below is a snapshot of the overall number and condition of all highway bridges in New Hampshire, including municipally owned bridges. The bridges that are on the Near Red List (also known

as the "Pink List") have one or more major structural elements rated as 5 (fair condition). In other words, there are 256 bridges that are just one step away from being placed on the Red List. This group of near red list bridges is 173% larger than those on the Red List and could greatly affect the list in the future.

**NHDOT
Bridges, 10' and greater**

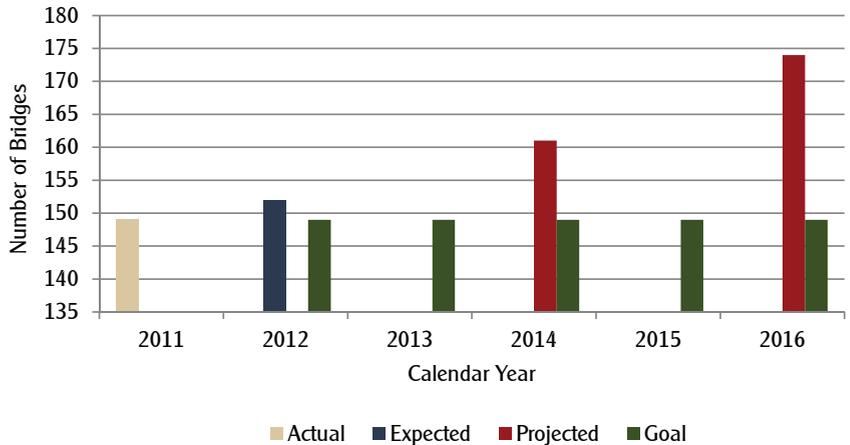
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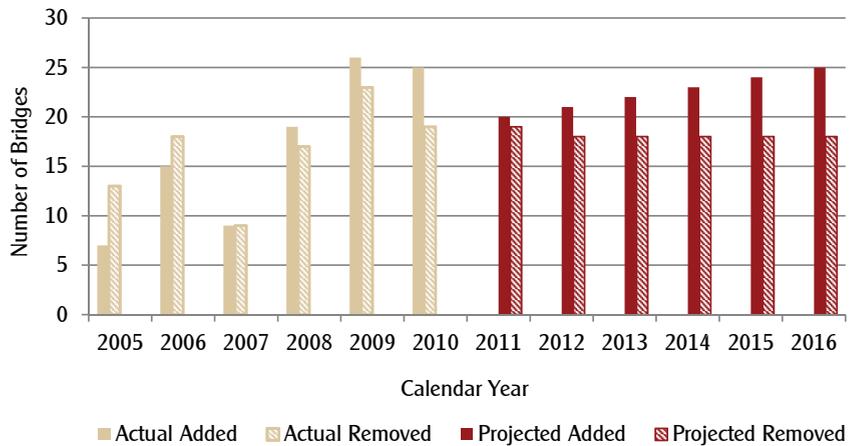
make it challenging to reduce the number of bridges on the Red List going forward.

The Department's current strategy is to continue to focus on rehabilitating and/or replacing Red List bridges and to efficiently preserve the remaining non-Red List bridges.

New Hampshire Red List Bridges



Bridges Added and Removed from Red List





Improve Asset Conditions

Rail Lines Capable of Speeds of 40 mph

Purpose:

The approximately 450 miles of active railroad in New Hampshire are classified as to condition according to a system established by the Federal Railroad Administration (FRA). Track may be subject to slow orders due to local or temporary conditions, but in general, class of track is a measure that provides an indication of the general condition of railroad track infrastructure. FRA Class 3 track allows operation of freight rail at up to 40 mph and passenger rail at up to 60 mph. Track at this classification would provide satisfactory performance of both freight and passenger operations in nearly all cases. Establishing goals for the total miles of active track at Class 3 would provide an effective measure of overall condition of the railroads in the state, recognizing that track is maintained and repaired by private railroad companies primarily with private capital.

The New Hampshire Department of Transportation (NH DOT) and a consultant team are currently updating the state's rail plan, which will include an inventory of the state's railroads and their condition. The plan is also expected to provide goals for this measure in future years.

Data:

As noted above, railroads are responsible for the classification of track according to standards established by the FRA. The classifications are based on standards that define the level of maintenance needed for safe operation, and determine the

Improvement Status

In recent years, improvements in the condition of railroad lines have been attributable to upgrades in track funded by a variety of sources. For example, prior to initiation of the Downeaster Amtrak service in 2001, the Freight Main Line owned and operated by Guilford Rail System (now Pan Am Railways) was upgraded with new ties, ballast and continuous welded rail funded by the FRA. This line, with 35 miles in New Hampshire, has been primarily maintained at Class 3 since that time. The New England Central's Connecticut River line has been recently upgraded to Class 3 in part with a grant from the FRA, to allow the Amtrak Vermonter to travel at higher speeds and improve the performance of the line for freight as well. Portions of two other lines, the St. Lawrence & Atlantic and the New Hampshire Northcoast, have been upgraded to Class 3 with railroad funds and state and federal loan and grant funds.

It is not possible to anticipate future funding opportunities to complete upgrades of these and other rail lines. However, the Department has been working with the railroads to seek funding for certain upgrades, and the goals for 2014 and 2016 reflect the desire to complete these projects. Specifically, the St. Lawrence & Atlantic is aggressively seeking to upgrade its line in the North Country, in order to serve its customers in Maine, New Hampshire and Vermont with a line that has full clearance for double-stack containers and heavier weight limits now prevalent in the railroad industry. Completing the upgrade to this line is included as a goal for 2014. For 2016, it is a goal to upgrade the New Hampshire Northcoast line from Rollinsford to Ossipee, which handles heavy sand and gravel cars. Another goal is to complete an upgrade of Pan Am's New Hampshire Main Line through Nashua and Manchester. This would facilitate development of passenger service on the line as well as improve the railroad's ability to serve freight customers.

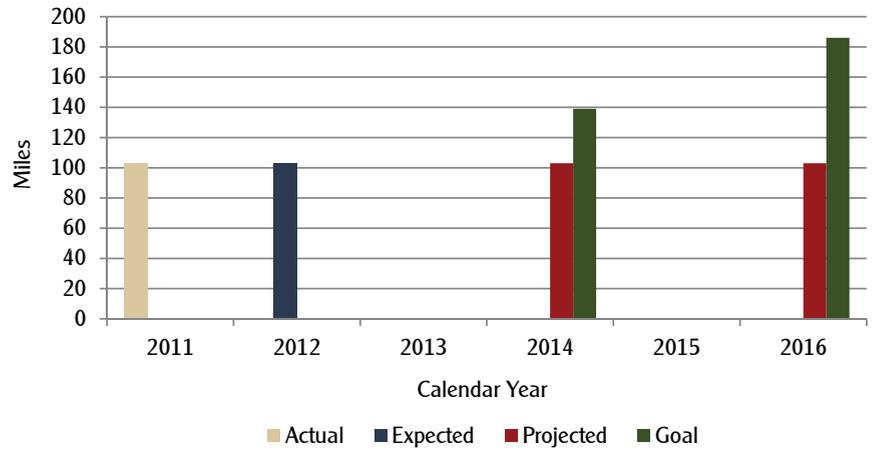
The graph below provides estimates of the miles of track maintained at Class 3 or above, reflecting changes if funding is available to complete improvements on the lines described above.

allowable speeds for freight and passenger trains according to the following table (mph):

Class	Freight	Passenger
1	10	15
2	25	30
3	40	60
4	60	80
5	80	90
6	110	110
7	125	125
8	160	160
9	200	200

The class of track is determined by the condition of rail, ties, stone ballast and other components, inspected and rated against quantitative measures published in FRA rules at 49 CFR Part 213.

Class 3 Track Conditions





Improvement Status

There are a total of 12 airports in the State that are in the National Plan of Integrated Airport Systems (NPIAS) which makes them eligible for Federal Aviation Administration (FAA) Airport Improvement Program grants. These FAA grants are utilized to effect improvements to the airports' facilities including runways. The remaining 12 airports utilize limited state, municipal or private funds to maintain and improve their facilities. Within the past 5 years, there have been 14 runways that have received runway surface improvements as a result of runway maintenance or rehabilitation projects. Of these, only 3 were at non-NPIAS airports. This clearly illustrates the scarcity of state, local and private funds for airport improvement projects. In fact, the current weighted overall average of the runway surface condition for the non-NPIAS airports falls well below the overall goal of "good" condition, with one runway rated in "poor" condition.

The Department works closely with each airport to develop a comprehensive 10-year Capital Improvement Plan. If an airport's runway condition warrants, its runway reconstruction or rehabilitation project is programmed into this plan. However, with the reduction in state and local funding and the uncertainty of future federal funding, it will be challenging to continue to improve upon the current overall runway surface condition of the state's public-use airports, especially for the non-NPIAS airports that are not eligible for federal funds. Based on this assumption, within the next 5 years, it is expected that the overall runway pavement condition for the state's public-use airports will fall from the current 3.99 overall weighted average condition of just above "four" condition. Individually, an additional 2 to 3 runways are anticipated to deteriorate to a "poor" condition.

The Department's current strategy for improving the runway surface conditions of the NPIAS airports in New Hampshire is to aggressively pursue federal funding for runway improvement projects. The strategy for improving the runway surface conditions of the non-NPIAS airports in New Hampshire is to continue to seek or establish additional or alternative sources of funding at the state, local and private levels, such as the creation

Improve Asset Conditions

Airport Runway Surface Conditions

Purpose:

The conditions of the runway surfaces at New Hampshire's public-use airports are currently measured in accordance with the established surface evaluation and rating standards of the Federal Aviation Administration (FAA) for pavement surfaces and in accordance with established FAA airport inspection guidelines for turf and gravel surfaces. A runway surface condition is rated as "Failed, Poor, Fair, Good or Excellent" with a corresponding numerical value from 1 to 5, with 5 representing a condition of "Excellent." The condition of an airport's runway surface is directly related to aircraft operational safety. Therefore, the purpose of this measure is to ensure the system of public-use airports in New Hampshire maintains a high standard of safety for the flying public.

Data:

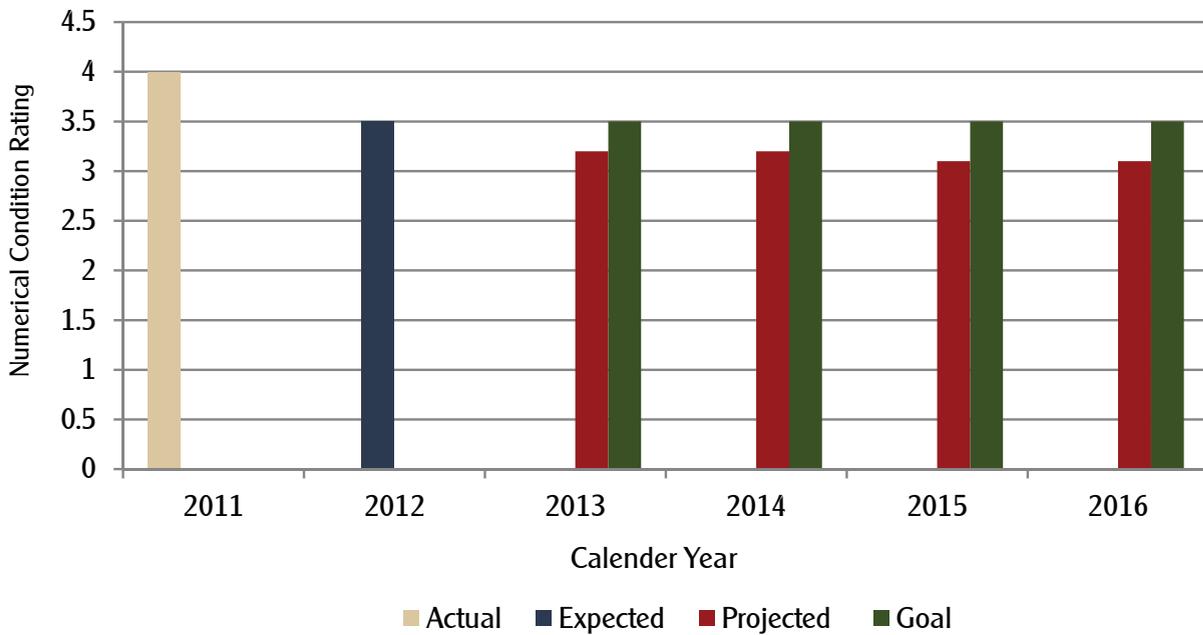
The New Hampshire Airport System consists of 24 public-use airports. At these airports, there are a total of 29 runways, 22 of which have a pavement surface and 7 of which have a turf or gravel surface. Five of the airports have 2 runways. The 29 runways in the New Hampshire Airport System comprise approximately 51.3 million square feet of runway surface. Approximately 44.5 million square feet of runway surface is paved and the remainder is turf or gravel.

For New Hampshire's runway surfaces, a "good" condition is defined as a runway with a rating of 4.0 or greater. Runway surface condition has historically been and is currently being monitored through

the FAA 5010 Airport Inspection Program whereby a State or FAA airport inspector will rate an airport's runway surface condition as an item of the airport's annual inspection. To compute the overall average condition, each runway is weighted utilizing the runway's condition rating and the runway's total square footage. Any runway surface rated below "fair" is identified as a runway of special concern and is prioritized for available funding.

of the new State Aeronautical Fund, with the priority of utilizing these funds for runway improvement projects. The success of this effort is critical to ensuring the preservation of the current airport infrastructure in the New Hampshire Airport System.

Airport Runway Surface Conditions





Improve Asset Conditions

Remaining Useful Life of Transit Buses

Purpose:

The age of transit buses is one of the measures used by the Federal Transit Administration (FTA) to evaluate the overall condition of the nation's transit fleet. Transit buses have "useful life" thresholds that vary from 4 to 12 years, depending on the type of vehicle, and vehicle fleets are often mixed. Therefore, it is more effective to measure the average remaining useful life of buses in order to evaluate changes in the fleet's condition over time. Modernizing newer transit buses will improve the quality of transit service, attract more riders, and reduce maintenance costs. Newer buses also bring improvements in technology, emissions, rider amenities, and other factors that can improve the general level of service to riders.

Data:

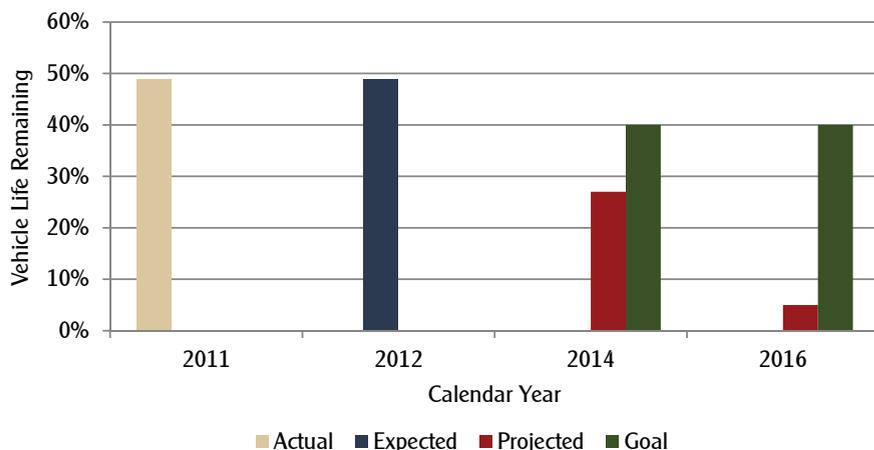
Transit buses in New Hampshire are purchased and maintained by transit systems and in some cases by the state or contractors to the state. The data presented here apply only to buses purchased by NHDOT or with funding from NHDOT (a total of 104 buses). Although this does not provide a comprehensive, statewide picture of transit bus condition, they do give an indication of the age of the transit bus fleet in New Hampshire. The NHDOT data include buses operated by rural transit systems as well as by contractors operating commuter and intercity bus service in the state.

It is important to note that FTA regulations require that buses reach the end of their useful life before they may be

Improvement Status

The transit bus fleet in New Hampshire has been improved in recent years with the purchase of new buses for the I-93 commuter bus expansion project and with buses funded by the American Recovery and Reinvestment Act in 2009. This addition of newer buses (and coach buses with a longer useful life) has meant that the average remaining useful life of transit buses funded through NHDOT is relatively high. In future years, it can be anticipated that the average remaining useful life will be lower. This will have implications for maintenance costs. It will also be necessary to identify funding sources to replace buses so that the fleet includes new buses as well as those that were purchased in the past several years. Growth in transit ridership also means that additional buses will be needed to accommodate demand, and funding will be needed to allow transit service to keep pace with growth in population and ridership.

Remaining Useful Life of Transit Buses



replaced. Therefore, the remaining useful life measure may fluctuate over time depending on the cycles of bus acquisition and grant availability and the types of buses purchased in a particular time period.

It is difficult to project future grant funding to replace buses in the transit fleets. Therefore, the projection represents a scenario in which no buses are replaced over this period. This is unlikely but represents a worst case.

Increase Mobility

The Department must work to limit transportation delays and increase access to all modes of transportation.

Measures:

- Transit Ridership
- Rail Ridership
- Air Ridership
- Total Freight Shipped Via All Modes
- Average Level of Service on Selected Highway Segments
- State Population with Access to Multimodal Transportation





Improvement Status

Increasing ridership on transit is a challenge in a state with no large cities. Nevertheless, most transit systems in New Hampshire have seen their ridership increase. A number of factors are responsible, and these vary according to local circumstances. The University of New Hampshire (UNH) Wildcat Transit system has expanded its services, and has also gained ridership due to parking restrictions on campus that make taking the bus more attractive. Advance Transit has used local funding sources and partnerships to make its service fare-free, which has increased ridership tremendously. Changes to schedules to make them more convenient, new buses, and other improvements have increased ridership in Manchester and Nashua. Some of the newer systems in more rural areas have gained riders as they become more widely known in their communities.

It is difficult to anticipate future funding that will support transit improvements and in turn lead to increased ridership. New Hampshire is more reliant on Federal Transit Administration funding than most states, given a lack of funding at the state level. A prudent projection for future ridership is for modest gains as local systems are able to make incremental improvements, but goals for future years would be more ambitious. With additional funds, transit could be expanded to unserved areas, and the frequency and convenience of existing services could be improved, leading to larger gains in ridership.

Increase Mobility

Transit Ridership

Purpose:

Transit ridership is a common measure of the utilization of transit service nationwide. Ridership measures one-way trips, i.e. boardings on transit vehicles. Transit systems report ridership, among other measures, to the Federal Transit Administration through the National Transit Database. Increasing ridership shows that more people are riding on transit, either because existing systems are attracting more riders, or because the availability of transit is expanding with longer hours, greater frequency or geographical reach, or a combination of factors.

