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Ministry Mandate

Ministry of Environment:

The Ministry of Environment is responsible for the protection, management and conservation of B.C.'s water, land, air and living resources. Its expertise in policy, science, research and analysis are central to supporting all its responsibilities. Ministry legislation, regulation, and public outreach activities ensure a safe and healthy environment for British Columbians, sustainable economic development, and clear and predictable decisions for the public and business community.

Key Ministry functions include:

- Leading action on climate change
- Managing discharges to the environment
- Proactively responding to environmental risks
- Protecting B.C.'s biodiversity including ecosystems, native species and natural habitats
- Managing the province's parks and protected areas
- Developing legislation, regulations and policies based on sound scientific knowledge and expertise
- Environmental monitoring, data management and reporting
- Monitoring and enforcing compliance with environmental laws and regulations

The Ministry strives to ensure that all British Columbians will continue to benefit from the effective and prudent management of natural resources, allowing future generations to enjoy a safe and healthy environment.

Budget:

The Ministry of Environment (Vote 21) Operations 2017/18 budget is \$159,342 Million.
The Environmental Assessment Office (Vote 22) 2017/18 Budget is \$11.87 Million.

Full Time Equivalents (FTEs):

The Ministry of Environment has 949 FTEs
The Environmental Assessment Office has 92 FTEs

**Ministry of Environment
and the
Environmental Assessment Office**

**2017/18 – 2019/20
SERVICE PLAN**

February 2017



For more information on the British Columbia Ministry of Environment,
see Ministry Contact Information on Page 25 or contact:

Ministry of Environment

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VICTORIA, BC
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or visit our website at
<http://www.gov.bc.ca/env>

Published by the Ministry of Environment

Minister Accountability Statement



The *Ministry of Environment and the Environmental Assessment Office 2017/18 - 2019/20 Service Plan* was prepared under my direction in accordance with the *Budget Transparency and Accountability Act*. I am accountable for the basis on which the plan has been prepared.

A handwritten signature in black ink that reads "Mary Polak".

Honourable Mary Polak
Minister of Environment

February 7, 2017

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Purpose of the Ministry

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Cathedral Grove, MacMillan Provincial Park

Strategic Direction and Context

Strategic Direction

All Ministers, as members of the B.C. Executive Council (Provincial Cabinet), are provided letters from the Premier outlining their key responsibilities. The Minister of Environment's mandate letter can be reviewed [on the government website](#).

In addition to responding to the specific direction outlined in the mandate letter, this service plan illustrates the ways in which the Ministry is supporting the corporate priorities identified in the current Government's *Province of British Columbia Strategic Plan* and the *Taxpayer Accountability Principles*, including a commitment to open government and an accountable and cost-conscious culture.

Strategic Context

British Columbia is world renowned for its unique and diverse environmental features. The northern, interior and coastal regions host a wide variety of ecosystems, plant and animal species, and intact predator-prey systems. With an abundance of clean and safe water, land and air, British Columbia provides a rich and healthy environment for its citizens, visitors and natural inhabitants to live and prosper. B.C.'s vast parks and protected areas system plays a fundamental role in protecting the Province's natural legacy in addition to providing exceptional outdoor recreation opportunities.

With the responsibility of environmental protection comes the opportunity to sustainably develop natural resources such as liquefied natural gas, mining and forestry. The Ministry of Environment plays a key role in providing strategic science-based knowledge, policies and regulations that guide how activity can sustainably take place on the land base. The Province also remains committed to world-leading environmental protection. This is reflected in B.C.'s implementation of the new *Water Sustainability Act*, development of the [Cumulative Effects Framework](#), continued action on the [Five-Year Plan for Species at Risk](#), as well as in the Province's five conditions required for pipeline project approval. The Ministry continues to provide the leadership and guidance necessary to strike the balance where both the environment and economy thrive.

In 2016, B.C. worked with the federal, provincial and territorial governments to establish a Pan-Canadian Framework on Clean Growth and Climate Change to meet Canada's commitments under the Paris Agreement, including national greenhouse gas targets. Global climate change has already impacted B.C., resulting in consequences for the environment and economy. Proactive measures to mitigate greenhouse gas emissions and invest in adaptation efforts will reduce risks and costs, prevent damage, and will allow B.C. to excel in clean jobs, technology and innovation.

It is only through collaboration, however, that these goals will be realized. The Province works in partnership with First Nations, federal and local governments, neighbouring jurisdictions, industry and citizens of British Columbia in order to collectively respond to a changing ecological and socio-economic climate.

Goals, Objectives, Strategies and Performance Measures

Goal 1: Effective, long-term action on climate change

Objective 1.1: Maintain B.C.'s global leadership on climate change

B.C. is a world leader in climate change preparedness and greenhouse gas emissions reductions. These efforts are contributing to B.C.'s growing green, clean technology economy.

Strategies

The Ministry leads these efforts by:

- Coordinating cross-government policy that supports communities, families, businesses and local governments to save energy and reduce greenhouse gas emissions
- Encouraging other jurisdictions to follow B.C.'s leadership in establishing effective policies to reduce greenhouse gas emissions
- Strengthening B.C.'s public sector leadership in climate action with an increased emphasis on adaptation planning and public sector greenhouse gas emissions reductions, while maintaining carbon neutral government performance and investing in strategic carbon offsets
- Supporting competitiveness of B.C. business and industry through revenue neutral carbon tax and continued development of market mechanisms, as well as ongoing work to align provincial, territorial, federal and other jurisdictional regulatory programs

In 2012, the Province met its interim target of a six per cent reduction in greenhouse gas emissions below baseline 2007 levels. In 2014, the Province's greenhouse gas emissions were 5.5 per cent below baseline levels. B.C. remains committed to achieving the 2050 target of an 80 per cent reduction below 2007 levels.

The recently released [Climate Leadership Plan](#) outlines how the Province is continuing on a path to meet its long term climate goals. In alignment with the measures in the [Pan-Canadian Framework on Clean Growth and Climate Change](#), the Climate Leadership Plan highlights 21 new actions that are expected to reduce annual greenhouse gas emissions by up to 25 million tonnes of carbon dioxide equivalents below current forecasts by 2050. The Province is focused on implementing the Climate Leadership Plan actions together with all levels of government and stakeholders over the coming years.

Objective 1.2: Effective management of the risks associated with a changing climate

The Ministry leads efforts to improve the capacity of decision makers in managing risks associated with climate change in British Columbia.

Strategies

The Ministry leads efforts by:

- Evaluating the potential human and financial risk from climate change and identifying options to reduce risk to acceptable levels
- Collaborating with partners to develop and disseminate effective risk management approaches
- Reviewing, updating and implementing legislation, policies and programs to ensure B.C. is prepared for and resilient to the impacts of climate change

The Province is working with the federal government and other jurisdictions to improve managing risks associated with a changing climate, including an updated adaptation strategy that will help British Columbia build resilience, reduce costs and ensure a thriving society.

Goal 2: Clean and safe water, land and air

Objective 2.1: Enhanced protection and stewardship of water resources

The Ministry develops innovative tools and strategies for water resource management through relationships with First Nations, local and federal government, industry and environmental groups. Strong science and policy inform resource management decisions, ensuring B.C.'s supply of clean, fresh water is sustainable and responsive to a changing climate and growing demands.

Strategies

The Ministry leads these efforts by:

- Providing leadership in the development of water strategies, policy, legislation and regulations to protect and manage the quality and quantity of surface water and groundwater
- Developing and implementing monitoring strategies for surface water, groundwater, snow and aquatic ecosystem health
- Collaboratively developing transboundary water management agreements with neighbouring jurisdictions

Government is implementing the *Water Sustainability Act* (WSA), brought into effect in February 2016, using a phased approach. The WSA helps protect water flows for ecosystems and fish, and

includes new and improved requirements for groundwater use and licensing, well construction and maintenance, dam safety, and compliance.

Objective 2.2: Enhanced protection and stewardship of our land

The Ministry manages environmental pressures from development and waste generation through the prevention of toxins and waste entering the environment. It ensures minimal environmental impact where discharges to the environment are inevitable or hazardous materials are used.

Strategies

The Ministry leads these efforts by:

- Managing the authorization of discharges from human activities such as mining, landfills, sewage treatment, smelters and wood processing plants
- Providing provincial leadership in municipal solid waste reduction through mandatory regional solid waste management plans and the promotion of organics recycling and food waste prevention initiatives
- Performing ongoing oversight of mandatory product stewardship programs

The Ministry uses regulatory and non-regulatory approaches to achieve these strategies. This includes the 2016 update of the Solid Waste Management Planning Guideline and overseeing the implementation of the Recycling Regulation to strengthen waste management.

Performance Measure 1: Municipal solid waste disposal

Performance Measure	2015/16 Baseline ¹	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target
Per capita municipal solid waste disposal (kg per person)	497	450	425 ²	400	375

Data Source: Ministry of Environment, manually compiled.

¹ Data based on 2015 calendar year.

² Numbers have been revised from the 2016/17-2018/19 *Service Plan* to reconcile projections to be based upon calendar year.

Discussion

Reported disposal rates include waste from the residential sector, institutional, commercial, and light industrial sources as well as waste from construction, demolition and renovation activities. The per capita disposal rate is an estimate of how many kilograms of solid waste one person sends to a landfill or other disposal site in a given year. B.C. is continuing to progress toward the target of 350 kilograms per person by 2020/21.

