



# Accountability Report 2021–22

---

Public Works



© Crown copyright, Province of Nova Scotia, September 2022

Accountability Report 2021–2022

ISBN: 978-1-77448-390-9

## Contents

Accountability Statement.....	3
Minister's Message .....	4
Financial Results .....	5
Measuring our Performance.....	7
<b>Goal: Deliver Transportation Systems that contribute to Economic Benefits and Growth .....</b>	<b>7</b>
<b>Goal: Reduce GHGs, (Green House Gas) Energy Consumption and work towards Net-Zero Carbon Climate Resilient Buildings .....</b>	<b>7</b>
Performance Measure: LEED® Certification Achieved for New Buildings.....	8
Priorities and Accomplishments.....	8
<b>Goal: Developing for the Future.....</b>	<b>15</b>
Performance Measure: Improve More Roads in More Communities.....	16
Performance Measure: Provide Highway Infrastructure That Supports Economic Growth .	19
Priorities and Accomplishments.....	20
<b>Appendix A.....</b>	<b>24</b>
<b>Annual Report under Section 18 of the <i>Public Interest Disclosure of Wrongdoing Act</i>.....</b>	<b>24</b>

## Accountability Statement

The Accountability Report of the Department of Public Works for the year ending March 31, 2022, is prepared pursuant to the *Finance Act* and government policies and guidelines. These authorities require the reporting of outcomes against the Department of Public Works' Business Plan for the fiscal year just ended. The reporting of the Department's outcomes necessarily includes estimates, judgments, and opinions by the department's management.

We acknowledge that this Accountability Report is the responsibility of the Department of Public Works management. The report is, to the extent possible, a complete and an accurate representation of outcomes relative to the goals and priorities set out in the Department of Public Works' 2021 - 2022 Business Plan.

Original signed by:

---

Kim D. Masland  
Minister of Public Works

Original signed by:

---

Peter Hackett  
Deputy Minister  
Department of Public Works

## Minister's Message

As the Minister of Public Works, I present our department's Accountability Report for the fiscal year 2021 - 2022. We were given a mandate with several definable goals to address Nova Scotia's transportation and infrastructure needs.

Our government delivered on our promise to remove tolls on the Cobequid Pass. Nova Scotia registered vehicles now have free passage through the Cobequid Pass. Tolls remain for non-Nova Scotia passenger and commercial vehicles, ensuring that this important transportation corridor is maintained to the highest standard.

We have doubled the funding for the Gravel Road Capital Program, from \$20 million to \$40 million per year. This will result in a longer-lasting driving surface and make regular road maintenance easier. We also doubled funding for the Rural Impact Mitigation (RIM) Fund from \$11 million to \$22 million. The RIM program supports road maintenance improvements pavement and gravel patching and brush clearing.

These two investments will help Nova Scotians get where they are going safely and efficiently through improvements to our network of our more than 8,400 kilometres of gravel roads.

Our government established the Joint Regional Transportation Agency, with the goal of creating effective regional transportation planning in the Halifax Regional Municipality and surrounding areas in anticipation of unprecedented growth.

We will continue to work with our federal and municipal partners, along with our partners at other provincial departments, as we maintain and enhance the critical infrastructure our communities rely on every day.

Original signed by

---

Kim D. Masland  
Minister of Public Works

## Financial Results

### Accountability Report – Financial Table and Variance Explanation

	2021-2022	2021-2022	2021-2022
	Estimate	Actuals	Variance
<b>Program &amp; Service Area</b>	<i>(\$thousands)</i>		
<b>Departmental Expenses:</b>			
Senior Management	1,323	1,142	(181)
Corporate Services Unit	452	389	(63)
Policy and Planning	2,568	2,777	209
Grants and Contributions	47,202	39,694	(7,508)
Highway Programs	482,720	489,762	7,042
Building Project Services	3,230	2,146	(1,084)
Public Works Administration	534	591	57
Real Property Services	2,415	2,312	(103)
Water Utilities	1,182	871	(311)
Environmental Services & Remediation	7,210	47,485	40,275
Building Services	20,336	21,530	1,194
Public Works & Special Projects	7,740	8,024	284
Strategic Planning & Engagement	2,222	203	(2,019)
<b>Total: Departmental Expenses</b>	<b>579,134</b>	<b>616,926</b>	<b>37,792</b>
<b>Additional Information:</b>			
Ordinary Revenue	146,447	91,917	(54,530)
Fees and Other Charges	1,735	1,755	20
Ordinary Recoveries	26,675	11,467	(15,208)
<b>Total: Revenue, Fees and Recoveries</b>	<b>174,857</b>	<b>105,139</b>	<b>(69,718)</b>
TCA Purchase Requirements	<b>516,061</b>	<b>505,847</b>	<b>(10,214)</b>
Provincial Funded Staff (FTEs)	<b>1,949</b>	<b>1,923</b>	<b>(26)</b>