Although transit ridership numbers in New Hampshire are small when compared to those of large urban transit systems, ridership has shown significant growth in recent years. Establishing targets for future ridership will provide a measure of the progress the state and local transit systems are making in increasing the options people in New Hampshire have for personal mobility.

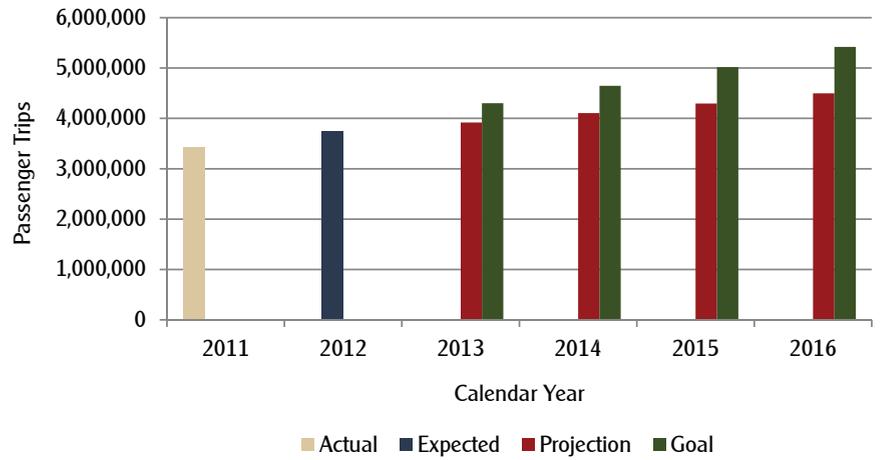
Data:

A variety of factors influence transit ridership. Some are positive factors, such as the availability of transit convenient to home and workplaces or other destinations. The frequency of service is a major factor, along with the service schedule – how early and late the transit service operates. Amenities such as bus shelters can be important in inclement weather, and passenger information in the form of schedules or even “next bus” arrival message signs can encourage the public

to ride. Overall, a perception that transit is safe, convenient and reliable is critical to building ridership. Negative incentives such as the cost of gasoline, and especially of parking at the destination can also be strong factors in influencing people to take transit.

In New Hampshire, local transit agencies are responsible for managing their systems. These can be municipal, legislatively established, or private nonprofit organizations. Decisions on routes and schedules, capital improvements and changes to service are made locally and are highly dependent on available funding.

Transit Ridership





Improvement Status

The State of Maine, through its Northern New England Passenger Rail Authority, and the Vermont Agency of Transportation are responsible for planning and managing the Amtrak Downeaster and Vermonter. Each state has worked with Amtrak and the host railroads (the freight railroads that own the lines on which Amtrak operates) to make track improvements, provide scheduling changes and in some cases add service in the form of additional trains. Both Maine and Vermont have undertaken planning efforts in the past to project future ridership trends and establish goals.

An annual growth rate of 3 percent is assumed in the projections for rail ridership. A number of changes will influence the actual growth in rail ridership in the next several years. The completion of an upgrade to the New England Central's line in New Hampshire and Vermont, where the Vermonter travels, will reduce train travel time and should increase ridership. Vermont and Massachusetts are working together to upgrade the "Knowledge Corridor," another existing freight line in western Massachusetts, for passenger service. When this is complete, the Vermonter is expected to alter its route and save additional time between St. Albans and New York. In Maine, a rail upgrade to provide an extension of the Downeaster to Brunswick is under construction. Ridership will increase when that expanded service opens.

Other projects that would significantly increase rail ridership in New Hampshire are in the planning stages. The New Hampshire Capitol Corridor is a proposed passenger service between southern New Hampshire and Boston through Nashua. If planning efforts are successful and funding is obtained, this service could be in operation by 2016. An extension of Massachusetts Bay Transportation Authority (MBTA) commuter service from Boston through Haverhill, Massachusetts to Plaistow has also been proposed and will be studied in 2012. This service could be in operation by 2014 if planning and engineering work lead to funding for construction. These two services are reflected in the graph in a scenario that projects possible ridership if they are in operation by 2014 and 2016. Ridership figures for the Plaistow and New Hampshire Capitol Corridor rail projects are estimates based on prior planning or grant application documents.

Increase Mobility

Rail Ridership

Purpose:

Ridership is a common measure of the utilization of transit service nationwide, including passenger rail. Ridership measures one-way trips, i.e. boardings. In New Hampshire, passenger rail service is provided by Amtrak on the Downeaster and Vermonter services supported by Maine and Vermont, respectively. Amtrak reports ridership on a monthly basis for these services. Increasing ridership shows that more people are riding on passenger rail, either because the existing services are attracting more riders, or because these services have expanded through additional trains, for example, or a combination of the two.

In New Hampshire, Amtrak serves four stops: Dover, Durham, and Exeter with the Downeaster and Claremont with the Vermonter. The Downeaster has five daily trains between Portland and Boston and the Vermonter one daily train between St. Albans, Vermont and New York and Washington. Ridership on both has shown significant growth in recent years. Establishing goals for future ridership will provide a measure of the progress this service is making in increasing the personal mobility of people in New Hampshire.

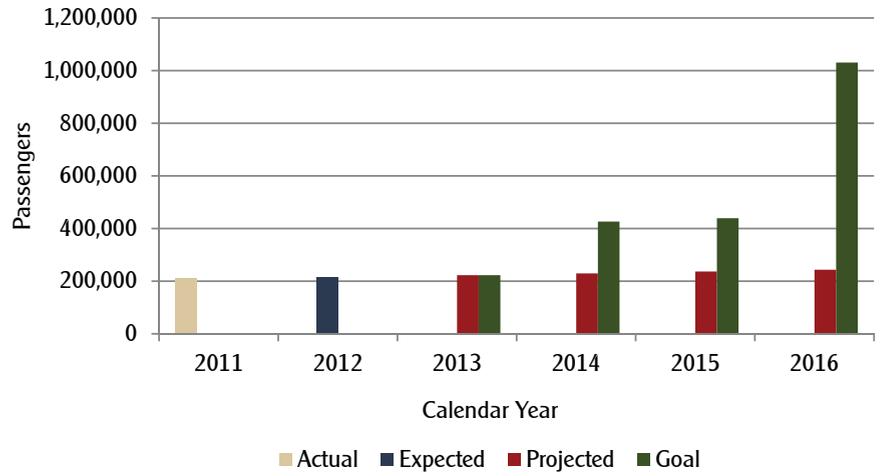
Data:

The data reported here represents the number of passengers who either board or disembark trains at one of the four New Hampshire stations. As noted above, ridership can fluctuate based on the availability or convenience of service, but also from events and larger trends.

For example, weather events that cancel train service significantly affect a month's ridership, and the national recession is also reflected in lower numbers of Americans making discretionary trips.

The data do not include New Hampshire residents who travel by bus or car to Boston and take Amtrak from there. They also do not include a sizable number of daily or frequent commuters who take MBTA commuter rail from Lowell, North Billerica, Haverhill, Newburyport or other Massachusetts stations. At some stations it is reported that one-fourth or more of the passengers are New Hampshire residents.

Rail Ridership





Increase Mobility

Air Ridership

Purpose:

In New Hampshire (NH), there are three airports that have been traditionally served by the commercial airline industry, Manchester-Boston Regional Airport, Portsmouth International Airport at Pease, and Lebanon Municipal Airport. A passenger enplanement is a revenue passenger that boarded a commercial airliner. Similarly, a passenger deplanement is a revenue passenger that deplanes a commercial airliner. Individually, passenger enplanements are a measure of the health of each airport as they are directly related to airport revenue and airport economic activity. Collectively, passenger enplanements are a measure of the health of the airline industry in NH and of the overall economic activity of the region. In addition, passenger enplanement data is utilized by the Federal Aviation Administration (FAA) for calculating the apportionment of FAA Airport Improvement Program funding throughout the United States.

Data:

Each year, airports report their annual number of enplanements to the United States Department of Transportation (USDOT) for the previous calendar year period. The USDOT posts this data for the public view at the following website:

http://www.transtats.bts.gov/DL_SelectFields.asp?Table_ID=293&DB_Short_Name=Air%20Carriers

There are many factors affecting the number of passenger enplanements in NH such as the strength of the national and regional economy, the health of

Improvement Status

The number of passenger enplanements at an airport is directly correlated to the number of flights departing from that airport. Generally, the more departing flights from the airport, the more passenger seats available, which result in more passengers that could board an airplane at that airport (enplanements) and vice versa for passenger deplanements. The airline industry is an extremely competitive market that drives the business decisions of the airlines, such as, determining how many daily flights per day, flight destinations, and the type of equipment that will be used for those flights.

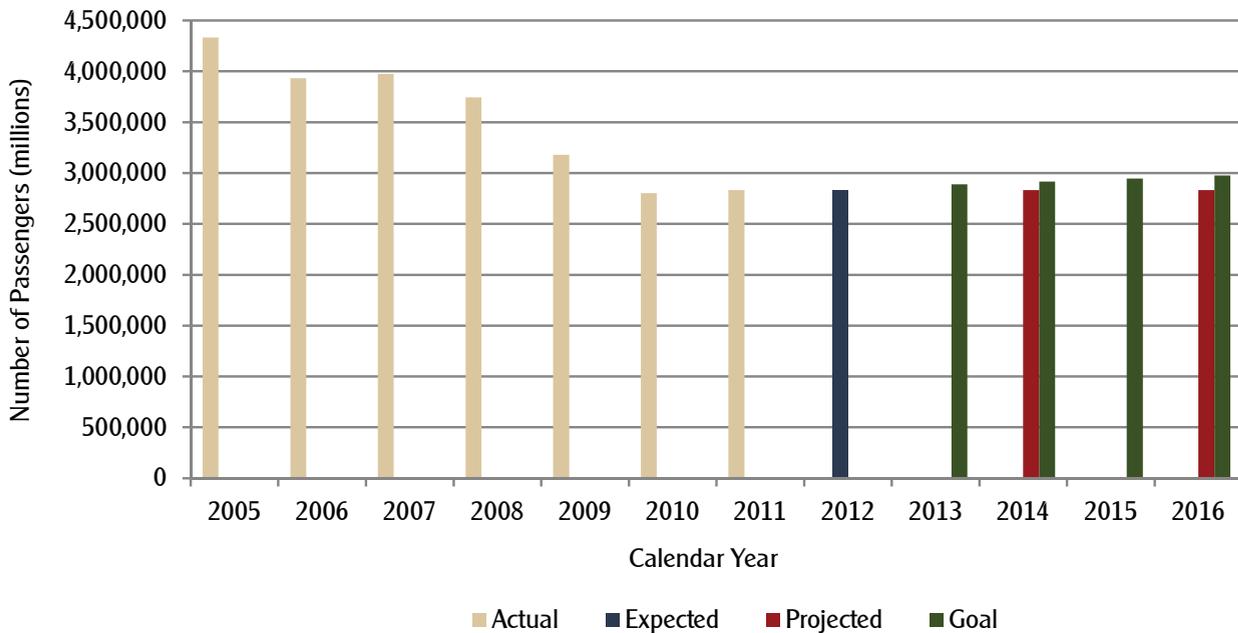
Over the last several years, passenger enplanements at the three NH commercial service airports have decreased primarily due to the most recent economic recession and rising fuel costs. All three airports have worked closely with the airlines to maintain and/or increase the existing flights and destinations available to New Hampshire citizens.

In 2007, Skybus Airlines began operations from the Portsmouth International Airport at Pease, but service ceased in 2008 due to high fuel prices. The Portsmouth International Airport at Pease is currently focusing on securing another airline to operate from of the airport. The Lebanon Municipal Airport currently has one airline, Cape Air that operates to the New York Metropolitan area and Boston Logan Airport. Manchester-Boston Regional Airport currently has six airlines serving the airport: Air Canada, Continental Airlines, Delta, Southwest, United Airlines and U.S. Airlines. Since 2005, passenger traffic at the Manchester Boston- Regional Airport has decreased, as a result of system wide airline capacity reductions.

The outlook for the airlines economically is uncertain, however passenger enplanement numbers will continue to fluctuate until the economy improves and/or the market changes. The NHDOT, Bureau of Aeronautics works closely with Manchester-Boston Regional Airport, Portsmouth International Airport at Pease, and Lebanon Municipal Airport in programming FAA and state funds to ensure their facilities meet or exceed the safety and capacity requirements expected by the airline industry and the flying public.

the airline industry, and the competition for passenger market share. The New Hampshire Department of Transportation (NHDOT), Bureau of Aeronautics does not have the capability to influence these factors. The NHDOT, Bureau of Aeronautics can influence the capital improvements funded for these airports and can provide outreach, especially to state agencies, to encourage more air ridership at these airports.

Passenger Enplanements and Deplanements at New Hampshire Airports





Improvement Status

The NHDOT will need to track what goods are being transported in the State of New Hampshire. There are four different trade flows of freight in New Hampshire:

- Inbound: freight originating outside of NH with a destination inside New Hampshire
- Outbound: freight originating in NH with a destination outside of NH
- Intrastate (within the State): freight that have both an origin and a destination in NH
- Travel through (the state): freight that have both an origin and destination outside of NH using the NH transportation infrastructure.

Currently, the NHDOT is researching a more standardized way to accumulate current freight data and the trade flows of freight in the State. For the purpose of this performance measure, the motor carrier data is obtained from the FAF, which does not include the numbers of the freight traveling through the state. The waterways and port data is obtained from the Pease Development Authority (PDA), Division of Ports and Harbors, and the air freight data is obtained from the Bureau of Transportation Statistics (BTS) website. The NHDOT is in the process of completing a Rail Plan for the State that will provide a chapter on Freight Transportation and Trends and Commodities that should be completed by June 2012.

As seen in the data collected (table on back) for 2009, NH relies heavily on truck transport for the shipment of freight. Freight shipped through the rail system is the second largest at over 4.7 million tons of cargo.

Increase Mobility

Total Freight Shipped Via All Modes

Purpose:

This measure includes four modes of transportation that move freight into, out of, within and through the State of New Hampshire (NH). Freight is shipped via air, rail, waterways and ports, and motor carrier. This measure indicates the overall freight, shipped, measured in tons, using New Hampshire's intermodal transportation system.

There are many factors affecting the number of tons of freight shipped in NH such as the strength of the regional and national economy, (i.e demand for goods) the availability and condition of transportation infrastructure, the health of the freight industry, and the competition within the freight industry. The New Hampshire Department of Transportation (NHDOT) impacts the movement of freight through timely planning and development of the infrastructure necessary to ship freight over the roads, rails and runways at airports. Our partner, the Pease Development Authority (PDA), Division of Ports and Harbors develop and maintain the ports, harbors and tidal rivers in the State of New Hampshire.

It is important to have accurate, comprehensive, and timely data to measure the movement of freight, into, out of, within and through NH. It is critical that the NHDOT and PDA make sound investment decisions to optimize the NH intermodal transportation system. The movement of freight plays an important role in the state's economic development.

Data:

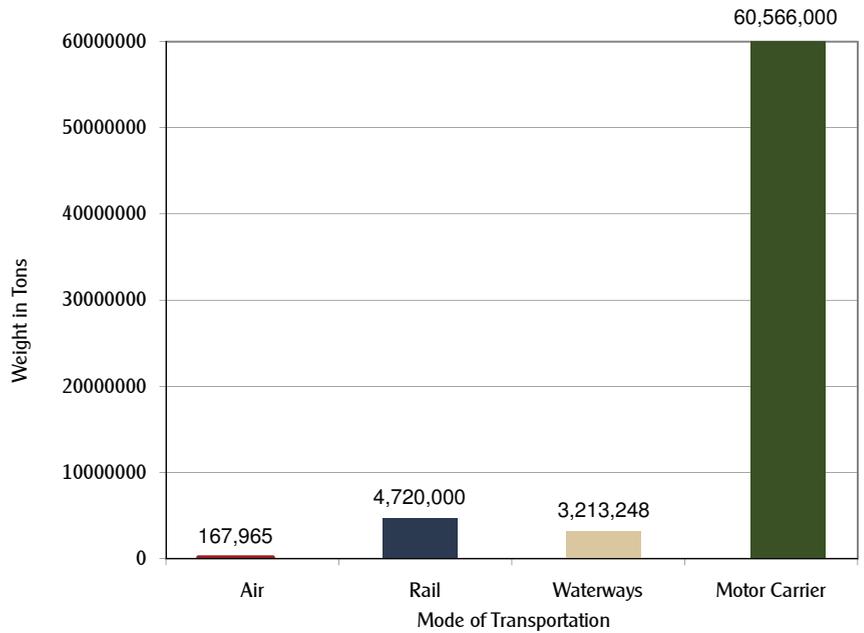
Comprehensive *current* freight data for New Hampshire does not exist at this

time. Determining the motor carrier data has proved to be the most challenging in calculating this measure.

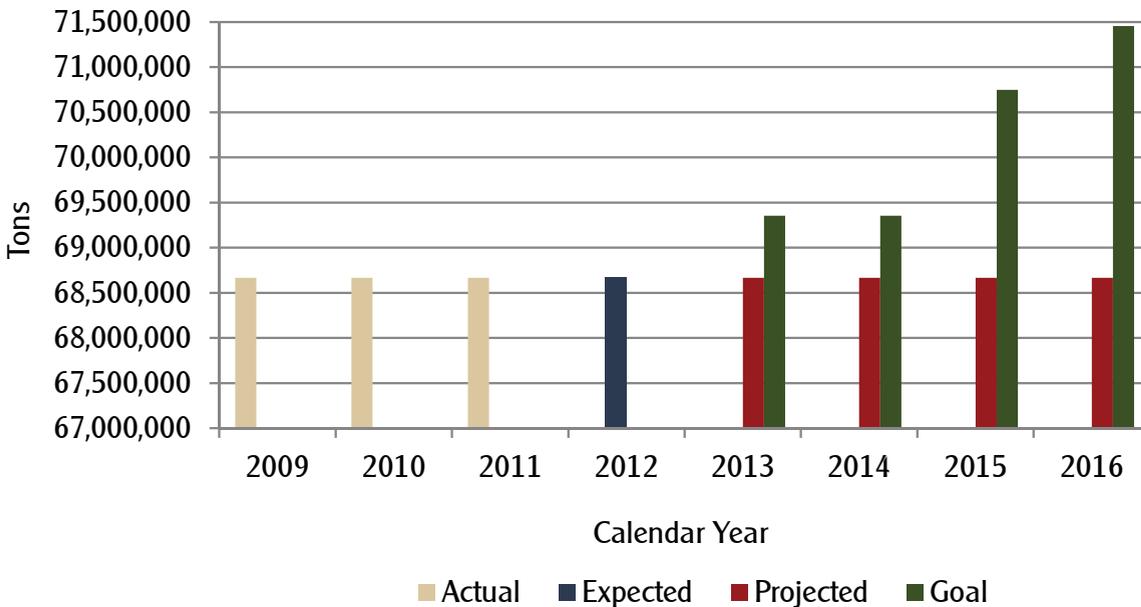
Freight data from calendar year 2009 is available for all modes of transportation in the Freight Analysis Framework (FAF). Since the 2009 data was collected and processed before the current on-going recession, this data is not a good representation of the freight movement in NH today. Typically, the FAF is updated once every 5 years. The air freight data is available from the air carrier reporting to airport management and from the Bureau of Transportation Statistics (BTS) website.