Performance Measure 2: Organic waste disposal

Performance Measure	2015/16 Baseline ¹	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/2020 Target
Per cent of population covered by an organic waste disposal restriction	64.3%	68%	70%	70%	75%

Data Source: Ministry of Environment, manually compiled.

¹ Data based on 2015 calendar year.

Discussion

Organic waste represents up to 40% of all waste currently sent for disposal. The Ministry continues to work toward the target of 75% of the population covered by an organic waste disposal restriction by 2020/21. This target is further supported by food waste prevention initiatives across the province.

Objective 2.3: Enhanced protection and stewardship of our air

In order to protect human health and the environment, the Ministry manages activities that influence air quality.

Strategies

The Ministry leads these efforts by:

- Establishing air quality objectives to inform decision making and support local airshed management initiatives
- Monitoring air quality to better understand the impacts from human activities and environmental events such as forest fires
- Regulating contaminated air emissions from industry and non-point sources such as wood stoves and open burning, as well as promoting clean technology standards for industrial air emissions
- Working with other governments to establish and implement national air quality management systems

As part of the Northeast Air Monitoring Program, an initiative that tracks potential impacts on air quality from the oil and gas industry, the Ministry operates air quality monitoring stations in the Peace Region. Real time monitoring data from these and other stations across the province is shared with the public on BCAirQuality.ca, responding to the growing public demand for air quality information.

Objective 2.4: Effective management of environmental risks and threats to public safety

Risks to living organisms, the environment and the economy can be caused by effluents, emissions, wastes, resource depletion or other living organisms. In the case of environmental emergencies and risks to public safety, the Ministry is prepared to respond swiftly and effectively.

Strategies

The Ministry leads these efforts by:

- Completing the development of a comprehensive provincial spill response regime, including a province-wide preparedness and response organization with new legislative and regulatory requirements
- Establishing risk assessment frameworks to determine where action is most critical (e.g. managing remediation of high-risk contaminated sites)
- Preventing the introduction and spread of invasive species
- Proactively dealing with dangerous wildlife that pose a risk of causing injury or death

The Province's first priority in managing environmental risk and public safety is prevention. For example, in the case of human wildlife conflict, the Ministry enforces laws regulating attractants in urban areas and delivers proactive public education in partnership with Wildsafe BC.

Goal 3: Healthy and diverse native species and ecosystems

Objective 3.1: Stewardship and management of natural values on B.C.'s land base

The Ministry plays a critical role in defining and delivering the conservation objectives that preserve biodiversity across the province. Its strategic and scientific expertise in the management and analysis of B.C.'s natural values influences the work carried out by partner ministries. Within the Ministry, the natural values in provincial parks and protected areas are managed through management plans.

Strategies

The Ministry leads these efforts by:

- Defining the principles, scientific foundation, strategic long term objectives and policies for a provincial approach to conservation, including the Conservation Framework, First Nations agreements, the Cumulative Effects Framework and the Environmental Mitigation Policy
- Assessing and reporting on the state and trends of conservation values, and determining where action is most critical at a provincial and regional scale

- Collaborating with First Nations and communities in protected area planning and management to preserve and care for natural and cultural assets
- Managing parks and protected areas for ecological representation, biodiversity and landscape connectivity

Data and information on species and ecosystems is used to assess and report on biodiversity values to British Columbians. The Province works closely with inter-jurisdictional colleagues to align conservation priorities, contributing to regional, national and international conservation objectives.

Objective 3.2: Conservation and enhancement of native species and ecosystems

The Ministry works to assess, set priorities and determine actions for the conservation and recovery of plants, animals and ecosystems.

Strategies

The Ministry leads these efforts by:

- Securing and restoring native species and ecosystems through area and threat-based initiatives
- Setting objectives and leading strategic planning for biodiversity management, as well as implementing research programs to support conservation and inform decision-making
- Collaborating with the federal government, First Nations, stakeholders and partner ministries to develop and implement recovery strategies and action plans for species at risk
- Operating the [Conservation Data Center](#) to collect and disseminate status information on plants, animals and ecosystems in the province

The Ministry is determining new ways of establishing conservation priorities and achieving outcomes. Efforts and actions will target comprehensive approaches to increase resilience, maximize return on investment and benefit multiple species and ecosystems.

Goal 4: Sustainable use of British Columbia's Natural Capital

Natural capital is the Province's stock of natural assets which include water, land, air and all living things.

Objective 4.1: Inventory, monitoring, science and assessment for robust decision making

The Ministry acquires, manages and analyzes data and information on water, land, air, species and ecosystems. Strong, solid information and science provide the platform for natural resource decision making across the province.

Strategies

The Ministry leads these efforts by:

- Ensuring that relevant monitoring and research is conducted and pertinent data is collected in order to support and solve resource management issues
- Incorporating the economic and social value of our natural capital into the development of policies and programs
- Continuing to advance the provision of data and information to the public and interested parties

The Ministry manages various environmental monitoring networks, such as air, groundwater and snow, in order to examine the state and trends of our environment. Information received from these networks and other programs is critical for tracking trends over time, interpreting connections between the environment, human well-being and the economy, and for measuring progress towards sustainability.

Objective 4.2: Policies, standards and regulations that are clear, consistent and predictable

Clear and consistent policies, standards and regulations increase certainty for economic development while ensuring the protection of human health and the environment. A predictable regulatory environment supports a positive investment climate.

Strategies

The Ministry leads these efforts by:

- Incorporating world-leading approaches and best achievable technologies into environmental guidelines, policies and regulations
- Engaging with environmental groups, First Nations, industry and the public on the development of regulatory requirements and standards
- Ensuring the timely review of permit applications in support of business certainty and environmental protection

The Ministry routinely reviews its policies, regulations, fees and fines to ensure they include best available information, technology and practices.

Performance Measure 3: Improved technology standards

Performance Measure	2008/09 Baseline	2016/17 Forecast	2017/18 Target ¹	2018/19 Target	2019/2020 Target
Number of new standards, guidelines or objectives incorporating best achievable technology practices that reduce discharges to the environment	3	11	12	13	14

Data Source: Ministry of Environment, corresponding policy, guideline, code of practice, or regulation.

¹ Targets are cumulative.

Discussion

Pollution sources are routinely assessed for new opportunities to reduce environmental impacts. Developing approaches that minimize impacts while ensuring economic viability is complex and involves collaboration with industry, local government, academia and other experts.

Objective 4.3: Compliance with regulatory requirements

The Ministry conducts inspections of regulatory requirements and where necessary takes enforcement action commensurate with any non-compliance. Investigations are typically conducted where a more stringent response may be required such as court prosecution.

Strategies

The Ministry leads these efforts by:

- Continually improving its regulatory oversight with an ongoing emphasis on inspections of higher risk sites
- Conducting investigations into environmental violations and implementing new enforcement tools such as administrative monetary penalties to address non-compliance
- Publicly naming companies and individuals subject to enforcement action, as well as those with outstanding environmental court fines

Integrity in the regulatory regime established to protect human health, the environment and public safety is critical. Promotion of compliance, and achieving high rates of voluntary compliance, are top priorities. Where necessary, however, the Ministry will take action to enforce requirements using a variety of enforcement tools.

Performance Measure 4: Inspections conducted under the *Environmental Management Act*

Performance Measure	2014/15 Baseline	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target
Number of inspections conducted under the <i>Environmental Management Act</i> ¹	711	765	2000	2000	2000

Data Source: Ministry of Environment, manually compiled.

¹ Inspections (in office reviews and on site examinations) conducted under the act and associated regulations.

Performance Measure 5: Coordinated Mine Inspections (new)

Performance Measure	2015/16 Baseline	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target
Number of mine inspections coordinated with Ministry of Energy and Mines and the Environmental Assessment Office ¹	N/A	N/A	5	10	15

Data Source: Manually compiled by the Ministry of Environment, Ministry of Energy and Mines, the Environmental Assessment Office.

¹ Inspections (in office reviews and on site examinations).

Discussion

Ministry staff conduct inspections in order to determine compliance with regulatory requirements. Many factors influence the frequency and nature of inspections, including risk to human health and the environment, compliance history of the regulated party, resources and community concerns. Inspection targets under the *Environmental Management Act* for 2017-2020 have been significantly augmented to reflect increases in staffing and resources.

While each agency conducts inspections under their respective legislation, the Ministry of Environment, the Ministry of Energy and Mines and the Environmental Assessment Office have created a new performance measure that formally tracks their joint inspections. This is the result of an increased emphasis on coordinated compliance and enforcement efforts with respect to mining.

Objective 4.4: Optimize outdoor recreation and tourism opportunities within parks and protected areas

The Province is building on its world-renowned provincial parks system through the BC Parks Future Strategy to enable British Columbians and others to connect with the Province's iconic landscapes in a sustainable and memorable way.

Strategies

The Ministry leads these efforts by:

- Providing new and diverse recreation, heritage and cultural visitor experiences in addition to traditional BC Parks services and offerings
- Growing and enhancing BC Parks as a pillar in B.C.'s tourism industry
- Fostering public engagement to connect citizens to the management of parks and protected areas

Increased investment by the Province will work to enhance conservation and recreation services, improve services for persons with disabilities and launch a new BC Parks Foundation and related initiatives for community groups, businesses and individuals to come together and have a voice in BC Parks priorities.

Performance Measure 6: Park visitation

Performance Measure	2015/16 Actual	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/2020 Target
Number of recorded park visits	23.8 million	23.9 million	24.2 million	24.5 million	24.8 million

Data Source: Ministry of Environment, manually compiled.

