



# **Transportation and Infrastructure Renewal**

Statement of Mandate

2014-2015

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## **1. Message from the Minister and Deputy Minister**

We are pleased to present the 2014-2015 Statement of Mandate for the Department of Transportation and Infrastructure Renewal (TIR). Please note that some of the activities noted in this plan will be delivered through the new Internal Services Department. The 2014-2015 Accountability Report derived from this Statement of Mandate will be revised to reflect the new organizational alignment.

Infrastructure is the backbone of Nova Scotia's economy and is critical to sustaining and strengthening our communities. The Department of Transportation and Infrastructure Renewal plays a vital role in building and maintaining a safe public infrastructure that Nova Scotians rely upon every day. Unlike many other provinces, the Province of Nova Scotia is responsible for maintaining the majority of all public roads in the province (90 per cent) – 23,000 kilometres and 4,100 bridges.

The 2014-2015 Five-Year Highway Improvement Plan outlines major highway and road projects, repaving, major bridge replacements, capital maintenance and infrastructure work the province plans to pursue year by year over the next five years. Sharing the specific plans for road improvement in the 5-Year Highway Improvement Plan gives private companies better opportunity to prepare for the more than 120 upcoming highway improvement projects in 2014-2015.

To allow the private sector to take full advantage of all the upcoming projects, the asphalt plant and chip seal operation has been discontinued. The road building industry in Nova Scotia is a large source of jobs, creating an estimated 5,000 direct and 2,500 indirect positions every year. The annual payroll for Nova Scotians employed in road building is approximately \$300 million.

We continue to identify and implement measures to increase the energy efficiency of government owned buildings and also remain committed to implementing green building and environmentally sustainable measures in building design, construction and operations.

Our employees continue to play an invaluable role within the department and demonstrate ongoing commitment and dedication to Nova Scotians. We look forward to lead and help the Department achieve its mandate, turning challenges into new opportunities during the 2014-2015 period.

Sincerely,

original signed by

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Hon. Geoff MacLellan  
Minister

original signed by

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Paul LaFleche  
Deputy Minister

## **2. Mandate/Mission/Vision**

### **Department Mission**

The mission of the Department of Transportation and Infrastructure Renewal (TIR) is to:

- **Deliver quality public infrastructure for Nova Scotia**

### **Department Mandate**

The Department has the mandate to:

- Provide a transportation network for the safe and efficient movement of people and goods
- Serve the building, property and accommodation needs of government departments and agencies
- Provide quality and effective common services to government departments, agencies, boards and commissions

The following strategic goals have been adopted to help the department achieve its mandate:

- A workforce that is proud, capable, engaged, healthy, safe and diverse
- Enhanced value and safety of the transportation system in support of the province's economic growth
- Effective and efficient built, maintained, operate and managed government buildings and other public works infrastructure
- Cost-effective and environmentally friendly sound government services which address clients' needs

## **3. Strategic Outcomes**

### **Strategic Goal: A workforce that is proud, capable, engaged, healthy, safe and diverse**

TIR is a large and operationally diverse Department within the provincial government. The Department continues to work on a number of initiatives to identify opportunities for improving and to build the Health, Safety and Environment (HSE) program and culture, team building, and diversity strategies. Activities planned for the upcoming fiscal year include:

- Developing, promoting, and maintaining a safe, healthy and supportive work environment. We strive to achieve less time lost due to work injuries and illness by collaborating with the Workers' Compensation Board and the Public Service Commission-TIR to identify incident, injury and illness trends. Also, in consultation with HSE staff the department plans to research, identify priorities and work on a multi-year health promotion strategy.

- Continuing to implement an employee engagement plan.
- Continuing to develop the TIR diversity plan and implement the diversity action plan.

**Strategic Goal: Enhanced value and safety of the transportation system in support of the province's economic growth**

Transportation is a critical part of strengthening communities from one end of Nova Scotia to the other. There are many factors taken into consideration when assessing and making decisions about major construction upgrades and twinning of the 100-series highways, paving projects, repaving secondary and local paved roads, local low-volume paved roads and gravel roads, and bridges. Factors may include traffic volumes, safety studies, collision statistics, department's Pavement Management System, surface roughness, maintenance or safety concerns, roadside development located on the road, requests for road repairs. Activities planned for the upcoming fiscal year include:

- Continuing to develop a Road Safety Action Plan in conjunction with other stakeholder departments. The Road Safety Action Plan will include engineering, education and enforcement initiatives designed to improve safety.
- Implementing the 5-Year Highway Improvement Plan 2014-2015 edition. The plan outlines major highway and road projects, repaving, major bridge replacements, capital maintenance and infrastructure work the province plans to pursue year by year over the next five years. With the inclusion of road construction facts, how projects are prioritized and the funding required, TIR gives private companies better opportunity to prepare for the more than 120 upcoming highway improvement projects in 2014-2015. It also helps to inform Nova Scotians about the improvements being made in their communities and how these projects are selected. The 2015-2016 edition will be developed and released this fiscal year.
- TIR has been implementing a comprehensive Salt Management Strategy to reduce the impact on the environment and to improve the cost effectiveness and safety benefits of road salt by using the right amount of salt at the right time in accordance with winter service standards. Work will continue to expand the use of pre-wetting capacity to most of the 100 series to improve the overall effectiveness of the salt once it is placed on the road. In addition, TIR continues to test new anti-icing techniques which involve proactively applying anti-icing products to roadways before or at the onset of winter storm events. These products help melt snow and reduce ice formation on roadways. Equipment used to plow roads will also be evaluated and new technologies will be explored.
- Continuing to develop a strong foundation for geography-based decision support, i.e. the building of solid base mapping data. The Geographic Information Services (GIS) Team will continue to work with business areas across the department, seeking to understand

specific business needs, identifying critical foundational datasets necessary to support those business needs, seeking opportunities for integration, and standardized data development and data management. In 2014-2015, TIR will identify the detailed business and functional requirements for an Asset Information Management System (AIMS) taking into consideration inputs from across the department.

**Strategic Goal: Effective and efficient built, maintained, operated and managed government buildings and other public works infrastructure**

TIR continues to identify and implement measures to increase the energy efficiency of government owned buildings, implementing green building and other environmental sustainable measures in building design, construction and operations. The 2014-2015 priorities include:

- Continue to design and construct all new buildings to achieve a minimum Leadership in Energy and Environmental Design (LEED) Silver certification, where LEED certification is applicable.
- Target design and construction for new buildings to LEED Gold Certification standards, where feasible.
- Continue to identify/implement measures to increase the energy efficiency of government owned buildings.
- Analyze data comparing actual energy use versus simulated use and work with other government entities to take corrective action, if required.
- Continue to review government buildings suitability for government office occupancy and the cost of rehabilitation, including the Dennis Building.

**Strategic Goal: Cost-effective and environmentally friendly sound government services which address clients' needs**

TIR works for government providing a number of services throughout design, construction, and inspection phases of new and renovated building projects. TIR also acts on behalf of government providing a variety of real estate services to other departments/agencies/boards/commissions, inventory control, postal services, risk management, and public safety and field communication services.

- Public Safety and Field Communications will continue to work with users, service providers, manufacturers, and other government departments to develop, coordinate, and implement the Trunked Mobile Radio 2 Agreement.

## 4. Government Priorities

TIR develops departmental priorities with the objective to support government in achieving its core priorities and a number of the department's strategic activities align with more than one priority.

### **Priority: Responsible Fiscal Management**

In 2014-2015, TIR will contribute to the above government priority by:

- Managing the procurement of the new Halifax Convention Centre.
- Managing the implementation of a next generation mobile radio system for the 8,300 users of the current Trunked Mobile Radio Service. This work is coordinated with Bell's contract to design, build and operate a new system for 10 years. Implementation to be complete by May 2015.
- Continuing to implement a comprehensive Salt Management Strategy to reduce the impact on the environment and to improve the cost effectiveness and safety benefits of road salt. Using the right amount of salt, in the correct format (anti icing) and at the right time in accordance with winter service standards, help melt snow and reduce ice formation on roadways, thereby reducing the amount of time and resources required to restore roads to stated standards.
- Ensuring that funding for highway improvement budget is more sustainable in the long term, used more efficiently and effectively. Pavement preservation is cost effective and preservation techniques can extend the life of asphalt, improve smoothness, reduce potholes and decrease rutting and cracking. Roads stay smoother and safer at a much lower cost than by allowing them to deteriorate to the point of needing full reconstruction.
- Maximizing federal funds through federal cost-shared agreements such as the Build Canada Fund to improve infrastructure across the province. This will help to build better bridges in many communities, extend twinning on Highway 103, complete Highway 101, and complete the Burnside connector.
- Participating in a shared services review among departments and agencies involved in facilities design, construction, maintenance, and operation. The aim is to determine economies of scale and increase efficiencies through a more coordinated and consolidated approach to design, constructions and maintenance of government building infrastructure across the Province.