The waterway and ports data is available in the FAF and from the PDA. The PDA maintains a log of the vessels that utilize the NH Port system. The log provides information on the type of cargo and tonnage that pass through the Port.

Freight Shipped Into, From, Within and Through New Hampshire



Total Freight Shipped Via All Modes





Improvement Status

2011 actual: Based on 2010 data collection the average level of service for roads included in this performance measure is a **C (0.68)**. (Rated on a scale of A, no congestion, to F, congestion).

2012 expected: Until delay data can be collected, the Department will continue to report mobility as LOS on the selected routes. The following are our expectations for 2012:

- **Congestion:** The Airport Access Road will be opened which will reduce congestion on I-293/NH 101 but could increase congestion to the FE Everett. There will be major ITS projects completed on I-95 and on the freeways around Manchester. These ITS devices should have a positive impact on weather and incident delays. With traffic volumes remaining constant or decreasing slightly, LOS should remain the same. C (0.68)
- **Construction:** There are many large construction contracts underway on these corridors, I-93 Salem to Manchester, I-93 Hooksett Open Road Tolling, and Spaulding Turnpike Newington-Dover and Spaulding Turnpike Rochester all of which include a smart work zone to help manage construction related congestion. Delay due to construction is expected to remain unchanged from 2011.
- **Weather:** Assuming an average winter, delay due to weather is expected to remain the same.
Incidents: Though incidents will likely still happen, there may be a slight reduction in the number of incidents due to weather if reduced speed limits due to weather become regulatory. Overall, delay due to accidents/incidents should continue to improve as the Department has taken an active role in reducing the time it takes to get traffic back to normal (clearance time).

2014 projected: Until delay data can be collected, the Department will continue to report mobility as LOS on the selected routes. The following are our projections for 2014:

- **Congestion:** During 2012 and 2013, the Rochester project along

Increase Mobility

Average Level of Service on Selected Highway Segments

Purpose:

Mobility on selected freeway sections provides a measure that is effected by traffic volume and number of lanes on the facility, accidents/ incidents, weather, and construction activities. This will provide a measure of mobility that can be compared yearly to identify needs and to measure the effectiveness of counter measures implemented: the added capacity on construction projects, implementation of Intelligent Transportation Systems (ITS), Smart Work Zones, and incident management procedures.

This measure will focus on the most highly traveled commuter routes:

- I-93 from Concord to Salem
- FE Everett Turnpike from Hooksett to Nashua
- NH 101 from Manchester to Hampton
- I-95 from Portsmouth to Hampton
- Spaulding Turnpike from Portsmouth to Rochester

Data:

Eventually, this measure will be tracked by travel time on the selected routes. Average speed data will be collected from a service provider or by NHDOT owned and operated instrumentation. Free flow speed data will be compared to average speed to determine congestion delay due to traffic volumes, accidents/incidents, weather or construction activities.

In the short term, mobility will be tracked by Level of Service [LOS] for the average peak hour of the peak month. Data for this measure is currently collected by the Department, Regional Planning

Commissions (RPC) and Metropolitan Planning Organizations (MPO) to support the traffic volume reporting requirements of the Federal Highway Administration.

The LOS measurement is based on the Average Annual Daily Traffic (AADT), the actual number of lanes (L) and the theoretical maximum flow per lane (F) for a freeway. This information, combined with a estimated peak hour factor (K) and directional distribution factor (D) calculates a volume to capacity ratio using the formula;

$$v/c = \frac{AADT \times K \times D}{L \times F}$$

The calculated v/c ratio is then assigned a LOS between A and F using the following criteria;

LOS	V/C	
A	0.00 – 0.30	} No Congestion
B	0.31 – 0.50	
C	0.51 – 0.70	} Moderate Congestion
D	0.71 – 0.90	
E	0.91 – 1.00	} Congestion
F	> 1.00	

The segments of interest will be measured and an average V/C and LOS will be reported in the Balanced Scorecard.

the Spaulding Turnpike will be complete. This project will decrease congestion in this area during morning and evening commutes and during the southbound Sunday visitor peak. Overall, LOS is expected to improve as a result of these projects and a reduction in vehicle miles traveled. C (0.66)

- **Construction:** Major projects will include I-93 Salem-Manchester, I-93 Hooksett Open Road Tolling [ORT], I-93 bridge replacement over I-89 in Concord and Spaulding Turnpike Newington Dover. Again, all of these projects will have smart work zones and it is the Department’s goal to keep delay due to construction unchanged on the selected routes.

- **Weather:** Assuming an average winter, this measure is expected to remain the same.

Incidents: Incidents will likely still happen, but delay due to accidents/incidents should continue to improve as the Department has taken an active role in reducing clearance time.

2014 goal:

Congestion, Construction, Weather, Incidents: A reduction in delay due to each of these reasons is the goal. Additional initiatives in each of these areas will help us improve on our projections. C (0.65)

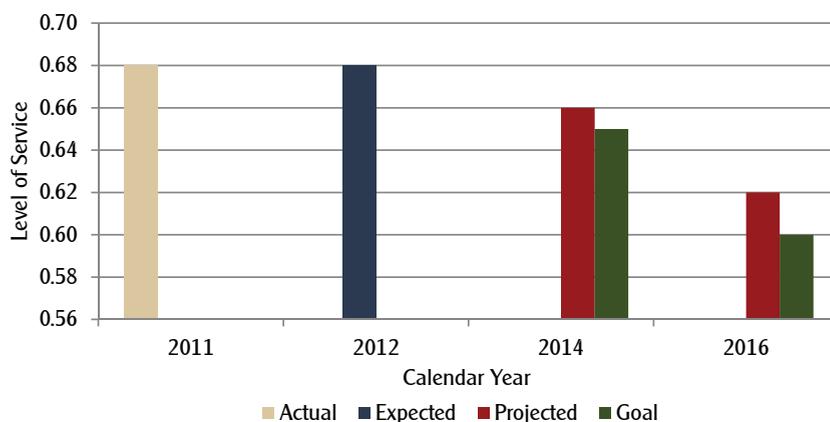
2016 Projected: Until delay data can be collected, the Department will continue to report mobility as LOS on the selected routes. The following are our projections for 2016:

- **Congestion:** During 2014 and 2016, the Newington-Dover project along the Spaulding Turnpike will be complete adding significant capacity to that corridor. Also, I-93 from Salem to Manchester will continue to reduce congestion on that corridor. Open road tolling in Hooksett and Bedford may be completed in this timeframe. Overall, LOS is expected to improve, will likely still be a C, but it will be in the middle of the C range as opposed to being almost an D. C (0.62)

2016 Goal:

- Congestion, Construction, Weather, Incidents: A reduction in delay due to each of these reasons is the goal. Additional initiatives in each of these areas will help us improve on our projections. C (0.60)

Average Level of Service





Increase Mobility

State Population with Access to Multimodal Transportation

Purpose:

Mobility is measured not only by travel by mode and total system usage, but also by access to transportation. This measure tracks the percentage of our State's population with access to transportation other than their personal automobile. The population measured includes both those with a driver's license who choose a transportation option as well as those who do not have a license or cannot drive due to a disability or poor health (currently approximately 22% of the population). As the percentage of New Hampshire's population over 65 continues to grow, the number of non-drivers is also likely to grow making access to medical services, shopping, and social activities problematic.

Data:

The data was compiled through a Geographic Information System (GIS) analysis. 2010 Census Data and the geographic location of multimodal terminals (bus stations, rail stations, park and ride facilities) were compiled in NHDOT's GIS database. Using the terminal locations as a basis, a 0.25 mile radius was used to determine the population of census tracts available to travel by non-motorized means this distance to a terminal. These totals were summed up and compared to the total State population to determine the percentage of population with access to multimodal transportation.

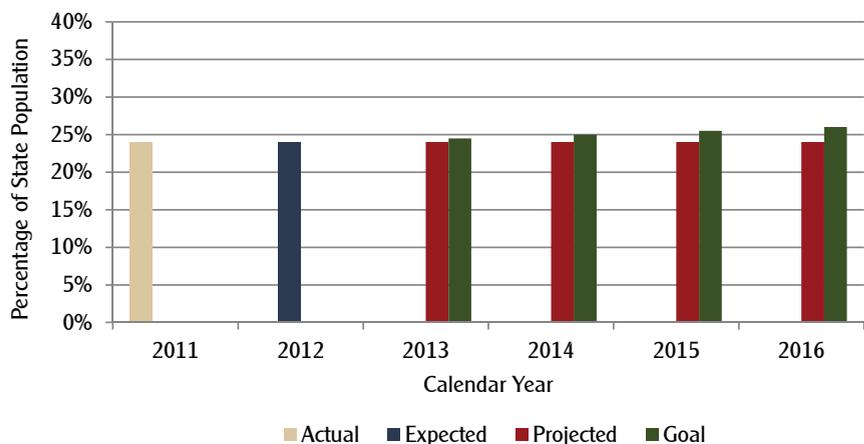
Improvement Status

This measure addresses one element of access to multimodal transportation - geographic reach - the proximity of multimodal transportation to an individual's home. Based on 2010 Census Data, the total population of New Hampshire is 1,316,470. The GIS analysis indicated that the population located within 0.25 miles of multimodal facilities was 315,690 - equivalent to 24% of the state's population.

Though a good beginning indicator, other issues that may impact the attractiveness of multimodal transportation to riders are not addressed: frequency of service; service schedule - how early and late the service operates; proximity of multimodal options to an individual's workplace or other frequent destinations; or rider amenities - bus or train shelters or enhanced rider information for example. Actual multimodal ridership is tracked in the rail ridership and transit ridership performance measures.

Growth in access to multimodal transportation will occur with either an increase in population in proximity to existing multimodal terminals or the extension of rail or transit into other areas of the state. Growth in the ridership of rail or transit will also depend on the frequency and convenience of service.

Percent of State Population with Access to Multimodal Transportation



Improve System Safety and Security

The Department must work to make New Hampshire transportation system safer and more secure through Engineering, Enforcement, Education, and Emergency Response.

Measures:

- Highway Fatalities (Five Year Moving Average - Goal Towards Zero Deaths)





Improve System Safety and Security

Highway Fatalities (Five Year Moving Average - Goal Towards Zero Deaths)

Purpose:

This performance measure tracks annual trends in fatalities resulting from traffic crashes on all New Hampshire roadways. The traffic crash data drives the development and focus of New Hampshire's Strategic Highway Safety Plan (SHSP). The SHSP is intended to clearly identify the State's critical safety needs and provide strategies to achieve significant reductions in fatalities and serious injury crashes on all public roads. This in turn guides the Department's investment of highway safety funds to focus on areas that achieve a significant benefit in safety for every dollar expended on infrastructure safety improvements. In addition, this data supports New Hampshire's Toward Zero Deaths initiative, which is a part of the SHSP, with a focus on measures to address the behavioral factors involved in traffic crashes. The SHSP has set a goal of reducing highway fatalities by 50% by 2030.

Data:

The New Hampshire Department of Safety receives crash record reports from state and local law enforcement as well as citizens. They enter each report into a crash database and deliver the results to the Department of Transportation annually on a calendar year basis. The Department of Transportation locates each crash on the state Geographic Information System (GIS) routes layer and analyzes the crashes to identify locations with the greatest promise for safety improvement.

Improvement Status

Fatal accidents have decreased by approximately 23 percent from 2005 to 2010. In 2009 there were 110 highway fatalities, the lowest number since the early sixties. A national data comparison shows that New Hampshire is ranked 7th in the lowest number of crashes per capita in the nation in 2010. Fatalities and serious injury crashes are decreasing due in part to engineering enhancements such as paving roadway shoulders, improving guardrail, installing rumble strips, enhancing delineation, and making intersection safety improvements. Public education and increased law enforcement participation in statewide campaigns have also contributed to this decline.

One of the critical emphasis areas for the Department has been to address run-off-the-road crashes. Run-of-the-road crashes account for 50% of all fatalities on NH roadways. NHDOT has implemented various safety initiatives over the years to reduce run-off -the-road crashes. They include:

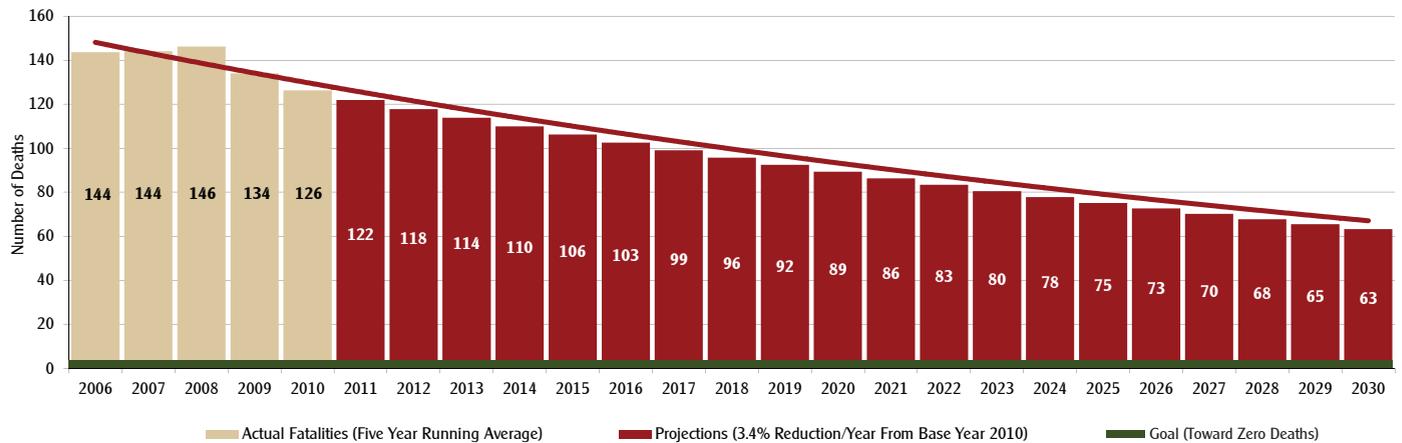
- **Shoulder rumble strips** - NHDOT installed 1260 miles of shoulder rumble strips since 2000.
- **Centerline rumble strips** - NHDOT installed 80 miles of centerline rumble strips since 2004. Both forms of rumble strips notify drivers that they are leaving their lane through sound and vibration.
- **Median barrier** - NHDOT installed approximately 20 miles (105,600 linear feet) of median barrier since 2009. These barriers were placed in locations with median widths of 50 feet or less in response to updated criteria and to reduce the potential for head-on collisions along divided highways.
- **Warning sign improvement solutions that address run-off-the-road crashes** - NHDOT works closely with towns to develop proposals for low-cost solutions that aim to address as many miles of the roadway system as possible with the funds available. This risk-based approach acknowledges that fatal and serious injury crashes tend to be more random in nature on town roads. This year NHDOT implemented improvements on local roads in nine (9) towns, targeting warning

This performance measure is based on a five (5) year moving average of the number of traffic fatalities, as each year the number of crashes can fluctuate significantly, and there is the need to determine a trend in crashes to evaluate if safety measures are making a difference.

signs on horizontal curves, object markers and other warning signs and delineation.

- Pavement safety edge testing** - During the 2011 construction season, NHDOT will test a new pavement edge treatment that can help errant vehicles safely reenter the roadway. When vehicles leave the roadway where the pavement drops off steeply, drivers may overcorrect when reentering the roadway. The overcorrection may lead to the vehicle swerving into oncoming traffic or rolling over. The safety edge treatment is intended to address the sharp drop off. Studies in other states have found that the implementation of the pavement safety edge has minimal impact on project cost.
- Summary** - The goal for this performance measure is to reduce fatal crashes by 50 % over the next twenty years. This will require continued investment in infrastructure safety improvements both in spot location improvements and systemic improvements. In addition to the infrastructure improvements, the NHDOT is also investing a portion of its safety funding toward the behavioral side of crashes, looking at ways for outreach and education to bring awareness to the driving public about driver behavior issues and safety. Using this strategy and the current funding levels, it is anticipated a 3.4 % reduction per year in fatal crashes can be attained and the 50% reduction of crashes (from the 2010 five year running average base number) will be met in 20 years.

NH Traffic Fatalities: Trends, Forecasts and Goals



Improve Department Efficiency

The Department must ensure that both its daily operations and its project delivery are as efficient as possible while still remaining effective. This will be achieved through innovation, implementation of improved technologies, and lean process improvement.

Measures:

- Snow and Ice: Average Time to Achieve Bare Lanes (Major Routes)
- Completed LEAN Initiatives
- Projects On Time By Ad Schedule
- Construction Bid within 5% of Final Construction Cost





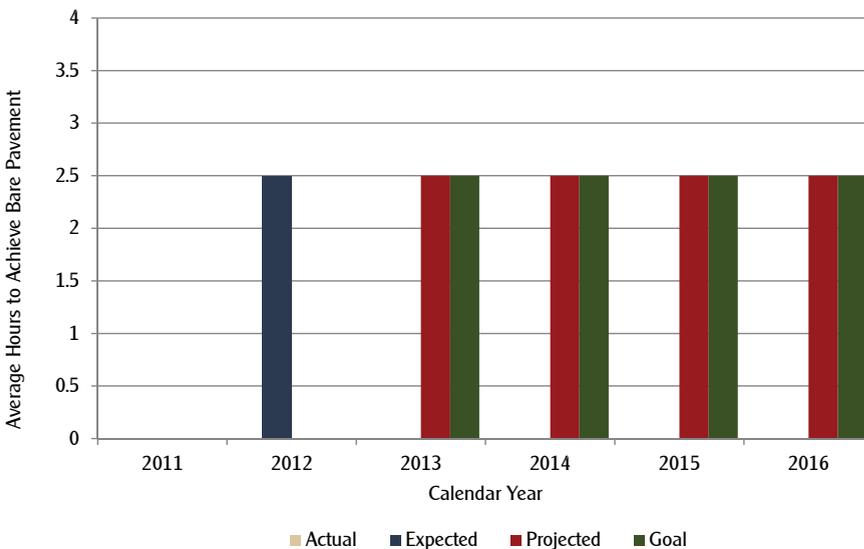
Improve Department Efficiency

Snow and Ice: Average Time to Achieve Bare Lanes (Major Routes)

Improvement Status

Since this is a new performance measure, the NHDOT has no baseline information. Based on the current Snow and Ice Policy and typical plowing cycle time during a storm event, NHDOT has chosen 2.5 hours as the target to achieve black pavement following cessation of a storm. Since winter maintenance on these major routes is a priority, our projections and goals for future years are constant at 2.5 hours. Achieving black pavement sooner would require shortening plowing cycle time by adding resources (trucks and manpower).