Discussion

The number of recorded park visits measures the contribution of the provincial parks to the government's priorities of healthy communities, tourism and the economy. It also indicates trends in public uptake of outdoor recreation opportunities provided by BC Parks.

Resource Summary

Ministry of Environment	2016/17 Restated Estimates ¹	2017/18 Estimates	2018/19 Plan	2019/20 Plan
Operating Expenses (\$000)				
Environmental Protection	8,560	11,531	11,726	11,488
Environmental Sustainability	22,687	22,730	22,972	22,972
BC Parks	31,158	49,266	39,669	39,578
Conservation Officer Services	15,284	15,476	15,676	15,676
Climate Action ²	17,526	16,535	14,645	12,845
Executive and Support Services	21,967	23,069	23,123	23,099
Sub-Total	117,182	138,607	127,811	125,658
Park Enhancement Fund	1,800	1,800	1,800	1,800
Sustainable Environment Fund	18,935	18,935	18,935	18,935
Total	137,917	159,342	148,546	146,393
Ministry Capital Expenditures (\$000)				
Executive and Support Services ³	17,537	21,065	24,409	18,043
Park Enhancement Fund	400	400	400	400
Total	17,937	21,465	24,809	18,443

Other Financing Transactions (\$000)				
Disbursements ⁴	13,000	10,000	10,000	10,000
Net Cash (Requirements)	13,000	10,000	10,000	10,000
Total Disbursements	13,000	10,000	10,000	10,000
Total Net Cash Source (Requirements)	13,000	10,000	10,000	10,000

Notes:

¹ For comparative purposes, amounts shown for 2016/17 are consistent with the presentation of the 2017/18 Estimates.

² Climate Action decreases of \$1.8 million each year related to scheduled industry program development payments.

³ Ministry Capital Expenditures, Executive and Support Services increase related to expansion of campsites within BC Parks.

⁴ Other Financing Transactions decrease of \$3.0 million commencing in 2017/18 resulting from a scheduled reduction of contractual obligations to purchase Greenhouse Gas Emissions offset for inventory.

Further information on program funding and vote recoveries is available in the [Estimates and Supplement to the Estimates](#).

Environmental Assessment Office

Purpose of the Office

The Environmental Assessment Office (“Office”) neutrally administers the process of assessing proposed major projects for potentially significant adverse environmental, social, economic, health and heritage effects. The Office seeks to meaningfully engage the public and Aboriginal groups in the environmental assessment process and is responsible for overseeing compliance and enforcement of reviewable projects throughout the life of the project.

The Environmental Assessment Process

Proposed projects are reviewable if they meet or exceed thresholds defined in the [Reviewable Projects Regulation](#).¹

The Minister of Environment can also designate any project that has not been substantially started as reviewable. In addition, proponents may request their project be accepted for review.²

Once the Office determines that an application is complete, it must review the application within 180 days. The Office prepares an assessment report for the Minister of Environment and the second deciding minister, which identifies the potential effects associated with the project, including impacts to established or asserted Aboriginal and treaty rights, and conclusions on the significance of those effects. Based on the assessment report and the recommendations of the Office’s Executive Director and any other information ministers deem relevant, ministers may either grant or refuse a certificate. Alternatively, ministers may order further assessment should they determine that the information is insufficient on which to base a decision. If ministers issue a certificate, proponents are legally required to adhere to conditions of the certificate.

After a project is certified, the certificate holder must ensure it is in compliance with the conditions of the certificate through permitting, construction, operating and decommissioning phases. The Office works with other government agencies to coordinate compliance oversight through inspections, reviewing the certificate holder’s compliance self-reports, responding to complaints and other efforts.

¹ For example, if a proposed coal mine is projected to produce $\geq 250,000$ tonnes of coal per year, it would be automatically reviewable.

² A proponent may request (or “opt-in”) that the Environmental Assessment Office consider designating its project (that otherwise would not be reviewable) as a reviewable project.

Strategic Direction and Context

Environmental Assessment Activity

The demand for environmental assessment of proposed projects in B.C. remains strong. Under the *BC Jobs Plan* and the *Liquefied Natural Gas Strategy*, the number of proposed projects in B.C. continues to increase. As of January 2017, there were 29 active projects currently under review: 11 are mining, 10 are energy/power, three are transportation, one is water management and four are liquefied natural gas. In total, the potential capital investment for all active projects currently in the environmental assessment process is over \$122 billion.³

Federal-Provincial Cooperation

Often major projects in B.C. require both federal and provincial environmental assessments.

In 2013, the BC Environmental Assessment Office and the Canadian Environmental Assessment Agency (“Agency”) signed a Memorandum of Understanding that establishes expectations, roles and procedures for implementing the substitution of environmental assessments in B.C. Under substitution where both federal and provincial environmental assessments are required, there can be a single review process (the provincial one) and two decisions (federal and provincial).

As of January 2017, the federal government has approved the substitution of 13 environmental assessment reviews. Two of these reviews have been successfully completed, and another two are in the final stages of application review. Where substitution does not apply, British Columbia and the Agency work together to coordinate working group review and other technical and administrative aspects of the two assessment processes.

On January 27, 2016, the Federal Government announced a review of all federal environmental assessment (EA) processes, with a goal of updating them to include greater transparency for the approval of major projects. Throughout 2016, the Office represented B.C. at federal government hearings, providing input on the B.C. experience of harmonization and substitution, and supported the view that the practice of substitution can successfully maintain transparency, public access to information, strong First Nations consultations and the opportunity for public involvement throughout the entire assessment process.

³ Effective 2016/2017, the Office is reporting only on those projects actively pursuing the requirements for an environmental assessment certificate. This includes active projects in the pre-application and applications stages of review, and those that are in the application stage that have been suspended.

Environmental Assessment Office Project Information and Collaboration System (EPIC)

The Office is currently modernizing its electronic project information centre to improve both the efficiency and transparency of the Environmental Assessment process. The new Environmental Assessment Office Project Information and Collaboration System (EPIC) is scheduled to launch by the end of the 2016/2017 fiscal year. At launch, EPIC will provide stakeholders, First Nations and the public with enhanced access to information and ability to engage with the environmental assessment process. In addition, it sets the groundwork to continuously improve and, as necessary, expand, the tools, processes and capabilities that support Office staff and project proponents to perform the business of environmental assessments.

Goals, Objectives, Strategies and Performance Measures

Goal 1: Conducting timely and efficient Environmental Assessments

Objective 1.1: Build upon a strong legislative framework

British Columbia has had environmental assessment legislation with a dedicated office since 1995. The Environmental Assessment Office neutrally administers a legally defined process that is predictable, transparent, timely, procedurally fair and holds all participants accountable.

Strategies

Key strategies for this objective include:

- Appropriately scoping project reviews and instituting a project management discipline in environmental assessments to adhere to the legislated 180-day application review period
- Identifying policy and practice options to enhance the effectiveness and efficiency of the environmental assessment review process
- Service modernization, including an enhanced web presence and electronic collaboration tools

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

Performance Measure	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target
Per cent of application reviews completed within 180-days:				
B.C. process only	100%	100%	100%	100%
Joint B.C./Canada Process	100%	100%	100%	100%

Data Source: Environmental Assessment Office, manually compiled.

Discussion

The legislated timelines in the *Environmental Assessment Act* include a 180-day limit for the review of applications for environmental assessment certificates. This timeline offers certainty in understanding the duration of steps in environmental assessment and supports timely planning for the public, government, Aboriginal groups, proponents and other potentially affected parties.

Objective 1.2: Ensure the effectiveness of environmental assessments

Continuously improving effectiveness and efficiency is key to maintaining the integrity of B.C.'s environmental assessment process.

Strategies

Key strategies for this objective include ongoing implementation of:

- A quality assurance program that ensures continuous improvement of the environmental assessment process
- A compliance and enforcement program to ensure projects comply with certificate requirements
- Collaboration with other provincial agencies to improve service to clients, reducing overlap and duplication with other federal and provincial regulators

Performance Measure 2: Compliance inspections completed on certified projects

Performance Measure	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target
Number of compliance inspections completed on certified projects	25	27	29	31

Data Source: Environmental Assessment Office, manually compiled.

Performance Measure 3: Coordinated Mine Inspections (new)

Performance Measure	2015/16 Baseline	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/2020 Target
Number of mine inspections coordinated with Ministry of Energy and Mines and the Ministry of Environment ¹	N/A	N/A	5	10	15

Data Source: Manually compiled by the Ministry of Environment, Ministry of Energy and Mines, the Environmental Assessment Office.

¹ Inspections (in office reviews and on site examinations).

Discussion

The Office's compliance and enforcement program undertakes various compliance oversight activities, including field inspections, administrative inspections, review of complaints, investigations, compliance promotion and enforcement. The program works closely with other agencies to ensure effective coordination of compliance oversight of environmental assessment conditions and permitting requirements.

Inspections are a key tool that the Office uses to promote compliance and enforce legally binding environmental assessment certificate conditions. The Office ensures continuous improvement of environmental assessment certificates by incorporating lessons learned through inspections and other compliance oversight into new environmental assessments. The Office posts all inspection reports and enforcement actions to ensure access to compliance information for the public and permitting authorities.

While each agency conducts inspections under their respective legislation, the Ministry of Environment, the Ministry of Energy and Mines and the Environmental Assessment Office have created a new performance measure that formally tracks their joint inspections. This is the result of an increased emphasis on coordinated compliance and enforcement efforts with respect to mining.

