

Ministry of  
Environment and the Environmental  
Assessment Office

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2011/12  
Annual Service Plan Report

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Ministry of Environment and the Environmental Assessment Office

For more information on how to contact the British Columbia  
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## Message from the Minister and Accountability Statement



I am pleased to present the many accomplishments of the Ministry of Environment and the Environmental Assessment Office over the past year in the *2011/12 Annual Service Plan Report*.

The Ministry of Environment is a leader in environmental management and a contributor to British Columbia's economic and social sustainability. We continue to support tourism and conservation through BC Parks and demonstrate leadership in water stewardship and action on climate change.

We are committed to air quality and the protection of species at risk, and we've shown that British Columbia can balance support for economic growth while protecting the environment.

The Green Economy is fundamental to our provincial well-being, both economically and environmentally. In March, we released "BC's Green Economy: Growing Green Jobs," which highlights the clean initiatives that are part of the [BC Jobs Plan](#)<sup>1</sup> and demonstrates the unique advantages that have made British Columbia a global leader in sustainable economic development. By investing in clean energy technologies such as liquefied natural gas and by launching innovative programs like the Clean Energy Vehicle Program, we're helping to grow British Columbia's clean tech sector and create jobs while preserving and enhancing our environment.

2011 marked the 100 year anniversary of BC Parks. Premier Clark and I officially launched the centennial celebrations at Mount Seymour Provincial Park by announcing free parking in BC Parks and the Community Legacy Program. Over 250 events took place during the centennial celebrations in every region of the province. We will continue to promote BC Parks by enhancing volunteer opportunities and experiences in our parks. Through these activities and conservation efforts, we plan to maximize visitation to our parks, as well as enhance the tourism and job creation spinoffs that are so vital to local communities across the province.

Last winter we invited public review and comment on our proposed new Water Sustainability Act. The proposed Act will respond to pressures from population growth as well as the effects of climate change on water resources. This will help to keep our environment, economy and communities strong.

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<sup>1</sup> [bcjobsplan.ca](http://bcjobsplan.ca)

## Ministry of Environment and the Environmental Assessment Office

British Columbia's public sector officially became carbon neutral last year, a first for any province or state in North America. The commitment to carbon neutrality applies to all schools, post-secondary institutions, hospitals, Crown corporations and government offices. The initiative focuses on occupant behaviour change, energy efficiency and sustainability in over 7500 buildings and also stimulates growth in the green technology sector. This is a key part of our commitment to reduce greenhouse gas emissions by 2020. We will also continue to mitigate and adapt to climate change by building on our commitment in our [Climate Action Plan](#).<sup>2</sup>

British Columbia's air quality remains a priority for the ministry. The Blue Sky Western Canada Forest System was expanded to include smoke forecasts from all Western provinces, Yukon, Northwest Territories, Ontario and the U.S. border states. Blue Sky is a valuable source of information for health authorities. We also continue to provide financial support to expand the successful woodstove exchange program. New high-efficiency woodstoves require less fuel and are proven to reduce emissions by up to 70 per cent compared to older woodstoves. Continued consumer adoption of this program will go a long way to protecting the overall health of British Columbia's airsheds.

Through the Conservation Officer Service, we are helping communities reduce human bear conflicts through education programs such as Bear Smart - a program developed in partnership with the BC Conservation Foundation, the Get Bear Smart Society and the Union of BC Municipalities. Communities can become officially designated 'Bear Smart' by properly managing wildlife attractants. Last year the Village of Lions Bay and the Resort Municipality of Whistler joined the City of Kamloops and the District of Squamish as Bear Smart communities.

B.C. is a leader in product stewardship, with more stewardship programs than any other jurisdiction in North America. In 2011, Packaging and Printed Paper was added to B.C.'s Recycling Regulation requiring producers to finance and manage the recycling of these products as of May 2014. These stewardship programs not only protect the environment by using resources and energy more efficiently, they also reduce overall costs.

The ministry demonstrated its commitment to an open government and its leadership in supporting environmental science by releasing datasets for public use. By March 31, 2012, the ministry had released over twenty new datasets through Data BC, on the state of environment, compliance and enforcement, and BC Parks. We also made environmental protection authorization datasets available, providing citizen access to data on the permitting of industrial and municipal facilities that discharge waste into the environment. This is the first time the government has made this type of data or information available to the public.

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<sup>2</sup> [livesmartbc.ca/attachments/climateaction\\_plan\\_web.pdf](http://livesmartbc.ca/attachments/climateaction_plan_web.pdf)

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The Environmental Assessment Office leads a neutral environmental assessment process that is inclusive, transparent and contributes to British Columbia's economic, social, and environmental sustainability. Proposed projects are assessed for potential environmental, economic, social, heritage and health effects that may occur during the lifecycle of these projects. In 2011/12, we managed the environmental assessments of 74 proposed projects representing a total potential capital investment of \$35 billion. We also completed five Environmental Assessment Certificate amendments, two Environmental Assessment Certificate extensions, and three Environmental Assessment Certificate exemptions.

The Environmental Assessment Office also led provincial efforts to provide coordinated input into the statutory review of the *Canadian Environmental Assessment Act*, and explored enhanced methods of cooperation with the federal government on joint project assessments. Enhancements were made to our compliance management program, and we continued to consult with First Nations while adapting to evolving case law. We also actively supported and contributed to the 'one process' streamlining and integration initiatives across natural resource sector ministries.

More details of these and other accomplishments made over the past year are presented in this report. I would like to thank staff for their contributions and dedication to environmental protection.

The *Ministry of Environment and the Environmental Assessment Office 2011/12 Annual Service Plan Report* compares the actual results to the expected results identified in the Ministry's *Revised 2011/12 – 2013/14 Service Plan*. I am accountable for those results as reported.

A handwritten signature in black ink, appearing to read "T. Lake", with a stylized flourish at the end.

Honourable Terry Lake  
Minister of Environment

June 30, 2012

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# Highlights of the Year

## **Extended Producer Responsibility Programs**

British Columbia has more product stewardship programs than any other jurisdiction in North America. In 2011, new stewardship programs were developed for small appliances, lead-acid batteries and smoke detectors. Additionally, Packaging and Printed Paper was added as a category to the B.C. Recycling Regulation which will require producers of these materials to finance and manage the recycling of packaging and printed paper as of May 2014. These new programs provide British Columbians with more options to recycle and more opportunities to share in the stewardship of British Columbia's air, land, water, and climate.

## **Climate Action Offset Cooperative**

In December 2011, the Ministry of Environment announced \$2 million in funding for a newly formed Carbon Offset Aggregation Cooperative (COAC). The Prince George-based cooperative is a first-of-its-kind program that pays heavy equipment operators and trucking companies to lower their carbon emissions. This essential seed money helps COAC provide a low-interest loan to members to retrofit heavy duty diesel trucks and equipment to increase fuel efficiency, save money and reduce carbon emissions. To date, 86 vehicles or pieces of equipment have undergone the necessary installations and a training program has provided owners and operators with techniques that will further increase vehicle efficiency. Greenhouse gas reduction attributed to the first 27 members is expected to be 16,200 tonnes (based on reducing fuel consumption by 10%), with this number increasing to 40,500 tonnes over the next year as the membership increases and more vehicles enter the program. COAC is expected to accelerate emission reductions and provide significant fuel savings for owners and operators.

## **Clean Energy Vehicles**

The Clean Energy Vehicle point-of-sale incentive program has already motivated purchases of new clean energy vehicles. Short-term incentives like those offered through the program foster the development of clean energy vehicle sector economies of scale, reducing prices and encouraging greater clean energy vehicle sales.

## **Large Facility Greenhouse Gas Emissions Reporting**

A One Window Reporting System is used for reporting greenhouse gas emissions from large facilities to meet both federal and provincial reporting requirements. This One Window System is operated jointly by Environment Canada and the ministry and allows all B.C. companies with obligations to report their emissions to both jurisdictions to report only once. Facilities in B.C. with greenhouse gas emissions over 10,000 tonnes reported for the second year on 2011 emissions using this approach. There are approximately 200 such facilities in B.C. For those facilities with joint reporting obligations, the One Window System allows them to report once, quickly, efficiently and accurately.

### **Bear Smart**

The Resort Municipality of Whistler and the Village of Lions Bay were awarded Bear Smart status in 2011 for reducing human bear conflicts in B.C. This is a significant achievement with only four B.C. communities achieving Bear Smart status. Through its partnership with a number of organizations including the BC Conservation Foundation and the Get Bear Smart Society, the Conservation Officer Service is committed to increasing the number of Bear Smart communities in B.C.

### **Wildlife Attractant Management**

In January 2012, the Ministry of Environment introduced the *Wildlife Attractant Amendment Act* to help address the management of wildlife attractants such as garbage and food. This amendment helps to preserve public safety by giving Conservation Officers the authority to take enforcement action, issue tickets, or pursue court prosecution to address individuals who repeatedly fail to adequately manage food attractants.

### **Species At Risk Task Force**

Due to the importance of addressing species at risk and the complexity of the issue, we invited comments on a report released last summer by the British Columbia's Species at Risk Task Force. Recommendations included addressing legislation, environmental management, and further engagement of the public and First Nations. We continue to work on the development of an implementation plan to address species at risk in British Columbia.

### **Community Environmental Justice Forums**

In 2010, the Conservation Officer Service developed and implemented Community Environmental Justice Forums as an alternative method to court prosecution. The Community Environmental Justice Forum addresses a company's non-compliance and is designed to promote restitution with the affected community. The Conservation Officer Service recently won a regional Premier's Award for Innovation and Excellence in the Partnership category for their work with the Trail Teck Metals case through the use of a Community Environmental Justice Forum. What could have taken years to resolve through the court system took only 33 days to complete. Trail Teck Metals took responsibility for their non-compliance and gained increased respect from the community.

### **Community Legacy Program**

As part of BC Parks' centenary celebrations, 27 registered not-for-profit societies, charities, First Nations Governments, Bands or Tribal Councils, local governments, schools, School Districts and post secondary institutions were awarded up to \$20,000 each to enhance British Columbia's parks in 2011. Approved projects included educational facilities and signs, trail enhancements, infrastructure to support recreational activities, conservation and restoration projects, and upgrades that make parks more accessible. BC Parks is looking forward to seeing the completion of a variety of exciting community projects taking place in parks and protected areas



across the province. A list of the projects that were selected as successful recipients of the Community Legacy Program funds can be seen [here](#).<sup>3</sup>

### ***Environmental Management Act* amendments**

Recent amendments to the *Environmental Management Act* give the Minister of Environment and the Lieutenant Governor in Council the authority to cancel permits in order to make way for new regulations. Since 2004, the ministry has been shifting from a permit-based regulatory model to regulations for selected industry sectors. This approach standardizes requirements and provides greater certainty to industry, and these amendments provide added authority to improve environmental protection services.

