



# **ROUTE TO PROSPERITY** **NOVA SCOTIA'S** **INFRASTRUCTURE**



*Good public infrastructure keeps communities going, and growing. Safe roads . . . clean water . . . solid schools, hospitals and public buildings . . . and upgrades to our transportation and communication links . . . all of these things strengthen Nova Scotia and our prosperity.*



# ROUTE TO PROSPERITY NOVA SCOTIA'S INFRASTRUCTURE

Infrastructure is the hardware of our society. It's schools, hospitals, and safe water systems, courthouses and government buildings that keep us educated, healthy, and safe. It's transportation networks that deliver us to work and help businesses deliver products to markets. It's communication systems that connect us to the world.

Public infrastructure is "built capital," one of the five building blocks that sustain competitiveness and prosperity – along with financial, natural, human, and social capital. (See Nova Scotia's economic growth strategy, *Opportunities for Sustainable Prosperity 2006*.)

Our province's built capital must evolve to meet the demands of a dynamic world and the changing needs of Nova Scotians. We need to provide a supportive setting for our communities and businesses, a setting that encourages investment, immigration, and growth vital for the prosperity of future generations.

## *Since 1999, Nova Scotia has*

- *expanded, renovated, or built 14 hospital projects*
- *completed 20 new schools and approved design and construction for a further 14*
- *begun a \$123-million plan to revamp the province's community colleges*
- *tripled annual investment in roads and bridges from \$44 million to \$142 million*
- *contributed \$65 million to municipal infrastructure projects*
- *invested \$410 million in housing programs, such as home repairs for lower-income families, public and social housing, and affordable housing, and \$100 million for projects through the Nova Scotia Housing Development Corporation*
- *increased broadband networking and high-speed capability in the Annapolis Valley through \$3.2 million in support to the Valley Community Fibre Network*
- *invested \$130 million to build, repair, renovate, and upgrade public buildings*



## BALANCING CHALLENGES

*We all want safe, healthy and prosperous places to raise our families. We also want the province to “live within its means.”*

Nova Scotia has walked a fine line to its recent economic success. The province works to provide people with the quality of life they desire – high standards of education, health, recreation, housing, and economic growth – in order to be considered one of the best places to live and do business.

Like most places in North America, Nova Scotia is facing shortfalls, in human and financial resources, to run the province’s public infrastructure. We currently spend more than \$300 million a year across government on roads, water systems, and public buildings. On a per capita basis, that’s in line with spending elsewhere. But it won’t be enough.

Nova Scotia faces some major challenges in transportation. Our biggest issue is the high cost of maintaining and building roads and highways. We manage 23,000 kilometres of road, with the average age of pavement at 21 years old – 7 years older than the national average of 14 years. Moreover, we have some of the oldest roadbeds in North America.

The Government of Nova Scotia has tripled the capital budget for highways from \$44 million in 1999–2000 to \$142 million in 2005–2006. To bring our highways up to acceptable standards, to pave the way to economic prosperity, we need to invest billions more during the next decade.



Good roads are crucial for cities and towns that need to be vibrant, sustainable, and connected to business and education opportunities. At the same time, rural communities are losing young people to urban centres and enrolment in local schools is dropping: families need safe transportation options for getting children to schools.

Meanwhile, we need to invest in infrastructure that supports urban growth. Transportation systems, and education and health-care facilities in urban areas need help to meet rising demands as people move to cities for work.

Today's global network makes our expectations for digital infrastructure complex and urgent. People want and need quicker connections, wherever they live and work, to take advantage of opportunities around the world. Installing those links – sometimes in remote areas with few residents – can be costly. But world-class digital connections can deliver business and education opportunities right to us. Upgrading our digital infrastructure will be an important initiative during the next few years.

If the province is to thrive and provide critical infrastructure, it must have strong economic investments, a healthy and growing population, and the ability to meet globally accepted standards for business and the environment. Public infrastructure must be available in order to attract economic investments and encourage residents to stay, and to prosper.

