



Accountability Report

2023–24

Public Works



© Crown copyright, Province of Nova Scotia, July 2024

Accountability Report 2023–2024

ISBN 978-1-77448-663-4

Contents

Accountability Statement.....	3
Measuring our Performance	4
Goal: Deliver Transportation Systems and Building Infrastructure Projects that influence Provincial Economic Benefits and Growth.....	4
Goal: Reduce Green House Gas (GHG) and Energy Consumption and work towards Net-Zero Carbon Climate Resilient Buildings	4
Goal: Supporting Capital Investments and Project Manage Infrastructure Projects	5
Goal: Coordinate provincial infrastructure needs to access federal funds through Federal Infrastructure Funding Programs and maximize federal cost sharing benefits to support major infrastructure priorities in Nova Scotia	6
Goal: Work with Halifax Port Authority (HPA), Halifax Stanfield International Airport (HIAA), and strategic stakeholders, transportation providers and Atlantic Provinces to improve performance of our transportation connection systems	6
Goal: Incorporating Inclusion Diversity Engagement and Accessibility into performance	7
Goal: Developing for the Future.....	7
Financial Results	12
Appendix A	14
Annual Report under Section 18 of the Public Interest Disclosure of Wrongdoing Act	14

Accountability Statement

The Accountability Report of the Department of Public Works for the year ending March 31, 2024, is prepared pursuant to the *Finance Act* and government policies and guidelines. The reporting of the Department of Public Works' outcomes necessarily includes estimates, judgements, and opinions by Department of Public Works' 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' 2023-24 Business Plan.

Original signed by:

Kim D. Masland
Minister of Public Works

Original signed by:

Peter Hackett
Deputy Minister
Department of Public Works

Department of Public Works – Introductory Statement

The Department of Public Works continued to contribute to Government's top priority of fixing healthcare by making significant progress on *More, Faster: the Action for Health Build*. Through investing significantly in highways, roads, and bridges, the department continued to maintain a safe and efficient transportation system. Our skilled and dedicated team is focused on operating provincial ferries, maintaining government buildings and infrastructure, and delivering new schools. Public Works delivered this and more on behalf of Nova Scotians, while reducing emissions and energy consumption as we look for new ways to fight climate change.

Measuring our Performance

Goal: Deliver Transportation Systems and Building Infrastructure Projects that influence Provincial Economic Benefits and Growth

The Department of Public Works (DPW) maintained its focus on transportation and building infrastructure projects that develop communities throughout the province with a focus on innovative designs, energy efficiency, and sustainable site development. DPW publishes the Five Year Highway Plan annually to keep Nova Scotians informed about planned road and bridge improvements to be made in their communities. DPW offers a comprehensive range of building design, maintenance, land acquisitions, environmental and construction services. This includes the construction of new buildings, and the operation and maintenance of existing properties, enabling retrofits, renovations, and upgrades to address client needs, maintain standards, codes, and legislative requirements.

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

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

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

DPW continued planning major renovations to public buildings and other public infrastructure, and to include effective and efficient strategies towards decreasing energy consumption and increasing energy efficiency. The approach complies 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 are low carbon, thus reducing embodied carbon towards climate resilient buildings. This is working towards meeting Government's green policy guidelines for buildings, with the aim of decreasing energy consumption and achieving provincial carbon emission reduction targets.

LEED® Certification Achieved for New Buildings - DPW continued to utilize effective and efficient construction measures for government buildings. This included the adoption of the sustainable “green” building and sustainable community design. DPW used the Leadership in Energy and Environmental Design (LEED®) certification process as the tool to measure the degree to which each design met the goal of achieving sustainable “green” building design. The process adopted ensured that the level of sustainable rating system certification was compatible with project location and complexity. The LEED® Silver for urban sites and LEED® Certified for rural sites is the industry standard, with alternate rating systems being used at sites where appropriate.

Goal: Support Capital Investments and Project Manage Infrastructure Projects

DPW is accountable for project managing infrastructure for all projects it undertakes. This includes adopting sustainable buildings initiatives include Net Zero ready projects prior to (31 Dec. 2022), and New Zero Climate Resilient and Low Carbon projects after (31 Dec. 2022). Target outcomes are guided through the design and construction processes, and through compliance with applicable building and energy codes and applicable provincial legislation and policies.