### **Natural Resource Decision Making**

The ministry received 1.75 million dollars from the Province's Climate Action and Clean Energy Fund to reduce backlogs and turnaround times for resource decision making. This funding enabled the ministry to complete 16 projects that will help determine how to proactively avoid or mitigate adverse impacts associated with land and resource activities. As part of this work and in conjunction with the BC Oil and Gas Commission, GeoScience BC and industry, the ministry continued to enhance and improve aquifer mapping, install and monitor observation wells and develop guidelines for groundwater use. These projects ensure stakeholders have access to timely and high quality information about their groundwater resources.

### **BC's Green Economy: Growing Green Jobs**

In March, Premier Christy Clark released "B.C.'s Green Economy: Growing Green Jobs," a report prepared by the ministry highlighting the clean initiatives that are part of the BC Jobs Plan and demonstrating the unique advantages that have made British Columbia a global leader in sustainable economic development. B.C.'s clean technology industry represents world-leading innovations and solutions for industries around the globe and for British Columbia that means long-term, high-paying jobs in a sector that continues to grow year over year. The report was prepared in collaboration with most of the province's largest corporations and significant input from the technology sector. Crossing all major economic sectors, industries and geography, the report demonstrates the province's success at delivering environmental outcomes and economic development through clean innovations and green practices in British Columbia.

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<sup>3</sup> [bccf.com/sites/default/files/CLP Project List.pdf](http://bccf.com/sites/default/files/CLP%20Project%20List.pdf)

# Purpose of Ministry

## **The Ministry supports government goals and initiatives by:**

- supporting government's Families First and Jobs and the Economy priorities by providing leadership in ensuring our natural legacy for future generations while supporting positive economic outcomes for B.C.;
- being a leader in sustainable environmental management by ensuring clean and safe water, land and air, ensuring healthy and diverse native species and ecosystems, and protecting and restoring parks and habitats;
- taking action on climate change and supporting the green economy by leading the implementation of the B.C. Climate Action Plan;
- working with the Province's partners to ensure the environmental health and sustainability of B.C.'s environmental resources;
- openly sharing useful and informative environmental data with the public;
- creating environment-related jobs through opportunities within the public service and through the development of programs with Ministry partners and with industry; and
- promoting outdoor recreational opportunities for families and other visitors in B.C. parks and protected areas.

## **The Ministry promotes stewardship and sustainability by:**

- establishing partnerships and sharing responsibility by engaging citizens, First Nations and stakeholders in policy, legislation and program development;
- enhancing environmental protection, public health and safety, and stewardship by monitoring air and water quality, reducing and removing wastes and toxins from the environment, promoting and supporting voluntary compliance activities, regularly and actively verifying compliance with regulatory requirements, and using enforcement options where appropriate;
- acquiring the most up-to-date information on species and ecosystems, and engaging citizens to determine priorities for the conservation of species and ecosystems at risk; and
- enabling British Columbians to reduce impacts on environmental resources by openly providing up-to-date environmental information based on sound science, creating economic incentives, and supporting voluntary compliance.

**The Ministry serves its clients in a responsible way by:**

- taking effective action on climate change, continuing to improve air and water quality and reducing contamination from toxins and waste;
- providing unique outdoor experiences in B.C.'s parks system to support healthy families, tourism and the B.C. economy;
- conserving, maintaining, and enhancing native species and ecosystems; and
- working collaboratively with all provincial ministries and related agencies involved in the management of land and natural resources to ensure environmental standards are met, environmental health and sustainability are achieved, and economic development and community resilience is supported.

**The Ministry develops innovative partnerships by:**

- adopting an inter-ministry approach to promote streamlined authorization processes and enhanced access to public services across the province. Government's structure to manage Crown land and natural resources was reconfigured in the fall of 2010, creating an improved arena for coordination and integration.<sup>4</sup> Under the direction of the Natural Resources Board, these ministries are making bold changes to service delivery in the natural resource sector. The reconfiguration facilitates more consistent engagement and consultation with industry, stakeholders, partners and clients. It also enhances inclusion of Aboriginal, economic and environmental considerations into decision making;
- participating in cross-government initiatives and working to establish collaborative relationships with First Nations, non-governmental organizations, communities, academia and industry;
- leveraging resources, knowledge and capacity from non-government and industry partners, including the Habitat Conservation Trust Foundation, Freshwater Fisheries Society of BC, BC Conservation Foundation, Bear Aware, the BC Lung Association, BC Hydro, FORREX, Ducks Unlimited, Stewardship Centre for BC, as well as individuals, such as park facility operators; and
- working with partners in other jurisdictions to advance the Province's commitments to taking action on climate change, and working with the federal government to ensure coordinated and effective approaches to air quality management and greenhouse gas reduction in B.C.

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<sup>4</sup> Participating ministries include: Aboriginal Relations and Reconciliation; Energy and Mines; Environment; Forests, Lands, and Natural Resource Operations; and Jobs, Tourism and Innovation.

**The Ministry administers legislation and sets standards by:**

- providing strategic planning, policy and legislative research and coordination for the development of effective and efficient statutes and regulations for the natural resource sector, including the ongoing management of 18 pieces of legislation;
- negotiating Memoranda of Understanding, protocol agreements and environmental cooperation agreements with neighbouring governments, and actively participating in the Canadian Council of Ministers of the Environment, Canadian Council of Ministers of Resource Management Biodiversity Steering Committee, Council of the Federation Water Stewardship Council, National Advisory Committee under the *Canadian Environmental Protection Act*, Union of British Columbia Municipalities, the New West Partnership Trade Agreement, the Species at Risk Steering Committee, and other forums; and
- promoting compliance with regulatory requirements through the provision of information, education, inspections, and other compliance verification activities, and using public reporting to account for environmental results. Where necessary, Ministry staff undertake activities to enforce the Province's environmental and public safety legislation.



*A rainbow arcs skyward at Garibaldi Provincial Park*

# Strategic Context

## **Economy**

British Columbia's real GDP increased by 2.9 per cent in 2011 (according to preliminary GDP by industry data from Statistics Canada), following growth of 3.0 per cent in 2010. Overall in 2011, most indicators of British Columbia's economic performance showed improvement compared to the previous year. Gains in the domestic economy were observed in employment and consumer spending, while external gains were made in exports and shipments of manufactured goods. However, several risks to British Columbia's economy remain, including the European sovereign debt crisis, ongoing weakness in the US economy, exchange rate volatility, and slower than anticipated Asian demand for B.C. products.

## **Population Growth**

British Columbia's population is expected to increase by up to 1.4 million by the year 2035. As the population increases, environmental pressures around the province will increase accordingly. Population increases result in higher levels of transportation activities, increased pressure on waste management systems, increased potential for human wildlife conflict, and additional housing and industrial development. As industry grows, so do pressures on ecosystems resulting from changes to the land base, natural resources, and species.

## **Climate Change**

In 2007, the Intergovernmental Panel on Climate Change (IPCC)<sup>5</sup> released its Fourth Assessment Report, concluding that warming of the earth's climate is certain, the increase in global average temperatures since the mid-20th century is very likely caused by human activity, and continued greenhouse gas emissions at or above current rates would induce larger changes in the climate system than have been observed recently. In October 2011, the independent Berkeley Earth Study confirmed the rise in average world land temperature of approximately 1°C since the mid-1950s, validating findings of additional studies by various U.S. and U.K. scientific agencies. The current and future risks to B.C. associated with some of these predicted changes are substantial.

Reducing greenhouse gas emissions and preparing for unavoidable climate change will help to minimize impacts in B.C. and globally. British Columbia is reducing emissions through various policies such as the carbon tax. The extent to which other nations and jurisdictions are effective in reducing emissions will influence the extent of climate impacts in B.C. Many of B.C.'s key trading partners are implementing actions, including California, Australia, China and other Asian countries. Reducing emissions in B.C., and using and exporting clean technologies and low carbon fuels, demonstrates climate leadership on an international scale.

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<sup>5</sup> A scientific intergovernmental panel that assesses scientific, technical and socio-economic information relevant to the understanding of climate change.

# Report on Performance

## Performance Results Summary Table

<b>Goal 1: Effective action on climate change</b> For greater detail see pages 16 to 21	<b>2011/12 Target</b>	<b>2011/12 Actual</b>
<b>1.1 Reduced provincial greenhouse gas emissions</b> Annual level of greenhouse gas emissions in British Columbia relative to 2007 levels	6% reduction by 2012	2011 DATA NOT AVAILABLE 4.5% REDUCTION THROUGH 2010
<b>1.2 Preparing for unavoidable climate change and its impacts</b> Number of provincial ministries that include a strategy on climate change adaptation in their Service Plans	8	8 ACHIEVED
<b>Goal 2: Clean and safe water, land and air</b> For greater detail see pages 21 to 26	<b>2011/12 Target</b>	<b>2011/12 Actual</b>
<b>2.1 Enhanced protection and stewardship of our water resources</b> Percentage of water bodies monitored under the Canada – B.C. Water Quality Monitoring Agreement with stable or improving water quality trends	96% or greater	96% ACHIEVED
<b>2.3 Enhanced protection and stewardship of our air</b> Number of air emission standards incorporating current Best Achievable Technology practices	6	6 ACHIEVED
<b>Goal 3: Healthy and diverse native species and ecosystems</b> For greater detail see pages 26 to 29	<b>2011/12 Target (vascular plants)</b>	<b>2011/12 Actual (vascular plants)</b>
<b>3.2 Conserved, maintained and enhanced native species and ecosystems</b> Changes in the status of five groups of species over five years	No Decline	Improved: 0 Declined: 0 Unchanged: 125 Awaiting Assignment: 3100 ACHIEVED
<b>Goal 4: British Columbians share responsibility for the environment</b> For greater detail see pages 30 to 33	<b>2011/12 Target</b>	<b>2011/12 Actual</b>
<b>4.3 Industry and client groups implement best environmental management practices</b> Number of product categories with industry-led product stewardship programs	11	11 ACHIEVED

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<b>Goal 5: Sustainable use of British Columbia's environmental resources</b>	<b>2011/12</b>	<b>2011/12</b>
For greater detail see pages 33 to 35	<b>Target</b>	<b>Actual</b>
<b>5.2 Optimize outdoor and economic opportunities from British Columbia's parks, fish and wildlife</b>		
Number of recorded park visits	20.1 million	DATA NOT AVAILABLE <sup>6</sup>
Visitor satisfaction survey	Maintain or improve (from 80%)	82% ACHIEVED

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<sup>6</sup> 2011/12 park visitor records will be made available once we have completed the data transfer to the new attendance system.

# Goals, Objectives, Strategies and Performance Results

The following sections present the Ministry's goals and provide an overview of their supporting objectives, strategies and performance measures. The performance reporting is based on the Ministry's [Revised 2011/12-2013/14 Service Plan](#).<sup>7</sup> Each performance measure has a discussion of the results, and the Ministry's response if there is significant variation between the target and the actual result.

## Goal 1: Effective action on climate change

Climate change has broad global, regional and local significance. Changes in climate drive changes in natural systems that affect economic, environmental and social interests. The current rapid rate of change is of serious concern and is linked to the burning of fossil fuels and other human activities that release greenhouse gases into the atmosphere. Population growth is also contributing to the impact. How we respond to climate change will shape our economy, the environment, our society, our communities and our way of life.