Resource Summary

Environmental Assessment Office	2016/17 Restatement ¹ Estimates	2017/18 Estimates	2018/19 Plan	2019/20 Plan
Operating Expenses (\$000)				
Environmental Assessment Office	11,828	11,870	11,882	11,773

Notes:

¹ For comparative purposes, amounts shown for 2016/17 are consistent with the presentation of the 2017/18 *Estimates*.

Appendix

Ministry of Environment Contact Information

Headquarters

Victoria

Telephone: 250 387-9870

Fax: 250 387-6003

Website: www.gov.bc.ca/env/

Additional contact information can be found at 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/

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/

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/

Williams Lake Office:

Telephone: 250 398-4530

Fax: 250 398-4214

Website: 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/

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/

Cranbrook Office:

Telephone: 250 489-8540

Fax: 250 489-8506

Northern Region

Skeena

Smithers Office:

Telephone: 250 847-7260

Fax: 250 847-7591

Website: 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/

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

Peace

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

Water Stewardship Division:
Phone: 250 565-6135
Fax: 250 565-6629

Website: 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

836 Yates Street

PO Box 9426 Stn Prov Govt

Victoria B.C. V8W 9V1

Email: eaoinfo@gov.bc.ca

Website: www.eao.gov.bc.ca

Additional contact information can be found at http://www.eao.gov.bc.ca/contact_us.html

Ministry of Environment

Map of British Columbia detailing Major ENV Offices, Provincial Parks, Major Highways, Rivers and Centres

Vancouver Island Region

2080 Labieux Road
Nanaimo, B.C. V9T 6J9
Phone: (250) 751-3100
Fax (250) 751-3103

Lower Mainland Region

2nd Floor, 10470-152nd Street
Surrey, B.C. V3R 0Y3
Phone: (604) 582-5200
Fax: (604) 930-7119

Thompson Region

1259 Dalhousie Drive
Kamloops, B.C. V2C 5Z5
Phone (250) 371-6200
Fax: (250) 828-4000

Kootenay Region

ESSP and Parks Office
205 Industrial Road
Cranbrook, B.C. V1C 7G5
Phone: (250) 489-8540
Fax: (250) 489-8506

EP, Parks and COS Office

401-333 Victoria Street
Nelson, B.C. V1L 4K3
Phone: (250) 354-6333
Fax: (250) 354-6332

Cariboo Region

400-640 Borland Street
Williams Lake, B.C. V2G 4T1
Phone: (250) 398-4530
Fax: (250) 398-4214

Okanagan Region

102 Industrial Place
Penticton, B.C. V2A 7C8
Phone: (250) 490-8200
Fax: (250) 492-2231

Peace Region

400-10003 110 Avenue
Fort St. John, B.C. V1J 6M2
Phone: (250) 787-3411
Fax: (250) 787-3490

Omineca Region

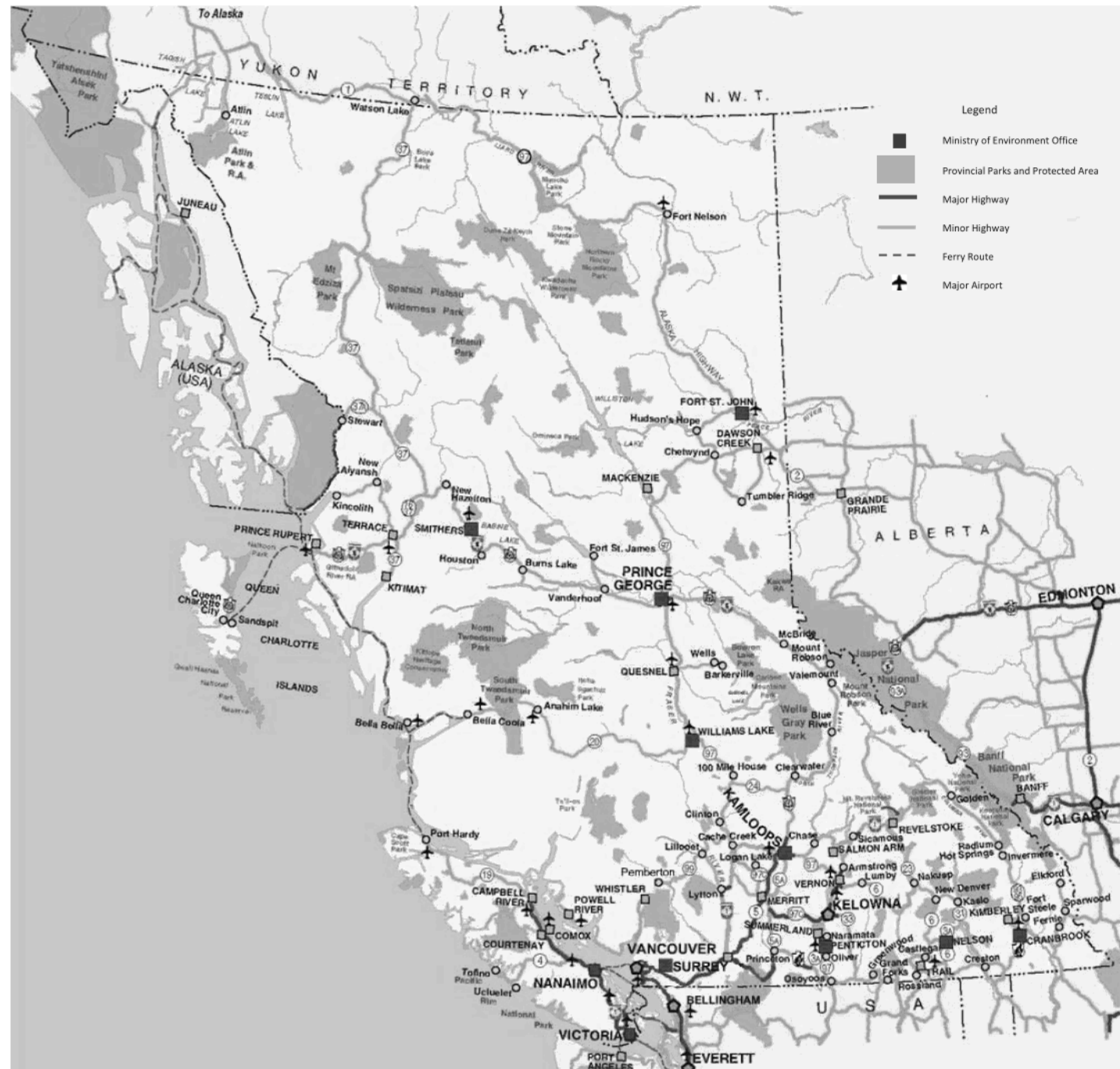
Parks and ESSP Office
4051 18th Avenue
Prince George, B.C. V2N 1B3
Phone: (250) 565-6135
Fax: (250) 565-6940

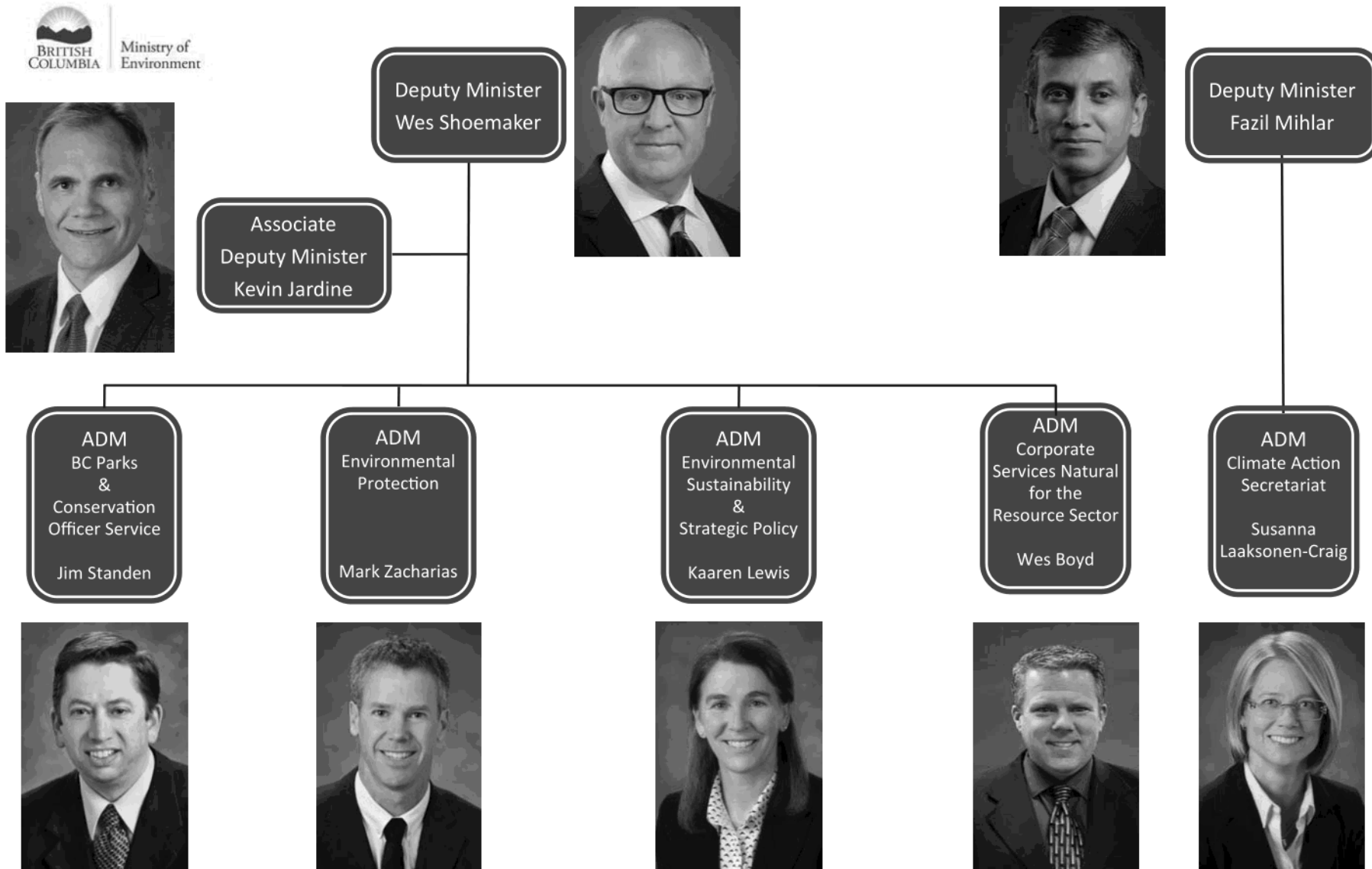
EP and COS Office

325-1011 4th Avenue
Prince George, B.C. V2L 3H9
Phone: (250) 565-6135
Fax: (250) 565-6629