The delivery of safe, durable, code compliant buildings that follow applicable federal, provincial, and municipal codes by setting and delivering on applicable typology specific building standards and design guidelines is a primary goal of DPW.

Buildings Energy Efficiency – DPW continued the identification and application of ways to increase energy efficiency of government-owned buildings; and conducted interdepartmental discussions on methods to achieve more sustainable building efficiencies while working towards provincially set sustainable goals and targets.

Manage Maintenance Projects on Government Owned Structures – DPW’s project management services for provincial infrastructure supports client departments with the provision of architecture and engineering expertise to benefit project schedules, budget and program delivery for new construction, major addition, and renovation projects. The major project group is divided into three separate portfolios: major projects, education, and health.

Major Projects - DPW supports government’s capital investment with the construction of capital projects infrastructure initiative across the province. New buildings, renovation and expansion projects have funding approval and design and / or construction in phases. These projects better connect Nova Scotians to the services they need.

DPW provided project management services to various client departments including, Departments of Justice (Law Courts Parking), Communities, Culture, Tourism and Heritage (New Waterford Community Centre) and Natural Resources and Renewables (Shubenacadie Operations Centre Complex Renewal).

Education - DPW supported the government’s capital investment in education facilities with major addition and alteration projects and the construction of eleven new school projects. These projects continue to improve learning environments for students in many Nova Scotia communities, and will impact the current and future generations, providing modern learning environments, multi-purpose facilities such as sports fields, gymnasias, and meeting spaces for the wider communities.

DPW provided project management services for construction projects for Department of Education and Early Childhood Development, including ensuring buildings are designed to support modern, evolving changing education delivery methods with adaptability for future approaches.

Health - DPW supported Government's capital investments in the construction of new healthcare projects across the province that have full design and construction funding. Feasibility study on health projects continued to further strengthen the healthcare portfolio across the province. DPW and the Department of Health and Wellness partnership uses program and clinical expertise from Nova Scotia Health together with project management, architectural, engineering and design expertise at DPW to deliver advanced, state-of-the-art medical facilities that meet the intricate demands of quality healthcare protocols.

Environmental Services - DPW managed ongoing environmental site assessments processes to screen DPW sites for contamination. DPW continued the development of risk-based remediation criteria to address environmental contamination. DPW worked towards the finalization of the policy document addressing the Management of DPW Properties Contaminated by Other Parties, that sets expectations for site professionals addressing contamination on DPW sites that were impacted as a third party.

Goal: Coordinate provincial infrastructure needs to access federal funds through Federal Infrastructure Funding Programs and maximize federal cost sharing benefits to support major infrastructure priorities in Nova Scotia

As the lead department, DPW provided leadership and coordination on the Chignecto Isthmus Resiliency Project in collaboration with New Brunswick in this strategic government initiative. DPW continued engagement with the Canada Infrastructure Bank (CIB), exploring opportunities, leveraging CIB's financing options targeting green and transit Initiatives.

The Highway 104 Sutherlands River to Antigonish Twinning Project, partially funded through the National Trade Corridor Fund, was substantially complete in 2023 despite the project timeline coinciding with the COVID-19 pandemic. The project was awarded the Gold Award in P3 Design and Construction from the Canadian Council for Public-Private Partnerships.

DPW collaborated with the Joint Regional Transportation Agency, the Departments of Municipal Affairs and Housing, Natural Resources and Renewables, Communities, Culture, Tourism and Heritage among others to further government's infrastructure priorities.

Goal: To work with Halifax Port Authority (HPA), Halifax Stanfield International Airport (HIAA), and other strategic partners, transportation providers and Atlantic Provinces to improve the performance of our transportation connection systems

DPW continued to work with HPA, HIAA, and other partners to explore options to expand the province's transportation connections. Recovery from the COVID-19 pandemic continued with the HIAA reporting a 15% increase in passenger numbers 3,578,293 in 2023. Cargo activity at the HIAA was 39,350 for 2023.