The government has made a strong commitment to tackle climate change by addressing its causes (mitigation) and preparing the province for the unavoidable consequences of climate change (adaptation). The Ministry of Environment leads the government's cross-ministry climate change mitigation and adaptation initiatives.

### Objective 1.1: Reduced provincial greenhouse emissions

Reducing the amount of greenhouse gases that are released into the atmosphere is an important step in addressing the causes of climate change and minimizing its impacts on generations to come.

#### Strategies

Key strategies for this objective include:

- coordinating the development and implementation of citizen engagement initiatives to mobilize the public and Ministry partners to reduce provincial greenhouse gas emissions;
- a whole of government approach to developing climate action policy and providing advice, research and planning documents that integrate with and support broader government plans and initiatives;

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<sup>7</sup> [www.bcbudget.gov.bc.ca/2011/sp/pdf/ministry/env.pdf](http://www.bcbudget.gov.bc.ca/2011/sp/pdf/ministry/env.pdf)



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- working with partners to support the implementation of the BC Jobs Plan, including initiatives such as liquefied natural gas exports to Asia that provide a new low-carbon energy alternative that will help avoid potentially significant increases in global greenhouse gas emissions;
- promoting Clean Transportation Initiatives that provide clean energy vehicle purchase incentives and new charging infrastructure, as well as programs to improve heavy duty vehicle efficiency and converting vehicle fleets to natural gas;
- guiding the implementation of the B.C. Climate Action Plan across government;
- developing, and assisting other ministries in developing policy, legislation and/or regulations, as needed;
- leading and coordinating climate aspects of provincial and local government initiatives to reduce emissions, create jobs and grow the economy;
- supporting the public sector to measure and reduce energy use, costs and emissions under the carbon neutral commitment through capital programs and behaviour change;
- reporting on greenhouse gas emissions at the provincial, local government and industrial levels; and
- working with international, national and regional partners to advance B.C.'s climate action commitments.

### Performance Measure 1: Reduction of greenhouse gas emissions

Performance Measure	2007 <sup>2</sup> Baseline	2009 Actual	2010 Actual	2011 Target	2011 Actual
Annual level of greenhouse gas emissions <sup>1</sup> in British Columbia relative to 2007 levels	64.9 megatonnes	61.5 megatonnes	62.0 megatonnes	6% reduction by 2012 (61.0 megatonnes)	DATA NOT AVAILABLE <sup>3</sup>

**Data Source:** Ministry of Environment

<sup>1</sup> Greenhouse gases are measured in units of tonnes of carbon dioxide equivalent. One megatonne equals 1,000,000 tonnes of carbon dioxide equivalent greenhouse gas. See the *British Columbia Greenhouse Gas Inventory Report 2008*, pages 4-5, for details at [www.env.gov.bc.ca/cas/mitigation/ghg\\_inventory/pdf/pir-2008-full-report.pdf](http://www.env.gov.bc.ca/cas/mitigation/ghg_inventory/pdf/pir-2008-full-report.pdf).

<sup>2</sup> Data collection, target setting and progress are on a calendar-year basis.

<sup>3</sup> Actual data for 2011 will be available in April 2013.

### Discussion of Results

The *Greenhouse Gas Reduction Targets Act*, brought into effect on January 1, 2008, put into law British Columbia's target of reducing greenhouse gas emissions by at least 33 per cent below 2007 levels by 2020, and by at least 80 per cent below 2007 levels by 2050. Interim targets have been set for 2012 and 2016, and the former is reflected in the table above. The Ministry of Environment is responsible for reporting on greenhouse gas emissions released into the atmosphere from a number of activities in British Columbia, including those resulting from industry, transportation, buildings, landfills, agriculture and net deforestation.

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The data for the performance measure are taken from Environment Canada's *National Inventory Report*, which is prepared to meet Canada's obligations under the United Nations Framework Convention on Climate Change. The report is published annually with an approximate 16-month lag relative to the reported year. British Columbia publishes a Provincial Inventory Report with B.C. data only. The report has B.C. data from the Environment Canada inventory, as well as provincial greenhouse gas emissions from afforestation and deforestation, and by-product greenhouse gas emissions from certain gases from the industrial and electricity sectors. These additional emissions are reported by Environment Canada in national totals only.

Greenhouse gas emissions increased from 61.5 megatonnes in 2009 to 62.0 megatonnes in 2010, a change of 0.8 per cent. From 2009 to 2010, emissions increased due to increased fossil fuel production and refining energy use (related to increased natural gas production), increased coal mine fugitive emissions, and increased emissions from heavy duty diesel and off-road diesel vehicles. Decreased emissions were seen in residential, commercial and institutional buildings, light duty gasoline vehicles and trucks, and aluminum production. The severe economic recession that occurred in 2009 strongly affected economic activity across most sectors in B.C. and reduced some industrial emissions. Climate change policies are expected to have a strengthening role in reducing energy use and greenhouse gas emissions going forward.

British Columbia's 2010 greenhouse gas emissions were 5.7 per cent lower compared to 2000, and 11.7 per cent higher compared to 1990. The increase in greenhouse gas emissions since 1990 is largely due to population growth, but some of it can also be attributed to increased activity in mining, oil and gas extraction and transportation. The *British Columbia Greenhouse Gas Inventory Report 2008* shows that most of this increase occurred between 1990 and 2001. The greenhouse gas per capita (tonnes/person) has decreased from 14.9 in 2007 to 13.4 in 2010.



*Shannon Falls Provincial Park*

Both the *British Columbia Greenhouse Gas Inventory Report 2010* and the Progress to Targets Report required by the *Greenhouse Gas Reduction Targets Act* are due to be released by the Ministry in the summer of 2012.

### **Objective 1.2: Preparing for unavoidable climate change and its impacts**

Taking action to reduce greenhouse gas emissions now will reduce the impacts of future climate change and provide human and natural systems more time to adjust. However, the greenhouse gases already in the atmosphere will continue to influence the global climate for decades to come, and some impacts are unavoidable. A comprehensive climate change action plan, therefore, includes preparing for such impacts, or “adapting.” Adaptation will help maximize the opportunities and reduce the risks related to climate change and its impacts on society and the natural environment.

### **Strategies**

Key strategies for this objective include:

- leading the implementation of government’s Climate Change Adaptation Strategy<sup>8</sup> by:
  - building a strong foundation of knowledge and tools to help decision makers across B.C. prepare for a changing climate, for example, through supporting and collaborating with research institutions and organizations, and developing expertise and experience in adaptation;
  - ensuring that actions on climate change are considered in policies, planning and decision making across government; and
  - engaging citizens and Ministry partners, including federal agencies, local governments, First Nations, industry and non-governmental organizations, in preparing for climate change and its impacts.
- integrating adaptation into the Ministry’s internal business areas, including developing policy, setting standards, and managing land, air, water, species, ecosystems and parks and protected areas by:
  - developing new approaches to water management that address the impacts from a changing water cycle, such as legislation to address water sustainability;
  - maintaining robust observation networks that contribute to increased understanding of the direction and pace of climate change in B.C.; and
  - planning for species, ecosystem and landscape conservation and restoration in a way that maximizes resilience to changing conditions.

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<sup>8</sup> For more information on the Climate Change Adaptation Strategy, please go to [livesmartbc.ca/attachments/Adaptation\\_Strategy.pdf](http://livesmartbc.ca/attachments/Adaptation_Strategy.pdf).

**Performance Measure 2: Number of provincial ministries that include a strategy on climate change adaptation in their Service Plans**

Performance Measure	2009/10 Actual	2010/11 Actual	2011/12 Target	2011/12 Actual
Number of provincial ministries that include a strategy on climate change adaptation in their Service Plans	4	6	8	8 <sup>1</sup> ACHIEVED

Data Source: Ministry of Environment

<sup>1</sup> Ministries of Agriculture; Community, Sport and Cultural Development; Education; Energy and Mines; Environment; Forests, Lands and Natural Resource Operations; Public Safety and Solicitor General; and Transportation and Infrastructure.

**Discussion of Results**

The Ministry of Environment, through the Climate Action Secretariat, is responsible for leading and coordinating climate change adaptation across government. British Columbia’s Climate Change Adaptation Strategy, which was released by government in February 2010, aims to accomplish the following:

- Build a strong foundation of knowledge and tools to help public and private decision makers across British Columbia prepare for a changing climate;
- Make adaptation a part of the B.C. government’s business, ensuring that climate change impacts are considered in planning and decision making across government; and
- Assess risks and implement priority adaptation actions in key climate sensitive sectors.

A core deliverable under the second theme above is that ministries will consider the impacts of a variable and changing climate by incorporating adaptation strategies into their service plans and business planning, where relevant. This performance measure was introduced in the *2010/11 – 2012/13 Service Plan*. It is intended to support the government’s increased focus on identifying and addressing key vulnerabilities related to climate variability and extreme weather. In 2011/12 eight ministries described initiatives in their service plans that would contribute to this goal: Agriculture; Community, Sport and Cultural Development; Education; Energy and Mines and Minister Responsible for Housing; Environment; Forests, Lands and Natural Resource Operations; Public Safety and Solicitor General; and Transportation and Infrastructure. The remaining ministries are committed to considering the impacts of climate variability and change in their planning and operations, without outlining any specific measures.

In January 2012, the Climate Action Secretariat commissioned a web survey from BC Stats of nearly 3,000 B.C. Public Service employees from all 19 ministries to establish a baseline of organizational awareness and preparedness in relation to climate variability and extreme weather events. The results of this survey are being used as a benchmark to help evaluate progress on climate adaptation within the provincial government as well as to inform future programming. The survey showed that the majority of employees felt that climate change impacts are a threat to B.C. and the work of the B.C. Public Service and that preparing for those impacts is important. Awareness of the relevance of climate change to specific business areas and integration of



climate change into government work remains uneven; however many natural resource ministries demonstrated a higher awareness of the relevance of climate change to their business area and have begun assessing or integrating climate change considerations into their work.

For more information on the Climate Change Adaptation Strategy please go to [www.livesmartbc.ca/attachments/Adaptation\\_Strategy.pdf](http://www.livesmartbc.ca/attachments/Adaptation_Strategy.pdf).

## Goal 2: Clean and safe water, land and air

### Objective 2.1: Enhanced protection and stewardship of our water resources

A safe and sustainable supply of high-quality water is vital to our communities, economy and environment. This can be achieved through effective legislation, innovative approaches to water governance and coordinated watershed-based planning.