Departmental Expenses Variance Explanation:

The Department of Public Works expenses were \$37.8 million or 6.5 per cent higher than estimate primarily resulting from increases of \$42.6 million for Boat Harbour remediation, \$9.7 million for the Rural Impact Mitigation program, \$8.0 million for storm damages and \$7.7 million in snow and ice removal costs. Partially offset with decreases of \$6.1 million in amortization costs, \$5.6 million delays in partially recoverable Highway 103 Bridgewater Interchange project, \$3.7 million delays in the Colchester Hospital demolition, \$3.5 million for NSLI grant for Healthcare Infrastructure division, \$3.3 million delays in recoverable Highway 104 Corporation improvements, \$2.3 million to Bay Ferries for NS to Maine ferry services, \$2.3 million decrease in 3<sup>rd</sup> party recoverable work, \$2.0 million in timing to create new division for Strategic Planning and Engagement, \$1.0 million for unused COVID PPE costs for public transit and \$0.4 million decrease in operating expenses.

Revenue, Fees, and Recoveries Variance Explanation:

The departmental fees and recoveries were \$15.2 million or 53.5 per cent lower than estimate primarily resulting from delays with \$4.0 million for Highway 103 Bridgewater Interchange project federal recovery, \$3.3 million from Highway 104 Corporation improvements, \$3.3 million in 3<sup>rd</sup> party recoverable work, \$3.0 million Boat Harbour federal recovery and \$1.6 million from the Town of Bridgewater for the Highway 103 Bridgewater Interchange project.

TCA Purchase Requirements Variance Explanation:

The tangible capital asset (TCA) decreases of \$10.2 million or 2.0% lower than estimate primarily resulting from a decrease of \$5.1 million in Provincial Ferry project spending, a \$2.0 million decrease in Public Works envelope projects, and a \$20.7 million decrease in dedicated building project spending (primarily due to delays with the Arts District Project and the Kentville Justice Centre). This was offset by a \$8.9 million increase in spending on major equipment, an increase of \$7.5 million in land purchases, and an increase of \$1.2 million in highway spending.

The TCA Revenue decreased by \$54.5 million or 37.2% primarily due to delays in the Art District and federal cost share road work such as Highway 107 Sackville-Burnside-Bedford Connector, the Highway 103 Ingramport to Hubbard's Twinning project, the Highway 102 Aerotech Connector, the Highway 103 Bridgewater Interchange project, the Highway 104 Sutherlands River Twinning, and the Highway 101 Upgrading of Dykes and Aboiteau.

Provincial Funded Staff (FTEs) Variance Explanation:

Timing of vacancies being filled.

## Measuring our Performance

### **Goal: Deliver Transportation Systems that contribute to Economic Benefits and Growth**

The Department of Public Works provided transportation and building infrastructure projects that continued to develop communities throughout the province with a sustained focus on innovative designs, energy efficiency, and sustainable site development. This was done and continues to be done while delivering quality transportation and building infrastructure projects in a safe and efficient manner.

The Department of Public Works (DPW) is the service department to government, and we offer a comprehensive range of building design, maintenance, land acquisitions, environmental and construction services. These services relate to the construction of new buildings, as well as the operation and maintenance of existing properties; this includes retrofits, renovations, and upgrades to address client needs and to maintain standards, codes, and legislative requirements.

DPW is responsible for more than 2,000 government owned structures at 550 sites across the province with an assessed value of over \$2.5 billion. The department is responsible for the operation and maintenance of 51 core buildings encompassing 1.7 million square feet, and is accountable for various industrial buildings and sites, including the operation of provincial water utilities, and the acquisition of leasehold facilities totaling approximately 1.6 million square feet.

The Department's responsibility included acquiring, managing, and disposing of furniture, fixtures, and equipment assets of the province. The inventory control and disposal program for provincial government holdings of furniture and equipment is valued at approximately \$320 million.

DPW also continued to manage construction projects for other government departments and agencies.

### **Goal: Reduce GHGs, (Green House Gas) Energy Consumption and work towards Net-Zero Carbon Climate Resilient Buildings**

The Department continued to work on strategic activities and to endeavor to achieve effective and efficiently built public buildings and other public infrastructure by decreasing energy consumption and increase energy efficiency. In addition to planning major renovations, the effort was made to make all buildings as energy efficient as possible. This measure focused on reducing energy consumption in existing government buildings.



DPW's approach is in conformity with the mandate that all new government buildings and any major renovations are completed to help decrease GHGs over time and that major building retrofits be low carbon, thus reducing embodied carbon towards climate resilient buildings, and working towards meeting the guidelines of the Government's green policy for buildings with the aims of decreasing energy consumption and achieving provincial carbon emission reduction targets.