A broad socio-economic impact study that began in 2023 on the Maine to Nova Scotia Ferry Service will continue over two operating seasons. This transportation connection service carried 38,399 passengers in 2023.

Goal: Incorporating Inclusion Diversity Engagement and Accessibility (IDEA) into DPW's performance

Accessibility - DPW actively participated with the Accessibility Directorate in the Accessibility Interdepartmental Committee and contributed expertise to the technical and language review committees in the Built Environment Standard. The compilation of data on provincially owned buildings and creating a database to catalogue and prioritise the assessments of buildings for accessibility compliance and retrofit requirements continued to be a priority of DPW.

Inclusion, Diversity, Equity - DPW continued to facilitate opportunities for Diversity, Accessibility, Inclusion and Employment Equity training in the department. This included facilitating the conduct of Treaty Education in partnership with Bear River First Nation; actively engaging with the Mi'kmaw Economic Benefits Office to participate in job fairs specific to Membertou and Millbrook First Nation communities; specifically designating positions for four summer student positions for Mi'kmaq youth employment and actively engaging with the Mi'kmaw Economic Benefits Office on the requirement for contractors to reach out to the closest Indigenous communities for interest in working with contractors on highway projects and tracking of results.

Goal: Developing for the Future – The Department's goal of planning, designing, constructing, and maintaining our highway system to provide a safe and efficient movement of people and goods throughout the province is fundamental to its mandate. DPW is responsible for maintaining 4,100 bridges and approximately 23,000 km of provincial roads, containing 1,199 km of the National Highway System (Trans Canada Highway). DPW operated and maintained approximately 1,300 pieces of highway maintenance equipment, four cable ferries, and three ocean-going, self-propelled ferries. Ferries pick up where the highway ends and provide essential transportation infrastructure to various communities.

DPW has a crucial role in the development and economic prosperity of a safe provincial transportation system; a system that includes air, marine, rail, and road. Monitoring and enforcement of regulations on 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 monitoring and enforcement of regulations pertaining to motor vehicle inspections, are key components of DPW's responsibility. This is combined with responsibility for legislation, regulation, and policy development for programs assigned to the Registry of Motor Vehicles (RMV) and Vehicle Transportation Inspection.

Modes of transportation, an active transportation network, and community transportation are vital to connecting and strengthening communities in Nova Scotia. Operating and capital support continued in community transportation programs to two (2) community and transit operators and nine (9) fixed route service providers while exploring new initiatives to expand and enhance community transportation in non-serviced areas.

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

Improve More Roads in More Communities - The 2023-2024 [Five-Year Highway Improvement Plan \(Plan\)](#) outlines DPW’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. The 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.

The table below outlines major construction work, asphalt, and bridge replacement/ rehabilitation work that are key components in the Plan.

Major Construction Projects involve 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 include 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 - 2023-24 Edition Analysis

Planned Work	# Planned Projects	Completed in 2023-24	Started in 2023-24	Carried Forward to 2024-25	Moved Out	% Planned Work Completed 2023-24
Major Construction Projects						
100 Series Expansion	14	10	3	1	0	82%
Construction 100 Series	1	0	0	0	1	0%
Construction on Arterial and Collectors	4	2	2	0	0	75%
Construction on Local Roads	2	1	0	1	0	50%
	21	13	5	2	1	74%
Asphalt Projects						
Repaving 100 Series Highways	7	7	0	0	0	100%
Repaving Arterial/Collectors	12	12	0	0	0	100%
Repaving Local Roads	17	15	2	0	0	94%
Pavement Strengthening	4	3	0	1	0	75%
Single Lift Overlay Repaving	2	2	0	0	0	100%
Maintenance Paving	24	20	3	1	0	90%
Double Chip Resurfacing Local Roads	2	1	1	0	0	75%
Paving Subdivision Roads	16	14	0	2	0	88%

	84	74	6	4	0	92%
Gravel Road Program						
	84	69	10	4	1	88%
Bridge Projects						
Major Bridge Projects	14	8	6	0	0	79%
Other Bridge Projects	16	9	4	1	2	69%
Bridge Rehabilitation	13	13	0	0	0	100%
	43	30	10	1	2	81%
<i>Additional Projects Moved Ahead (not included in analysis totals)</i>	28	28	0	0	0	100%
Total Highway Construction	232	186	31	11	4	87%

Five-Year Highway Improvement Plan

Base Year	16-17	17-18	18-19	19-20	20-21	21-22	22-23	23-24
Total Fiscal Program % Completed**	93%	87%	90%	94%	96%	93%	84%	87%

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.