#### Strategies

Key strategies for this objective include:

- encouraging shared water stewardship by leading and coordinating the implementation of the actions and commitments in *Living Water Smart: British Columbia's Water Plan* ([LivingWaterSmart.ca](http://LivingWaterSmart.ca));
- working with the ministries of Health and Forests, Lands and Natural Resource Operations to protect drinking water;
- engaging with First Nations, stakeholders and the public to develop new water sustainability legislation to protect stream health and aquatic environments, improve water governance arrangements, introduce more flexibility and efficiency in the water allocation system, and regulate groundwater use in priority areas and for large withdrawals;
- supporting decision making in permitting and environmental assessment processes by:
  - setting water quality objectives for Bamfield Inlet, Osooyos Lake, and Vernon Creek, and developing water quality guidelines for selenium and sulphate levels; and,



*Atna River Falls, Morice Lake Provincial Park*

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- creating guidance documents, including water monitoring for mine proponents, groundwater modelling, and assessment of large groundwater extraction from deep saline aquifers;
- assessing the health of water resources through collaborative science and monitoring programs, including:
  - the provincial biomonitoring program, which will assess 53 sites and provide new on-line GIS support tools through the provincial biomonitoring program;
  - the federal-provincial water quality network, which will assess water quality in 30 major rivers and streams; and
- the groundwater observation wells network, where over 140 wells provide ongoing information about the health of provincially significant groundwater aquifers;<sup>9</sup>
- chairing and actively contributing to the Council of the Federation’s Water Stewardship Council, and engaging other governments and external stakeholders in implementing the Water Charter;<sup>10</sup> and
- recognizing water flow requirements for ecosystems and species, and using that information to inform policies and guidelines.

**Performance Measure 3: Water quality trends monitored under the Canada – B.C. Water Quality Monitoring Agreement**

Performance Measure	2009/10 Actual	2010/11 Actual	2011/12 Target	2011/12 Actual
Percentage of water bodies monitored under the Canada – B.C. Water Quality Monitoring Agreement with stable or improving water quality trends	96%	96%	96% or greater	96% ACHIEVED

**Data Source:** Ministry of Environment

**Discussion of Results**

Under the Canada – B.C. Water Quality Monitoring Agreement, 31 provincially significant rivers and streams, including the Fraser, Columbia and Peace, are monitored in British Columbia. This performance measure relies on data collected from 37 monitoring stations to determine whether water quality is stable or improving in each of these key water bodies. By measuring the concentration of variables such as metals, nutrients, pH, temperature and

<sup>9</sup> Information from these networks provides overall trends on water quality and quantity, directly supports authorizations and regulations and helps local decision-makers manage water resources.

<sup>10</sup> For more information on the Water Charter, see [councilofthefederation.ca/pdfs/Water\\_Charter\\_Aug\\_4\\_2010.pdf](http://councilofthefederation.ca/pdfs/Water_Charter_Aug_4_2010.pdf).

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dissolved oxygen, the Ministry is able to identify trends in overall water quality. The target was once again achieved in 2011/12.

The Federal-Provincial Surface Water Monitoring Group assessed 11 stations in the Fraser River Basin for status and trends reporting. These results are being compiled in a report on the Fraser River Basin as an update to a report released in 2000. This report is expected to be drafted and finalised by the end of fiscal year 2012/2013. Additionally, the Federal-Provincial Surface Water Monitoring Group will be assessing stations in the Columbia River. The results from these assessments will be included in a report to be drafted in 2013.

The Federal-Provincial Surface Water Monitoring Group is working with regional offices to establish new trend stations in the Murray and Pettitot rivers for monitoring coal mining and gas extraction (hydraulic fracturing) activities, respectively. As these new stations are located in northeast B.C., they increase the geographic coverage of the network and allow the Province to monitor for cumulative impacts from these activities.

Data collected from sites under the Canada – B.C. Water Quality Monitoring Agreement are used for a variety of reports, including the annual Canadian Environmental Sustainability Indicators Water Quality Index at [ec.gc.ca/indicateurs-indicators](http://ec.gc.ca/indicateurs-indicators).

### **Objective 2.2: Reduced contamination from toxins and waste**

By reducing contamination from toxins and wastes efficiently and effectively, the Ministry will enhance public health and safety and mitigate impacts to water, land and air.

#### **Strategies**

Key strategies for this objective include:

- continuing to work with industry to develop, implement and continuously improve industry-led product stewardship programs;<sup>11</sup>
- regulating the remediation of contaminated sites in order to protect human and environmental health and facilitate economic development;
- ensuring that the generators, carriers and receivers of hazardous waste handle, store, transport, treat and dispose of it according to the Hazardous Waste Regulation and in a manner that does not compromise the safety of human health and the environment;
- collaborating with communities, public organizations, industry and other agencies and private parties to protect human health and the environment by promoting the safe use and management of hazardous waste; and

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<sup>11</sup> As per the Canada-Wide Action Plan for Extended Producer Responsibility ([ccme.ca/assets/pdf/epr\\_cap.pdf](http://ccme.ca/assets/pdf/epr_cap.pdf)). See also Objective 4.3.

- revising the Hazardous Waste Regulation and developing training and guidance materials to promote increased accountability for hazardous waste management.

### **Objective 2.3: Enhanced protection and stewardship of our air**

By encouraging the use of clean technologies and supporting the establishment of effective emissions standards, the Ministry strives to reduce the impacts of air pollution on public health and safety and environmental sustainability. Reducing emissions of some pollutants has benefits for both air quality and climate change.

#### **Strategies**

Key strategies for this objective include:

- leading the implementation of policies and initiatives designed to avoid, minimize and offset emissions from industry, transportation, urban growth, ports and marine vessels;
- maintaining coverage of the air quality monitoring network to ensure that it meets or exceeds National Air Pollution Surveillance standards;<sup>12</sup>
- continuing to develop new industrial air emissions standards that require using the cleanest available practices;
- continuing to introduce tools, guidance materials and other resources to support the development and implementation of airshed plans;
- developing ambient air quality objectives, standards and guidelines to support airshed planning and decision making in permitting and environmental assessment processes;
- collaborating with the federal and provincial governments to develop a national Air Quality Management System that will include national emission standards, national ambient air quality standards and be delivered through an air zone management approach;
- effectively managing of prescribed forestry burns. This includes revising the Open Burning Smoke Control Regulation to ensure air quality is protected especially within areas of the province that are heavily populated, and experience deteriorated air quality due to topography and the presence of other air discharge sources; and
- collaborating with the Oil and Gas Commission, Ministry of Energy and Mines and local partners in the northeast to monitor, report out to the public, assess and reduce impacts of oil and gas development on air quality.

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<sup>12</sup> The standards are available at [ec.gc.ca/rnspa-naps/](http://ec.gc.ca/rnspa-naps/).



**Performance Measure 4: Clean air standards for industry**

Performance Measure	2009/10 Actual	2010/11 Actual	2011/12 Target	2011/12 Actual
Number of air emission standards incorporating current Best Achievable Technology practices	4	5	6	6 ACHIEVED

**Data Source:** Ministry of Environment

**Note:** Target figures are cumulative.

**Discussion of Results**

The government works with industry to ensure that business practices support British Columbians’ environmental and health priorities, while ensuring economic sustainability. The Best Achievable Technology<sup>13</sup> approach encourages new and expanding industry to use the cleanest available practices and technologies. The standards for air emissions are set through guidelines, policies, codes of practice and regulations. The 5 standards developed in past years have been for the slaughter and poultry processing industries;<sup>14</sup> biomass-fired electrical power generation;<sup>15</sup> wood-burning boilers used in agricultural operations;<sup>16</sup> pellet plant manufacturing operations;<sup>17</sup> and waste to energy facilities<sup>18</sup>.

In 2011, the Wood Residue Burner and Incinerator Regulation underwent a substantive review. By December 31, 2016 all remaining beehive burners within the Province of British Columbia will be required to shut down, representing the 6<sup>th</sup> and most recent Best Achievable Technology practice. The closing of beehive burners is anticipated to lead to improved air quality for various communities and to provide opportunities for value added end uses of wood fibre.

<sup>13</sup> The Factsheet Air Emissions for Best Achievable Technology can be found at [env.gov.bc.ca/epd/industrial/factsheets/pdf/bat.pdf](http://env.gov.bc.ca/epd/industrial/factsheets/pdf/bat.pdf).

<sup>14</sup> The code of practice for the slaughter and poultry processing industries is available at [env.gov.bc.ca/epd/industrial/regs/codes/slaughter/index.htm](http://env.gov.bc.ca/epd/industrial/regs/codes/slaughter/index.htm).

<sup>15</sup> The Factsheet Air Emissions for Biomass-Fired Electrical Power Generation can be found at [env.gov.bc.ca/epd/industrial/factsheets/pdf/biomass-fired-generation.pdf](http://env.gov.bc.ca/epd/industrial/factsheets/pdf/biomass-fired-generation.pdf).

<sup>16</sup> More information on the Agricultural Waste Control Regulation (Part 6–Agricultural Emissions) is available at [bclaws.ca/EPLibraries/bclaws\\_new/document/ID/freeside/10\\_131\\_92](http://bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/10_131_92).

<sup>17</sup> The Factsheet Air Emissions for Wood Pellet Manufacturing Facilities can be found at [env.gov.bc.ca/epd/industrial/factsheets/pdf/wood-pellet.pdf](http://env.gov.bc.ca/epd/industrial/factsheets/pdf/wood-pellet.pdf).

<sup>18</sup> The Factsheet Air Emissions for Combustion of Municipal Solid Waste can be found at [env.gov.bc.ca/epd/industrial/factsheets/pdf/combustion-msw.pdf](http://env.gov.bc.ca/epd/industrial/factsheets/pdf/combustion-msw.pdf).

**Objective 2.4: Effective management of environmental risks**

Events such as oil spills and catastrophic fires can present risks to public health and safety, property and the environment. Although not all environmental risks are avoidable, effective management can help to minimize and offset the impact of these risks. The Ministry anticipates, responds to and manages the consequences of risks to the environment.

**Strategies**

Key strategies for this objective include:

- continuing to prevent, prepare for, mitigate and respond to spills that effect human health and the environmental quality of the province’s water, land and air resources along with the flora and fauna they contain by establishing policies and procedures, response plans, operational guidelines, cooperative agreements and technical guidance on emergency response;
- promoting stewardship with other provincial agencies, industry, First Nations, local government, federal government and other stakeholders to protect the public and the environment in the event of an emergency or disaster;
- implementing new approaches to the management of compliance verification data to allow the Ministry to improve its response to environmental risks and provide increased public accountability;
- collaborating with the Ministry of Forests, Lands and Natural Resource Operations to manage the public safety risks of human wildlife interactions, including awareness programs and, in severe conflicts, employing a specialized Predator Attack Team composed of specially trained conservation officers and the Provincial Veterinarian from the Ministry of Forests, Lands and Natural Resource Operations;
- providing policy guidance to support staff in delivering consistent input into environmental impact assessments and the mitigation of environmental impacts;
- managing the remediation of high-risk contaminated sites and regulating the remediation of all contaminated sites; and
- managing fire interface and fuel loading in parks and protected areas, especially near communities and other infrastructures.

**Goal 3: Healthy and diverse native species and ecosystems**

**Objective 3.1: Well-managed, integrated, open and accessible information on species and ecosystems**

The collection, storage, management and open distribution of scientific information on species and ecosystems enables effective science and policy development, contributes to the understanding of the status of native species and ecosystems, and leads to greater certainty in land use decision making.