**Priority: Helping all Nova Scotians meet their fullest potential by supporting vulnerable communities – seniors, disabled**

In 2014-2015, TIR will contribute to the above government priority by:

- Continuing to develop an implementation plan to improve on the accessibility within government building upgrade and renovation projects, and incorporate in all new building projects to allow access to government services provided to the public.
- Continuing with road twinning and roundabout installations.
- Proceeding with implementation of Road Safety Edge Paving imbedded reflectors on a trial basis.
- Working towards Ministerial approval of a 5-Year Road Safety Action Plan in conjunction with stakeholder departments.



## 5. Budget Context

<b>Transportation and Infrastructure Renewal</b>			
	<b>2013-2014 Estimate</b>	<b>2013-2014 Forecast</b>	<b>2014-2015 Estimate</b>
Program & Service Area	(\$ thousands)	(\$ thousands)	(\$ thousands)
<b>Departmental Expenses:</b>			
Senior Management	922	922	1,540
Corporate Services Unit	2,931	2,649	3,208
Policy and Planning	1,348	1,431	1,628
Highway Programs	376,319	384,136	396,113
Public Works	43,938	46,098	-
<b>Total Departmental Expenses</b>	<b>425,458</b>	<b>435,236</b>	<b>402,489</b>
<b>Additional Information:</b>			
<b>Fees and Other Charges</b>	<b>4,547</b>	<b>4,550</b>	<b>1,336</b>
<b>Ordinary Recoveries</b>	<b>7,398</b>	<b>9,639</b>	<b>14,397</b>
<b>TCA Purchase Requirements</b>	<b>299,875</b>	<b>300,118</b>	<b>281,836</b>
<b>TCA Cost Shared Revenue</b>	<b>22,025</b>	<b>20,336</b>	<b>24,981</b>
<b>Provincially Funded Staff (FTE's)</b>	<b>2,056</b>	<b>2,002</b>	<b>1,893</b>

**Note:**

**2013-14:** additional Highway Program spending required for snow & ice control activities due to winter weather conditions.

**2014-15:** Public Works divisions (except Engineering Services & Acquisitions) transferred to Department of Internal Services.

## 6. Performance Measures

Strategic Goal: A workforce that is proud, capable, engaged, healthy, safe and diverse					
Outcome	Measure	Base Year	Target	Trends	Strategic Actions
Increase engagement index	Engagement Index (How's Work Going Survey)  (survey conducted every 2 years)	<b>Base Year: 2011</b>  Response Rate: 35%  Engagement Score: 58%	Increase the response rate and engagement score	<b>2013 Survey</b>  Response Rate: 69%  Engagement Score: 52%	Continue to implement employee engagement plan.  Implement performance feedback process for CUPE workforce.  Complete the TIR diversity plan and begin implementation.  Partner with Public Service Commission to develop manager capacity in recognizing and coaching performance.
Less time lost due to work injuries and illness	Duration of lost-time claims	<b>Base Year: 2009/10/11/12/13</b>  5-year average:  Number of lost-time claims: 101  Lost-time duration: 2,430 days	To be at or below the Department's 5-year average based on: - # of lost-time claims submitted - Lost-time duration	5-year average:  # of lost-time claims submitted: <b>2009/10/11/12/13*</b> = 101  Lost-time duration: <b>2009/10/11/12/13*</b> = 2,430 days  *as of 17-Feb-2014	Collaborate with the Workers' Compensation Board and the Public Service Commission to identify incident, injury and illness trends.  Implement targeted risk-based inspections, and promote HSE initiatives.  Research and develop a multi-year Health Promotion Strategy.  Implement action items from the 2013-2014 HSE Audit.