Eighty-seven (87) percent of the total planned work outlined for 2023-24 of the Plan (2023-24 edition) was completed. Our ultimate target is to achieve 100% completion of annual projected work identified on the Plan.

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 1.34 for 2023. 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)

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
% IRI <=1.80	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3	99.3
Average IRI	1.29	1.37	1.40	1.27	1.30	1.31	1.34	1.31	1.34	1.34

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.

Continue the implementation of the Plan (2023–24 edition), update the plan for the upcoming five-year period, and continue to provide an early tendering of highway construction projects for 2024-25 season.

The planned projects for the 2023–24 period were summarized in the Plan 2023–24 edition, highway-plan-2023-24.pdf (novascotia.ca). Planned projects for the 2024-25 are outlined in the Plan 2024 - 2025 edition and posted to the department’s website in 2024. The Department continued to work towards tendering projects expeditiously.

DPW continued investment in the expansion of the 100 Series Highway system, through planning design and construction; and maintained the plan to twin highways at four locations around the province. Investments in safety features were made for highways not being twinned.

Projects:

- Twinning projects continued at Highway 101, Three Mile Plains to Falmouth, Highway 107 Sackville-Bedford-Burnside Connector, and Highway 103 Bridgewater Interchange.
- Planning and preliminary design work began on new projects including Highway 103 Argyle Interchange, Highway 104 Taylors Road to Paqtnkek twinning and Highway 107 Burnside to west of Lake Loon twinning.
- Opening the newly twinned Highway 104 Sutherlands River to Antigonish Project comprising 38 kilometres of highway, two new interchanges, 24 new bridges, and containing environmental enhancements like wildlife corridors and fencing.

Gravel Road Capital Program and Rural Impact Mitigation Program - Gravel roads make up 35% of the provincial road network amounting to about 8,400 kilometres. Recognising the importance of these roads the Gravel Road Capital Program is now \$40 Million. This funding is used to improve existing gravel roads in rural Nova Scotia, enabling proactive rebuilding to improve the structure and drainage, resulting in longer lasting roads, improved safety, and reduced maintenance costs. A map of road, highway, and gravel road projects in various stages of completion and planned projects can be found in the [Highway Improvement Plan](#).

The Rural Impact Mitigation (RIM) program supporting rural maintenance on secondary and local provincial roads has an allocation of \$22 Million. RIM supports road maintenance improvements including pavement and gravel patching, brush cutting, ditching, guard rail replacement and shoreline protection.

Nova Scotia continues to be hit with more intense and frequent storms causing extensive damage to infrastructure including roads and bridges. The department repaired most of the storm damage using more resilient infrastructure to better protect our roads and bridges from future storms. The department continues to look at ways to better build and manage infrastructure to protect it from future storms.

Active Transportation - DPW leads the development of the multi-departmental active transportation initiative, including the coordination of the [Blue Route](#) and ongoing delivery of community transportation programs.

DPW collaborated with Cycling Nova Scotia on Blue Route locations around the province and added 69.6 km of paved shoulders to roads to support cycling provincewide.

Asset Information Services - DPW continued to upgrade the digital infrastructure and digital solutions to meet the current and growing demand for data and analysis to update the Provincial Road Listing Database through the Asset Information Services containing information on department maintained provincially owned roads.

The Highway Programs Asset Viewer (HPAV) maps out assets and data relevant to highway programs and is administered and maintained by DPW. Data including roads by vehicle weight restrictions, bridge locations, roads, highways, and district boundaries is in the HPAV system.