## Strategies

Key strategies for this objective include:

- developing data systems to support the acquisition and management of data and information, and providing open access to that information in support of science, policy development and shared stewardship;
- employing the B.C. Species and Ecosystems Explorer ([a100.gov.bc.ca/pub/eswp/](http://a100.gov.bc.ca/pub/eswp/)) and the Conservation Framework ([env.gov.bc.ca/conservationframework/](http://env.gov.bc.ca/conservationframework/)) websites to make available information on species and ecosystems at risk, including their conservation status, associated threats, priority score and progress in implementing recommended actions;
- assessing the conservation status of plants, animals and ecosystems and related risks and threats throughout B.C., including parks and protected areas; and
- providing enforcement services under the *Wildlife Act* and using a specialized conservation officer service response team to control alien species.

### **Objective 3.2: Conserved, maintained and enhanced native species and ecosystems**

Many Ministry programs support the conservation of biodiversity and the maintenance and enhancement of native ecosystems to achieve a balance between the needs of wildlife and the needs of people. The Ministry encourages and supports others to accept a greater role in environmental stewardship, and facilitates community initiatives to protect and restore native species and ecosystems.

## Strategies

Key strategies for this objective include:

- setting priorities for species and ecosystem recovery and management action through B.C.'s Conservation Framework ([env.gov.bc.ca/conservationframework/](http://env.gov.bc.ca/conservationframework/));
- continuing to work with and expand partnerships, including those with First Nations, to identify, protect and



*A red fox (Vulpes vulpes) looks on*

restore species and ecosystems;

- implementing plans informed by B.C.'s Species at Risk Task Force recommendations to continue to improve conservation of species and ecosystems;
- implementing applied research programs to support species and ecosystem conservation;
- providing guidelines and standards for the protection and conservation of species and ecosystems, including inventory, monitoring and reporting on achievements;
- providing leadership in provincial species at risk status ranking and legal designation, and preparing and implementing recovery plans;
- collaborating with partners on strategies to address invasive species;
- developing new tools for analyzing the cumulative effects of different resource uses within a defined area in order to assist with natural resource decision making; and
- leading the development of an environmental mitigation policy and associated procedures to help support natural resource decision making and to foster avoidance, minimization and offsetting of impacts to the environment.

**Performance Measure 5: Changes in the conservation status of native species**

Performance Measure	2009/10 Actual (breeding birds)	2010/11 Actual (mammals)	2011/12 Target (vascular plants)	2011/12 Actual (vascular plants)
Changes in the status of five groups of species over five years	Improved: 8 Declined: 32 Unchanged: 182	Improved: 4 Declined: 2 Unchanged: 57	No Decline	Improved: 0 Declined: 0 Unchanged: 125 ACHIEVED

Data Source: Ministry of Environment

**Discussion of Results**

Changes in the status of native species of plants and animals in British Columbia is an important indicator of the Ministry's efforts to promote shared stewardship of B.C.'s ecosystems and native species. This performance measure coincides with a similar indicator used by the World Conservation Union to reduce the current rate of global biodiversity loss.

Tracking the status and occurrences of species and ecosystems at risk is done by the B.C. Conservation Data Centre.<sup>19</sup> Every species or subspecies in the province is given a conservation status rank, which is a measure of its risk of becoming extinct in British Columbia, using science-based criteria and factors such as rarity, trends in populations or habitat, and threats.

<sup>19</sup> B.C. Conservation Data Centre Home is at [env.gov.bc.ca/cdc/index.html](http://env.gov.bc.ca/cdc/index.html).

Status ranks for all B.C. species are available on B.C. Species and Ecosystems Explorer.<sup>20</sup> This performance measure has previously reported on breeding birds and mammals: for 2010/11, and for 2011/12, the status of vascular plants is reported. Vascular plants are essentially trees, shrubs, herbs, grasses, other monocots (grasslike plants, lilies, orchids etc.), ferns and fern-like plants.

In 2011/12, the status of 125 vascular plants was reviewed, and none of these experienced a genuine change in status. This is only a sample of the 3000+ vascular plants that occur in B.C., but the review focused on those species where new information had become available or status changes were expected. In a group of species this large, a certain amount of change is expected to go undetected, especially because ecosystem modification continues to be a major pressure on vascular plant diversity in B.C.

Although there were no genuine changes in status, a number of plants (not shown) were assessed at different statuses due to progress in acquiring new information about where they occur, in what numbers, and the risk at those locations. Although these types of changes represent progress, they are not genuine changes in populations and thus are not reflected in this indicator.

### **Objective 3.3: Well-managed parks and protected areas**

Parks and protected areas help to ensure the protection of native species and ecosystems, provide families with outstanding outdoor recreation opportunities, and contribute to meeting our environmental, social and economic goals. British Columbia has the third largest parks system in North America and largest provincial/territorial system in Canada protecting over 14% of the province. Our world-class parks system provides a legacy for future generations.

#### **Strategies**

Key strategies for this objective include:

- protecting, restoring and managing high-priority habitat and ecosystems including invasive species, forest health impacts, species at risk, and landscape connectivity;
- collaborating with First Nations and communities in protected areas planning and management to ensure long-term protection of natural, cultural and recreational assets;
- collaborating with local, regional and federal governments and other partners to establish new terrestrial and marine protected areas such as the Southern Strait of Georgia National Marine Conservation Area;
- strengthening the role parks and protected areas play in climate change adaptation; and
- increasing and promoting partnerships to expand the opportunities and involvement in stewardship initiatives.

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<sup>20</sup> BC Species and Ecosystems Explorer is at [env.gov.bc.ca/atrisk/toolintro.html](http://env.gov.bc.ca/atrisk/toolintro.html).

## **Goal 4: British Columbians share responsibility for the environment**

### **Objective 4.1: British Columbians understand the effect of their actions on the environment**

In order to foster an environmentally conscious society, people must understand the relationship between their actions and their health, as well as how their actions affect the health of other people, species and ecosystems. As British Columbians continue to make the connection between their activities and environmental impacts, they are much more likely to set a higher environmental standard for their actions and those of others.

#### **Strategies**

Key strategies for this objective include:

- promoting the sharing of the responsibility for protecting the environment, human health, and public safety through initiatives such as the [Parks 100 Celebration](#),<sup>21</sup> Community Stewardship Initiatives, and the Bear Smart and [Urban Ungulate](#)<sup>22</sup> programs;
- continuing to work with stewardship organizations to increase environmental awareness;
- promoting outdoor activities to foster a connection to and an appreciation for the natural environment;
- developing and openly delivering information on critical issues like climate change, environmental policies and water stewardship to targeted audiences through innovative communication tools, such as social media; and
- maintaining and enhancing the B.C. Air Quality website ([BCAirQuality.ca](#)) as the provincial government portal for the open sharing of air quality data, information, resources and tools.<sup>23</sup>

### **Objective 4.2: Shared environmental stewardship is a priority for all British Columbians**

The Ministry recognizes that in order for shared stewardship to be successful, it is necessary to engage citizens and work in partnership with First Nations, industry, communities, environmental groups and other government bodies.

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<sup>21</sup> [env.gov.bc.ca/bcparks/BCParks100/](http://env.gov.bc.ca/bcparks/BCParks100/)

<sup>22</sup> [env.gov.bc.ca/cos/info/wildlife\\_human\\_interaction/UrbanUngulates.html](http://env.gov.bc.ca/cos/info/wildlife_human_interaction/UrbanUngulates.html)

<sup>23</sup> Including access to real-time air quality data and an interactive map-based interface for the Air Quality Health Index and the BlueSky Western Canada Smoke Forecasting System.

## Strategies

Key strategies for this objective include:

- recognizing, promoting and enhancing shared stewardship through communication, consultative processes and volunteer initiatives that engage stakeholders, clients and partners;
- enhancing and promoting shared stewardship through effective and timely communication of compliance activities to protect the environment;
- leading industry engagement on planning and regulatory development that supports and encourages the transition to a low-carbon economy, and ensures international partners are apprised of B.C.'s progress;
- fostering sustainable natural resource management through collaborative approaches with the public, non-profit groups, communities, First Nations governments, academia and industry;
- using social media, such as the [LiveSmartBC.ca](http://LiveSmartBC.ca) Twitter feed ([@LiveSmartBCca](https://twitter.com/LiveSmartBCca)), to engage British Columbians on current environmental issues;
- using online resources to foster collaboration on climate action among stakeholders; and
- promoting shared water stewardship through the *Living Water Smart* blog ([LivingWaterSmart.ca](http://LivingWaterSmart.ca)).

### **Objective 4.3: Industry and client groups implement best environmental management practices**

Sustainable environmental management practices not only protect the environment, they reduce costs through more efficient use of resources and energy, and lay the foundation for good corporate citizenship.

## Strategies

Key strategies for this objective include:

- continuing to work with industry to develop, implement and continuously improve industry-led product stewardship programs;<sup>24</sup>
- encouraging compliance by reporting those in non-compliance with Ministry environmental standards and regulatory requirements, and posting the names of those in non-compliance in the quarterly compliance and enforcement reports;<sup>25</sup>

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<sup>24</sup> As per the Canada-wide Action Plan for Extended Producer Responsibility ([ccme.ca/assets/pdf/epr\\_cap.pdf](http://ccme.ca/assets/pdf/epr_cap.pdf)).

<sup>25</sup> See [env.gov.bc.ca/main/compliance-reporting/](http://env.gov.bc.ca/main/compliance-reporting/) for the *Quarterly Environmental Compliance and Enforcement Summaries*.



- continuing to explore opportunities to reduce regulatory burden<sup>26</sup> through changes such as implementing codes of practice to streamline authorization processes; and
- promoting best environmental management practices and maintaining high environmental standards.

### Performance Measure 6: Industry-led stewardship programs

Performance Measure	2009/10 Actual	2010/11 Actual	2011/12 Target <sup>2</sup>	2011/12 Actual
Number of product categories <sup>1</sup> with industry-led product stewardship programs	10	11	11	11 ACHIEVED

Data Source: Ministry of Environment

<sup>1</sup> Product categories can include a large number of different products. For example, the electronic and electrical product category includes computers, small appliances, power tools and cell phones.

<sup>2</sup> Target figures are cumulative. The target is two new categories every three years.

### Discussion of Results

The Ministry's target of 11 product categories having industry-led product stewardship programs was reached in 2010/11. The 11 product categories are: paint; used oil products; beverage containers; lead acid batteries; antifreeze; pharmaceuticals; pesticides; solvents and flammable liquids; gasoline; tires; and electronic and electrical products.

Product categories can include a large number of products. For example, the electronic and electrical product category includes an array of products from cell phones to power tools. New programs within the electronic and electrical product category were introduced by industry for small appliances and smoke detectors. New industry-led programs for lead acid batteries were also introduced. The public now has more options to recycle these products with no charge for drop off.

In 2011/2012 the Packaging and Printed Paper Product category was also added to the Recycling Regulation. This regulatory amendment requires a stewardship plan to be submitted to the Ministry by November 2012 and a program to be implemented by May 2014.