Time to Achieve Bare Pavement



Purpose:

New Hampshire's winter roadway conditions have a direct impact on the safety and mobility of motorists and on the economy of the state. Motorists expect a high level of mobility and businesses depend on "just in time" delivery regardless of the weather. The measure chosen by the Department [NHDOT] to indicate the performance of winter operations is the number of hours required to restore major roadways to a "black pavement" condition-one in which travel speeds are at or near posted speed limits and the frequency of crashes has returned to pre-storm likelihood.

Though some states provide a specific timetable for achieving bare pavement in their ice and snow policies, NHDOT Snow and Ice Policy states that bare pavement shall be provided "as soon as practicable" without designating a specific timeframe for various roadway types. Tracking time to bare pavement will provide the Department with a record of the effectiveness of winter operations on the state's major routes.

Data:

Most of New Hampshire's 4,559 mile state highway system is winter maintained by NHDOT. Due to the high volume (40% of total) and type (high % of commercial freight) of traffic carried, approximately 1600 miles of major routes were chosen for tracking winter operations: I-89, I-93, I-95, I-293, I-393, Everett Turnpike,

Spaulding Turnpike, and Route 101 from Manchester to Hampton.

The measure will track the number of daylight hours from the end of a storm to when there is bare pavement on the travel lanes of the selected highways.

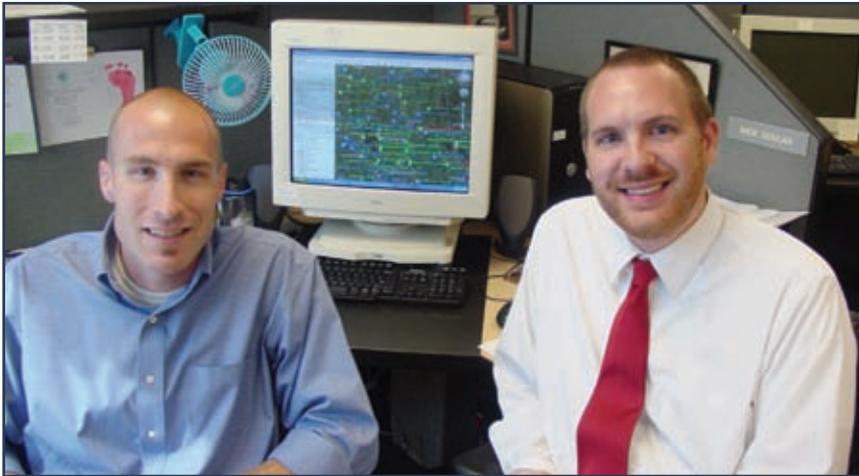
Daylight hours are a typical measure used by governmental agencies due to the difficulties and expense associated with achieving and evaluating bare roads during nighttime hours.

The Department intends to monitor road condition remotely using their Road Weather Information Stations [RWIS]. By tracking the type and rate of precipitation, these stations can determine when a storm has ended. Remote cameras on many of the stations can determine when black road condition is achieved. To ensure consistency or reporting, staff at the Department's Traffic Management Center [TMC] will monitor and gather data for this performance measure.

At this time, RWIS stations with cameras will allow monitoring on:

- Salem I-93 NB
- Derry I-93 SB
- Canterbury I-93 NB
- Sanbornton I-93 SB
- Ashland I-93 SB
- Woodstock I-93 NB
- Littleton I-93 SB
- Springfield I-89 NB

Over time, additional RWIS cameras and stations will be added to I-95, Everett Turnpike, Spaulding Turnpike, I-293, I-393, Route 101, and other sections of I-93.



Improvement Status

NHDOT has been promoting LEAN initiatives since 2009 beginning with a 3-Day training session for several employees of the Department. The Department's original model to support LEAN included the creation of a NHDOT LEAN Steering Team. The Steering Team developed a series of resources including information on "How To Conduct LEAN Events", templates, and a listing of facilitation resources available. These tools and a listing of LEAN projects are available on the Department's LEAN web page. LEAN projects posted to this web page include:

- Constituent Response
- Project Closings
- Statewide Transportation Improvement Program Revisions (S/TIP)
- Processing Contract Rental Agreements
- Single Audit Reports for Sponsors
- Storm Water Protection Plan
- Department Contract Process
- Oversize/Overweight Permitting

Two Department employees received the State of New Hampshire Extraordinary Service Award for creating a customer friendly, more efficient "Oversize/Overweight" permitting process. The improved procedures and computer-based program have resulted in more effective oversight, timelier permitting, and increased public safety.

Beginning in 2012, the existing LEAN Steering Team structure will be supplemented by an effort to embed LEAN as an "every day way of doing business" at NHDOT. This effort includes:

- Inclusion of LEAN performance measures on the Department-level Balanced Scorecard
- Inclusion of LEAN performance measures on the cascaded Division and Bureau Balanced Scorecards

Improve Department Efficiency

Completed LEAN Initiatives

Purpose:

Every employee of the New Hampshire Department of Transportation is obligated to produce the best services and work products in the most efficient manner for the customers of the state transportation system. One way to ensure sharp focus on that obligation is to build a culture of LEAN process improvement.

LEAN encourages elimination of waste and the creation of the most value using the fewest resources, keeping the needs of the customer in mind.

In October of 2011, Governor Lynch stated, "Since I became Governor, I have focused on finding ways to make government work better for the citizens of New Hampshire. By seeking to continuously improve the way we do business, we are able to offer better service to New Hampshire citizens – our customers – and to make better use of scarce resources. I applaud the use of "Lean" and other techniques that have allowed state agencies to streamline processes, improve response times, and provide better service to the citizens and businesses of our state."

NHDOT Leadership is committed to a culture of LEAN performance to produce the best quality transportation systems and services.

Data:

In order to ensure a LEAN work culture throughout the Department, the New Hampshire Department of Transportation will track the number of completed LEAN initiatives. Each completed LEAN initiative will be posted on a designated web page

and incorporated into this measure.

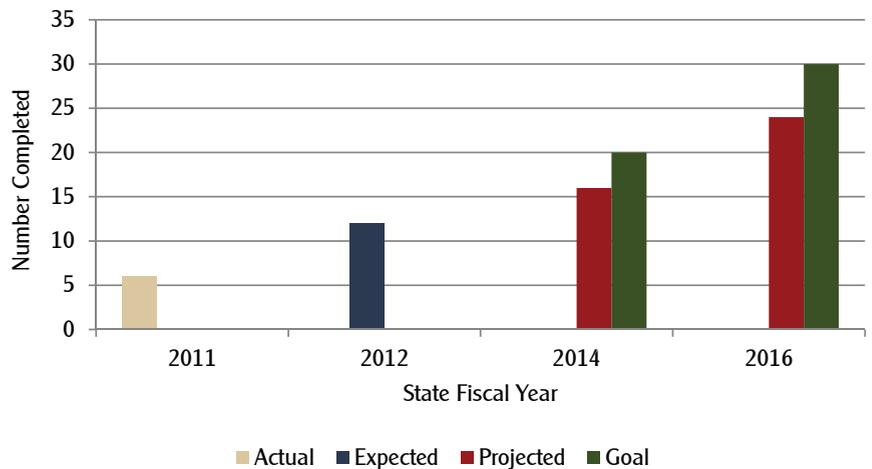
Initial focus will be on the number of LEAN initiatives as a measure of the degree to which LEAN activities are embedded in NHDOT's culture.

A secondary, and future effort, will be to measure the efficiencies created by LEAN initiatives as cost savings, time savings, quality improvement, and increased customer satisfaction

- Expectation for all employees of the Department to complete LEAN awareness level training
- Expectation for at least one LEAN Facilitator (CIP) in each District/ Bureau
- Creation of a more comprehensive LEAN web page documenting completed LEAN initiatives
- Inclusion of a LEAN performance category on annual performance evaluations for all employees, supervisors and managers.
- NHDOT Training Office (in coordination with the Bureau of Education and Training) will provide regularly scheduled LEAN Awareness Trainings, Train-the-Trainer LEAN, Lean for Managers, and LEAN Facilitator Training.

2011 is the first year in which the completion of LEAN initiatives was tracked. The 6 completed initiatives in 2011 constitute the NHDOT LEAN performance baseline. The expected target for 2012 is to complete 12 LEAN initiatives – one per month. As more employees become familiar with LEAN, and as more data managers and facilitators are trained, the goal is to complete 20 LEAN initiatives by 2014 and 30 by 2016.

Number of Completed Lean Initiatives Each Year





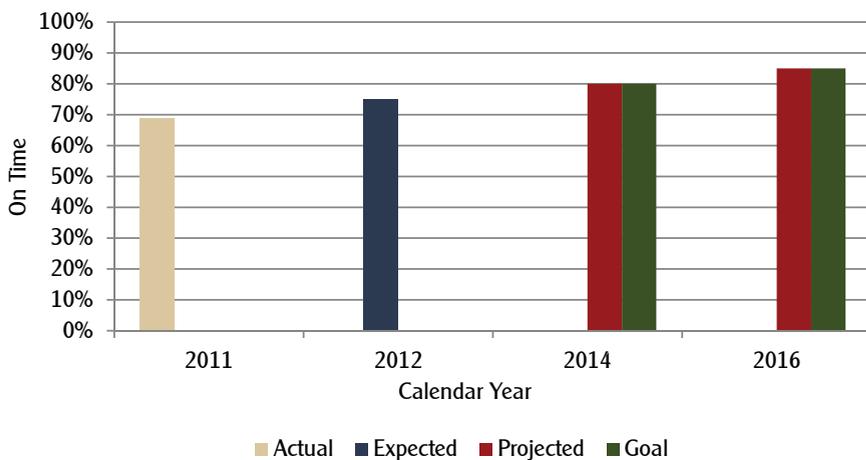
Improve Department Efficiency

Projects On Time By Ad Schedule

Improvement Status

This is a new measure, and the first year that the Department has measured this performance. The results indicate that 69 percent of the projects advertised for construction in federal fiscal year 2011 were advertised by the date set in the original 2011 advertising schedule. NHDOT has focused on providing projects on time in an effort to meet the public's expectations and needs of the transportation system. NHDOT is committed to frequent and accurate "no surprises" reporting of project performance and communicating issues that can affect a project's schedule and budget. There are a number of issues that can affect the schedule for a project that can occur in the environmental, design, utility, or right-of-way phase. Examples of some of the issues may include environmental permitting, utility relocations, design changes due to soil conditions, and litigation. The goal will be to try to anticipate the issues ahead of time and minimize the affect on the project schedule.

Projects on Time by Ad Schedule



Purpose:

This measure tracks the percentage of projects completed by the commitment date established in the Advertising Schedule. Adjustments to the completion date are made when additional work is required of for unusual conditions that occur requiring additional time to complete. It indicates NHDOT's ability to meet project schedules by the agreed upon date, and gauges the ability to complete the roadway improvement design phase as efficiently as possible.

Data:

The Project Manager or Lead Person establishes project schedules and completion dates based on projected time frames to complete project tasks. The completion dates are documented in the NHDOT's STIP databases, and become part of the Advertising schedule. The advertising dates for 2011 were established using the Federal Fiscal Year (October 1, 2010 to September 30, 2011). However, this next year and the following years, this performance measure will be tracked on a calendar year to coincide with the Tri-State Measure between New Hampshire, Vermont, and Maine.

This is an annual measure updated each quarter.



Improve Department Efficiency

Construction Bid within 5% of Final Constructin Cost

Purpose:

This measure tracks the original construction bid cost that is estimated by the contractor from plans and quantities prepared by the Department, and the final construction cost. Even though the fieldwork on a project has been completed, the project is not counted as complete until the Audit has been performed and the Contractor has accepted the final payment. Adjustments to the construction cost are made when additional work is required, or when unforeseen circumstances require an adjustment in the construction cost. It indicates NHDOT's ability to prepare quality plans and contracts. The goal of this measure is to have the final construction costs be within 5% of the contractor's original bid price.

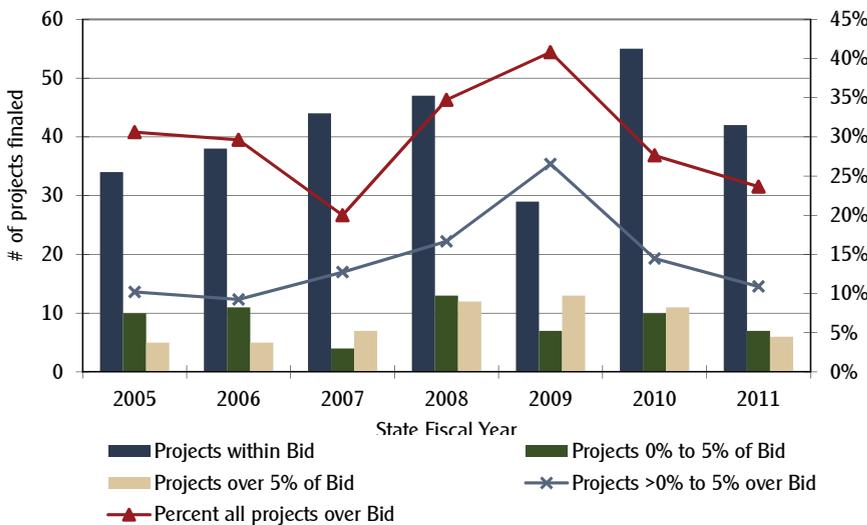
Data:

The Project Manager or Lead Person and design team/Department consultant will develop the plans, specifications and establish the project's estimated quantities and costs. The contractors use the plans, specifications and estimates of quantities to develop their bid price for the project. Once the Department has accepted a bid, the bid cost is input into the Construction Management System (CMS) and this is compared to the project costs as they are entered into CMS from invoices submitted by the contractor for work completed. The measurement includes the number of projects that have been audited and the contractor has accepted final payment and compares it to the original bid amount. This measure is determined on a State Fiscal Year basis.

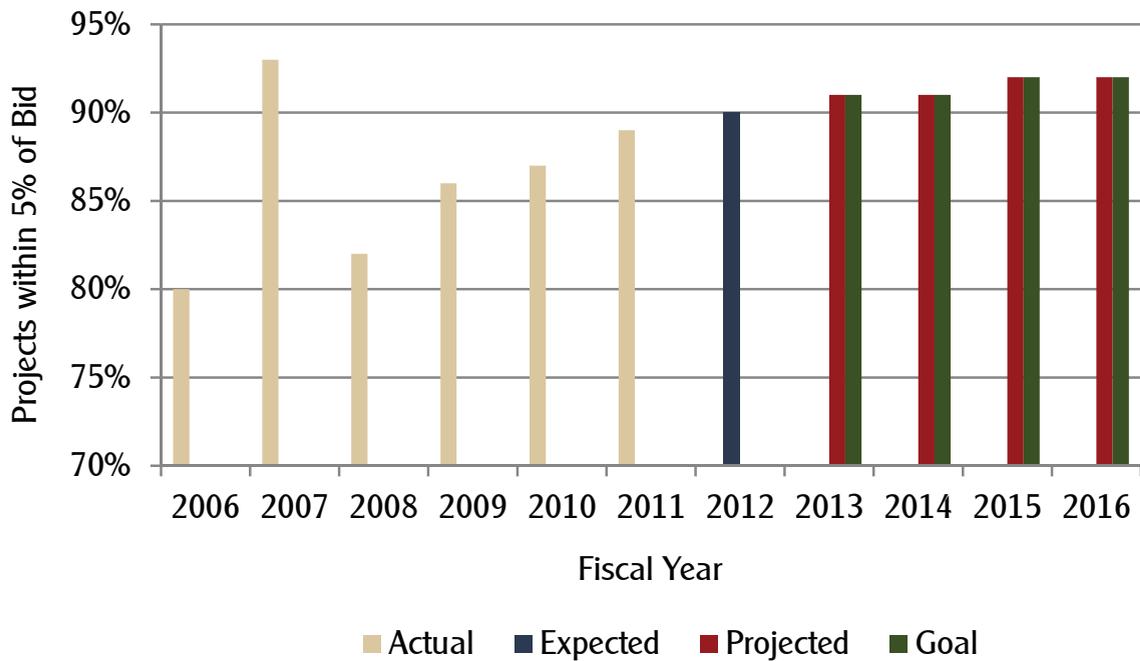
Improvement Status

This measure has been tracked since 2003. The data is broken down into projects that have final costs equal to or less than the bid price; projects that have final costs from 0% to 5% over the bid price; and final cost that are greater than 5% over the bid price. The data for the period from 2003 to 2011 shows that 9% to 27% of the projects have had final construction costs greater than 5% of the original bid price. The results indicate that 89 percent of the projects that were audited and accepted by the contractor in state fiscal year 2011 have been within the 5% of the bid price. NHDOT would like to continue to focus on providing projects on budget in an effort to meet the public's expectations and needs of the transportation system. NHDOT is committed to frequent and accurate "no surprises" reporting of project performance and communicating issues that can affect a project's budget.

Bid vs Final Amounts



Projects within 5% of Final Construction Cost



Identify, Communicate and Collaborate with Partners

The Department will identify and establish collaborative partnerships in order to better utilize resources, achieve long term goals, and produce effective solutions to shared concerns.

Measures:

- Partners Satisfied
- Private Sector Jobs Sustained by Federal and State Transportation Capital Investment





Identify, Communicate and Collaborate with Partners

Partners Satisfied

Purpose:

This measure tracks NHDOT's progress toward the goal of increasing the level of partner satisfaction with the NHDOT in delivering transportation services. The NHDOT partners cover a range of interests in transportation including federal, state, and local agencies, private consulting and contracting firms, special interest groups. The NHDOT recognizes that its partners are an essential ingredient to tackling the challenges of how the transportation system in New Hampshire is planned, managed and funded. The NH Long Range Transportation Plan (NHLRTP) also noted that the Department must communicate more frequently and clearly with the public and its many partners. This measure is a way to gauge the NHDOT's relationship with its partners.