### *The needs are substantial*

- *A recent 10-year needs assessment identified a \$3.4-billion infrastructure deficit just for highways, and estimates continue to climb.*
- *The current municipal infrastructure deficit (mostly water and sewer) is estimated at \$1.8 billion and is expected to grow to \$2.1 billion over the next 10 years.*
- *There is a deferred maintenance cost of \$800 million for schools from primary to grade 12 – that's with new construction barely keeping up with demand.*
- *For hospital infrastructure, the projected shortfall over the next six years is \$423.8 million.*





## PROGRESS REPORT

### SCHOOLS AND HOSPITALS

Like many places in North America with aging populations, Nova Scotia faces challenges regarding its spending on health care and education. Even with significant investments in infrastructure, health-care operators and educators must sometimes defer maintenance that should be addressed on an ongoing basis. The result is a building backlog.

Since 1999, we have built 20 new schools for \$240 million, and we are in the process of designing or constructing 14 more over the next five years, for a further \$164 million. We have also invested \$140 million in renovations and additions to existing school facilities. Our goal has been to capitalize on existing resources and develop prioritized plans to renew key infrastructure to support long-term prosperity.

Another success story is the province's \$123-million commitment in 2003 to a seven-year expansion and redevelopment of the Nova Scotia Community College (NSCC). The funding provides an additional 2,500 seats, increasing access for students to NSCC's rural and urban campuses, and that will help address skill shortages in the province.

Like schools, hospitals and health-care facilities have changing infrastructure needs. Since 1999, more than \$278 million has gone to expansions, renovations, and construction of hospital facilities. Since 2000, \$100 million has helped purchase CT scanners, recovery room cameras, and other equipment, thanks to federal and provincial support. The province has also committed \$10 million for a new digital diagnostic system at hospitals to replace film-based imaging with faster, safer, and more streamlined processes. Systems are also in place for much-needed facilities to benefit from improved planning and accountability, making the best use of valuable health-care resources.

### *Public Works*

- *is responsible for the care and operation of 2,200 structures*
- *manages 16 industrial parks and 10 water utilities*
- *provides furniture to all government offices, new schools, and public facilities*
- *delivers cutting-edge emergency and field radio service to 14,000 government and emergency first responders*
- *operates the largest data centre and information network in Nova Scotia*
- *donates furniture and supplies to more than 100 non-profit organizations each year*
- *provides thousands of computers and computer supplies to schools each year*
- *during 2005–2006, completed 294 major infrastructure projects, 2,300 operational, environmental, and refundable projects, and 76 school projects*



## TRANSPORTATION MOVES

Since 1999, a focus on transportation has tripled the annual capital budget for roads and bridges to \$142 million from \$44 million. The investment has led to safer and smoother driving across Nova Scotia, from Sydney to Yarmouth. In 2005 alone, the province repaved more than 500 kilometres.

In 2003–2004, the government made a commitment to address deferred maintenance on rural secondary roads through the Road Improvement Money Program. The commitment was to double the investment from \$10 million to \$20 million over four years. In 2005–2006, the investment was \$15 million; that will grow to \$20 million by 2007–2008.

Moreover, the province has invested all of its fuel tax into roads. In 2005, the estimated tax was \$256 million. Then the province spent another \$50 million, bringing the total annual investment to nearly \$307 million.

Nova Scotia's 4,000 bridges are crucial links in our transportation system. A \$50-million program to replace many of our 200 single-lane, steel-truss bridges is now in its fourth year. Many of these bridges were built in the horse-and-buggy era and are now used by 40-tonne trucks.

The Department of Transportation and Public Works, with federal partners, has added 37 weather information sites since 2000, for data collection on road conditions. Storm-wary drivers can go online to access the latest weather news and views from numerous highway webcams.

To benefit people who might otherwise be housebound, the province invests in wheelchair-accessible vehicles for organizations in rural areas. Initiatives such as the Community Transportation Assistance Programs provide thousands of rides a year to those in need.