This performance measure was updated in the Ministry's 2012/13-2014/15 to better reflect the ministry's performance on meeting its goals for the Canada-Wide Action Plan for Extended Producer Responsibility.<sup>27</sup>

<sup>26</sup> British Columbia continues to make regulatory reform a priority across government, making it easier for businesses to operate and succeed in B.C., while still preserving regulations that protect public health, safety and the environment. Between 2001-2010, the Ministry reduced its regulatory requirements by 42 per cent while continuing to maintain stringent environmental standards.

<sup>27</sup> The plan is available at [ccme.ca/assets/pdf/epr\\_cap.pdf](http://ccme.ca/assets/pdf/epr_cap.pdf).



For more information about Industry Product Stewardship programs in B.C., please visit our website at [env.gov.bc.ca/epd/recycling/](http://env.gov.bc.ca/epd/recycling/).

## **Goal 5: Sustainable use of British Columbia's environmental resources**

### **Objective 5.1: Wise management and continued benefits of water and air**

British Columbia's water and air resources sustain a full range of economic, community and ecosystem needs. The Ministry seeks to ensure that all British Columbians will continue to benefit from the wise and prudent management of these resources, which are crucial to the health and sustainability of our environment.

#### **Strategies**

Key strategies for this objective include:

- developing an environmental mitigation policy and associated procedures to foster avoidance, minimization and offsetting of impacts to the environment;
- operating the hydrometric network<sup>28</sup> to obtain information to support water management;
- acquiring, interpreting and openly sharing environmental science and information;
- supporting communities engaged in multi-stakeholder air and watershed management plans;

### **Objective 5.2: Optimize outdoor and economic opportunities from British Columbia's parks, fish and wildlife**

British Columbia's parks, fish and wildlife provide families and visitors with a variety of unique outdoor opportunities in the form of recreation, camping, marine and freshwater angling, hunting and wildlife viewing. Engaging in these activities promotes an appreciation of B.C.'s landscape, native species, ecosystems and the environment as a whole, while supporting economic opportunities.

#### **Strategies**

Key strategies for this objective include:

- promoting sponsorship and donation opportunities through the Park Enhancement Fund to enhance conservation and recreation opportunities in BC Parks;

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<sup>28</sup> The B.C. hydrometric network is an environmental monitoring system that collects stream flow data from over 450 locations in British Columbia. The data are essential for hydroelectric power production, infrastructure, as well as for flood forecasting, agriculture and other purposes.

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- implementing a volunteer strategy that will engage British Columbians in conservation and recreation activities throughout BC Parks;
- targeting capital investment to accessibility improvements such as wheelchair accessible picnic tables and trails;
- working with partners both inside and outside government to implement strategies and programs, including the Community Legacy Program, that promote exceptional outdoor opportunities while ensuring the long-term protection of natural resources;
- offering the public increased opportunities for park recreation by providing high-quality outdoor recreational opportunities and experiences;
- working with the Ministry of Forests, Lands and Natural Resource Operations to coordinate the provincial regulatory, social and economic support needed for new recreational fishing opportunities, as identified and initiated by B.C. municipalities and the federal government; and
- optimizing stewardship and economic opportunities with First Nations, local communities, non-profit groups, private land owners and others.

**Performance Measure 7: Park visitation and visitor satisfaction**

Performance Measure	2009/10 Actual	2010/11 Actual	2011/12 Target	2011/12 Actual
Number of recorded park visits	20.2 million	19.8 million	20.1 million	DATA NOT AVAILABLE <sup>1</sup>
Park visitor satisfaction level	78%	80%	Maintain or improve (from 80%)	82%

**Data Source:** Ministry of Environment

<sup>1</sup>2011/12 park visitor records will be made available once we have completed the data transfer to the new attendance system.

**Discussion of Results**

British Columbia’s parks system is the single largest recreation enterprise in the province and one of the best in the world. The number of visitors to provincial parks is used to measure the contribution of parks to the government’s priorities of families and jobs. This data is intended to provide a reasonable indication of the trend in the level of use of public outdoor and commercial facilities and services available in B.C.’s parks.

Number of park visits: The preliminary estimate shows that the target for the number of park visits will not reach 20.1 million, a figure chosen as a target in 2008/09. Interim targets were set at a 100,000 visitor increase per year, between April 2010 and March 2012. BC Parks is currently migrating to a new attendance system, for a more reliable attendance source. Park visitor information will be available, when this transition is complete.

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Park visitor satisfaction survey: The Visitor Satisfaction Index is calculated as an average provincial rating of five services considered by park visitors to be important to their stay in a campground: cleanliness of restrooms; cleanliness of grounds; condition of facilities; a sense of security; and control of noise. The rating is based on the number of “excellent” and “above average” responses. The actual visitor satisfaction level in 2011/12 was 82% exceeding the target by 2%.



*BC Parks celebrated its 100 year anniversary in 2011/12*

# Report on Resources

Core Business Area	Estimated <sup>1</sup>	Other Authorizations <sup>2</sup>	Total Estimated	Actual	Variance
<b>Operating Expenses (\$000)</b>					
Environmental Protection	7,054	0	7,054	6,639	415
Environmental Sustainability	19,367	1,701	21,068	22,173	(1,105)
Parks and Protected Areas	29,979	2,320	32,299	33,495	(1,196)
Conservation Officer Services	16,736	0	16,736	17,208	(472)
Climate Action	5,123	8,842	13,965	13,012	953
Executive and Support Services <sup>3</sup>	22,224	0	22,224	20,725	1,499
<b>Sub Total</b>	<b>100,483</b>	<b>12,863</b>	<b>113,346</b>	<b>113,252</b>	<b>94</b>
Park Enhancement Fund	500	899	1,399	1,399	0
Sustainable Environment Fund	20,305	0	20,305	20,305	0
Adjustment of Prior Year Accrual	0	0	0	(754)	754
<b>Total</b>	<b>121,288</b>	<b>13,762</b>	<b>135,050</b>	<b>134,202</b>	<b>848</b>
<b>Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000)</b>					
Executive and Support Services	11,939	0	11,939	11,771	168
<b>Sub Total</b>	<b>11,939</b>	<b>0</b>	<b>11,939</b>	<b>11,771</b>	<b>168</b>
Park Enhancement Fund	400	0	400	35	365
<b>Total</b>	<b>12,339</b>	<b>0</b>	<b>12,339</b>	<b>11,806</b>	<b>533</b>

<sup>1</sup> The “Estimated” amount corresponds to the Estimates as presented to the Legislative Assembly in March 2011.

<sup>2</sup> Other Authorizations include access to contingencies, and an approved increase to spending in the Parks Enhancement Fund.

<sup>3</sup> Capital Expenditures in fiscal 2010/11 included \$0.035 million in the Park Enhancement Fund, \$10.763 million for park and recreational areas, \$0.086 million for land acquisition, \$0.002 million for office equipment, and \$0.795 million in specialized equipment including \$0.387 million in air and water monitoring equipment, and \$0.125 million for vehicles.

# Environmental Assessment Office

Environmental assessments examine the potential for environmental, economic, social, heritage and health effects from the construction, operation and, where required, decommissioning stage of proposed projects. For any project requiring an environmental assessment certificate under the *Environmental Assessment Act*, the proponent must successfully complete an environmental assessment and receive a certificate from the Environmental Assessment Office before other provincial agencies can issue permits and approvals for the project.

## Highlights of the Year

### Project Updates

The Environmental Assessment Office effectively managed 74 reviewable projects representing over \$35 billion in potential capital investment to B.C.'s economy. Five were referred to Ministers for decision, with four projects – representing \$1.3 billion in potential investment – receiving an Environmental Assessment Certificate and approval to proceed to the permitting and authorizations process.

One project, Ashcroft Ranch Landfill, was not granted an Environmental Assessment Certificate. Metro Vancouver's Integrated Solid Waste Resource Management Plan does not identify the need for a large new landfill in the B.C. interior, and in 2008, the Metro Vancouver board resolved to move away from interior landfills and focus attention on waste reduction.

**Table 1: Assessments completed in the fiscal year 2011/12**

Project Name	Sector	Potential Capital Investment (\$M)	Certification Date
Bevan Avenue Wells Project	Water Management	\$4	May 10, 2011
Ashcroft Ranch Landfill Project	Waste Management	\$75	Certificate refused, September 9, 2011
Kokish River Hydroelectric	Energy	\$200	November 24, 2011
Nahwitti Wind Farm Project	Energy	\$900	December 22, 2011
Tumbler Ridge Wind Energy	Energy	\$105	March 27, 2012

**Data Source:** Environmental Assessment Office

## Ministry of Environment and the Environmental Assessment Office

The Environmental Assessment Office also reviewed and approved requests from proponents for eight amendments to five Environmental Assessment Certificates for previously approved developments. Five of these amendments occurred in the energy sector, one in the mining sector, and one in the transportation sector.

Since 1995, 21 projects have been terminated, withdrawn or refused certification. In addition, projects often become inactive when proponents are required to conduct additional studies or consultation efforts, or when significant issues are identified.

### **Coordination with the Federal Government**

Approximately two-thirds of all proposed projects under review by the Environmental Assessment Office were confirmed by the federal government as subject to, or likely subject to, review under the *Canadian Environmental Assessment Act (CEA Act)*.

In October 2011, the federal Standing Committee on Environment and Sustainable Development initiated a statutory review of the *CEA Act*. British Columbia made a submission to the Standing Committee recommending that the *CEA Act* be amended to recognize another jurisdiction's environmental assessment process and decision as equivalent to its own, eliminating the need for a federal assessment where a provincial assessment is being conducted. B.C. also recommended that the federal government focus its resources on projects of national significance. B.C.'s submission to the Standing Committee was made available to the public on the Environmental Assessment Office's website on March 28, 2012.<sup>29</sup>

### **Compliance Management**

Compliance management was a key priority for the Environmental Assessment Office last year. In July 2011, the Office of the Auditor General published a report concluding that the oversight of certified projects was not sufficient to ensure that adverse effects of projects were being avoided or mitigated. In response, the Environmental Assessment Office worked with the natural resource sector ministries to address the Office of the Auditor General recommendations.

### **Engagement**

Engagement with key industry, environmental non-governmental organizations, and the public during the environmental assessment process is a priority. The Environmental Assessment Office has a strong partnership with the Western and Northern Affiliate of the International Association for Impact Assessment (IAIA), which provides opportunities to learn from leading practitioners in the field. In 2011/12, the Environmental Assessment Office met with a number of organizations to discuss the importance of environmental assessment regulation and share thoughts on best practices.

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<sup>29</sup> The submission is available at [www.eao.gov.bc.ca/pdf/BC Submission to 5 Year Review November 28 2011 FINAL.pdf](http://www.eao.gov.bc.ca/pdf/BC_Submission_to_5_Year_Review_November_28_2011_FINAL.pdf)



## Purpose of the Office

The Environmental Assessment Office was created in 1995 to coordinate the assessment of proposed projects in B.C. in accordance with the requirements of the *Environmental Assessment Act*. This role continued for the Environmental Assessment Office when government proclaimed the new *Environmental Assessment Act* in December 2002.

Environmental assessment is an iterative process that ensures that poorly designed projects are identified as early as possible, and that those projects are either redesigned or do not proceed.