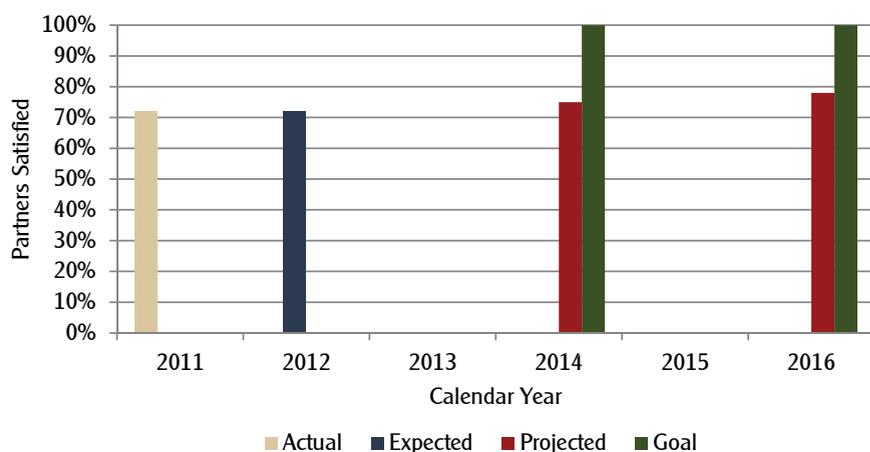
Data:

The New Hampshire Department of Transportation developed and administered its first annual survey of the NHDOT's 25 partner groups. The partner survey is intended to investigate the overall satisfaction of its partners in the way it delivers services. The survey was sent out in August 2011. The survey was posted on a survey website and the partners were provided a link through email and directed to the website. Prior to the posting of the survey, some of the partners with large memberships were contacted and invited to sign a joint letter with the NHDOT's Commissioner endorsing the survey, and agreeing to send the endorsement and survey to their membership. In addition,

Improvement Status

This is a new measure, and the first survey – evaluating calendar year 2011 – received 188 responses from the invitations to partners. The percent of partners that were very satisfied, satisfied or neutral with the Department is 88 percent (see Figure 1.). Of the 188 respondents, 40 percent consisted of Towns/Cities, 33 percent were from the consulting industry, 10 percent from Federal Agencies, 6 percent from State/Regional agencies, 6 percent were from the contracting industry, 4 percent from the transportation services industry and 1 percent from the materials suppliers. The satisfaction ratings for various areas in the Department regarding timeliness, effectiveness and quality ranged from 3.22 to 3.75 out of a possible 5 points, with an over all satisfaction rating for the Department of 3.74.

Partner Satisfaction

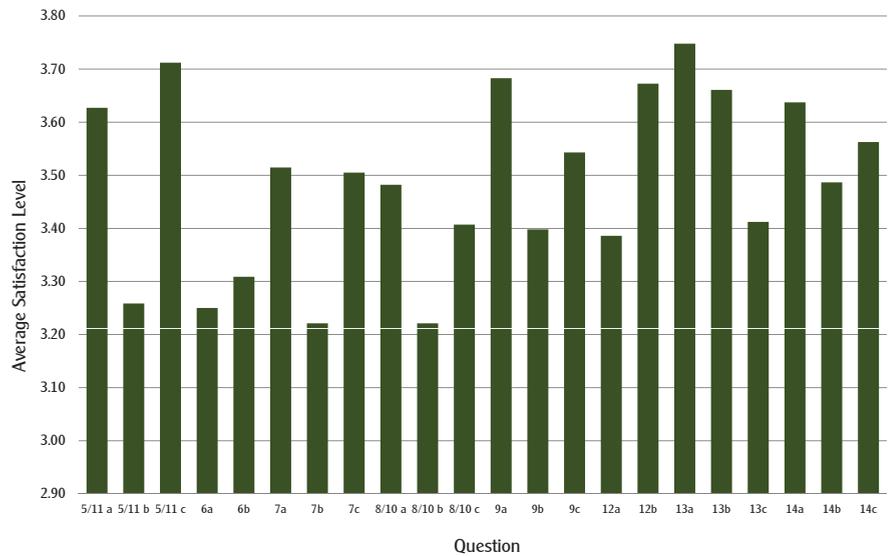


this group of partners was invited to be part of a focus group that the Department could collaborate with for future surveys. The partner survey will be sent out every two years and the NHDOT will work with the partner focus group annually to gauge the satisfaction so that the measure can be updated each year.

The survey was set up to focus on the type of partner answering the survey, the type of projects they worked on, how recently they had worked with the Department, and their satisfaction in areas of operations, finance, transportation planning, environment, design, financial transactions, construction and communication. The survey also had a branching mechanism in the survey to allow for additional responses beyond the focus area to a broader response on the Department's handling of maintaining the condition of the state highway, summer/winter maintenance, allocation of transportation funds communication and timeliness.

The survey was collected online through Zoomerang. The survey scale measured those who are satisfied, very satisfied, neutral, dissatisfied, and very dissatisfied. NHDOT will publicize the survey results through emails and website links.

Partner Satisfaction Comparison



- 5/11a - Effectiveness of transportation operations
- 5/11b - Timeliness of transportation operational improvements
- 5/11c - Quality of transportation operational improvements
- 6a - Helpfulness in pursuing innovative financing initiatives
- 6b - Consistency of interpreting policies/regulations
- 7a - NHDOT's effectiveness in coordinating with other agencies regarding planning
- 7b - Timeliness of resolutions of planning issues
- 7c - Quality of resolution of planning issues
- 8/10a - NHDOT's effectiveness in coordinating the approval process during environmental clearance
- 8/10b - Timeliness of resolution of environmental issues
- 8/10c - Quality of resolution of environmental issues
- 9a - Effectiveness of design
- 9b - Timeliness of resolution of design related issues
- 9c - Quality of resolution of design related issues
- 12a - Timeliness of financial transactions
- 12b - Accuracy of financial transactions
- 13a - Effectiveness of construction
- 13b - Quality of resolution of construction related issues
- 13c - Timeliness of resolution of construction related issues
- 14a - Effectiveness of communication
- 14b - Timeliness of communication
- 14c - Quality of communication



Identify, Communicate and Collaborate with Partners

Private Sector Jobs Sustained by Federal and State Transportation Capital Investment

Purpose:

NHDOT's Purpose Statement "The State of New Hampshire's transportation infrastructure is fundamental to the state's sustainable economic development and land use, enhancing the environment, and preserving the unique character and quality of life. The Department provides safe and secure mobility and travel options for all of the state's residents, visitors, and goods movement, through a transportation system and services that are well maintained, efficient, reliable, and provide seamless interstate and intrastate connectivity."

Robust transportation investment is a vital element in the creation of jobs and sustained economic growth. These are just two of many outcomes of such necessary investment, both at a federal and local level in support of the State of New Hampshire's Department of Transportation mission of "Transportation excellence enhancing the quality of life in New Hampshire".

Data:

Investment in the transportation infrastructure improvements produces significant near-term economic stimulus and job creation benefits providing a variety of construction, manufacturing, and other job opportunities supporting industry and labor income.

The Council of Economic Advisors (CEA) provides an estimate of one job created or saved per \$92,000 of government

Improvement Status

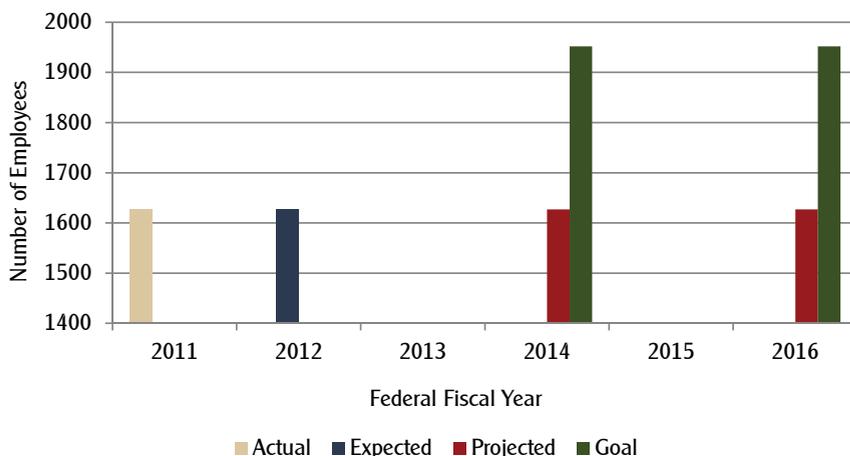
Sustaining or enhancing both federal and state funding levels will require close coordination with federal and state legislative bodies, conveying the impact that infrastructure has on the employment of the State's workers, and overall quality of life for all those enjoying what New Hampshire has to offer. Coordination and communication needs to stress the critical need for funding to support the three capital program priorities, Preservation and Maintenance, Red List Bridges and I-93 Reconstruction.

Additionally, if the federal and state funding limits are reduced, many programs that support municipalities (such as Transportation Enhancement; Congestion, Mitigation, and Air Quality; and State Aid Highway and Bridge funding) will be negatively impacted.

The State should pursue all avenues of increased funding such as TIGER grants, redistribution of federal funds at the end of the federal fiscal year, as well as other potential stimulus programs such as "American Recovery and Reinvestment Act of 2009".

"For every dollar expended by NHDOT, 75% is spent externally; 60% directly with the private sector"

Impact of Federal Funding on Jobs



infrastructure investment¹.

- **Construction oriented** employment, including all jobs that are created either by the construction firms that work directly on the project or by the firms that provide direct inputs (paving materials, steel, concrete, etc.) to the construction project;
- **Supporting industries'** employment, including jobs in firms that provide inputs to the industries that directly provide materials and equipment used in highway construction. For example, a firm that produces guard rails is counted as 'construction oriented' employment but the firm that provides the sheet steel to make the guard rails is considered part of 'supporting industries' employment; and
- **Induced** employment, which includes all of the jobs supported by consumer expenditures resulting from wages to 'construction oriented' and 'supporting industries' employment.

The key reason that infrastructure spending spreads economic activity over long periods is that, unlike other forms of stimulus such as tax cuts, infrastructure spending cannot be outlayed immediately and projects take substantial time to complete even after obligations are made. As a matter of tracking data in the future, federal and state expenditures are readily available via federal and local legislative processes (currently however federal funding levels have been sustained by "continuing resolutions" in lieu of a new Highway Trust Fund bill).

Simple Rule for Estimating Job-Years Sustained by Government Spending

- \$92,000 of government spending creates 1 job-year
- 64% of the job-years represent direct and indirect effects
- 36% of the job-years are induced effects

Using the CEA method the following table represents the level of jobs sustained or reduced assuming overall capital investments at the following levels for both federal and state funding. The jobs will be created, directly or indirectly:

	FY11	FY12	FY13	FY14	FY15	FY16
Level Federal Funding	\$150	\$150	\$150	\$150	\$150	\$150
Level of Jobs Sustained	1627	1627	1627	1627	1627	1627
# of Jobs Increased/Reduced		0	0	0	0	0
Increase/Decrease in Jobs*		0.0%	0.0%	0.0%	0.0%	0.0%

Funding Levels (in Millions)	FY11	FY12	FY13	FY14	FY15	FY16
Reduced Federal Funding	\$150	\$100	\$100	\$100	\$100	\$100
Level of Jobs Sustained	1627	1085	1085	1085	1085	1085
# of Jobs Increased/Reduced		-542	-542	-542	-542	-542
Increase/Decrease in Jobs*		-33.3%	-33.3%	-33.3%	-33.3%	-33.3%

	FY11	FY12	FY13	FY14	FY15	FY16
Goal Level of Federal Funding	\$150	\$180	\$180	\$180	\$180	\$180
Level of Jobs Sustained	1627	1952	1952	1952	1952	1952
# of Jobs Increased/Reduced		325	325	325	325	325
Increase/Decrease in Jobs*		20.0%	20.0%	20.0%	20.0%	20.0%

*Prior year utilized in determining job creation/reduction levels

References:

¹Executive Office of the President, Council of Economic Advisors, "Estimates of Job Creation from the American Recovery and Reinvestment Act of 2009", May 2009

Effective Resource Management

The Department must make effective use of financial resources; use its workforce strategically; and protect and enhance the environment

Objective:

- Effectively Manage Financial Resources
- Implement Strategic Workforce Planning
- Protect and Enhance the Environment

Effective Resource Management

Effectively Manage Financial Resources

The Department must sustain the state's transportation system and services and invest in all modes of transportation through optimizing performance, reducing costs, and generating new and increased revenue streams. This will be implemented through clear communication of transportation needs, leveraging current assets, Department wide cost reductions improved efficiency through technology and innovation and enhancing fee structures.

Measures:

- Distribution of Expenditures by Lane Miles (Highway Fund)





Effectively Manage Financial Resources

Distribution of Expenditures by Lane Miles (Highway Fund)

Purpose:

Distribution of Expenditures for the Highway Fund by Lane Miles provides an assessment of the Highway Fund financial condition. This measure helps identify existing or emerging financial issues, and places the financial condition in context by reviewing data for the past five years. The distribution of the expenditures is analyzed by Construction, Maintenance, Municipal Aid, Project Development, Administration, Debt, Other Agency and Miscellaneous expenditures.

Expenditure trends for the Highway Fund provide information on financial flexibility and sustainability, and are compared on a per Lane Miles basis. This indicator may also be analyzed against benchmarks set by DOTs across the country, where available.

The purpose of analyzing DOT variable financial information relative to an external constant such as Lane Miles is to provide the taxpayer with an objective measure of cost for access to the transportation network and to be able to determine if the value of the service is justified by its cost.

Data:

Each of these indicators is measurable from data that is currently available. The data originated as Budgetary Accounting entries in the Statement of Appropriations and is reflected in the Annual Report.

Financial and lane miles information are combined and depict the source data collected and the calculations that are derived from the data in the charts and graphs that follow.

Improvement Status

DOT breaks down the Distribution of Expenditures into the following eight (8) areas:

- **Construction** – this expenditure group includes the Betterment program, the I-93 expansion project, the Consolidated Federal reimbursement projects and non-federal participating construction projects.
- **Maintenance** – this expenditure group is all of the Division of Operations, which includes Highway and Bridge Maintenance, Traffic Operations, the Traffic Management Center (TMC), the salt sheds operations, the lift bridge operations, and Mechanical Services, among others.
- **Municipal Aid** – this expenditure group is the aid given to municipalities in the form of State Aid Highway and Bridge, and the Apportionment A and B Block Grant funds for local highway aid allotment.
- **Project Development** – this expenditure group includes the Highway and Bridge Designs area, Right-of-Way, Environment, Materials Research and Statewide Planning and Research development.
- **Administration** – this expenditure group includes the Executive Office, Finance and Contracts, Human Resources and staff training, Office of Federal Compliance and Office of Stewardship and Compliance.
- **Debt Service** – this expenditure group includes the debt service for Highway General Obligation Bonds backed by State resources and for the GARVEE Bonds for which debt service is paid from Federal Funds.
- **Other Agency (Transfers)** – this expenditure group includes the Highway Funds directly appropriated to agencies other than the NH DOT, and they are: Department of Safety, Health and Human Services, Judicial Courts, Highway Safety and Tax and Land Appeals.
- **Miscellaneous** – this expenditure group includes the Rideshare Program, Retirement, Unemployment and Workers Compensation Benefits, and reimbursements by NH DOT for services to other agencies.

Distribution of Expenditures per Lane Miles – a downward trend could warn of problems providing services at the levels of previous years.

Distribution of Expenditures by \$ - Highway Fund 15 (does not include ARRA)

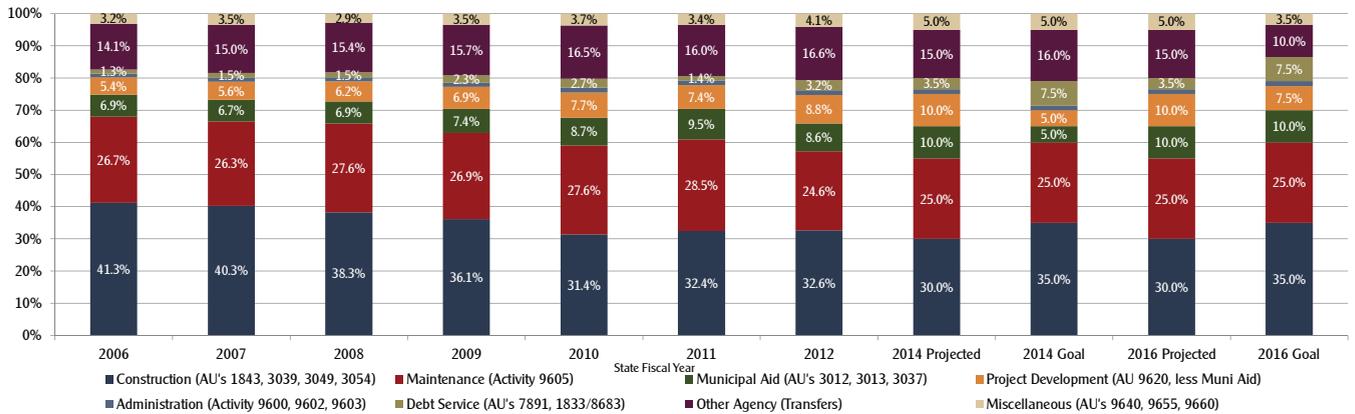
	History					Current Year	1st Year	3rd Year	Targets		
	2006	2007	2008	2009	2010	2011	2012	2014 Projected	2014 Goal	2016 Projected	2016 Goal
Construction (AU's 1843, 3039, 3049, 3054)	\$203,630,436	\$198,789,115	\$187,485,247	\$182,247,397	\$153,476,205	\$169,253,998	\$163,708,946	\$135,000,000	\$175,000,000	\$150,000,000	\$192,500,000
Maintenance (Activity 9605)	\$131,933,220	\$129,723,448	\$135,062,999	\$135,507,247	\$134,508,400	\$148,492,040	\$123,578,823	\$112,500,000	\$125,000,000	\$125,000,000	\$137,500,000
Municipal Aid (AU's 3012, 3013, 3037)	\$33,864,383	\$33,054,529	\$33,689,743	\$37,374,997	\$42,550,739	\$49,331,750	\$43,400,000	\$45,000,000	\$25,000,000	\$50,000,000	\$55,000,000
Project Development (AU 9620, less Muni Aid)	\$26,412,685	\$27,584,574	\$30,430,844	\$34,885,461	\$37,825,891	\$38,494,093	\$44,085,576	\$45,000,000	\$25,000,000	\$50,000,000	\$41,250,000
Administration (Activity 9600, 9602, 9603)	\$5,923,899	\$6,399,964	\$6,211,612	\$6,316,688	\$7,912,024	\$7,683,005	\$7,666,557	\$6,750,000	\$7,500,000	\$7,500,000	\$8,250,000
Debt Service (AU's 7891, 1833/8683)	\$6,286,315	\$7,255,879	\$7,568,182	\$11,832,190	\$13,142,714	\$7,186,164	\$15,882,925	\$15,750,000	\$37,500,000	\$17,500,000	\$41,250,000
Other Agency (Transfers)	\$69,816,044	\$74,018,989	\$75,469,707	\$79,021,324	\$80,779,388	\$83,416,953	\$83,140,737	\$67,500,000	\$80,000,000	\$75,000,000	\$55,000,000
Miscellaneous (AU's 9640, 9655, 9660)	\$15,724,245	\$17,057,336	\$13,966,165	\$17,438,403	\$18,026,657	\$17,825,053	\$20,399,897	\$22,500,000	\$25,000,000	\$25,000,000	\$19,250,000
Total	\$493,591,227	\$493,883,834	\$489,884,499	\$504,623,707	\$488,222,018	\$521,683,056	\$501,863,461	\$450,000,000	\$500,000,000	\$500,000,000	\$550,000,000