Government buildings continue to be assessed for potential energy efficiency retrofits using feasibility studies. Successful investigations were followed up with design work and construction measures.

Projects undertaken included feasibility studies, building recommissioning, heat system replacements (design), lighting retrofits, performance testing of HVAC systems, and other energy reducing techniques. Where possible, energy reducing resources/studies are shared interdepartmentally to optimize results.

The target is to continue to identify/implement measures to increase the energy efficiency of government owned buildings as well as track the energy savings of each energy reducing measure.

#### Performance Measure: LEED® Certification Achieved for New Buildings

DPW continued to utilise and endorsed effective and efficient construction measures for government buildings. This included the adoption of the sustainable "green" building and sustainable community design, and the Department uses the Leadership in Energy and Environmental Design (LEED®) certification process as the tool to measure the degree to which each design meets the goal of achieving sustainable "green" building design.

The LEED Green Building Rating System is a measurement system that assigns credit points for sustainable building initiatives in the design and construction phases of a project. There are four levels of LEED certification: Certified, Silver, Gold, and Platinum. LEED certification only occurs after construction is completed.

#### Priorities and Accomplishments

Priority: Continued to access federal funds through Federal Infrastructure Funding Programs thus maximizing the benefits of federal cost sharing that continued to support major infrastructure priorities in Nova Scotia.

Accomplishments:

DPW continued to be the lead department in coordinating provincial infrastructure needs. The department significantly strengthened its partnership with its federal partners ensuring Nova Scotia's priorities were heard and considered so that the province was in the best position to leverage every possible resource to support its priorities.

- The Department participated in Federal Provincial Territorial working groups that share concerns on program implementation as they arose and continued to make recommendations for improvements to federal program parameters.
- The ICIP program, entered in 2018, is an Integrated Bilateral Agreement between the Province and Federal Government that provided up to \$828.5 million in federal infrastructure funding for eligible Nova Scotia projects over a ten-year period.
- A third amendment to the ICIP agreement was made in July 2021 that provided an additional \$5.9 million federal funding for ventilation projects.
- Allocation of ICIP funding is on track with \$517 million committed to projects pending approval and federally approved projects. An additional \$220 million is earmarked for specific projects and programmes in development. In total, at the end of 2021-2022, \$737 million of ICIP funding has been assigned. This represents 88% of funding allocated at the end of year four of the programme.

- Funding was provided for projects under the following funding streams:

Projects under Public Transit Stream included:

- HRM Bikeway Network
- East Preston Active Transportation
- Ragged Lake Transit Centre Expansion & Fleet Electrification

Projects under Green - Climate Change Mitigation included:

- Housing Nova Scotia Public Housing Building Envelope and Systems Deep Energy Retrofit
- First Nations Housing Retrofits
- Eskasoni Cold Storage Solar
- Town of Kentville Complete Active Transportation Network

Projects under Green - Environmental Quality and Resilience included:

- Harrietsfield Remediation Project
- CBRM Wastewater Treatment Infrastructure

- Municipality of District of Argyle Wastewater Improvements
- Town of Amherst Lift Station Upgrades

Projects under Community, Culture and Recreation Stream included:

- Eskasoni First Nation Long Term Care “Niknen” Project
- Municipality of District West Hants Arena and Soccer Field
- Beechville – Lakeside Community Centre
- George’s Island Public Access Wharf

Projects under Rural and Northern Communities Stream included:

- Glace Bay Water and Wastewater Infrastructure
- Lockeport Wastewater UV Disinfectant System
- Tancook Island Ferry Replacement
- Cabot Trail Rehabilitation
- Digby Wastewater Systems Upgrade

Projects under COVID-19 Resilience Stream included:

- Modular Classroom Units – Halifax Regional Centre for Education (5 separate ICIP projects)
  - IWK Hospital Air Handling, Safety and Infection Control Projects Phase I
  - Villa St. Joseph du Lac Exterior PPE Storage
  - Rosedale Home for Special Care Facility Upgrades
  - North Queens Nursing Home Facility Upgrades
  - Yarmouth Regional Hospital Energy Upgrades
  - Cumberland Regional Health Care Centre Energy Upgrades
- Seven provincial projects submitted under the Disaster Mitigation and Adaptation Fund (DMAF) were supported by DPW and are pending at the end of the reporting period.
  - DPW began and continues to engage in discussions with the Canada Infrastructure Bank to determine provincial accessibility to the bank’s new funding programmes created in 2021- 22.

Priority: Providing Asset Information Services. DPW continues the maintenance and updating of the Provincial Road Listing Database that contains road information on provincially owned roads maintained by the department.