**Strategic Goal: Enhanced value and safety of the transportation system in support of the province's economic growth**

Outcome	Measure	Base Year	Target	Trends	Strategic Actions																																																																												
Improve more roads in more communities	Per cent of planned work completed as outlined in the Five-year Highway Improvement Plan	<p><b>Base Year: 2010-2011</b></p> <p>% Work Completed for projects completed, started or deferred</p> <p>Major construction:                      100 Series Expansion: 82%                      Construction 100 Series: 100%                      Construction Arterial/Collectors: 94%                      Construction Local Road: n/a</p> <p>Asphalt Repaving:                      100-series Highways: 100%                      Arterial/Collectors: 100%                      Local roads: 100%                      Pavement Preservation: 98%                      Subdivision Roads: 100%</p> <p>Bridges:                      Major Bridge Projects: 71%                      Other Bridge Projects: 86%                      Bridge Rehabilitation: 96%</p> <p>Additional Projects Moved Forward:                      Various Repaving &amp; Bridge Projects: n/a</p> <p><b>Total : 95%</b></p>	100% completion of annual projected work	<p>% Work Completed for projects completed, started or deferred</p> <table border="1"> <thead> <tr> <th></th> <th>2011-12</th> <th>2012-13</th> <th>2013-14</th> </tr> </thead> <tbody> <tr> <td>Major construction:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>100 Series Expansion:</td> <td>100%</td> <td>100%</td> <td>88%</td> </tr> <tr> <td>Construction 100 Series:</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>Construction Arterial/Collectors:</td> <td>100%</td> <td>67%</td> <td>100%</td> </tr> <tr> <td>Construction Local Roads:</td> <td>n/a</td> <td>n/a</td> <td>0%</td> </tr> <tr> <td>Asphalt Repaving:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>100-series Highways:</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>Arterial/Collectors:</td> <td>100%</td> <td>100%</td> <td>97%</td> </tr> <tr> <td>Local roads:</td> <td>97%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>Pavement Preservation:</td> <td>100%</td> <td>100%</td> <td>96%</td> </tr> <tr> <td>Subdivision Roads:</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td>Bridges:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Major Bridge Projects:</td> <td>67%</td> <td>58%</td> <td>46%</td> </tr> <tr> <td>Other Bridge Projects:</td> <td>79%</td> <td>75%</td> <td>88%</td> </tr> <tr> <td>Bridge Rehabilitation:</td> <td>88%</td> <td>67%</td> <td>50%</td> </tr> <tr> <td>Additional Projects Moved Forward:</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Various Repaving &amp; Bridge Projects:</td> <td>100%</td> <td>100%</td> <td>100%</td> </tr> <tr> <td><b>Total :</b></td> <td><b>94%</b></td> <td><b>94%</b></td> <td><b>91%</b></td> </tr> </tbody> </table> <p>[note that there are multi-year projects, but only work planned in the given year will be included in this measure]</p>		2011-12	2012-13	2013-14	Major construction:				100 Series Expansion:	100%	100%	88%	Construction 100 Series:	100%	100%	100%	Construction Arterial/Collectors:	100%	67%	100%	Construction Local Roads:	n/a	n/a	0%	Asphalt Repaving:				100-series Highways:	100%	100%	100%	Arterial/Collectors:	100%	100%	97%	Local roads:	97%	100%	100%	Pavement Preservation:	100%	100%	96%	Subdivision Roads:	100%	100%	100%	Bridges:				Major Bridge Projects:	67%	58%	46%	Other Bridge Projects:	79%	75%	88%	Bridge Rehabilitation:	88%	67%	50%	Additional Projects Moved Forward:				Various Repaving & Bridge Projects:	100%	100%	100%	<b>Total :</b>	<b>94%</b>	<b>94%</b>	<b>91%</b>	<p>Update and implement the plan for the next 5 year period (2014-2015 edition)</p> <p>Provide earlier tendering of Highway Construction projects for 2014-2015 season.</p> <p>Continue to expand the use of pre-wetting capacity to most of the 100 series highways to improve the overall effectiveness of the salt once it is placed on the road.</p> <p>Test new anti-icing techniques which involve pro-actively applying anti-icing products to roadways before or at the onset of winter storm events.</p> <p>Evaluate equipment used to plow roads and explore new technologies.</p> <p>Geographic Information Services (GIS) – continue to develop a strong foundation for geography-based decision support, i.e., the building of solid base mapping data.</p>
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**Strategic Goal: Enhanced value and safety of the transportation system in support of the province's economic growth**