Source: Statement of Appropriations

Distribution of Expenditures by % - Highway Fund 15 (does not include ARRA)

	History					Current Year	1st Year	3rd Year	Targets		
	2006	2007	2008	2009	2010	2011	2012	2014 Projected	2014 Goal	2016 Projected	2016 Goal
Construction (AU's 1843, 3039, 3049, 3054)	41.3%	40.3%	38.3%	36.1%	31.4%	32.4%	32.6%	30.0%	35.0%	30.0%	35.0%
Maintenance (Activity 9605)	26.7%	26.3%	27.6%	26.9%	27.6%	28.5%	24.6%	25.0%	25.0%	25.0%	25.0%
Municipal Aid (AU's 3012, 3013, 3037)	6.9%	6.7%	6.9%	7.4%	8.7%	9.5%	8.6%	10.0%	5.0%	10.0%	10.0%
Project Development (AU 9620, less Muni Aid)	5.4%	5.6%	6.2%	6.9%	7.7%	7.4%	8.8%	10.0%	5.0%	10.0%	7.5%
Administration (Activity 9600, 9602, 9603)	1.2%	1.3%	1.3%	1.3%	1.6%	1.5%	1.3%	1.5%	1.5%	1.5%	1.5%
Debt Service (AU's 7891, 1833/8683)	1.3%	1.5%	1.5%	2.3%	2.7%	1.4%	3.2%	3.5%	7.5%	3.5%	7.5%
Other Agency (Transfers)	14.1%	15.0%	15.4%	15.7%	16.5%	16.0%	16.6%	15.0%	16.0%	15.0%	10.0%
Miscellaneous (AU's 9640, 9655, 9660)	3.2%	3.5%	2.9%	3.5%	3.7%	3.4%	4.1%	5.0%	5.0%	5.0%	3.5%
Total	100.0%	100.0%	100.0%	100.0%							

Distribution of Expenditures Highway Fund 15



Lane Miles - Highway

	History					Current Year	1st Year	3rd Year	Targets		
	2006	2007	2008	2009	2010	2011	2012	2014 Projected	2014 Goal	2016 Projected	2016 Goal
Lane Miles (not including Turnpike miles)	8,197	8,226	8,194	8,208	8,208	8,208	8,208	8,208	8,208	8,208	8,208

Source: FHWA Highway Statistics

Distribution of Expenditures by Lane Miles - Highway Fund (does not include ARRA)

	History					Current Year	1st Year	3rd Year	Targets		
	2006	2007	2008	2009	2010	2011	2012	2014 Projected	2014 Goal	2016 Projected	2016 Goal
Construction (AU's 1843, 3039, 3049, 3054)	\$ 24,842	\$ 24,166	\$ 22,881	\$ 22,204	\$ 18,698	\$ 20,621	\$ 19,945	\$ 16,447	\$ 21,321	\$ 18,275	\$ 23,453
Maintenance (Activity 9605)	\$ 16,095	\$ 15,770	\$ 16,483	\$ 16,509	\$ 16,387	\$ 18,091	\$ 15,056	\$ 13,706	\$ 15,229	\$ 15,229	\$ 16,752
Municipal Aid (AU's 3012, 3013, 3037)	\$ 4,131	\$ 4,018	\$ 4,112	\$ 4,553	\$ 5,184	\$ 6,010	\$ 5,288	\$ 5,482	\$ 3,046	\$ 6,092	\$ 6,701
Project Development (AU 9620, less Muni Aid)	\$ 3,222	\$ 3,353	\$ 3,714	\$ 4,250	\$ 4,608	\$ 4,690	\$ 5,371	\$ 5,482	\$ 3,046	\$ 6,092	\$ 5,026
Administration (Activity 9600, 9602, 9603)	\$ 723	\$ 778	\$ 758	\$ 770	\$ 964	\$ 936	\$ 934	\$ 822	\$ 914	\$ 914	\$ 1,005
Debt Service (AU's 7891, 1833/8683)	\$ 767	\$ 882	\$ 924	\$ 1,442	\$ 1,601	\$ 876	\$ 1,935	\$ 1,919	\$ 4,569	\$ 2,132	\$ 5,026
Other Agency (Transfers)	\$ 8,517	\$ 8,998	\$ 9,210	\$ 9,627	\$ 9,842	\$ 10,163	\$ 10,129	\$ 8,224	\$ 9,747	\$ 9,137	\$ 6,701
Miscellaneous (AU's 9640, 9655, 9660)	\$ 1,918	\$ 2,074	\$ 1,704	\$ 2,125	\$ 2,196	\$ 2,172	\$ 2,485	\$ 2,741	\$ 3,046	\$ 3,046	\$ 2,345
Total	\$ 60,216	\$ 60,039	\$ 59,786	\$ 61,479	\$ 59,481	\$ 63,558	\$ 61,143	\$ 54,825	\$ 60,916	\$ 60,916	\$ 67,008

Effective Resource Management

Implement Strategic Workforce Planning

Worker's knowledge and experience is the cornerstone of strategic work force planning. By implementing strategies that increase employee job satisfaction and loyalty, the Department can cultivate a skilled workforce that are experts and leaders in the transportation field.

Measures:

- Workforce Represented in Completed Workforce Planning





Implement Strategic Workforce Planning

Workforce Represented in Completed Workforce Planning

Purpose:

Workforce planning is the process used by an organization to assess an agency's competencies against its current and future needs. Workforce development is the process used to build the competencies of the individuals within the organization, and to recruit new entrants with needed competencies to meet current and future needs of the organization. The NHDOT Workforce Plan provides an overview of the organization's demographics, identification of current and future workforce competencies, and a plan to develop needed competencies. This measure identifies the level of investment by NHDOT to ensure a workforce with the needed competencies to meet the mission.

Data:

NHDOT has 17% fewer permanent, authorized positions than in 1992 while transportation systems and the number of system users continue to grow. 78% of NHDOT's workforce are 40 years of age or older, with a projection of greater than one half of NHDOT's existing workforce being eligible for retirement after 2015.

Based upon the anticipated loss of workforce knowledge to retirement alone, workforce planning and development is critical to the future success of the organization. It will ensure effective management of NHDOT's human resources, who, in turn, produce economic value to the organization and the State of New Hampshire.

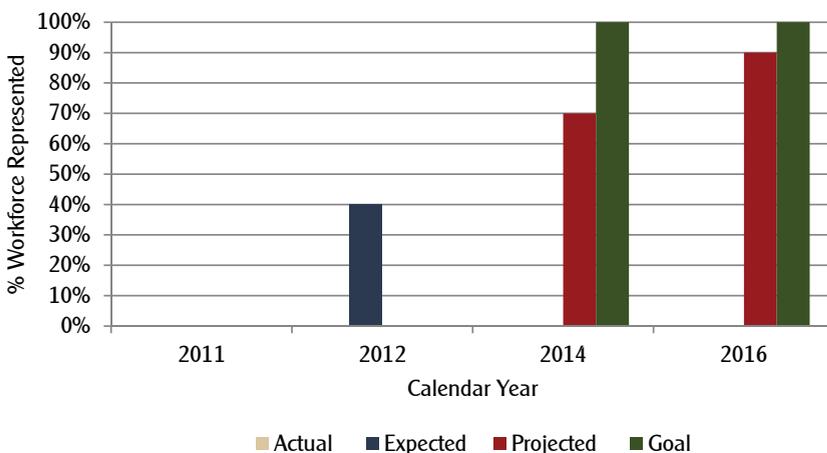
The measure "Percent of workforce represented in completed workforce

Improvement Status

During calendar year 2011, the NHDOT continued to build workforce planning and development programs. The efforts included drafting a department wide formal workforce plan, which includes the three categories of environmental scan, demographic, skill and gap analysis, and development plans. The workforce plan also includes chapters on affirmative action goals, wellness and safety performance goals. Goals and measures for each chapter contribute to maximizing human capital performance at NHDOT to support the economy of the State of New Hampshire.

In support of the goals in the workforce plan, a new version of the employee annual performance evaluation is being piloted through calendar year 2011. The new annual performance evaluation includes performance-rating categories for performance expectations identified in the Balanced Scorecard. These rating categories link daily work performance of employees to the mission of the organization by ensuring measurement in targeted areas. Individual development plans are also included in the

Percent of Workforce Represented in Completed Workforce Planning Initiatives



planning initiatives” is based on the number of employees represented by Bureaus/Districts who have completed three components of workforce planning and development:

1. Environmental Scan
2. Demographic, Skill and Gap Analysis
3. Development Plan

To complete this measure, each of the three components must be completed or updated annually. Completion of the three components of this measure will occur through facilitated sessions. Results will be documented from each session and become a part of the Department’s Workforce Plan. (Specific individual plans for development will be the basis for the measure: Employees for Targeted Positions Engaged in Individual Development Plans.)

annual employee performance evaluation to link individual development plans to the broader development needs of the organization. Training specific to management, supervisory and employee versions of the piloted annual employee performance evaluations has occurred throughout the organization.

In September of 2011, the NHDOT partnered with the Bureau of Education and Training in presenting a Management Roundtable Session to Appointing Authorities. This Management Roundtable Session provided an overview of the workforce planning and development process and set the stage for the facilitated hands-on sessions identified for 2012 in this Balanced Scorecard Measure.

In November of 2011, NHDOT implemented a pilot mentoring program. Workplace mentoring is a learning partnership between employees for purposes of sharing technical information, institutional knowledge and insight with respect to a particular occupation, profession, organization or endeavor, with an end product of individual development. Typically, a mentoring relationship occurs between a more experienced employee of the Department and a less experienced employee, creating a forum for knowledge transfer. The mentoring pilot is scheduled to run 3-6 months, at which time an assessment of program strengths and weakness will be conducted. Ultimately, the Department intends to implement a formal program to create a forum for knowledge transfer and individual development as high numbers of retirement vacancies occur.

The Future

In FY 2012-13, budgeted training funds were reduced by 50%, eliminating the potential for external or supplemental staffing facilitation resources to be available for this effort. Existing staff will be trained to facilitate the workforce planning sessions. For calendar year 2012, the Department expects to complete workforce-planning sessions for the Commissioner’s Office, Division of Policy and Administration, Division of Finance, Division of Aero, Rail & Transit, and 3 Bureaus in each Division of Operations and Project Development. Together these entities represent the equivalent of approximately 40% of the employees of the organization.

Assuming stable budgets and staffing levels, in 2014 each of the units above would complete an annual update, and additional Bureaus in Project Development and Operations would complete each of the three initiatives to attain a projection of 70% of the organization represented in completed workforce planning initiatives. Due to the critical nature of this measure, a goal of 100% is recommended.

By 2016, which occurs after 50% of the organization is potentially retired, it is projected that 90% of the organization would be represented in completed workforce planning initiatives. A goal of 100% is recommended.

These projections and goals are aggressive to reflect the level of concern about anticipated rate of separations due to retirement.

Effective Resource Management

Protect and Enhance the Environment

The Department must help preserve and enhance New Hampshire's natural, physical, and social environment during the planning, implementation, and maintenance of transportation facilities and services. The Department must exercise environmental responsibility by implementing best management practices, operating in compliance with all applicable laws and regulations, striving to prevent pollution, managing energy usage of DOT facilities and vehicles and utilizing smart management practices in all of our activities.

Measures:

- Environmental Audits in Compliance at Operations Facilities
- Salt Usage (Five Year Moving Average)
- Energy Usage of NHDOT Facilities
- Energy Usage of NHDOT Vehicles





Protect and Enhance the Environment

Environmental Audits in Compliance at Operations Facilities

Purpose:

In 2007, the NHDOT engaged an independent environmental auditing consultant to conduct multi-media environmental compliance audits to determine the level of environmental compliance at Operations' facilities. These audits were completed in 2010 and provide an initial measurement of environmental compliance within the Division of Operations.

The goal of the Department is 100% environmental compliance with all local, state and federal regulations. 100% compliance will demonstrate to regulatory agencies that the Department is committed to environmental compliance, ensure that NHDOT does not incur any regulatory fines or penalties, and increase employee awareness of the value of environmental compliance and stewardship.

Data:

Between May of 2008 and March of 2010, the consultant audited 151 Operations facilities. The results of these audits were summarized in a report that will serve as an initial measurement of compliance as well as the starting point for an internal auditing program and compliance measurement tracking system.

The internal auditing program consists of NHDOT environmental programs that will be audited at selected facilities each month by the Environment Section of the Office of Stewardship and Compliance. The audits will evaluate compliance with both environmental regulations and NH

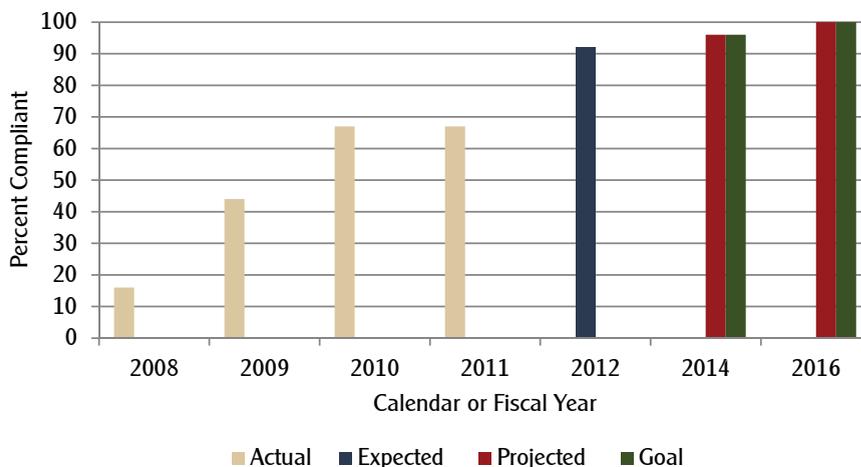
Improvement Status

Based on the consultant report, in 2008, 16% of the Department's audited operational facilities were in compliance with environmental regulations. In 2009, 44% of audited operational facilities were in compliance and in 2010, 67% were compliant. The internal auditing program commenced at the end of 2011. Preliminary findings show 100% compliance for the program audited.

Additional stewardship and compliance initiatives to date include:

- roll out of Department Environmental Training Programs: UST Operator Training; Hazardous Waste; Regulated Substances; and Used Oil Management;
- training initiatives during Environmental Health and Safety Days and new employee orientation;
- training on the root cause analysis/corrective action plan process and
- operations' process improvements that include paint waste generation and disposal assessment; hydraulic oil testing; and Environmental Management System Implementation efforts.

Percent of Compliance at Operations' Facilities



DOT policies and procedures. The facilities audited will be randomly selected with a target rate of 5% to 10% of the existing facility population. By sampling facilities on a monthly basis, NHDOT will be able to assess its overall performance, identify any systemic problems early on, and ensure that corrective actions are implemented in a timely manner. Audit results will be tracked in a database and summarized for Management on a regular basis.



Protect and Enhance the Environment

Salt Usage (Five Year Moving Average)

Purpose:

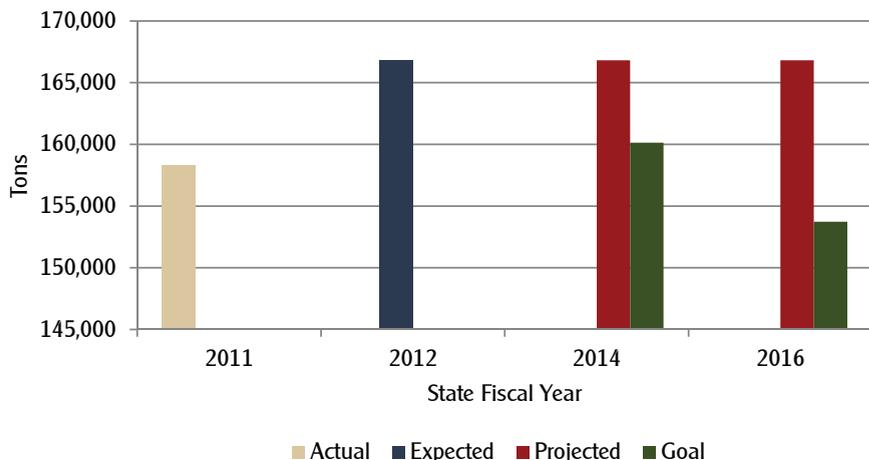
New Hampshire's winter maintenance relies heavily on the use of salt (as Sodium Chloride) to achieve acceptable road conditions for the motorist. New Hampshire was the first state in the nation to begin using salt in their winter operations and the use of this material has spread nationwide as a common deicing chemical. There are two factors that impact the Department's desire to reduce the use of this chemical, those being material cost and environmental impact. Balancing the reduction of salt must also be no reduction in the level of service for the motorist. Winter roadway condition during a storm and following the storm impacts the safety of the motorist as well as the mobility of the public in general. A reduction in highway mobility will directly impact the economy of the state, especially when businesses are relying on "just in time" deliveries and the general populace has a greater level of mobility and associated expectation of the ease mobility provided.

The use of salt is directly correlated to the severity of the winter months each year. Due to the variances in the weather, the amount of salt (tons) used during a winter season can vary by as much as 100% between years. The New Hampshire Department of Transportation has used a Winter Severity Index (WSI) that was developed by Washington State University and published in the report NCHRP H-350. Although this measure is not a perfect correlation between usage and severity, it is believed to be sensitive enough to depict changes in salt usage. The first

Improvement Status

The Bureau of Highway Maintenance for several years has been involved in a chloride reduction program along the I-93 corridor from Salem to Manchester and has tracked the salt usage and corresponding WSI for a number of years. Through the implementation of a number of initiatives, such as MDSS, ground speed control spreaders, prewet systems, and employee and hired truck operator training, the Interstate shed in Derry has been able to consistently reduce the salt usage while maintaining the level of service currently experienced. Funding will be required to achieve this reduction due to the need to upgrade the current level of equipment. A reasonable reduction would be 2% yearly with a total maximum reduction of 20% over the long term. Without the required funding for equipment upgrades and training, this savings will be difficult if not impossible to achieve while maintaining the current level of service and its association with the safety of the traveling public.