Accomplishments:

- Maintained, and updated both the public and internal versions of the Highway Programs Asset Viewer (HPAV) that maps out assets and data relevant to Highway Programs administered by the department.
- The HPAV maps data such as roads by vehicle weight restrictions, locations of bridges, roads, highways, and district boundaries.
- Upgrading digital infrastructure to meet the demand for tools, analysis, and data-driven decision making.
- Ongoing data collection of departmental assets along highways, trunks, and routes.

Priority: DPW provides continuing support of government's capital investment in the construction of seven (7) major hospital projects, three major nursing home hospital projects, the long-term nursing home strategy, and the construction of small option home projects. Support is being provided to our partners at the Department of Health and Wellness and Long-Term Care Facility Owners and the Department of Community Services by providing architectural and engineering design, construction administration, and project management services for major renovation and expansion projects as needed.

Accomplishments:

- A comprehensive strategy has been put in place to meet Nova Scotia's evolving health care needs. The strategy involves the completion of numerous plan activities that together will help support the health care of all Nova Scotians for the next 50 years. DPW continues to maintain the focus on the evolving population needs and the ongoing building material challenges.
- The Department's support in the construction of hospital projects is a joint enterprise with the intent to provide "Connected Care for Nova Scotians" for the next 50 years, ensuring that the appropriate programs and services are provided in the right locations to achieve excellence in health, learning and research pursuant to the goals of the government.
- Some projects under joint support with the Department of Health and Wellness include the IWK Emergency Department Redevelopment – In design / construction multi-component project; the Halifax Infirmary MRI Procurement,; Halifax Infirmary Expansion and the Bayers Lake Community Outpatient Centre.

Priority: Manage Maintenance Projects on Government Owned Structures

Accomplishments:

- The Real Estate and Infrastructure Management Division of DPW managed 306 Public Works and Special Projects funded projects, and 53 Tangible Capital Asset funded projects during the reporting period.
- Managed five (5) dedicated capital projects on behalf of other departments.
- Some projects worked on or completed during the reporting period include Highland Village Redevelopment; CSS Acadia Refurbishment; and roof replacements at both the NSCC Strait Area Campus and the Museum of Industry.

Priority: Continued to identify and implement measures to increase the energy efficiency of government-owned buildings; and continue interdepartmental discussions on methods to achieve more sustainable building efficiencies and analysis of provincially set sustainable goals and targets.

Accomplishments:

- Energy Efficient Buildings - Energy projects were carried out in 2021 – 2022 totaling \$925,000. Projects included energy assessments, lighting upgrades, building recommissioning, control systems upgrades, and fuel switching projects.
- Benchmarking initiative continued to expand adding more buildings and updating energy data in the Energy Star Portfolio Manager. Benchmarking is valuable in prioritizing programme efforts, verifying energy savings and monitoring greenhouse gas (GHG) emissions to demonstrate the effectiveness of the energy conservation programme.
- A wood heat study was completed to explore the implementation of the wood heat initiative across various types of buildings and consumption ranges. Some oil-to-wood conversions are currently underway, and more projects will be approved based on the findings of the study. Wood chips and pellets are recommended as an attractive fuel switching strategy.
- The wood chip boiler installation was complete and activated in 2021 - 2022, completing the initial phase of the wood chip boiler initiative. The plant serves the Bridgewater Justice Centre and the Bridgewater Provincial Building.

Priority: Access by Design 2030 – Achieving an Accessible Nova Scotia

Accomplishments:

- DPW completed the Accessibility Audit Handbook that contains current building codes and standards. This handbook has been updated and supports the accessibility audit process on public buildings.
- A DPW developed an accessibility audit tool for use on government owned and leased spaces to evaluate accessibility compliance and requirements.
- An additional eleven (11) government buildings were audited during the reporting period. The continuation of audits proved to be useful in providing more input into the accessibility audit tool as the buildings audited represented a varied group of government owned buildings across the province.
- DPW continued the compilation of data on provincially owned buildings towards creating a database to catalogue and prioritise the assessment of government owned buildings for accessibility compliance and retrofit requirements.

Priority: Enhance the performance of our Transportation Trade Corridor system.

Accomplishments:

- The Department works closely with our federal partners in the federal infrastructure program “Transportation 2030” to ensure that Nova Scotia approved projects gain maximum benefit from the National Trade Corridors Fund (NTCF). Supporting this work remains a priority for the Department. <https://www.tc.gc.ca/eng/future-transportation-canada.html>
- DPW also continues to work with other Atlantic Provinces, the Halifax Port Authority, Halifax Stanfield International Airport, and other strategic stakeholders to improve the performance of the transportation systems, and to develop projects for future submission to the NTCF.
- DPW submitted an Expression of Interest for federal funding for the Cambridge Interchange project to the NTCF and received an invitation to apply with a full business case. This application is still in progress.
- DPW continued to work with other departments and the Halifax International Airport Authority to develop initiatives to expand connections to Nova Scotia by air.