Financial Results

Accountability Report – Financial Table and Variance Explanation

	2023-2024 Estimate	2023-2024 Actuals	2023-2024 Variance
Program & Service Area	<i>(\$thousands)</i>		
Departmental Expenses:			
Senior Management	1,322	1,491	169
Corporate Services Unit	484	494	10
Policy and Planning	2,848	1,853	(995)
Grants and Contributions	54,305	57,847	3,542
Highway Programs	566,406	593,989	27,583
Infrastructure Design and Construction Services	3,329	2,055	(1,274)
Public Works Administration	678	414	(264)
Real Property Services	2,491	2,970	479
Water Utilities	985	832	(153)
Environmental Services & Remediation	3,233	17,753	14,520
Infrastructure Management	22,636	24,661	2,025
Public Works & Special Projects	11,100	11,577	477
Strategic Capital Planning & Engagement	2,473	1,487	(986)
Total: Departmental Expenses	672,290	717,423	45,133
Additional Information:			
Ordinary Revenue	78,990	64,358	(14,632)
Fees and Other Charges	1,580	1,677	97
Ordinary Recoveries	30,994	34,679	3,685
Total: Revenue, Fees, and Recoveries	111,564	100,714	(10,850)
TCA Purchase Requirements	547,588	590,312	42,724
Provincial Funded Staff (FTEs)	1,966	1,945	(21)

Departmental Expenses Variance Explanation:

DPW expenses were \$45.1 million or 6.7 per cent higher than estimate primarily due to \$17.2 million for July flood damage (partially recoverable), \$14.9 million for Boat Harbour remediation, \$10.6 million in snow and ice removal costs, \$6.5 million for intellectual property associated with healthcare infrastructure, \$4.0 million for other repairs due to in year weather events, \$3.9 million for the Highway 103 Bridgewater interchange (partially recoverable), \$2.7 million in Provincial ferries maintenance costs, \$2.3 million for prior year storm damage (partially recoverable), and \$1.3 million for the Highway 107 Sackville Bedford Burnside Interchange (fully recoverable). These increases were partially offset by a decrease of \$13.6 million in major infrastructure amortization costs, \$4.9 million delays in Build Nova Scotia capital spending related to the Cunard and Acadia Wharf development projects.

Fees and Recoveries Variance Explanation:

The Department of Public Works fees and recoveries were \$3.8 million or 11.6 per cent higher than estimate primarily due to \$1.6 million increase in net recoverable 3rd party work; \$1.3 million in Municipal recoveries for Highway 107 Sackville Bedford Burnside Interchange; \$1.2 million in Municipal recoveries for Highway 103 Bridgewater Interchange; \$0.9 million under Federal NTCF program for Highway 103 Bridgewater Interchange. These increases were partially offset by \$2.0 million under Federal ICIP program for project delays related to Boat Harbour; \$1.8 million Asset Retirement Obligation adjustment; and \$1.5 million in recoverable Highway 104 repaving work.

TCA Purchase Requirements Variance Explanation:

The tangible capital asset (TCA) increases of \$42.7 million or 7.8 per cent higher than estimate primarily resulting from \$52.3 million in cost escalations and storm damages for multiple highways projects, \$16 million for in-year major equipment purchases, and \$6 million increase in cost escalations and timing of building infrastructure. These increases were partially offset by a decrease of \$31.5 million due to timing of strategic land projects.

Revenue Variance Explanation:

Revenue decreased by \$12.8 million or 16.2 per cent. TCA revenue decreased by \$14.6M or 18.5 per cent primarily due to the delays in federal cost share road work such as the Highway 101 twinning from Three Mile Plains to Falmouth Aboiteaux, and the Highway 103 Bridgewater Interchange project.

Provincial Funded Staff (FTEs) Variance Explanation:

Timing of vacancies being filled.

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.

Information Required under Section 18 of the Act	Fiscal Year 2023-2024
The number of disclosures received	None
The number of findings of wrongdoing	None
Details of each wrongdoing	Not Applicable
Recommendations and actions taken on each wrongdoing.	Not Applicable