Skeena Region

PO Box #5000
3726 Alfred Avenue
Smithers, B.C. V0J 2N0
Phone: (250) 847-7260
Fax: (250) 847-7591





EXECUTIVE MEMBER BIOGRAPHY



Wes Shoemaker was appointed Deputy Minister for Environment on October 2, 2012. Previously, he held the role of Deputy Minister for Agriculture and Lands, and Deputy Minister for Public Safety and Solicitor General where he led the government's emergency management, road safety, and consumer protection programs on behalf of the Province of BC. The Public Safety portfolio included Emergency Management BC, the Office of the Superintendent of Motor Vehicles, and oversight over ICBC, Consumer Protection B.C., and the Motor Vehicle Sales Authority. As Deputy Minister for Public Safety, he led the Integrated Public Safety planning and service delivery for the extremely successful 2010 Olympic Games.

He began his career with the BC Public Service on December 4, 2006 as the Associate Deputy Minister for Emergency Management BC (EMBC) which administers the integrated strategic planning, mitigation, response and recovery activities for the Province.

Prior to joining the BC Public Service, Wes was the City of Winnipeg Fire & Paramedic Chief since 1998 where he led a major service integration of the former fire and ambulance departments. During his 25 years in emergency services, Wes was a firefighter/emergency medical technician, fire investigator, emergency medical and fire dispatcher, Deputy Fire Chief in both Edmonton and St. Albert and Fire Chief and Regional Fire Coordinator in the City of Hamilton. In 2004, he was President of the Metropolitan Fire Chiefs Association, an organization which represents all chiefs from the largest cities in North America.

Wes is a Harvard fellow, has an MBA, and has participated on many community and professional boards and associations.



Environmental Protection Division

The Environmental Protection Division is responsible for the regulation of air, liquid and solid waste in BC, including permitting, compliance and enforcement and end of life (recycling). It is also responsible for the provincial environmental emergencies program, the provincial contaminated sites and brownfields remediation program, and the regulation of the sale and use of pesticides. The position's primary accountability is to manage a team of environmental and scientific experts working in 13 communities across BC to support industry and local governments in preventing pollution through:

- Developing, administering and maintaining the *Environmental Management Act*, *Integrated Pest Management Act* and the *Sustainable Environment Fund Act* and over 40 supporting regulations to manage the discharge of waste and prevent pollution.
- Ensuring the timely provision of scientific analysis and advice to environmental assessments of all major industrial and resource development projects.
- Setting of emission and discharge standards through regulation and site specific permits and to provide the authorizations required for all major developments that introduce waste into the environment.
- Administering programs to reduce and remove contaminating toxins and hazardous waste, including administration of contaminated sites remediation to ensure protection of public health and the return of previously contaminated lands back into productive use.
- Ensuring a timely and appropriate response to all high-risk environmental spills, including policy development to ensure that world class prevention and response regimes are in place for both marine and terrestrial spills in BC.
- Ensuring the sound management of municipal liquid and solid waste, including implementation of Industry Product Stewardship programs.
- Monitoring and reporting on ambient air and water quality.

Budget: \$11.531 (FY 2017/18)

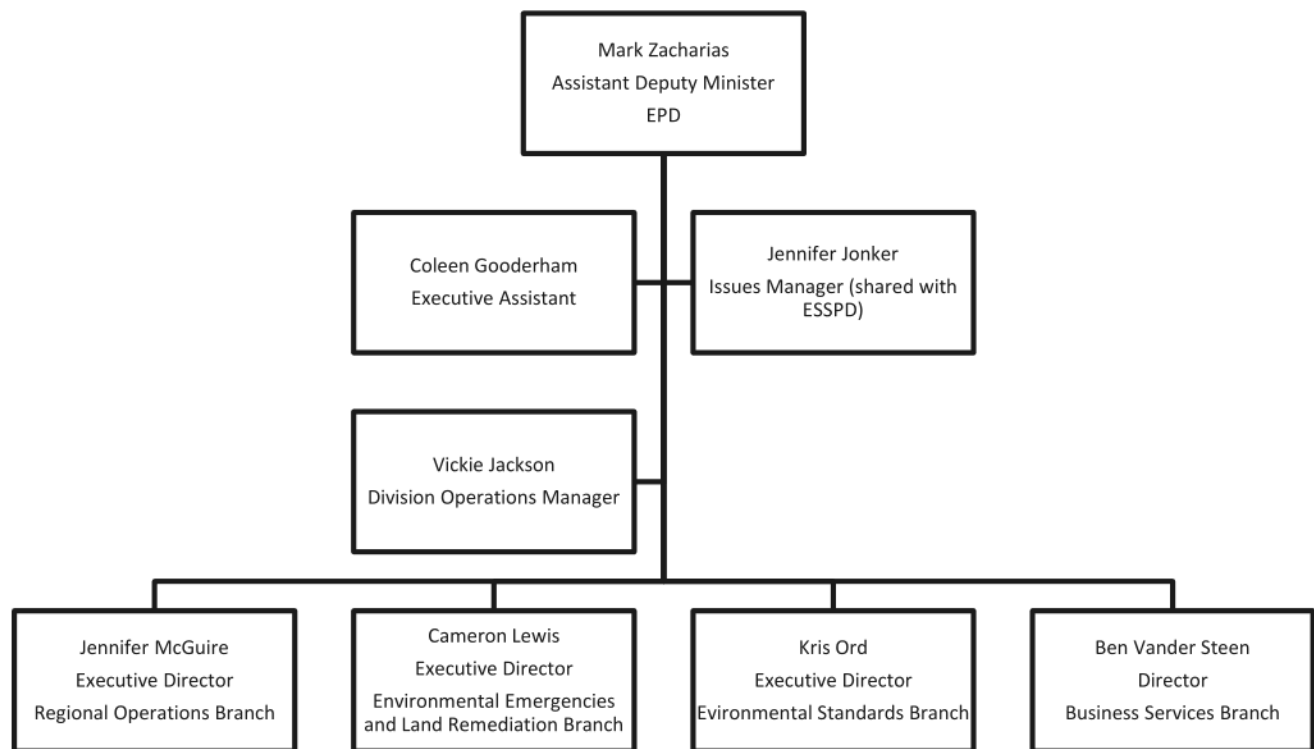
Full Time Equivalents (FTEs): 292

Related Legislation:

Environmental Management Act (ENV)
Integrated Pest Management Act (ENV)
Sustainable Environment Fund (ENV)



Organizational Chart:



EXECUTIVE MEMBER BIOGRAPHY



Mark Zacharias is currently Assistant Deputy Minister, Environmental Protection Division with the British Columbia Ministry of the Environment. He joined the provincial government in 1995, working on land and marine planning issues and has since worked in eight different ministries in a variety of increasingly senior capacities. He has formerly held Assistant Deputy Minister positions in post-secondary education and land management within the BC public service.

Mark is also an Adjunct Associate Professor of Geography at the University of Victoria and Adjunct Professor at the University of British Columbia Fisheries Centre. He has published extensively in the field of ecology and conservation and his second book, titled, *Marine Policy: An Introduction to Governance and International Law of the Oceans* was published in 2014.

Mark holds a Bachelor's and a Master's Degree in Geography from the University of Victoria and a Ph.D. in Zoology from the University of Guelph.



Environmental Sustainability and Strategic Policy

Environmental Sustainability and Strategic Policy Division mission is:

- to lead strategic and innovative policy, science, and knowledge management solutions for sustainable management of water, air, land, and living resources.