Priority: Establish the Joint Regional Transportation Authority

Accomplishments:

- The Joint Regional Transportation Agency (JRTA), a crown agency was created in late 2021 with the goal of improving the flow of people and goods through the Halifax Regional Municipality.
- The JRTA's mandate includes conducting and completing a comprehensive review of all modes of transportation (roads, ferry, bridges, highways, transit, rail, air, and seaports), and to develop a five-year plan to assist HRM in preparing for an increase in population.

Priority: Maintain the ferry service from Nova Scotia to Maine.

Accomplishments:

- In 2016 a re-launched ferry service from Yarmouth, Nova Scotia to Maune, U.S.A. occurred.
- COVID-19 pandemic restrictions continued into the reporting year and resulted in travel restrictions and the closure of the Canada – US border to non-essential travel.
- Ferry services were cancelled for the 2021 sailing season.

Priority: DPW continued to support government's Capital investment in Education Facilities Infrastructure and support the Department of Education and Early Childhood Development's multi-year capital plan in building new schools and making renovations to existing schools. Design and construct all new buildings to achieve Leadership in Energy and Environmental Design (LEED®) Silver certification, where feasible.

Accomplishments;

- School projects are currently in various stages including site selection, design, construction, or major renovations phases. All are being targeted to achieve Energy Design LEED Silver certification as a minimum.
- These projects will improve learning environments in communities from across Nova Scotia. This affects current and future generations of Nova Scotians. These projects, in addition to modernizing learning environments, have provided valuable resources for their respective communities, such as a sports field, a gymnasium, and meeting spaces.

Priority: Continued the development, evaluation, and implementation of Health and Safety policies, programs and services that support and assist employees at all levels in maintaining a safe and productive workplace.

Accomplishments:

- Launch of a new safety programme – Back to Basics. A two-year initiative designed to seek to make each district, division and group equipped with the proper safety policy, practise and training required to operate in a safe environment.
- A manual and training programme surrounding Back to Basics has been developed and distributed.
- Conducting a department -wide comprehensive hazard assessment, with the mission to build and support a deep-rooted health and safety culture in the workplace.
- COVID-19 impact resulted in the implementation of Work from Home practices where possible. Public Health guidelines and the Department’s COVID-19 protocols were implemented and adhered to for employee resumption to the office.

Priority: To continue to facilitate Diversity, Inclusion and Employment Equity training in the Department and utilise a strategic plan to address the Priorities in Action outlined in the PSC’s All Together Report.

Accomplishments:

- Provided in-person Diversity, Inclusion and Employment Equity training to CUPE and NSGEU staff in Northern and Eastern Districts.
- In partnership with the Trades, an Ablution Station was incorporated into the 4<sup>th</sup> floor head office building renovations.
- The revitalised departmental Diversity Council developed eight (8) Toolbox Talks to be used both in field and office locations.
- The DPW developed Black Youth Development and Mentorship Program (BYDMP) is being led by a Diversity Coordinator as the programme enters its second year.

**Goal: Developing for the Future** – through planning, design, construction, and maintenance of our highway system the goal is to provide a safe and efficient movement of people and goods throughout the province.



The Department of Public Works is responsible for maintaining 4,100 bridges and approximately 23,000 km of provincial roads, including 1,199 km of the National Highway System – the highway system that connects Nova Scotia to other provinces and the global community. DPW operated and maintained approximately 1,300 pieces of highway maintenance equipment, four cable ferries, and three ocean-going, self-propelled ferries. The ferries pick up where the highway ends, and the November 2021 launching of the new Country Harbour ferry the Theodore O'Hara was a testament to DPW's continued focus on provincial rural transportation systems.

The Department of Public Works has an essential role in the development of a safe provincial transportation system, a system that supports the economic prosperity of Nova Scotia. We coordinate the province's position on air, marine, rail, and road transportation systems.

The Department is responsible for the monitoring and enforcement of regulations pertaining to the operation of commercial motor vehicles on provincial highways; the administration of a comprehensive licensing and safety strategy; the inspection program for all public passenger vehicles and providing for the monitoring and enforcement of regulations pertaining to motor vehicle inspections.

The Department is responsible for legislation, regulation, and policy development for programs assigned to the Registry of Motor Vehicles (RMV) and Vehicle Transportation Inspection. Modes of transportation, active transit and active transportation are critical to strengthening and connecting communities throughout Nova Scotia.

Traffic volumes, policy analysis of road safety issues, in-service road safety reviews and studies, collision statistics, standards, and procedures to address wildlife collisions, and many others are all factors that are considered when assessing and making decision about major construction upgrades, twinning, widening, paving, maintain gravel roads, and bridges.

In partnership with others the Off-Highway Vehicle (OHV) pilot project was launched to evaluate how to improve trail connectivity and access to services for Off Highway Vehicles. COVID-19 restrictions disrupted the pilot and delayed starting the evaluation until February 2021. The pilot has been extended until a legislated solution is developed.