*Gathering information for environmental baseline studies for the Quality Wind Project, located northeast of Tumbler Ridge, B.C.*

## Strategic Context

The Environmental Assessment Office's workload remained high as the global economic recession continued its recovery in 2011/12. The potential capital investment value for active and inactive projects undergoing environmental assessment during 2011/12 totalled over \$35 billion. Development proposals in the energy and mining sectors continued to comprise the majority of projects undergoing environmental assessment. Other sectors represented included tourism, transportation and waste management.

External factors that affected the business of the Environmental Assessment Office include:

### Federal Review

The statutory review of the *Canadian Environmental Assessment Act* was a major element in the strategic context of provincial environmental assessment. The Environmental Assessment Office has been actively engaged in this review, and has coordinated input from across the provincial government. It is B.C.'s position that elimination of duplication with a continued focus on environmental standards will provide a clear and robust framework leading to more timely decisions.

### Provincial Integrated Decision Making

As projects are assessed on environmental, economic, social, health and heritage impacts of proposed development, it has been increasingly important to strengthen relationships with ministries with mandates related to communities, health, economic development and natural resources. We continue to work towards the "one process" objective through various outreach and partnership initiatives.

### First Nations Consultation

Assessments will continue to be guided by the evolving case law and government policy related to the obligations of the Crown to consult with First Nations.

### Auditor General Report

Partly in response to the Office of the Auditor General report on the Environmental Assessment Office's oversight of certified projects,<sup>30</sup> enhancement of compliance and enforcement activities has been a major focus of the Environmental Assessment Office.

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<sup>30</sup> The report can be viewed at [www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO](http://www.bcauditor.com/pubs/2011/report4/audit-bc-environmental-assessment-office-EAO).



# Report on Performance

## Performance Results Summary Table

<b>Goal 1: The environmental assessment process is effective and efficient</b>	<b>2010/11 Target</b>	<b>2010/11 Actual</b>
For greater detail see pages 42 to 45		
<b>1.1 Ensure the process is easy to understand and complexity is minimized</b> Percentage of application reviews in the B.C. environmental process completed within 180 days:		
B.C. process only	100%	100% ACHIEVED
Joint B.C./Canada process	80%	100% EXCEEDED
<b>1.2 Ensure the Crown's duties to First Nations are discharged and that First Nations are engaged in environmental assessments</b> Percentage of potentially affected First Nations:		
Given the opportunity to engage in environmental assessments	100%	100% ACHIEVED
Engaged in environmental assessments	80%	81% EXCEEDED
<b>Goal 2: The environmental assessment process is valued</b>	<b>2010/11 Target</b>	<b>2010/11 Actual</b>
For greater detail see pages 45 to 49		
<b>2.2 Ensure that the benefits of environmental assessment are recognized</b> Number of requests to opt in to the environmental assessment process	2 or more	0 NOT ACHIEVED

# Goals, Objectives, Strategies and Performance Results

As part of its focus on continuous improvement, the Environmental Assessment Office updated its goals, objectives, and performance measures in the ministry's *2012/13-2014/15 Service Plan* to align with its recently developed strategic plan. As the Annual Service Plan Report is a review of the previous year's outcomes, it reports on the goals, objectives, and performance measures identified in the ministry's *Revised 2011/12-2013/14 Service Plan*. In future years, some of the goals, objectives and performance measures will be replaced with updated information that more clearly reflects the Environmental Assessment Office's business direction and vision.

## Goal 1: The environmental assessment process is effective and efficient

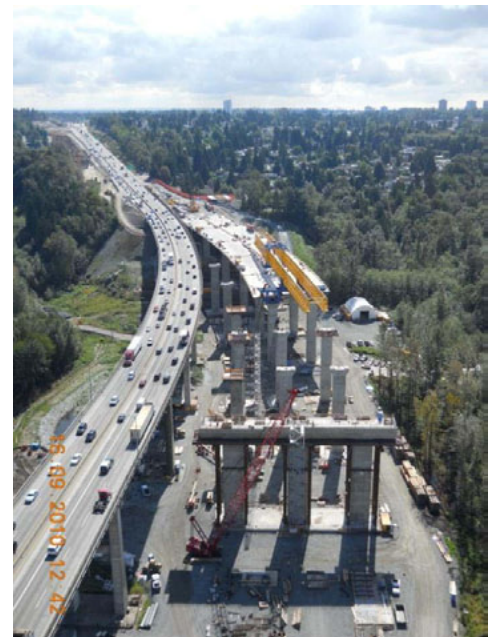
Given its comprehensive nature, environmental assessment requires a significant investment of time and resources by all participants. As a result, it is essential to ensure that the process is effective and efficient. The Environmental Assessment Office has a strong, national reputation for conducting effective and efficient assessments, and it is important to preserve and build upon that success.

### Objective 1.1: Ensure the process is easy to understand and complexity is minimized

#### Strategies

Key strategies for this objective include:

- working with the federal government to minimize duplication and to continue enhancing coordination;
- engaging First Nations early in the process, providing capacity funding, and making procedural decisions that are timely and principled;
- ensuring that project information is made widely available through the electronic Project Information Centre (e-PIC) on the Environmental Assessment Office's website ([www.eao.gov.bc.ca/](http://www.eao.gov.bc.ca/)) and through consultation activities such as open houses;
- reviewing and streamlining policy documents, practices and procedures;



*Construction of the Port Mann Bridge-Highway 1 Project in the lower mainland*

Ministry of Environment and the Environmental Assessment Office

- establishing clear service standards and commitments to proponents, First Nations and the general public, through the Environmental Assessment Office’s Fairness and Service Code; and
- pursuing innovative partnerships and initiatives as part of supporting continuous improvement.

**Performance Measure 1: Application reviews in the B.C. environmental assessment process are completed within 180 days**

Performance Measure	2009/10 Actual	2010/11 Actual	2011/12 Target	2011/12 Actual
Percentage of application reviews in the B.C. environmental process completed within 180 days:				
B.C. process only	100%	100%	100%	100% ACHIEVED
Joint B.C./Canada process	80%	80%	80%	100% EXCEEDED

**Data Source:** Environmental Assessment Office

**Discussion of Results**

The legislated time limits in the *Environmental Assessment Act*, including a 180-day limit for review of applications for Environmental Assessment Certificates, offer process certainty to stakeholders and are important for effective planning and decision making. Once a proponent’s project application is accepted for review, the Environmental Assessment Office strives to complete the environmental assessment within the 180-day time limit. Five proposed projects were assessed and referred to Ministers for decision. Of the five reviews, four were solely provincial. The Environmental Assessment Office completed all four provincial reviews within the 180-day time limit.

One review was subject to both federal and provincial assessments (the Kokish River Hydroelectric Project). The provincial assessment was completed in November 2011, within the 180 day timeline, and the federal environmental assessment concluded on April 24, 2012.

**Ministry Response**

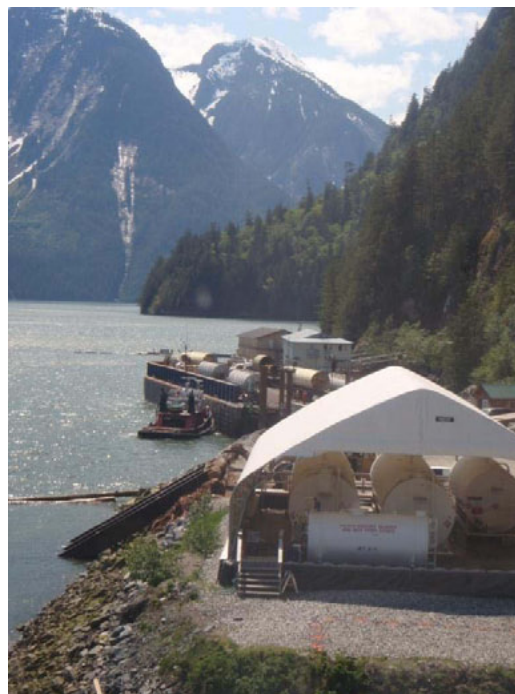
The Environmental Assessment Office is pleased that the target number of joint B.C. Canada environmental assessments that completed their review within 180 days was exceeded by 20 per cent in 2011/12. While this result is significantly higher than the target, the targets in this performance measure will remain the same for the coming year, in light of the current federal statutory review of the *Canadian Environmental Assessment Act*, which may lead to adjustments in the way that Canada and B.C. coordinate on environmental assessment.

**Objective 1.2: Ensure the Crown’s duties to First Nations are discharged and that First Nations are engaged in environmental assessments**

**Strategies**

Key strategies for this objective include:

- ensuring early communication and consultation with all First Nations potentially affected by a proposed project;
- acknowledging that First Nations have rights regarding consultation and accommodation that are different from other participants in environmental assessment;
- providing First Nations with capacity funding;
- inviting First Nations to participate with other experts on the technical working group for each proposed project; and
- enhancing coordination with the federal government on First Nations consultation through joint initiatives, including staff training workshops, information sharing, and tools and procedures improvement.



*Barge landing at the East Toba River, Montrose*

**Performance Measure 2: Percentage of potentially affected First Nations engaged in environmental assessments<sup>1</sup>**

Performance Measure <sup>2</sup>	2009/10 Actual	2010/11 Actual	2011/12 Target	2011/12 Actual
Percentage of potentially affected First Nations:				
Given the opportunity to engaged in environmental assessments	100%	100%	100%	100% ACHIEVED
Engaged in environmental assessments	80%	80%	80%	81% EXCEEDED

**Data Source:** Environmental Assessment Office

<sup>1</sup> The Environmental Assessment Office strives to engage all potentially affected First Nations in environmental assessments, but it is the decision of the First Nations whether or not to participate. The target for First Nations engagement is based, in part, on historical engagement levels. <sup>2</sup> Note: this percentage is calculated by considering how many First Nations listed on a proposed project’s section 11 Order or otherwise invited to participate are involved in each environmental assessment. This percentage considers only active projects (those that the Environmental Assessment Office has been working on in the previous 26 weeks) and referred projects (those that have completed application review and have been sent to ministers for a decision).

## Discussion of Results

The Environmental Assessment Office is required to meet the Crown's consultation and accommodation duties to First Nations – duties that exist in addition to other opportunities First Nations may have as interested participants in an environmental assessment. For this reason, First Nations are consulted at the outset of the assessment process, and the manner and degree of consultation to be undertaken is discussed.

Although the Environmental Assessment Office cannot control whether First Nations choose to participate in an environmental assessment, First Nations' perspectives about proposed projects are important and every effort is made to seek their input.

Two measures are taken: (1) the percentage of potentially affected First Nations given the opportunity to engage in environmental assessment; and (2) the percentage of First Nations engaged in the assessment. This recognizes that all First Nations potentially affected by a proposed project have the right to be consulted as part of the environmental assessment even though they may choose not to participate in the process.

In 2011/12, the target of 80% of First Nations being engaged on environmental assessments was exceeded by a margin of 1%.