### *Transportation investments include*

- *\$307 million in highway expenditures in 2005-2006*
- *since 1999, paving or repaving 2,000 kilometres of highway (38 million tonnes of asphalt)*
- *annual maintenance of 23,000 kilometres of road*
- *\$2.5-million increase in Road Improvement Money every year since 2003, to address deferred maintenance on rural secondary roads*
- *building and launching a new \$4-million ocean-going ferry at Digby Neck*
- *maintenance of nearly 4,000 bridges*
- *37 new weather information sites since 2000*
- *pieces of highway equipment: 1,300*



## **HOUSING IMPROVEMENTS**

Since 1999, the province has invested more than \$400 million to meet the diverse housing needs of Nova Scotians. Housing services includes more than 20,000 units of social housing, public housing, co-ops, seniors homes and rent supplement units.

The province also helps Nova Scotians make repairs to their homes. In 2005–2006, \$30 million went to lower-income homeowners, public housing units, and non-profit housing co-operatives to pay for capital replacement and modernization projects, such as new roofs, siding, windows, heating systems, and elevators, generators, and fire alarm systems.

As of March 2006, the province and its partners and the federal government have committed \$37.3 million toward creating or sustaining affordable housing under an agreement signed in September 2002. The agreement has led to the construction of more than 700 new units and the preservation of 200 rural houses at risk of being lost as affordable housing.

## **BUILDING MANAGEMENT**

Nova Scotia's historic buildings are part of our landscape and our unique quality of life. Some are more than 200 years old and need repairs, upgrades, and renovations to make sure they meet our current and future needs. For instance, Government House has been in continuous use since 1805. As money becomes available, we are restoring stonework and upgrading mechanical and electrical systems. Much needed restoration work is also underway at Province House, the seat of Nova Scotia's Legislative Assembly. These are examples of work across the province to repair, maintain and preserve government buildings – work totalling \$130 million since 1999.

Funding also goes to new buildings and major renovations such as justice centres, courthouses and correction facilities, provincial buildings, and service buildings for government departments and agencies.





## **ENVIRONMENTAL REMEDIATION**

Environmental remediation includes routine work for site management – demolitions, disposals, clean ups. It also involves projects such as restoring Lighthouse Beach – a first step to return Boat Harbour to a tidal estuary.

Reclaiming the Sydney Tar Ponds and Coke Ovens has been going on for more than a decade. But the provincial agency charged with the cleanup reports great progress since 2001. Capped dumps, rerouted sewage and contaminated water, removal of debris from the Coke Ovens Site . . . the work continues. In 2004, Nova Scotia signed a \$400-million deal with the federal government to accelerate the cleanup using proven technology and land recovery methods.

## **GREENING GOVERNMENT**

Climate change is a serious responsibility for all Nova Scotians. The largest contributor in our province is carbon dioxide from burning fossil fuels for heat, electricity, and transportation.

Nova Scotia's Energy Strategy involves reducing energy use in government facilities. We are already seeing savings due to more efficient building designs and energy-efficient upgrades of existing structures and heating, lighting, and ventilation systems. The province has also adopted environment-friendly purchasing and sustainable transportation policies.

## **COMMUNICATION HIGHWAYS**

World-class digital infrastructure is the electronic gateway to new and emerging technologies that will lead to sustainable competitiveness and prosperity.

Already, Nova Scotia's investments have helped develop one of Canada's strongest community-based systems for access to information technology. Managed by community partners through 11 regional networks, about 300 C@P (Community Access Program) sites provide 1,400 computer terminals in libraries and other public buildings.

## **NOVA SCOTIA'S INFRASTRUCTURE**



## **MUNICIPAL PARTNERSHIPS**

Through joint federal, provincial, and municipal agreements, the province has invested \$65 million during the last five years to support 146 municipal infrastructure projects aimed at improving the health of communities and the environment and promoting wellness.

Projects included 55 water system upgrades including 15 new water treatment facilities. There were also 46 wastewater improvement projects, including 11 new sewage treatment facilities.

Twenty-two other community infrastructure projects received provincial support – arenas, transportation programs, community/recreation centres, and cultural facilities. One was the Kings Road reconstruction and pedway project in the Cape Breton Regional Municipality. The province contributed nearly \$3 million towards the cost of this project through the Canada-Nova Scotia Infrastructure Program.

In 2002, the province announced \$32 million in support for the Halifax Harbour Solutions Project, an important step to passing along a cleaner, more sustainable environment to future generations.