Performance Measure: Improve More Roads in More Communities

The 2021-2022 Five-Year Highway Improvement Plan outlines government's approach to building, repairing and maintaining the province's roads, highways and bridges. It is a rolling plan that specifically 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 upcoming five years.

For this measure, the Five-Year Highway Improvement Plan for the fiscal year is evaluated based on the percentage of work that is undertaken. Completed projects are considered as 100% complete, started but incomplete projects as 50% complete, and deferred projects as 0% complete.

As outlined in the table below, major construction work, asphalt, and bridge replacement/rehabilitation work are identified as the primary components in the Five-Year Highway Improvement Plan:

- Major Construction Projects involves 100 series highways construction and expansion, construction on arterials and collectors, and construction for local roads.
- Asphalt illustrates repaving of 100 series highways, arterial/ collectors (i.e., trunks and routes), and local roads; as well as pavement preservation, and paving subdivision roads;
- Bridges includes major bridge projects (more than \$2 million), other bridge projects (between \$250,000 and \$2 million), and bridge rehabilitation work.

Five-Year Highway Improvement Plan

5 Year Plan - 2022-23 Edition Analysis					
Planned Work	# Planned Projects	Completed in 2021-22	Started in 2022-22	Carried Forward to 2022-23	% Planned 2021-22 Work Completed
<b>Major Construction Projects</b>					
100 Series Expansion	11	9	1	1	86%
Construction 100 Series	0	0	0	0	#DIV/0!
Construction on Arterial and Collectors	6	1	4	1	50%
Planned Work	# Planned Projects	Completed in 2021-22	Started in 2022-22	Carried Forward to 2022-23	% Planned 2021-22 Work Completed
Construction on Local Roads	1	1	0	0	100%
	<b>18</b>	<b>11</b>	<b>5</b>	<b>2</b>	<b>75%</b>

<b>Asphalt Projects</b>					
Repaving 100 Series Highways	8	8	0	0	100%
Repaving Arterial/Collectors	14	11	2	1	86%
Repaving Local Roads	26	25	0	1	96%
Pavement Strengthening	1	1	0	0	100%
Single Lift Overlay Repaving	2	2	0	0	100%
Maintenance Paving	22	22	0	0	100%
Double Chip Resurfacing Local Roads	2	1	0	0	50%
Paving Subdivision Roads	25	25	0	0	100%
	<b>100</b>	<b>95</b>	<b>2</b>	<b>2</b>	<b>96%</b>
<b>Gravel Road Program</b>					
	<b>40</b>	<b>38</b>	<b>2</b>	<b>0</b>	<b>98%</b>
<b>Bridge Projects</b>					
Major Bridge Projects	11	6	3	2	68%
Other Bridge Projects	8	7	1	0	94%
Bridge Rehabilitation	9	9	0	0	100%
	<b>28</b>	<b>22</b>	<b>4</b>	<b>2</b>	<b>86%</b>
<i>Additional Projects Moved Ahead (not included in analysis totals)</i>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>#DIV/0!</b>
<b>Total Highway Construction</b>	<b>186</b>	<b>166</b>	<b>13</b>	<b>6</b>	<b>93%</b>

**Pavement Preservation Category Only for Data Sheet and Accountability Report**

Pavement Strengthening	1	1	0	0	100%
Single Lift Overlay Repaving	2	2	0	0	100%
Maintenance Paving	22	22	0	0	100%
Double Chip Resurfacing Local Roads	2	1	0	0	50%
	<b>27</b>	<b>26</b>	<b>0</b>	<b>0</b>	<b>96%</b>

**Five-Year Highway Improvement Plan**

Base Year	15-16	16-17	17-18	18-19	19-20	20-21	21-22
<b>Total Fiscal Program % Completed**</b>	<b>96%</b>	<b>93%</b>	<b>93%</b>	<b>93%</b>	<b>93%</b>	<b>93%</b>	<b>93%</b>

\*\*Total Fiscal Program % Completed: Calculated on percentage of total number of planned projects completed, started, and carried forward, not by category percentages. Does not include Additional Projects Moved Forward percentages.

Ninety-three (93) percent of the total planned work outlined for 2021 - 2022 of the 5-Year Highway Improvement Plan (2021 - 2022 edition) was completed.

Our ultimate target is to achieve 100% completion of annual projected work identified on the Five-Year Highway Improvement Plan.

#### Performance Measure: Provide Highway Infrastructure That Supports Economic Growth

The condition of our highway system plays a key supporting role in the development of the provincial economy and is measured using an International Roughness Index (IRI). IRI measures the average level of pavement roughness for 100-series highways (i.e., the riding comfort of 100series highways).