## Goal 2: The environmental assessment process is valued

In addition to being effective and efficient, environmental assessments must be valued. Value is achieved by ensuring the full range of issues and interests have been considered, and that ministers are duly informed when deciding about both the benefits and potential adverse effects of a project when deciding whether to issue an environmental certificate. The value of environmental assessment is also considerably affected by the diligence of the Environmental Assessment Office in overseeing the construction, operation, and decommissioning of projects that are certified to proceed.



*Traditional fish drying racks at the Old Fort Lake Babine near the proposed Morrison Copper Gold Mine Project*



**Objective 2.1: Demonstrate that all interests and perspectives are considered**

Public comment periods are typically held two times during the review of each proposed project. These public comment periods include the opportunity for members of the public to attend an open house or project information session where they can learn about the proposed project and its environmental assessment from project proponents and Environmental Assessment Office staff.

The Environmental Assessment Office’s approach to public consultation on the proposed Ajax Mine Project, near Kamloops, B.C., is an example of an innovative approach to public involvement in environmental assessment. In response to community concern regarding the proposed project, the Environmental Assessment Office approached local community groups with a proposal to develop a “community advisory group” with the goal of ensuring the environmental assessment is informed and influenced by the best possible information and detailed input from community groups. The community advisory group has provided a forum for two-way dialogue, resulting in a greater understanding of the environmental assessment process, enhanced approaches to public consultation, and clearer representation of community interests in the environmental assessment process.



*Information panels describing the environmental assessment process at a public information session on a proposed project*

**Strategies**

Key strategies for this objective include:

- engaging federal, provincial, and local government experts, along with First Nations, on technical working groups to consider potential impacts from a range of perspectives;
- providing opportunities for public input into the environmental assessment for each proposed project;
- ensuring that all assessment reports consider the potential environmental, economic, social, heritage and health effects of a project, as required by the *Environmental Assessment Act*; and
- collaborating with academic and practitioner organizations to build relationships and improve environmental assessment theory and practice.

**Objective 2.2: Ensure that the benefits of environmental assessment are recognized**

**Strategies**

Key strategies for this objective include:

- demonstrating transparency in decision making and clarity of process;
- ensuring effective oversight and compliance management for certified projects; and
- engaging in outreach with First Nations, industry, academia, and the general public regarding the benefits of environmental assessment.

**Performance Measure 3: Requests to opt in to environmental assessment**

Performance Measure	2009/10 Actual	2010/11 Actual	2011/12 Target	2011/12 Actual
Number of requests to opt in to the environmental assessment process	N/A	3	2 or more	0 NOT ACHIEVED

**Data Source:** Environmental Assessment Office

**Discussion of Results**

Requests to opt in to environmental assessment are not within the control of the Environmental Assessment Office. While this measure may provide an indication of the perceived value of environmental assessment, it is also influenced by a number of external factors, including B.C.'s economy, the global economy, market trends and demand, and business competition. In future years, this performance measure will be replaced with a measure related to compliance management to more clearly reflect the work and accountabilities of the Environmental Assessment Office.

**Ministry Response**

As noted above, the Environmental Assessment Office will no longer be reporting on requests to opt in to environmental assessment, but will instead begin reporting on compliance management activities. The Environmental Assessment Office aims to be independently and objectively confident that conditions in Environmental Assessment Certificates are being complied with. The goals of the compliance management program are to ensure that:

1. Projects comply with environmental assessment requirements and appropriate enforcement measures address non-compliance;
2. Government agencies are working together to manage compliance and monitor the effectiveness of mitigation measures; and
3. Compliance management and effectiveness monitoring results are available to the public.

## Ministry of Environment and the Environmental Assessment Office

In July 2011, the Office of the Auditor General published a report concluding that the oversight of certified projects was not sufficient to ensure that adverse effects of projects were being avoided or mitigated. In response, the Environmental Assessment Office worked with in with the natural resource sector ministries to address five of the six recommendations made by the Office of the Auditor General.

The diagram below illustrates progress made on the Auditor General's six specific recommendations.

### Progress on Office of the Auditor General Recommendations

- |                         |  |
|-------------------------|--|
| substantially completed | <b>1. Measureable and enforceable certificate conditions.</b>  |
| complete and ongoing    | <b>2. Work with MOE on environmental mitigation policy.</b>  |
| in progress             | <b>3. Clarify monitoring and compliance responsibilities.</b>  |
| in progress             | <b>4. Develop and implement a comprehensive compliance and enforcement program.</b>                          |
| early stages            | <b>5. Evaluate whether environmental assessments are avoiding or mitigating significant adverse effects.</b> |
| in progress             | <b>6. Report out on EA certified projects.</b>   |

*Figure 2: Progress on Office of the Auditor General recommendations*

One of the great strengths of environmental assessment is that proposed projects are often significantly improved during the course of environmental assessment through the participation of the working group, the public and stakeholder groups. Typical improvements to proposed projects include adjustments to project design or layout and additional or enhanced mitigation measures to avoid, prevent or minimize effects.

For example, during the environmental assessment of the Kokish River Hydroelectric project, the Environmental Assessment Office facilitated many discussions among members of the technical working group and the proponent to evaluate the potential effects on highly valued salmon and summer run steelhead trout from reduced flows in the river. Based on science and agency advice, the minimum in-stream flows for the project were increased to keep significantly more water in the river than was originally proposed by the proponent. These minimum flows are specified for six time periods during the year, with very high summer minimum flows required to ensure that fish migration will not be impeded.



## Ministry of Environment and the Environmental Assessment Office

A second example of the value of environmental assessment can be found in the recently approved Tumbler Ridge Wind Energy Project. The proponent was required to create a Monitoring and Adaptive Management Plan (MAMP) to respond to potential impacts on birds and bats. As part of the MAMP, the proponent is required to assemble a Technical Advisory Committee to advise the proponent about protocols for bird and bat monitoring, review the results of the monitoring and provide advice on adaptive management strategies. The Technical Advisory Committee will work with the proponent to assess the results of the monitoring to determine if a predictive model can be developed over time that would trigger real-time, automated changes in project operations if certain conditions occur. For example, the speed of the rotating turbines could be limited during certain weather conditions to minimize impacts to birds and bats. The MAMP requires the proponent to deposit monitoring data in both provincial and federal databases so that the effects of wind projects on birds and bats in northeastern B.C. is better understood by industry and regulators.

# Report on Resources

**Environmental Assessment Office Resource Summary Table**

Core Business Area	Estimated <sup>1</sup>	Other Authorizations <sup>2</sup>	Total Estimated	Actual	Variance
<b>Operating Expenses (\$000)</b>					
Environmental Assessment Office	8,754	0	8,754	8,651	103
<b>Total</b>	<b>8,754</b>	<b>0</b>	<b>8,754</b>	<b>8,651</b>	<b>103</b>

<sup>1</sup> The “Estimated” amount corresponds to the Estimates as presented to the Legislative Assembly in March 2011.

<sup>2</sup> Other Authorizations include Supplementary Estimates, Statutory Appropriations and Contingencies. Amounts in this column are not related to the “estimated amount” under sections 5(1) and 6(1) of the *Balanced Budget and Ministerial Accountability Act* for ministerial accountability for operating expenses under the Act.

# Appendix

## Contact Information

### Ministry of Environment Contact Information

#### Headquarters

Victoria

Telephone: 250 387-1161

Fax: 250 387-5669

Website: [www.gov.bc.ca/env/](http://www.gov.bc.ca/env/)

Additional contact information can be found at [www.gov.bc.ca/env/contacts.html](http://www.gov.bc.ca/env/contacts.html).

#### Regional Offices

##### Coast Region

###### West Coast

*Nanaimo Office:*

Telephone: 250 751-3100

Fax: 250 751-3103

Website: [www.env.gov.bc.ca/van-island/](http://www.env.gov.bc.ca/van-island/)

Other offices: Black Creek, Duncan, Goldstream Park, Queen Charlotte City, Parksville, Port Alberni, Port Hardy, Ucluelet

###### South Coast

*Surrey Office:*

Telephone: 604 582-5200

Fax: 604 930-7119

Website: [www.env.gov.bc.ca/lower-mainland/](http://www.env.gov.bc.ca/lower-mainland/)

Other offices: Brackendale (Squamish), Cultus Lake, Maple Ridge, North Vancouver, Sechelt, Powell River

## **Southern Interior Region**

### **Cariboo/Thompson**

*Kamloops Office:*

Telephone: 250 371-6200

Fax: 250 828-4000

Website: [www.env.gov.bc.ca/thompson/](http://www.env.gov.bc.ca/thompson/)

*Williams Lake Office:*

Telephone: 250 398-4530

Fax: 250 398-4214

Website: [www.env.gov.bc.ca/cariboo/](http://www.env.gov.bc.ca/cariboo/)

Other offices: Clearwater, Lillooet, Merritt, Kelowna, Oliver, Princeton, Vernon, 100 Mile House, Quesnel

### **Kootenay/Okanagan**

*Nelson Office:*

Telephone: 250 354-6333

Fax: 250 354-6332

Website: [www.env.gov.bc.ca/kootenay/](http://www.env.gov.bc.ca/kootenay/)

Other offices: Castlegar, Creston/West Creston, Fernie, Grand Forks, Invermere, Golden, Revelstoke

*Penticton Office:*

Telephone: 250 490-8200

Fax: 250 490-2231

Website: [www.env.gov.bc.ca/okanagan/](http://www.env.gov.bc.ca/okanagan/)

*Cranbrook Office:*

Telephone: 250 489-8540

Fax: 250 489-8506

## **Northern Region**

### **Skeena**

*Smithers Office:*

Telephone: 250 847-7260

Fax: 250 847-7728

Website: [www.env.gov.bc.ca/skeena/](http://www.env.gov.bc.ca/skeena/)

Other offices: Atlin, Burns Lake, Dease Lake, Terrace/Lakelse Lake

## **Omineca**

*Environmental Protection Division  
Conservation Officer Service  
Prince George Office:*  
Telephone: 250 565-6135  
Fax: 250 565-6629

*Environmental Sustainability  
Parks and Protected Areas Division  
Prince George Office:*  
Telephone: 250 565-6135  
Fax: 250 565-6940

Website: [www.env.gov.bc.ca/omineca/](http://www.env.gov.bc.ca/omineca/)

Other offices: Vanderhoof, Mackenzie, Mount Robson, Fort St. James

## **Peace**

*Fort St. John Office:*  
Telephone: 250 787-3411  
Fax: 250 787-3490

Website: [www.env.gov.bc.ca/peace/](http://www.env.gov.bc.ca/peace/)

Other offices: Chetwynd/Moberly Lake Park, Dawson Creek, Fort Nelson/Liard Hotsprings

## **Report all Poachers and Polluters**

Telephone: Dial Toll-Free 1-877-952-7277

Website: <http://www.env.gov.bc.ca/cos/rapp/form.htm>

## **Environmental Assessment Office Contact Information**

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Victoria BC V8W 9V1  
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Telephone: 250 356-7479  
Fax: 250 356-7440

Email: [eaoinfo@gov.bc.ca](mailto:eaoinfo@gov.bc.ca)

Website: [www.eao.gov.bc.ca](http://www.eao.gov.bc.ca)