Division's key goals:

1. Leaders in strategic environmental sustainability
2. Service excellence
3. Trusted partnerships
4. High performing organization

Division branches and core functions:

Water Protection and Sustainability Branch

- Lead the development of provincial water strategies, including transboundary and inter-governmental water forums and initiatives
- Lead the development of water policy, legislation and non-regulatory tools (i.e. Water Sustainability Act)
- Develop water quality standards and guidelines
- Support the advancement of watershed and aquifer science

Ecosystems Protection and Sustainability Branch

- Lead species and ecosystem conservation policy and legislation
- Coordinate assessment and reporting of species and ecosystems health
- Lead applied conservation science and analysis

Knowledge Management Branch

- Develop and manage information standards, collection and access
- Manage species and ecosystem information, as well as water, snow and climate networks
- Lead environmental monitoring and reporting
- Provide environmental economics analysis and NR sector library and laboratory services

Strategic Policy Branch

- Lead the development of ministry legislation and regulations
- Coordinate and lead inter-governmental files at the municipal, provincial, national and international level
- Coordinate development of cross-ministry compliance policy and enforcement reporting

The Division meets its goals and accountabilities through the development of science-informed policies, laws, environmental requirements, agreements, standards and guidelines. Staff work across



the Natural Resource Sector and with external stakeholders to ensure environmental legislation, policies, standards and operating practices are integrated into the sector's decision-making and implementation frameworks. The Division works with ministries, universities and other agencies to acquire knowledge and science for application in policy development and resource management.

The Strategic Policy Branch also supports the Minister, Deputy Minister and Ministry Executive through corporate leadership, coordination, analysis and inter-agency communications services. Its success is based on championing innovative business approaches, as well as building and maintaining constructive and co-operative relationships with its partners, both within and outside of the Ministry.

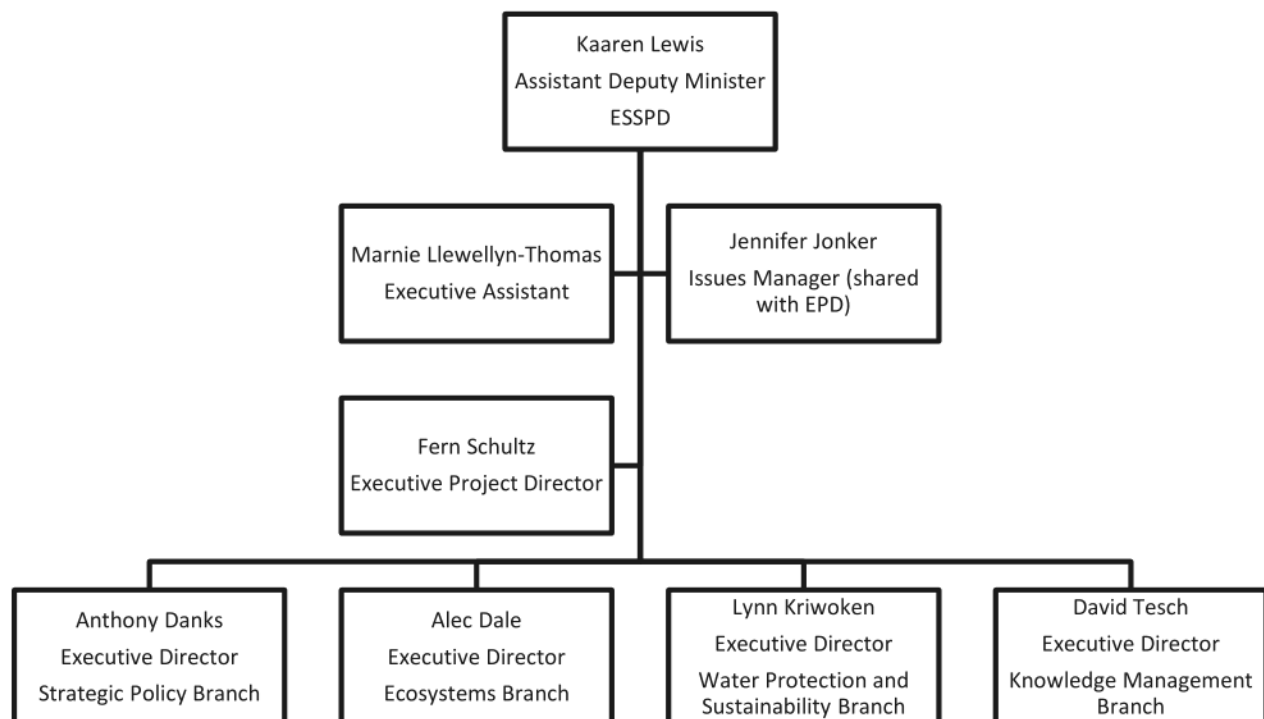
Budget: \$22.73 M (FY 2017/18)

Full Time Equivalents (FTEs): 179

Related Legislation:

- *Wildlife Act (ENV)*
- *Water Sustainability Act (FLNRO)*
- *Oil and Gas Activities Act (MNGD)*
- *Forest and Range Practices Act (FLNRO)*
- *College of Applied Biology Act (ENV)*
- *Ministry of Environment Act (ENV)*
- *Ministry of Lands, Parks and Housing Act (ENV)*

Organizational Chart:





EXECUTIVE MEMBER BIOGRAPHY



Kaaren Lewis is the ADM of the Environmental Sustainability and Strategic Policy Division of the BC Ministry of Environment. The division leads strategic and innovative legislation, policy, science and knowledge management solutions related to the sustainable management and conservation of the province's water, air, land and living resources. It is comprised of a strong, committed and diverse team of almost 200 staff with expertise in water, ecosystems and biodiversity science, policy and legislation, environmental monitoring and reporting, data and information management, compliance policy and inter-governmental relations.

Although Kaaren has spent most of her over 25-year BC public service career in the natural resource sector, prior to her current role, she spent four years in the economic and social sector as the ADM of the Tourism and Small Business Division and Executive Director of Labour Market Programs, at the Ministry of Jobs, Tourism and Skills Training.

Kaaren holds a Master's degree from Yale University's School of Forestry and Environmental Studies. ^{s.22}

s.22



BC Parks

BC Parks is a land management, regulatory and recreation service provision program that is responsible for the acquisition, designation, administration, planning, management and regulation of natural resources and activities occurring on over 14 percent of the provincial land base. British Columbia has the highest percentage of its land base dedicated to protected areas of all provincial Canadian jurisdictions. There are 1,032 provincial parks, recreation areas, conservancies, ecological reserves and protected areas within the system.

BC Parks has two key branches: the Provincial Services Branch in Victoria and the Regional Operations Branch supporting five regions - Northern; Thompson-Cariboo; Kootenay-Okanagan; South Coast; and West Coast.

BC Parks is currently working to deliver on the Parks Future Strategy announced in November 2016 and to deliver on that alongside its mandate, BC Parks is:

- Ensuring the Province's conservation mission is maintained and enhanced;
- Providing outstanding recreation services and opportunities;
- Expanding public partnership and engagement with BC Parks;
- Redefining BC Parks' relationship with First Nations communities;
- Using innovative approaches to ensure sustainable funding into the future; and
- Protecting, restoring and managing high-priority habitat and ecosystems including managing invasive species, forest health impacts, species at risk, and landscape connectivity;

Budget: \$49.266 (FY 2017/18)

Full Time Equivalents (FTEs): 195

Related Legislation:

Park Act (ENV)

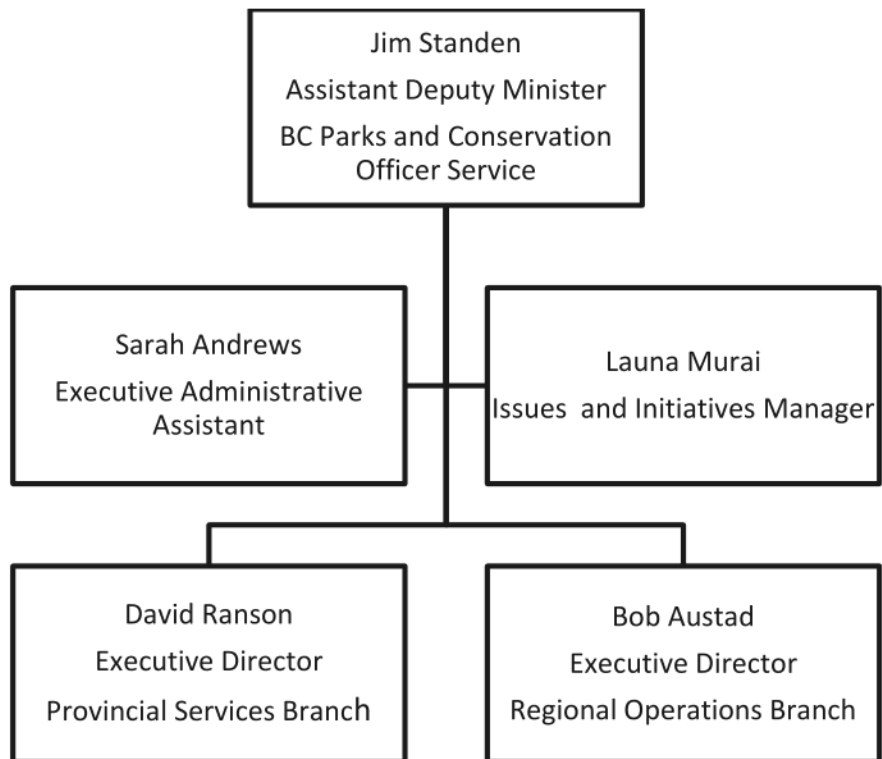
Ecological Reserve Act (ENV)

Environment and Land Use Act (FLNRO)

Protected Areas of British Columbia Act (ENV)



Organizational Chart:



EXECUTIVE MEMBER BIOGRAPHY



Jim Standen was appointed the Assistant Deputy Minister of BC Parks & Conservation Officer Service on October 14th, 2014. Previous to this, Jim was the Assistant Deputy Minister of Environmental Protection Division for four years.