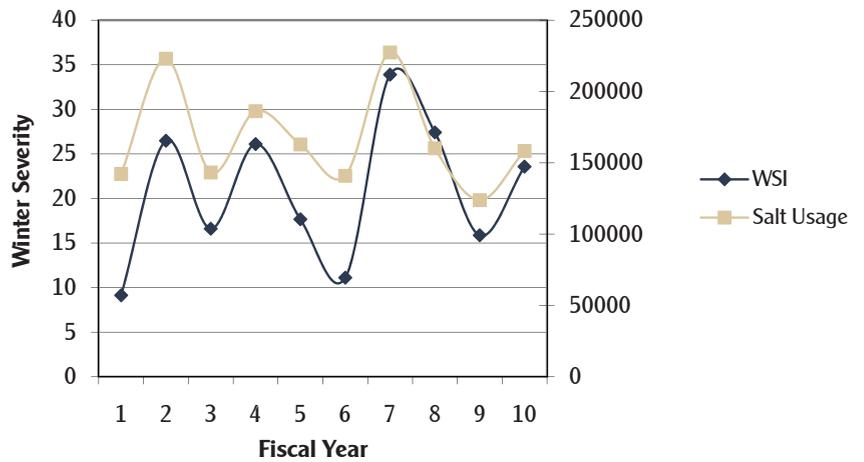
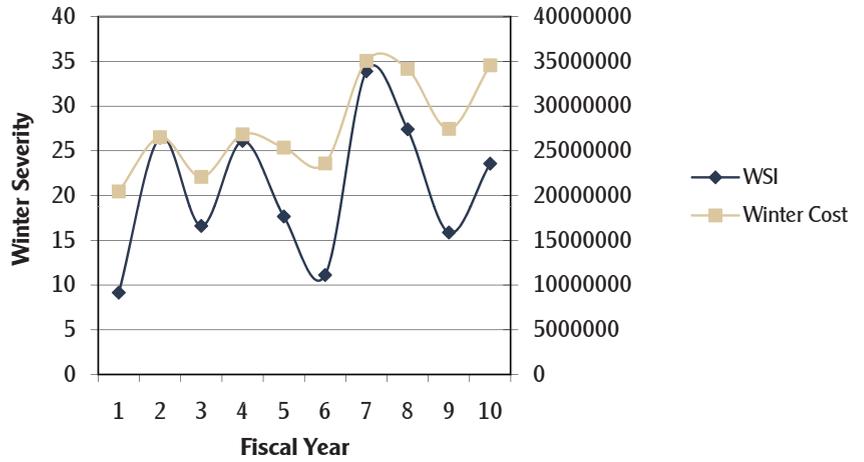
Salt Usage



graph below is the representation of the salt usage versus WSI for the last 10 years. The second graph calculates a formula from past usage that will be used to predict salt usage given a specific WSI. It is this theoretical value for salt usage that the actual usage will be compared against to calculate salt reduction each winter.

Data:

The Bureau of Highway Maintenance has historically collected the salt usage data during the winter months dating back to 1953. Salt data collection is made at the patrol shed level, currently utilizing the MATS system, and is then compiled to the district and statewide level. This collection typically begins on or around November 10 and continues weekly for 25 weeks or until approximately the end of April. WSI is calculated utilizing weather data, specifically the high/low temperatures and snowfall amount, all of which is readily available from a number of creditable sources (i.e.: airports). The calculation for WSI will be computed on a monthly basis for the months of November, December, January, February and March.





Protect and Enhance the Environment

Energy Usage of NHDOT Facilities

Purpose:

This measurement indicates change in energy usage for DOT facilities with the goal to reduce energy consumption. In 2010, the State of New Hampshire enacted RSA 21-l:14-c calling for a reduction in fossil fuel use in state facilities by 25 percent over 2005 levels by the year 2025. DOT usage for FY 2005 was at 85,142,753 kBTU 25% reduction would place a goal of 63,857,064 kBTU for FY 2025.

Data:

The facilities' energy usage is measured in kBTUs and dollars collected from "Department of Administrative Services' Energy Efficiency in State Government" database available through their website. Fluctuation in "heating degree days", "winter severity" and "price per energy unit" will have to be factored into overall usage and cost when comparing year-to-year reduction.

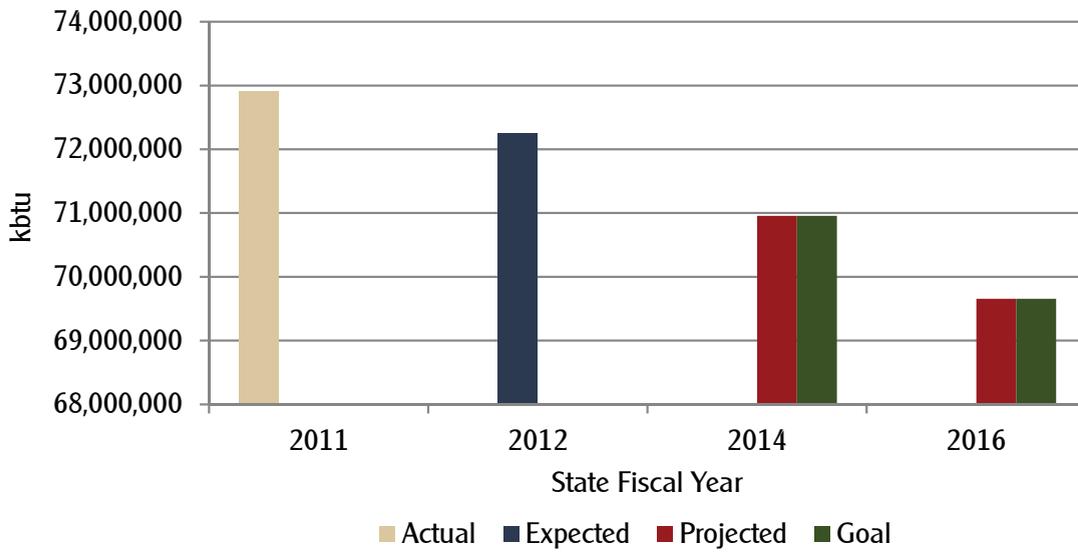
Improvement Status

DOT is looking to utilize renewable resources. This coming winter, 21 DOT patrol facilities across the state will utilize some of the latest technology in wood-burning to supplement their heating systems and greatly reduce the amount of heating oil needed to keep their buildings warm. Additional energy efficiency projects are underway or completed at the 100+ Department of Transportation patrol facilities across the state including: installation of perimeter seals for overhead doors, new windows and siding projects, various insulation projects and HVAC system replacements or improvements. DOT has also adopted various "Best Practice" initiatives to reduce their energy usage and cost, such as idle PC power shutdown practice and temperature reduction during non-business hours.

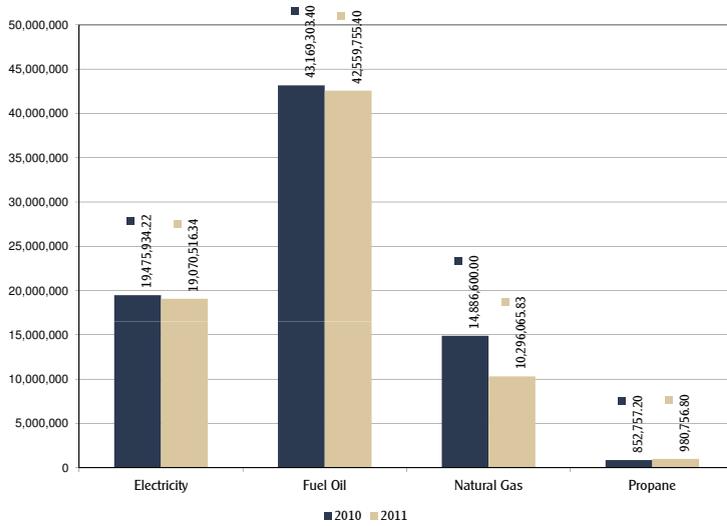
FY 2011 shows an overall usage reduction of 6.99% with a cost increase of 16.81% over FY 2010. The energy usage and cost comparison for FY 2011 to FY 2005 show an overall usage reduction of 14.37% with a cost increase of 25.51%. Continued usage reduction at this rate should allow the DOT to meet the goal of 25 percent over 2005 levels by the year 2025.

FY	kBTU	Cost
2010	78,384,594.82	\$1,529,044.32
2011	72,907,094.37	\$1,786,109.96
Percentage of Change		
	-6.99%	16.81%
FY	kBTU	Cost
2005	85,142,753.00	\$1,423,070.00
Percentage of Change		
2010	-7.94%	7.45%
2011	-14.37%	25.51%

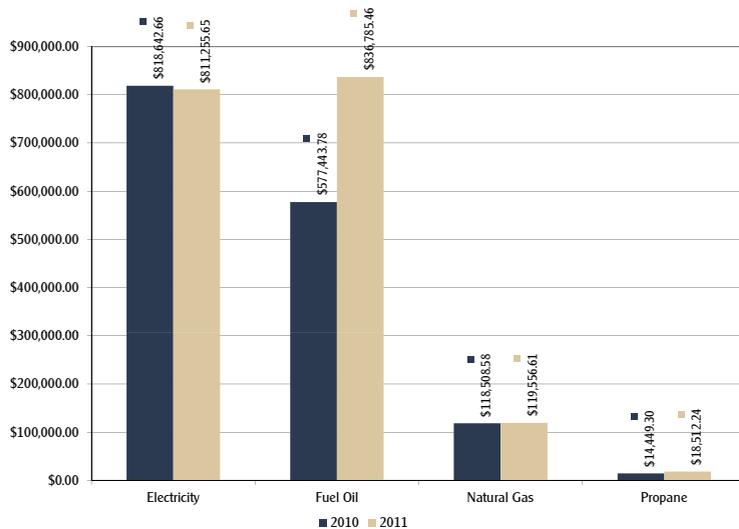
Energy Usage for NHDOT Facilities



FY Energy Usage Summary



FY Energy Cost Summary





Protect and Enhance the Environment

Energy Usage of NHDOT Vehicles

Purpose:

This measurement indicates change in fuel usage for DOT vehicles with regards to usage and cost with the goal to reduce fuel consumption. DOT fleet operations improvement requirements are outlined in SB0402 Par IV. *“...The department of transportation shall reduce its combined in-state travel and fleet operations costs by 2 percent for the fiscal year ending June 30, 2011, by an additional 2 percent for fiscal year ending June 30, 2012, and by an additional 2 percent for fiscal year ending June 30, 2013, unless the fiscal committee of the general court and the governor and council conclude that to do so would not be in the best interests of the state. ...”*

To aid in meeting this overall goal, DOT has set a fuel usage reduction goal of 1% per year with the remaining 1% reduction coming in other vehicle and fleet related operations.

Data:

Fuel usage for vehicles is measured in gallons and dollars collected from transactions records within the “DOT Fuel Management” system (Orpak). Fluctuation in “winter severity”, “fuel prices per gallon” and “required travel for job performance” will have to be factored into overall usage and cost when comparing year-to-year reduction.

Improvement Status

As funds become available, NHDOT is purchasing more fuel-efficient vehicles to help lead to reduced fuel consumption and reduced maintenance costs. Along with the purchasing of fuel-efficient vehicles, DOT is ‘Right Sizing’ vehicles by selecting the right vehicles for the required job, such as purchasing ½ ton pickups versus ¾ ton pickups and crew-cab pickups versus full-size SUV for transporting work crews and their equipment. The number of new vehicles put into service in FY 2010 and FY 2011 should assist in reduction of future fuel usage.

Other fuel usage reduction initiatives include; DOT anti-idling policy and various “Best Practices” for the drivers to follow, such as: driving with proper tire inflation, consolidating trips and carpooling when possible. DOT encourages their drivers to practice good driver behaviors.

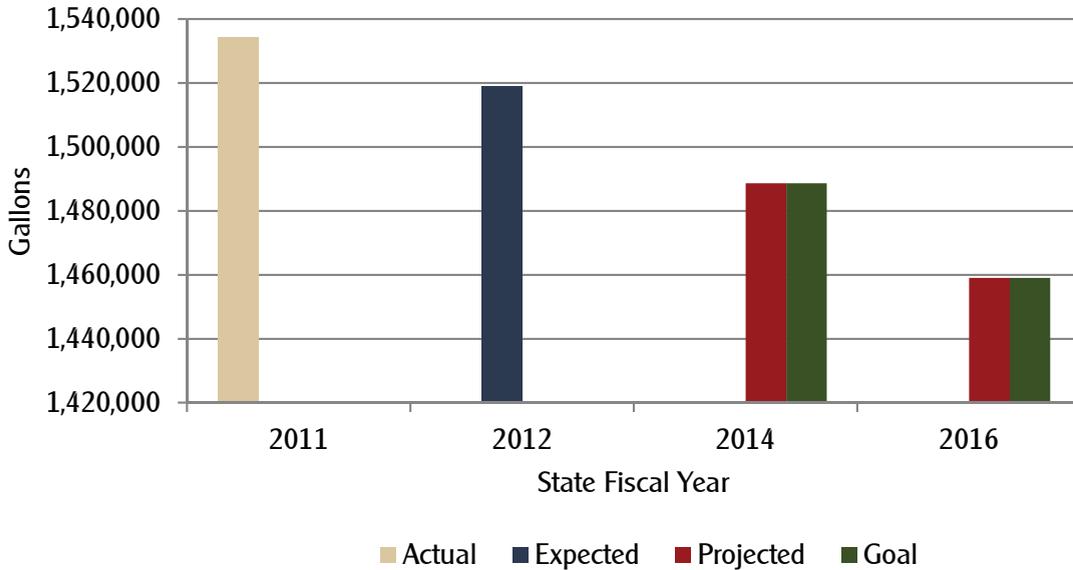
New Vehicles In-Service FY 2010	Quantity
Automobile	5
Truck less than 10K	10
Truck greater than 10K	21
New Vehicles In-Service FY 2011	Quantity
Automobile	12
Truck less than 10K	65
Truck greater than 10K	35

Due to the nature of DOT business, meeting the fuel usage reduction goals may not be attainable each year due to “winter severity” that may require a greater effort in snow plowing and salting of roadways. Also extreme weather events have a large impact on the amount of fuel usage by DOT vehicles. DOT vehicles and equipment are required to clear debris and repair roadway damage from the storms in order to reopen impassible roads and bridges.

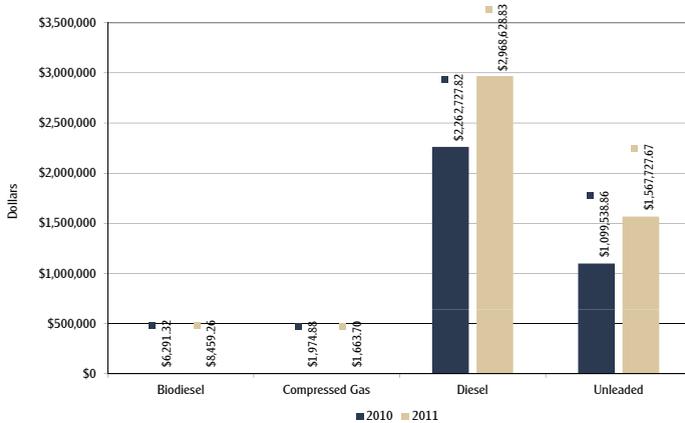
FY 2011 shows an overall increase of 10.23% in fuel usage with a 34.89% increase in energy costs.

FY	Gallons	Cost
2010	1391870.262	\$3,370,532.88
2011	1534230.055	\$4,546,479.45
Percentage of Change		
2011	10.23%	34.89%

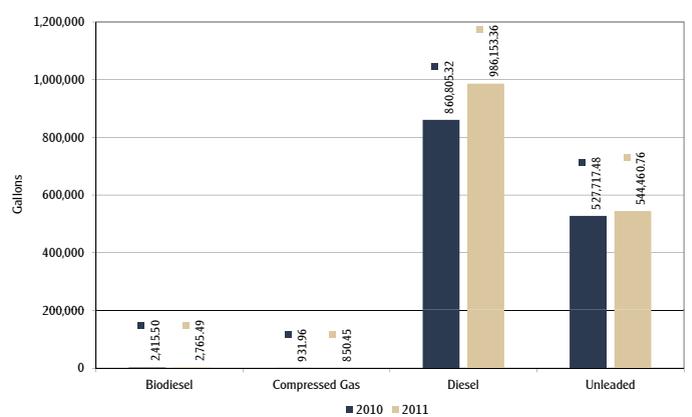
Energy Usage of NHDOT Vehicles



FY Fuel Cost Summary



FY Fuel Usage Summary



Employee Development

The Department must be prepared for new challenges due to changes in technology and expected vacancies due to retirement; focus will continue on improving employee health and safety, and aligning employees with the Department's Mission and Purpose through improved communication.

Objective:

- Increase Bench Strength
- Optimize Employee Health and Safety
- Align Employees Around Department's Mission

Employee Development

Increase Bench Strength

The Department must continue to develop and retain its current employees through mentoring and individual development plans, as well as hiring efficiently and effectively to ensure the right person is in the right job at the right time.

Measures:

- Employees Engaged in Individual Development Plans





Increase Bench Strength

Employees Engaged in Individual Development Plans

Purpose:

A key outcome of workforce planning and development is to increase “bench strength” within the organization. Bench strength refers to the capabilities and readiness of potential successors to move into vacated positions. The term comes from baseball, where it refers to a team’s lineup of highly skilled players who can step in when a player is hurt or replaced. In the business setting, bench strength is critically important because organizations continuously go through turnover, restructuring and changes in business strategy. When an organization has a replacement from within the workforce equipped and readily available when a person leaves their position (whether in leadership, management or line operations), it avoids business interruption.

One approach to building the Department’s “bench strength” is to develop existing employees through the use of Individual Development Plans (IDPs). An IDP is a personal action plan, jointly agreed to by the employee and supervisor, which identifies short and long-term organizational goals. An IDP also identifies training and other developmental experiences needed to achieve those goals, for the benefit of the organization and the individual, within a specified time frame.

By creating an organization focused on individual development consistent with organizational goals, the NHDOT is consistently building its bench strength and ensuring continuity of its business processes.

Improvement Status

In 2011, NHDOT completed a workforce demographic analysis. This analysis allows the Department to make reasonable projections of workforce turnover by job classification, highlighting future workforce replacement needs.

Beginning in April of 2011, an Individual Development Planning insert was piloted as part of an amended annual employee performance evaluation form. This IDP form provides a reminder and a tool to employees and supervisors to focus on individual and organizational development. Training to support the use of the IDP has been ongoing throughout the year.

Future

For calendar year 2011, training for Individual Development Planning will continue throughout the organization, as part of the overall workforce planning and development effort. Beginning in early 2012, Managers from the Commissioner’s Office, Division of Policy and Administration, Division of Finance, Division of Aero, Rail & Transit and 3 Bureaus in each Division of Operations and Project Development will be trained on how to create effective Individual Development Plans with increased emphasis on implementing IDPs for individuals in career ladder classifications related to the categories of anticipated vacancy. Remaining Bureaus/Districts will be included later in 2012 and into 2013, as facilitation resources are available.