## THE WAY FORWARD

*We will meet the challenges that lie ahead by*

- *Continuing to invest in strategic infrastructure*
- *Forming partnerships with other governments and the private sector*
- *Building our infrastructure better, smarter, faster*

## STRATEGIC INFRASTRUCTURE INVESTMENT

The province has been living within its means during the last few years, creating budget surpluses and striving to lower debt and improve its credit rating so taxpayers pay less for ongoing debt. Indeed, the government will meet its debt-reduction targets in 2007–2008.

We are now in a better position to reinvest in our communities, to make life better for Nova Scotians. We will need to balance competing priorities, build a foundation for business success, and meet the needs of our people – wherever they live.

The government will continue its infrastructure renewal efforts by investing more than \$1 billion over the next four years in strategic infrastructure (built capital) that encourages sustainable prosperity.

## TRANSPORTATION VISION TO 2016

Opportunities will pass us by unless we develop and deliver transportation initiatives that capitalize on our trade potential and support long-term health of our communities.

Improving and expanding our roads and highways is key to ensuring our economic and social well-being, and for keeping our communities safe, vibrant and prosperous.

A 2001 review of Nova Scotia's primary and secondary highway systems identified a \$3.4-billion infrastructure deficit. The province developed a plan identifying priorities and strategic investments and increased the capital budget by more than 300 per cent over the last seven years.



During the next 10 years, the province will invest more than \$1.5 billion in capital highway projects. A top priority is ensuring corridors to export markets pave the way to our local prosperity and success within the global economy.

Over the next 10 years, we will invest more than \$200 million for expanding our 100-series highways, with priorities based on the Primary Arterial Highway System Vision. These roads are not only crucial to Nova Scotia's prosperity but also to Canada's National Highway System. A federal-provincial agreement could be a vehicle for delivering highway improvements and would make our dollars go farther. Potential projects include twinning Highway 101 from Three Mile Plains to West of Falmouth, building passing lanes for Highway 101 from Berwick to Kingston, and twinning Highway 125 from Balls Creek to Sydney River.

Beyond expanding highways, we will continue to implement the 4Rs of road work – resurfacing, restoration, rehabilitation, and reconstruction. We are also looking at how we can do our work better, smarter, and faster, through new systems for managing paving and bridge construction projects.

### **ATLANTIC GATEWAY**

Nova Scotia has been a gateway to North America for 400 years, and our economy has long been driven by trade. Proximity to markets, deep ice-free waters, and excellent rail, truck, marine, and air connections give our province competitive advantage over other locations. The Port of Halifax is the closest mainland North American port to Europe and, through the Suez Canal, to south and east Asia. It has seen a surge in trade, with a record-breaking 2005. The Strait of Canso Superport is also becoming a significant player; growing the port's cargo traffic is a government priority.

The Halifax International Airport is one of the country's busiest, and the largest and best-equipped in the region. It will have a new US pre-clearance facility soon.





The airport, port authority and transportation and business communities established the Halifax Gateway Council in 2004. The province is working with the Council and all levels of government to build a strategy for Canada's Atlantic Gateway. We are working to develop gateway-friendly transportation policies – such as more flexible federal air policies, support for small airports and ferry services – and to grow investment in supporting infrastructure.

Several investments would improve Nova Scotia's advantage as an international gateway and contribute to the region's economic growth. Twinning Highway 104 at Antigonish would eliminate a serious bottleneck on the Trans-Canada Highway, and benefit residents and truck traffic going to or from port facilities in the Strait of Canso. A Port Hawkesbury Bypass would also improve cargo transport activities in the strait area. In Truro, a longtime transportation hub, a new high-speed interchange at the junction of Highway 102 and 104 would ease traffic flow throughout the province – especially for trucks traveling to and from ports in Halifax and Cape Breton.

Economic success of Halifax Regional Municipality (HRM) propels Nova Scotia's overall prosperity. Provincial investment in the municipality's transportation infrastructure will give Nova Scotia leverage in strategic partnerships with other governments and the private sector. Part of the provincial Transportation Vision is developing a strategy, in consultation with stakeholders, on what must be done to ensure HRM's continued success. Projects under consideration include an inland container terminal, expanded harbour ferry services, and a Burnside-Sackville expressway. The Government of Nova Scotia will take a lead role in developing this strategy.