Jim started his career in government as an auxiliary Fisheries Technician in Kamloops in 1992. Since then, he has held positions in Environmental Stewardship, Planning and Assessment, Environmental Protection, Strategic Policy and Water Management. Prior to becoming ADM, Jim was Director of the Regional Operations Branch for the Environmental Protection Division and Chair of the Coast Region Interagency Directors Committee. During his 25-year career with the Ministry of Environment, he has had the opportunity to develop a broad knowledge of the business of the ministry and expertise in strategic planning, financial management, and legislation and policy development. Jim has a Bachelor of Science in Biology from the University of British Columbia, as well as having studied accounting/business at UBC and Thompson Rivers University.



Conservation Officer Service

The Conservation Officer Service (COS) is a professional law enforcement agency with a mandate to enforce natural resource laws and respond to human/wildlife conflicts, to protect human health and safety, the environment, personal and public property, and government revenues. It supports all business areas within the ministry and the natural resource sector by delivering compliance and enforcement services addressing provincial and federal natural resource legislation.

The Provincial Operations Branch delivers field services (call response, investigations, and compliance and enforcement patrols) across the province from 46 locations.

The COS's Provincial Investigation Branch is a plainclothes program and is responsible for investigating major and complex files. The Branch conducts investigations into non-compliance involving public health and safety, the environment and its natural resources, arson and forest revenues.

The Program Support Branch is responsible for staff recruitment, training and development; quality assurance and performance management; policy; information analysis and reporting and logistically/tactical support to operations.

In cooperation with the Provincial Emergency Program, the COS operates a 24-hour Call Centre (Report all Poachers and Polluters) in Victoria to handle public reports of environmental violations and calls related to human/wildlife conflicts.

Budget: \$15.476 (FY 2017/18)

Full Time Equivalents (FTEs): 158

Related Legislation:

In total, the Conservation Officer Service deals with six Federal and 25 Provincial Acts including the BC *Environmental Management Act* and *Wildlife Act*.

Conservation Officers are appointed as Special Provincial Constables pursuant to the *Police Act*. The authorities provide Conservation Officers with the ability to enforce additional provincial and federal statutes while in the performance of their duties. Examples of issues that Officers may encounter and address by virtue of the appointment include impaired driving and unlawful possession of narcotics.

Organizational Chart:



EXECUTIVE MEMBER BIOGRAPHY



Mr. Fazil Mihlar was appointed Deputy Minister, Climate Leadership effective March 25, 2016. Previous to this role, Fazil was Assistant Deputy Minister, Institutions and Programs Division with the Ministry of Advanced Education and Assistant Deputy Minister, Oil and Strategic Initiatives Division, Ministry of Natural Gas Development. Before joining government in 2013, Fazil was associate editor of The Vancouver Sun newspaper.

Fazil has been nominated twice for a National Newspaper Award for best editorial writing in Canada. Before joining The Vancouver Sun in 1999, Fazil managed the Royal Bank Financial Group's public affairs department for BC and the Yukon. He was also director of regulatory and labour market studies at the Fraser Institute and managed the small business consulting group at Simon Fraser University. Fazil holds a B.A. in Economics from Simon Fraser University, an M.A. in Public Administration from Carleton University and a Marketing Diploma from the Chartered Institute of Marketing in London, England. He also completed a Certificate Course on Risk Management at Harvard University.

Fazil is the author/co-author of many research reports, including *A Review of the Canada/US Free Trade Agreement*, *The Cost of Regulation in Canada* and *The Rational Consolidation of Banking in Canada*.



Climate Action Secretariat

The Climate Action Secretariat (CAS) is the government agency responsible for meeting the Province of British Columbia's greenhouse gas reduction targets by coordinating climate action activities across Government and with stakeholders. The Secretariat, which was created in 2007, has a mandate to ensure an innovative, coordinated and effective approach to climate action in British Columbia; leading and engaging the broader public sector, municipal and regional efforts to achieve carbon neutrality; leading international, national and regional initiatives to promote trans-boundary approaches to climate action; conducting engagement and outreach with British Columbians; working with industry to advance low carbon business opportunities; setting research priorities; promoting a better understanding of the impacts of climate change and coordinating actions to adapt to the changing climate. The work of the Climate Action Secretariat has significant economic and financial implications for British Columbia through such activities as carbon pricing, and implementation of greenhouse gas mitigation and climate adaptation policies and measures.

To deliver on these responsibilities, the Climate Action Secretariat:

- provides a whole of government approach to climate action in British Columbia, including reducing greenhouse gas emissions, adapting to the impacts of climate change, and developing a low carbon economy;
- provides executive leadership and strategic advice on the development and implementation of B.C.'s Climate Leadership Plan;
- provides executive leadership and strategic advice on the development and implementation of the Pan-Canadian Framework on Clean Growth and Climate Change;
- leads and supports the development of all required climate action related legislation and regulations;
- assesses incentives and other fiscal and financial mechanisms to lead and drive the change envisioned;
- works with international, national, and regional partners, such as Pacific Coast Collaborative and World Bank's Carbon Pricing Leadership Coalition, to forward climate action goals and represents B.C.'s interests in these bodies;
- leads and coordinates B.C.'s Carbon Neutral Government initiative;
- manages B.C.'s carbon offsets portfolio;
- coordinates development and implementation of B.C.'s Adaptation Strategy, including initiatives to enhance knowledge and tools, mainstream adaptation into government business and address adaptation in key sectors;
- coordinates and facilitates best practices research and policy on climate action across government ministries;
- leads and supports engagement processes with First Nations, municipalities, other governments, industries, environmental organizations, and the scientific community;
- coordinates the development of a public outreach and strategic engagement program to mobilize citizens and partners.

Budget: \$16.6M (FY 2017/18)



Full Time Equivalents (FTEs): 57 (including Climate Leadership Deputy Minister's Office)

Related Legislation:

Greenhouse Gas Industrial Reporting and Control Act (CAS)

Greenhouse Gas Emission Reporting Regulation

Greenhouse Gas Emission Control Regulation

Greenhouse Gas Emission Administrative Penalties and Appeals Regulation

Greenhouse Gas Reduction Targets Act (CAS)

Carbon Neutral Government Regulation

Carbon Tax Act (FIN)

Greenhouse Gas Reduction (Emissions Standards) Statutes Amendment Act (ENV)

Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act (MEM)

Greenhouse Gas Reduction (Vehicle Emissions Standards) Act (ENV – not in force)

Local Government (Green Communities) Statutes Amendment Act (CSCD)

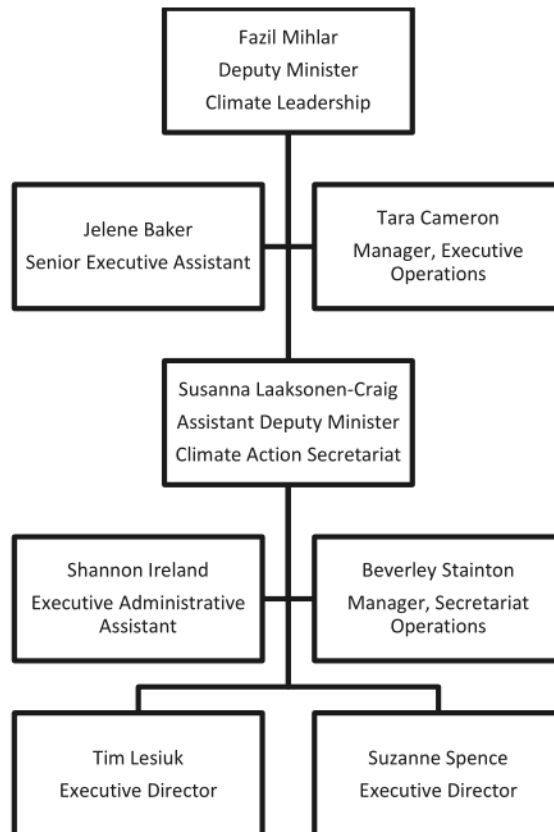
Utilities Commission Amendment Act (MEM)

Clean Energy Act (MEM)

Energy Efficiency Act (MEM)

Building Code Amendments and Regulations (OHCS)

Organizational Chart:



EXECUTIVE MEMBER BIOGRAPHY



Susanna Laaksonen-Craig was appointed Assistant Deputy Minister (ADM), Climate Action Secretariat in the Ministry of Environment on October 7, 2016. Previous to this role she was Head of the Climate Action Secretariat since 2014. Susanna has worked in the BC Public Service since 2007 in a variety of roles including as an Executive Director in the Timber Operations, Pricing and First Nations, and Resource Stewardship Divisions at the Ministry of Forests, Lands and Natural Resource Operations.

Susanna is originally a forest economist from Finland, with a Master's degree from the University of Helsinki. She went on to receive a Ph.D. in Wildland Resource Science from the University of California at Berkeley. Susanna worked in many jurisdictions before joining the BC Government, including as an assistant professor at the University of Toronto's Faculty of Forestry. She continues to hold an appointment as an Adjunct Professor at the University of Toronto's Faculty of Forestry.



March 2017

CORPORATE SERVICES for the NATURAL RESOURCE SECTOR

Assistant Deputy Minister / Executive Financial Officer Responsibilities:

Wes Boyd	EFO for Aboriginal Relations and Reconciliation (MARR), Agriculture (AGRI), Energy and Mines (MEM), Natural Gas Development (NGD), and Environment (including Environmental Assessment Office (EAO)) Responsible for Financial Services Branch and People and Workplace Strategies supporting MARR, AGRI, MEM, NGD, and ENV.
Trish Dohan	EFO for Forests, Lands and Natural Resource Operations (FLNRO) Responsible for Client Services Branch, Information Management Branch, and People and Workplace Strategies supporting FLNRO.