Projections (based upon workforce population in December 31, 2011) are for over 50% of NHDOT’s workforce to be eligible for retirement after 2015. Some employees, who are close to retirement, or who may be new to positions and learning current position competencies, may not want to participate in an IDP.

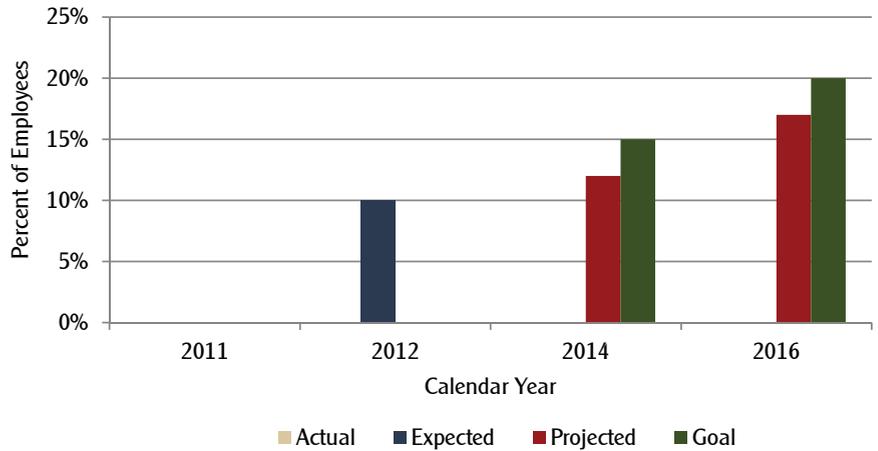
2012 expected and projected participation in IDPs is 10%. By 2014, NHDOT projects and sets a goal of 15%. By 2016, NHDOT projects and sets a goal of 20% of the workforce participating in Individual Development Plans. Given turnover of approximately 50% of the organization, and anticipating replacements from external sources focused on learning new job duties, 20%, or approximately 330 employees being developed through the

Data:

Supervisors are required to conduct annual employee performance evaluations for all employees. Completed employee performance evaluations are processed through the Bureau of Human Resources and maintained in the Employee Personnel file. With the IDP included in the annual employee performance evaluation form, the Bureau of Human Resources will be able to track the number of IDPs implemented each year. The number of IDPs received to be filed in employee personnel files, as a percentage of the total workforce will be the standard for this measure.

IDP process will be a healthy balance for the organization. The number of participants is expected to remain at 20% of the workforce, however, given the specified time frame included in the IDP, the individuals entering and exiting IDP process will be continually changing.

Employees Engaged in Individual Development Plans



Employee Development

Optimize Employee Health and Safety

The Department must promote and strive to achieve improved health and safety for all employees. It must raise employee awareness of healthy lifestyles and safe practices through exemplary leadership, education, training and personal accountability. The Department must identify potentially harmful conditions and take action to remedy those harmful conditions and /or prevent unnecessary risks.

Measures:

- Employee Injury Incident Rate
- Employees Who Completed Health Risk Assessments





Improvement Status

The New Hampshire Department of Transportation employees are exposed to multiple workplace hazards ranging from working in traffic to operating equipment and tools, to working with hazardous materials. The Department has been active for many years in developing safety programs and communicating safe work practices to ensure employee safety and to reduce employee injuries. Historical data, as detailed in the chart below, shows continual improvement since inception of a formal safety program in 1995. In 1995, the Department's injury rate was 14.43.

In fiscal year 2009, the Department's injury rate was 4.3. In fiscal year 2010, the injury rate increased to 6.5, a result of 40 more work related injuries than in the previous year. In fiscal year 2011, the Department's injury rate dropped to 4.8.

While the goal is always for zero injuries, NHDOT's projected target for fiscal year 2012 is 3.6. Moving forward, the 2014 projection is 2.1, and for 2016, 1.6.

The 2012-2013 budget reduced Department overall staffing by 163 full-time authorized positions, requiring a "more with less" approach to our mission. These reductions have the potential to result in longer work hours for existing employees and the potential for fatigue, which can lead to poor decision-making and risky behavior-ultimately an increase in workplace injuries. The Office of Stewardship and Compliance (the centralized safety function for the Department) was impacted by a 39% reduction resulting in fewer staff and reorganization of safety functions.

The Department remains committed to the safety of our employees and will continue to provide employees with necessary time, equipment and training to perform work tasks in a safe manner.

Each year, the Department develops both Bureau and Department-wide Injury Reduction Plans. Injury reduction goals are established and reached through constant focus on employee health and safety through initiatives including effective training, monitoring, effective accident investigation and root cause analysis, wellness promotion, trend analysis, employee participation in safety committees and employee recognition and participation in events such as Environmental Health and Safety Days, and the annual Plow Rally including the safety innovation contest.

Optimize Employee Health and Safety

Employee Injury Incident Rate

Purpose:

The New Hampshire Department of Transportation is committed to providing a safe work environment. The Department recognizes that through effective implementation and management of health and safety programs, the frequency of work related injuries can be reduced and ultimately eliminated.

This measure tracks a calculation of workers' compensation claims in relation to the number of hours worked, resulting in a fiscal year injury incident rate. The purpose of measuring the employee injury incident rate is to gauge the effectiveness of the Department's health and safety programs, as well as to take corrective action to effectively address hazards and negative trends.

Data:

The information provided is collected from the NHDOT Injury and Illness Log maintained by the Office of Stewardship & Compliance, "Hours Worked" reports generated through the Managing Assets For Transportation Systems (MATS) and Risktrac, a claim management database maintained by Liberty Mutual, the State's workers' compensation insurance carrier.

The industry standard calculation for an injury incident rate is the number of reported workers' compensation claims per year multiplied by 200,000. This figure is divided by the number of hours worked in that year. The final calculation represents the frequency of injury per 100 employees.

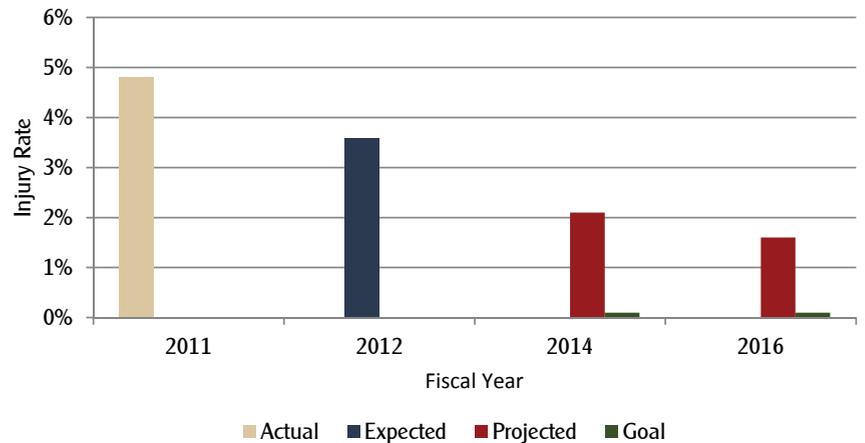
In 2011, the Bureau of Highway Maintenance, Division of Operations had great success in implementing their Injury Reduction Plan, resulting in a decrease of the number of Bureau employee injuries by 35%.

In 2012, the Department's Injury Reduction Plan will utilize the following methods to achieve injury reduction goals:

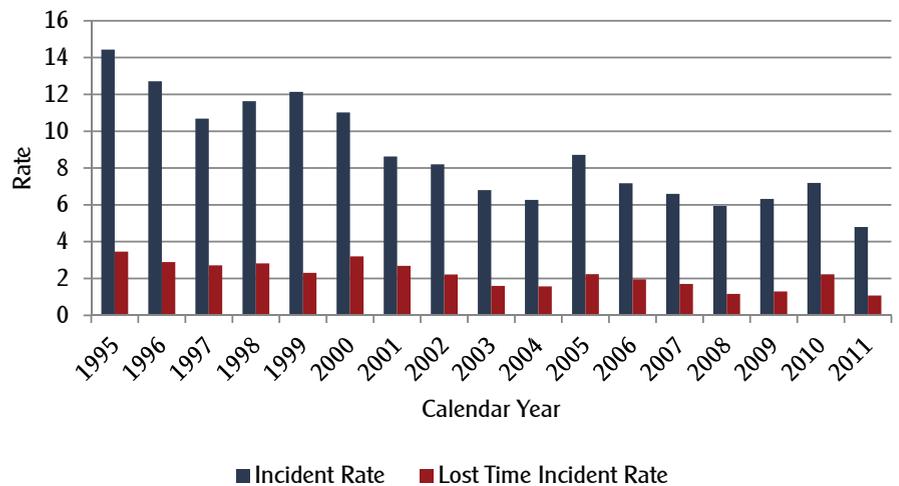
- Field visits conducted by District and Bureau Safety & Environmental Coordinators
- Random program compliance audits conducted by the Office of Stewardship & Compliance
- Utilization of task-focused Tool Box Talks
- Communication to employees of workplace safety expectations and accountabilities
- Revisions of Job Hazard Analysis' and Work Instructions
- Employee involvement through safety committee and safety innovation
- Annual Training and/or Safety Days
- Introduction of Bureau of Turnpikes Employee Safety Incentive Program
- Calendar year 2012 refresher training topics: Hazard Communication, First Aid/CPR/AED, Bloodborne Pathogens, Fire Protection, Emergency Preparation & Response, Machine Guarding, Motorized Equipment, Hand & Power Tools, and Ground Maintenance

New administrative tools to reinforce promotion, commitment, and performance in safety have been made available through revisions to supplemental job descriptions, and annual employee performance evaluations. These administrative changes are expected to have a positive impact on overall safety performance including employee injury incident rates.

Fiscal Year Incident Rates in Comparison to Targets and Goals



Employee Injury Trend Data





Optimize Employee Health and Safety

Employees Who Completed Health Risk Assessments

Purpose:

Healthcare costs for current and retired employees of the State of New Hampshire have grown 13% in each of the past ten years, reaching \$250 million in 2010. Much of this increase in health insurance costs is attributable to a lack of utilization of preventive health screening tools resulting in late diagnosis of serious illness, improper/unnecessary use of emergency rooms and poor self-care, including disease management.

In an effort to manage healthcare cost, Governor Lynch issued Executive Order 2006-07 directing the creation of a State employee wellness program. In response to the Executive Order NHDOT created a full time Wellness Coordinator position and launched an active wellness program for employees of the Department of Transportation.

One component of the wellness program is participation in the state's Health Assessment Tool (HAT) benefit. The HAT is the state's version of a systematic health risk assessment tool that collects health information from individuals to identify risk factors, provide individualized feedback, and link the person with at least one intervention to promote health, sustain function and/or prevent disease. Use of this assessment tool offers employees an opportunity to take a more active role in self-health management. From an organizational point of view, healthy employees have improved work attendance and productivity.

This measurement specifically indicates the

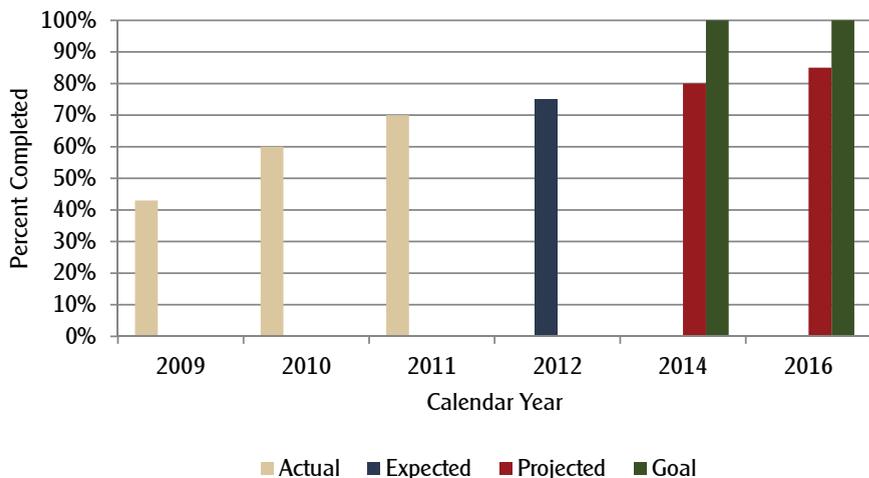
Improvement Status

The number of NHDOT employees who have completed the HAT is increasing. In 2009, 43% of eligible NHDOT employees completed the HAT. In 2010, the percentage of HAT completions increased to 60%, which exceeded the projected target of 50%. As of the end of the second quarter of 2011, 55% of eligible employees have completed the HAT. The projection for 2011 is 70%. While goals for HAT completion are 100%, the projections are 75% for 2012, 80% for 2014 and 85% for 2016.

In order to reach NHDOT Wellness Program goals including HAT utilization, employee education continues at new employee orientations and on boarding sessions, Environmental Health and Safety Days, HAT completion assistance opportunities, wellness fairs, and other wellness presentations targeting benefit education and proactive individual health choices.

In addition to educational programs, the NHDOT has included promotion of a healthy and safe work environment as a top rated category of performance in individual annual employee performance evaluations.

Percentage of Employees Completing Health Assessment Tool Compared to Projection and Goal



percentage of eligible NHDOT employees who have completed the HAT on an annual basis.

Data:

The New Hampshire Department of Administrative Services collects data on the total number of state employees who have completed the HAT and informs the NHDOT Wellness Coordinator of the specific number of NHDOT employees who have completed the HAT for each calendar year. The NHDOT Bureau of Human Resources provides the Wellness Coordinator with the number of employees who are participating in state health benefits for each calendar year. Using these two data sources, a comparison is made between the number of HAT completions and total number of benefit eligible employees to determine the percentage of NHDOT employees who are completing the HAT.

Employee Development

Align Employees Around Department's Mission

The Department must clearly communicate its mission and purpose to all employees to ensure that work efforts are aligned with overall strategies and initiatives. Employees shall be supported by management that embraces performance, accountability, and desired results.

Measures:

- Employees Who Understand, and Feel Their Job Contributes to the Mission of the Department. (From Respondents to Employee Survey)





Align Employees Around Department's Mission

Employees Who Understand, and Feel Their Job Contributes to the Mission of the Department
(From Respondents to Employee Survey)

Purpose:

An engaged workforce is essential to the ability of the New Hampshire Department of Transportation to meet its mission of "Transportation Excellence Enhancing the Quality of Life in New Hampshire". By implementing strategies that increase communications to employees about our mission, and by including employees in developing and implementing solutions to the Department's challenges, NHDOT's workforce becomes more committed, more engaged and more effective.

Data:

In 2008, NHDOT launched a department-wide employee survey to assess baseline organizational climate and employee morale. The survey is repeated every two years to allow the Department to measure its progress in multiple survey categories and develop strategies to ensure positive employee engagement. Two survey questions support the measure, "Percent of Employees Who Understand, and Feel their Job Contributes to the Mission of the Department"

4a. I have a clear understanding of the mission of NHDOT

4d. What I do contributes to the mission of NHDOT

In both the 2008 and 2010 survey, more than 55% of the workforce responded. The survey scale consists of five benchmark rating categories; 1 (strongly disagree),

Improvement Status

In 2008, the mission alignment index indicated 81% of survey respondents feel they have a clear understanding of the mission of the Department, and that their role contributes to the mission. In 2010, the mission alignment indicated 83% of the survey respondents feel they have a clear understanding of the mission of the Department, and their role contributes to the mission.

Data received from the survey provides NHDOT with areas of focus to improve the overall climate and employee engagement. The general areas for which information is solicited include: Individual job satisfaction, relationships with coworkers, relationships with supervisors/managers, and organizational attention to safety, and communication. In each of the surveys, the area employees identified as the most important to improve is communication.

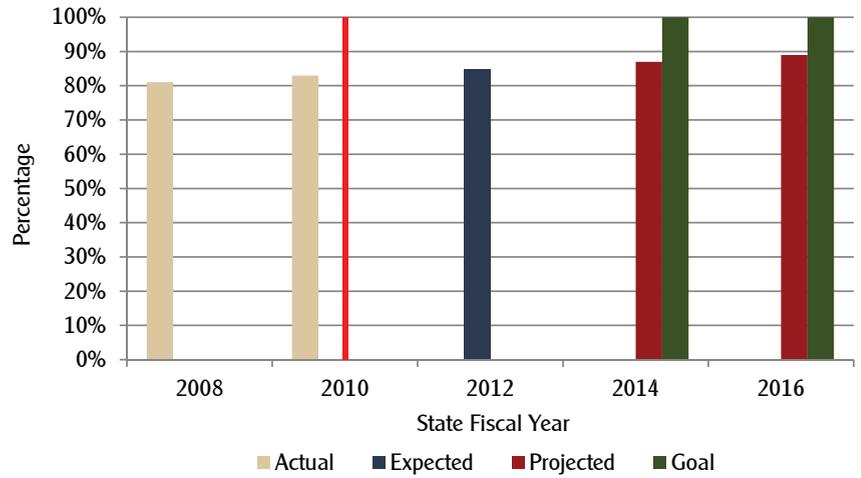
A number of strategic initiatives have been implemented toward this end, including all new hires being introduced to the Department mission directly by Commissioners. The message is reinforced throughout the content of new hire orientation and on boarding, Lunch & Learn sessions with Commissioners and Directors, Management Roundtable sessions, introduction of a Labor/Management Committee, Town Hall forum events, Lean Process Improvement, and the Balanced Scorecard initiatives.

Culture change in large, decentralized organizations can take time. The increase in the mission alignment index from 81% to 83% of respondents over a two-year period is a positive trend.

The Department expects that 2012 survey results will show a continued pattern of increase to 85%, with a projected rate of 87% in 2014, and 89% in 2016. Ultimately, for peak organizational performance, the Department strives for a goal of 100% mission alignment.

2 (agree), 3 (neutral), 4 (agree), and 5 (strongly agree). A weighted average is calculated for all survey respondents, with questions 4a and 4d having equal weight. The combined score is the "mission alignment index."

Combined Score: 4a: I have a clear understanding of the mission of NHDOT and 4d: What I do contributes to the mission of NHDOT



This document is wholly the product of NHDOT and its employees. Two separate working groups supported by multiple subject matter experts established the Department's Mission, Purpose, Vision, Goals, Objectives, and Performance Measures. For each Performance Measure, data was collected, targets were established, and a performance summary was prepared for review and acceptance by the Commissioners and Directors.

Strong support of the Balanced Scorecard effort was provided by the Department of Information Technology. Their work to define, support, and implement NHDOT's technology needs has improved the data collection, validation, and reporting critical to this effort.

Thanks to all for their efforts in bringing the Balanced Scorecard together at NHDOT.

www.nh.gov/dot/org/commissioner/index.htm