## **BROADBAND EXPANSION AND NOVA SCOTIA WIRELESS INITIATIVE**

Digital infrastructure investment that improves our networking capacity will help attract new business and enhance research and educational facilities across the province. The goal is to build the infrastructure for world-class digital connections by 2010.



## Government Priorities

### Transportation – Atlantic Gateway

- *Grow investment in transportation infrastructure.*
- *Work with government partners and the Halifax Gateway Council to capitalize on our harbours and related transportation assets to build Canada's Atlantic Gateway.*
- *Develop a gateway-friendly transportation policy.*

### Broadband and Wireless

- *Ensure that Nova Scotians have world-class digital connections by 2010, by continually upgrading our digital infrastructure.*

### Education and Health

- *Work with education and health institutions to capitalize on existing systems and to further develop prioritized plans for renewing key infrastructure.*

### Municipal Infrastructure

- *Launch a framework for municipalities to address infrastructure challenges.*

### Land Initiatives

- *Work with regional development groups and municipalities to meet their ongoing industrial land needs.*
- *Develop land initiatives for recreation, conservation and natural resources.*

### New Partnerships

- *Seek federal cost-sharing agreements for infrastructure renewal, including investment in the National Highway System and transportation gateway initiatives.*

The province and its federal partners have already invested \$15 million to bring broadband high-speed access to many communities giving businesses, universities, and citizens vital links for e-commerce and e-learning and web-based health care and social programming.

The Nova Scotia Wireless Initiative will launch pilots in education, health, tourism, hospitality, and rural communities.

## EDUCATION AND HEALTH: FIVE-YEAR PLANS FOR CAPITAL CONSTRUCTION

For schools, extensive and ongoing consultation with school boards, government, and other stakeholders has identified needs and prioritized upcoming projects. The aim is to ensure that Nova Scotians have the education system they need to be highly skilled and competitive. The government is beginning a review of health care infrastructure this year, to develop a five-year master plan for addressing looming needs.

## LAND INITIATIVES

The province is working with regional development groups and municipalities to meet the ongoing development needs of communities. Meanwhile, initiatives are underway to set aside land for recreation, conservation and natural resources.

## NEW PARTNERSHIPS

Infrastructure renewal is a multi-billion-dollar journey, and we can't go it alone. The Nova Scotia government has only limited control over infrastructure, so working with all levels of government and the private sector is critical for coordinating priorities and investments.

The province is becoming more strategic and assertive in seeking federal cost-sharing agreements. Such partnerships could make our dollars go farther – such as a federally funded long-term program to support our National Highway System, and a program to support Nova Scotia's development as an international transportation gateway. Canada is the most trade-dependent nation among the G8 countries.



A transportation network that provides efficient and effective access to world markets is key to our country's success.

Current federal-provincial-municipal infrastructure agreements involve investments of more than \$430 million from the partners over the next five years. A key priority is "green" municipal works to ensure safe drinking water, clean air, and effective waste management. Other opportunities support local transportation, cultural and recreational facilities, infrastructure for tourism, rural and remote tele-communications, high-speed Internet access in local public buildings, and affordable housing. The province is working on a framework to help municipalities address infrastructure challenges. Through innovation, we can extend the life of our infrastructure, optimize resources, and reduce waste.

### **BETTER, SMARTER, FASTER**

Renewing roads, bridges, buildings and water systems while meeting demands for new initiatives that keep our communities and public services current – this challenge will require new ways of doing business.

In 2006, we're mapping a route to public infrastructure that

- will be sustainable into future generations
- augments current and future economic activity
- supports new and emerging technologies, good stewardship, and good design.

The government has been working to reform how it plans, builds, finances, and manages public infrastructure. We need to ensure that we provide the best service and use of existing facilities and that we provide superior project management on new infrastructure projects. We are mapping the way to infrastructure renewal – to provide a supportive setting for our communities and businesses, a setting that encourages investment, immigration, and growth vital for the prosperity of future generations.