IRI is measured on an increasing scale, where IRI = 1.00 would be new pavement, and IRI = 5.00 would be rough older pavement. An IRI value of 1.6 or below for 100-series highways is considered good according to the National IRI Survey – 2001. The level of riding comfort on 100-series routes reflects highways' contribution to increased economic development by enabling industry to access new resources, facilitating the transport of raw materials, and finished goods, and providing mobility for workers and consumers to reach the workplace and marketplace.

The IRI has been consistently below the target of 1.60 and is currently at 1.31 for 2021. The percentage of 100-series highways with an average IRI below 1.80 has been consistent at 99.3% for the past five years.

#### International Roughness Index (IRI)

YEAR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>% IRI &lt;=1.80</b>	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
<b>Average IRI</b>	1.25	1.27	1.29	1.37	1.40	1.27	1.30	1.31	1.34	1.31

The Department of Public Works strives to maintain the following IRI for Nova Scotia 100-series highways:

- Maintain the average IRI for the entire 100-series highways to below 1.60.
- Maintain the target of a minimum of 95% of 100-series highways with an IRI value of  
 <= ( less than or equal to) 1.80.

## Priorities and Accomplishments

Priority: Continue the implementation of the Five-Year Highway Improvement Plan (2021 – 2022 edition), update the plan for the upcoming five-year period, and continue to provide an early tendering of highway construction projects for 2022 - 2023 season.

### Accomplishments:

- The achievements for the 2021 – 2022 period are summarised in the first performance measure and outlined in detail in the Five-year Highway Plan 2021 – 2022 edition. [highways-5-year-plan-2021-22.pdf \(novascotia.ca\)](#)
- Planned projects for the 2022 - 2023 were outlined in the Five-year Highway Plan 2021 - 2022 edition and posted to the department's website in 2022. The Department continued to work towards tendering projects as early as possible.

Priority: Continue investment in expansion of 100 Series Highway system, through planning design and construction.

### Accomplishments:

- Highway 101, Three Mile Plains to Falmouth: The design work for the remainder of the project Exit 6 to Exit 7, including the Avon River aboiteau and causeway, is ongoing and the work will be tendered for construction in phases over the oncoming years.
- The 11-kilometre newly twinned section of Highway 103 between Tantallon and Ingramport opened in December 2020. Subgrade and bridge work continued for the second phase of the Hwy 103 twinning project from Ingramport to Hubbards in 2021.
- Construction of a new roundabout at the intersection of Highway 105 and Rte. 252 at Whycocomagh was completed this year. Roundabouts were also built and opened at Beech Hill Road and Trunk 4 in Antigonish and Kings Road and Trunk 4 in Sydney River. Three more roundabouts are planned as part of the Kings Road upgrades in Sydney River.

### Other 100 series and Major Construction Projects:

- Inverness – Highway 105 / 104 Port Hastings rotary upgrades – 100 series expansion and other major road upgrades.
- Halifax – Highway 107 Exit 17 to 18 wildlife fencing and tunnel, access improvements – 100 series expansion and other major road upgrades.
- Antigonish - Trunk 4 Trunk 4/16 intersection improvements 0.45 kilometres construction arterial / collector.
- Cape Breton - Trunk 28 Seaside Drive intersection improvements Trunk 28 and Gardiner Drive 0.4 kilometres construction arterial / collector.
- Colchester – Highway 102 South bound lane between Exit 11 and 12 (KM marker 79.5 to 73.5) 6 kilometres repaving 100 series highways.
- Pictou – Highway 104 East bound lane from Exit 20 to Exit 21 (KM marker 154.9 to 159.7) 4.8 kilometres repaving 100 series highways.
- Queens – from Liverpool Town Line southerly towards White Point 3.5 kilometres repaving arterial / collectors.
- Lunenburg - Route 332 from Riverport Bridge northerly to Trunk 3 13.5 kilometres repaving arterial / collectors.
- Shelburne – Port LaTour Road from Route 309 to Baccaro Road 3.7 kilometres repaving local roads.
- Digby – Placide Comeau Road from Trunk 1 to Second Division Road 4.3 kilometres repaving local roads.
- Queens – Beech Hill Road from Trunk 3 to end of listing 4.5 kilometres maintenance paving.
- Guysborough – Larry Rivers Road from 550 metres south of Mountain Road northerly to Trunk 16, 4 kilometres maintenance paving.
- Cumberland – Lake Road from Trunk 4 to County line 6.2 kilometres double chip resurfacing.
- Pictou – Loch Broom Lop from 5km north of Maple Street northerly to Alma Road 4.6 kilometres double chip resurfacing.

- Kings – Bear Brook Bridge (Russia Road) – major bridge projects.
- Hants – South Maitland (Gosse Bridge) Route 326 – other bridge project.