Outcome	Measure	Base Year	Target	Trends	Strategic Actions
<p>Highway infrastructure that supports economic growth</p>	<p>Average level of pavement roughness for 100-series highways as measured by the IRI (International Roughness Index). An IRI =1.00 would be new pavement and IRI=5.00 would be rough older pavement.</p> <p>An IRI value of 1.6 or below is considered good according to <i>the National IRI Survey - 2001</i>.</p>	<p><b>Base Year: 2004</b></p> <p>% of 100-series highways with average IRI &lt;= 1.80: 99.4%</p> <p>Average IRI for the entire 100-series highways: 1.41</p>	<p>A minimum of 95% of 100-series highways with an IRI value &lt;= 1.80</p> <p>Maintain the average IRI for the entire 100-series highways below 1.60</p>	<p>% of 100-series highways with average IRI &lt;= 1.80:                  2005: 99.4%                  2006: 96.9%                  2007: 97.0%                  2008: 99.4%                  2009: 99.4%                  2010: 99.3%                  2011: 99.3%                  2012: 99.3%</p> <p>Average IRI for the entire 100-series highways:                  2005: 1.41                  2006: 1.37                  2007: 1.37                  2008: 1.30                  2009: 1.28                  2010: 1.20                  2011: 1.32                  2012: 1.25</p>	<p>Continue to invest in infrastructure projects under Federal funding agreements.</p> <p>Work with other Atlantic Provinces to secure future federal infrastructure funding.</p> <p>Continue investment in expansion of 100-series highway system, through planning design and construction activities.</p> <p>Continue to use pavement preservation strategies to improve the condition of the highways more cost effectively.</p>

**Strategic Goal: Enhanced value and safety of the transportation system in support of the province's economic growth**

Outcome	Measure	Base Year	Target	Trends	Strategic Actions
Improve Highway Safety	Three year rolling average of motor vehicle collision fatalities and serious injuries per 100,000 population.	<p><b>Base Year: 2005/06/07</b></p> <p>3-year Average Rate: 42.8 per 100,000 population</p>	Decrease the three-year average rate of fatalities and serious injuries.	<p><b>2006/07/08:</b> 40.7 per 100,000</p> <p><b>2007/08/09:</b> 40.4 per 100,000</p> <p><b>2008/09/10:</b> 37.7 per 100,000</p> <p><b>2009/10/11:</b> 38.4 per 100,000</p>	<p>Continue implementation of rumble strips program, including both edge strips and centerline rumble strips.</p> <p>Proceed with implementation of Road Safety Edge Paving imbedded reflectors on a trial basis.</p> <p>Continue with road twinning and roundabout installations.</p> <p>Work towards development and approval of a comprehensive access management procedure and policy.</p> <p>Continue the in-service road safety reviews.</p> <p>Work towards Ministerial approval of a 5-Year Road Safety Action Plan in conjunction with stakeholder departments.</p> <p>Continue the Road Safety Advisory Committee to provide advice to government around road safety initiatives.</p> <p>Continue with policy analysis of road safety issues.</p> <p>Maintain Commercial Vehicle Safety Alliance (CVSA) standards for commercial vehicle inspections completed.</p> <p>Maintain increased hours of operation for scale houses achieved in 2011.</p>

**Strategic Goal: Effective and efficient built, maintained, operated and managed government buildings and other public works infrastructure**

Outcome	Measure	Base Year	Target	Trends	Strategic Actions
Energy efficient and sustainable buildings	Number of new government buildings that achieve Silver LEED certification	<p>As of December 31, 2013, TIR has applied for LEED certification for 29 buildings (starting in 2004-2005)</p> <p>Sir John A. Macdonald High School building was the first new building to achieve LEED Silver Certification (April 2008)</p> <p><i>Note: Results are not known until the application has been reviewed by the certifying organization.</i></p>	<p>All new buildings achieve Silver LEED certification.</p> <p><b>Ultimate Target:</b> All new buildings be carbon-neutral after 2020</p>	<p><b>LEED Certified</b>   <b>LEED Silver</b>   <b>LEED Gold</b></p> <p>2004-05:   2                      1</p> <p>2005-06:   1</p> <p>2006-07:</p> <p>2007-08:   1</p> <p>2008-09: <i>(1 new building targeting Silver LEED)</i></p> <p>2009-10:   1</p> <p>2010-11: <i>(4 new buildings targeting Gold LEED)</i></p> <p>2011-12: <i>(3 new buildings targeting Gold LEED)</i></p> <p>2012-13: <i>(no new buildings targeting LEED)</i></p>	<p>Design and construct all new buildings to achieve a minimum Leadership in Energy and Environmental Design (LEED) Silver Certification, where LEED certification is applicable.</p> <p>Target design and construction for new buildings to LEED Gold Certification standards, where feasible.</p>
	Comparison of simulated energy performance data to actual energy performance	<p><b>Base Year: 2004</b> 85.7%</p>	<p>90% of actual results are consistent with theoretical results</p> <p><b>Ultimate Target:</b> 95% (or more) of actual results are consistent with theoretical results</p>	<p>Data pending</p>	<p>Continue to identify/implement measures to increase the energy efficiency of government owned buildings.</p> <p>Analyze data comparing actual energy use versus simulated use and work with other government entities to take corrective action if required.</p>