Priority: Rural Impact Mitigation Programme and Gravel Road Capital Programme

Accomplishments:

- The Rural Impact Mitigation (RIM) programme that supports rural maintenance on secondary and local provincial roads was pursuant to the mandate commitment doubled to \$22 Million. RIM supports road maintenance improvements including pavement and gravel patching, brush cutting, ditching, guard rail replacement and shoreline protection.
- The Gravel Road Capital Program was doubled to \$20 Million pursuant to the ministerial mandate commitment.
- The program entails gravel roads being evaluated, and repairs prioritized based on traffic volumes and road conditions such as potholes, poor drainage, loss of gravel, soft areas, and roadside vegetation.
- Gravel Road Project included:
  - Kings County 3.1 km from Victoria Road to Sturk Road;
  - Pictou County 8.8 km Brookland Road from Trunk 4 easterly;
  - Halifax South Road 5.68 km South Road from Route 357 to Higginsville Road;
  - Inverness 4.2 km Blackstone Road from Smithville Road easterly to West Lake Ainsly Road;
  - Queens County 3 km Labelle Road from Molega Road southerly; and
  - Colchester 5.88 km Pleasant Brook Road from Route 289 to Irwin Lake Road.
- A map of road, highway, and gravel road projects in various stages of completion and planned projects can be found at Highway Improvement Plan 2021-2022 Edition [highways-5-year-plan-2021-22.pdf](#) (novascotia.ca)

Priority: Removal of tolls on the Cobequid Pass

Accomplishment:

- Tolls payable at the Cobequid Pass were removed for Nova Scotia registered vehicles in late 2021. Tolls remain on other vehicles.

- A review of the *Highway 104 Western Alignment Act* is being conducted to ensure that it aligns with government priorities.

Priority: DPW is the lead department for coordination of multi-departmental active transportation initiatives. Supporting Active Transportation along the highway system, including the coordination of the Blue Route. <http://blueroute.ca/>

Accomplishments:

- Continued to work with Bicycle Nova Scotia on consultation and outreach to determine Blue Route locations in areas of the province.
- Added paved shoulders to 18.4 km of roads in 2021 to support bicycling.
- Continue to work with municipalities and other groups to improve provincial active transportation connections.
- Became responsible for Connect2 programme which awards grants to organisations and municipalities for Active Transportation projects that improve connectivity between and within communities.
- The *Environmental Goals and Climate Change Reduction Act* mandate the establishment of a Provincial Active Transportation strategy to increase active transportation options by 2023.
- DPW continued to collaborate with other government departments in the development of a Provincial Active Transportation strategy, and to review the vision, aspirational statements, and other areas of the strategy. Once complete, DPW will engage external stakeholders for ideas and input.

Priority: Road Safety Measures and Policy Analysis of Road Safety Issues

Accomplishments:

- Continued the Road Safety Advisory Committee (RSAC) and provided advice to government around road safety initiatives while continuing to work with partner departments and stakeholders on key road safety issues e.g., active transportation and distracted driving.



- Continued policy research and analysis on issues related to active transportation, including active transit; non-motorised modes of transportation; entry level training for commercial drivers; autonomous vehicles; and speed.
- Piloted amendments to the *Motor Vehicle Act* and Regulation that included - new bicycle traffic signal definitions; rules of the road enabling use within the province and municipalities; authorizing municipalities to develop by-laws for electric kick scooters municipal use; use of European approved bicycle helmets; online classes by Driver Training Schools.
- Extended the Off Highway Vehicle Pilot Programme for continuity until a legislated solution is developed.
- Continued safety measures and improvements on un-twinning areas of the 100 series highways including in-service road safety reviews, analysis of collision data to identify problem areas and propose adoption of effective safety measures, installation of edge and centerline rumble strips, embedded reflectors, and development of an "Access Management Manual".

## Appendix A

Annual Report under Section 18 of the *Public Interest Disclosure of Wrongdoing Act*

The *Public Interest Disclosure of Wrongdoing Act* was proclaimed into law on December 20, 2011.

The Act provides for government employees to be able to come forward if they reasonably believe that a wrongdoing has been committed or is about to be committed and they are acting in good faith.

The Act also protects employees who do disclose from reprisals, by enabling them to lay a complaint of reprisal with the Labor Board.

A Wrongdoing for the purposes of the Act is:

- a) a contravention of provincial or federal laws or regulations
- b) a misuse or gross mismanagement of public funds or assets
- c) an act or omission that creates an imminent risk of a substantial and specific danger to the life, health or safety of persons or the environment, or
- d) directing or counselling someone to commit a wrongdoing

The following is a summary of disclosures received by the Department of Public Works.

<b>Information Required under Section 18 of the Act</b>	<b>Fiscal Year 2021-2022</b>
The number of disclosures received	0
The number of findings of wrongdoing	0
Details of each wrongdoing	NA
Recommendations and actions taken on each wrongdoing	NA