Core Business/Program Area Description/Critical Business Processes:

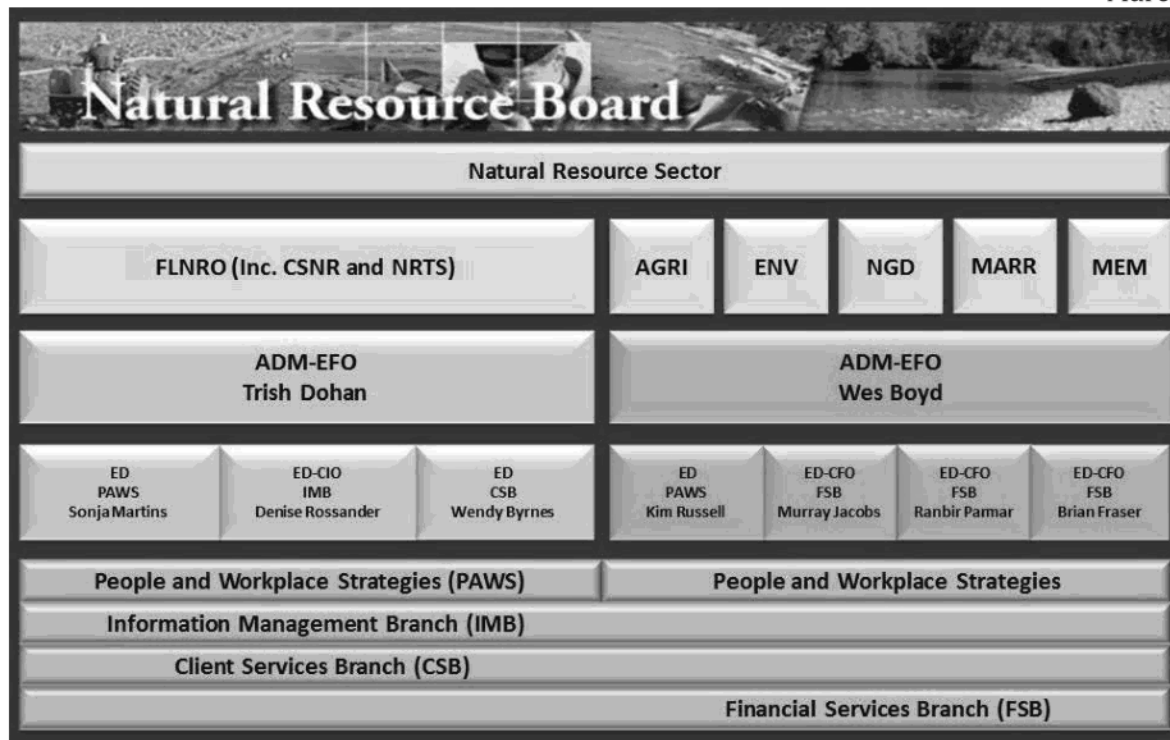
Formed in 2010, Corporate Services for the Natural Resources (CSNR) is an integrated, sector-focused corporate services organization within the FLNRO which has accountability to provide services to the six ministries that make up the Natural Resource Sector (NRS).

- Ministry of Aboriginal Relations & Reconciliation
- Ministry of Agriculture
- Ministry of Energy and Mines
- Ministry of Natural Gas Development
- Ministry of Environment – including Environmental Assessment Office
- Ministry of Forests, Lands and Natural Resource Operations

CSNR is led by two assistant deputy ministers (ADMs), each ADM has specific business area accountabilities for the natural resource sector in the service areas of **finance, strategic human resources, client services and information management**. In addition, each ADM has Executive Financial Officer (EFO) responsibility for one or more ministries.

The corporate services model was designed to be flexible. By using a sector based approach, to share best practises, standardize business processes and consolidate resources, significant efficiencies have been achieved. Benefits have included:

- Enhancing integration and coordination across the sector;
- Streamlining processes and providing consistent services across the sector;
- Establishing a single accountability for corporate services functions;
- Optimizing use of NRS facilities and assets where possible;
- Synergies in central agency requirements (e.g. sector Workforce Plans, sector Technology and Transformation Plan, NRS Integrated Strategic Plan);
- Providing strategic high level financial overviews to improve and support sector based decisions.



Budget: CSNR supports the Natural Resource Sector and each ministry contributes towards the cost:

	Budget	% Budget
MARR	1,672,000	4%
AGRI	2,898,000	7%
EMNG	1,232,000	3%
NGD	252,000	1%
ENV	9,535,000	22%
FLNRO	26,876,000	63%
2016/17 CSNR Total	42,465,000	100%

Full Time Equivalents (FTEs): 496*

*Includes regular and auxiliary positions – FTE numbers as of December 31, 2016.



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Related Legislation:

- *Financial Administration Act;*
- *Budget Transparency and Accountability Act;*
- *Balanced Budget and Ministerial Accountability Act;*
- *Financial Information Act;*
- *Supply Acts;*
- *Information Management Act;*
- *Public Service Act*

Business Services:

Core Business/Program Area Description/Critical Business Processes:

As a single entity organized to serve the entire NRS, CSNR is unique and committed to guide a sector-wide approach to service and supporting clients in managing the resources of the Province. This corporate approach to planning has seen great success over the past few years and as a result has paved the way for more integrated approaches that bring together our people, processes and technologies.

CSNR provides the following services to facilitate operational and strategic decision making across the six agencies.

Finance

- Financial Planning and Reporting: Financial planning, monitoring and reporting; budget development; financial and FTE forecasting; Treasury Board & Cabinet Submission support; and chart of accounts maintenance
- Financial Operations: Financial systems; expenditure operations including accounts payable, fixed assets and payroll; corporate card programs and accountable advances; input to proposed modification to government financial systems, and fiscal year end processes.
- Financial Policy, Compliance and Procurement: Financial policy advice, contract and procurement advice, signing authorities, financial compliance audits, bidder's lists and vendor complaints process.
- Revenue: Revenue and receivables management and administration; trust accounting; revenue forecasting and reporting; Fee/Fine Issue Paper support; and FrontCounter BC refund requests.

Information Management / Information Technology (IM/IT)

- Executive Support: Guidance, support and advice to Executive regarding their computer hardware, software and operational needs in cases where services are not provided by Shared Services BC (e.g. VIP).
- Business Service Desk: Central contact for line of business application issue calls and ordering goods and services from Shared Services BC (iStore ordering); first point of contact for cellular device issues and orders.
- Telecommunications Services: Provide province-wide 2-way radio communication enabling field staff to perform business functions in remote areas; maintenance of weather stations.



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- Web Infrastructure Services: Develop, enhance, maintain and administer web infrastructure technologies; provide advice and facilitate the use of various web service offerings.
- Strategic Planning Support: Strategic planning to develop the appropriate transformation and technology plans, IM/IT application vision, and information system plans; assist ministry partners in determining IM/IT capital, and operating investments driven by their annual business plans and requirements.
- Application Development and Maintenance: Manage NRS IM/IT business solutions; lead all aspects of systems development and maintenance; coordinate of all aspects of IM/IT procurement, and contract management within the scope of the Core Policy and Procedure Manual (CPPM).

Facilities, Fleet and Assets

- Facilities Management: Provide building and property management, space planning and accommodation management; manage and coordinate facilities projects and tenant improvements of ministry-owned and corporate properties.
- Fleet Management: Coordinate vehicle locations to meet business priorities; annual vehicle and equipment insurance renewals; accidents and loss reporting and documentation; provide policy and procedures; provide analysis and reports (fleet utilization, fuel consumption, maintenance); manage fleet budgets; and procurement of replacement and emergency vehicle equipment.
- Asset Management: Promote compliance with CPPM; develop local sharing agreements for assets; contribute to the development of capital plans for NRS operating and heavy duty equipment purchases; review storage of assets; and support the development of operational equipment asset inventories across the province.

Security and Safety Services

- People, Assets, IM/IT and Facilities: Proactively identify and offset security risks and exposures; ensure incidents are reported; provide a coordinated response to central authority directives and requests; and raise security awareness across the sector. IM/IT security services include the coordination of information privacy incidents, Privacy Impact Assessment (PIA) reviews, and Security Threat Risk Analysis (STRA) reviews.
- Business Continuity Planning & Emergency Support: Promote compliance with legislation and CPPM by providing support to plan, respond, and restore sector priority business functions; timely first alert notification and effective ongoing communication; site specific information on essential services, staff and resource requirements; and raising business continuity and emergency management awareness through orientations and exercises.

Strategic Human Resource Services

- Workforce Planning: identify people-focused priorities and implement strategies to meet ministry and/or sector business goals. Examples include workforce plans, succession plans, and recruitment and retention strategies. This also includes workforce analysis and reporting services, such as WES analysis and other HR metrics or workforce reports.
- Organization Effectiveness: provide tailored support, advice and recommendations to enhance employee engagement and improve business results. Examples include organizational advice,



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staffing strategies, team building, leadership development, change management, recognition, and management compensation.

- HR Programs & Initiatives: increase awareness and support ministry implementation of public service and natural resource sector human resources initiatives. Examples include performance management, recognition, health and well-being, diversity and inclusiveness, guidelines and tool-kits, and liaising with central agencies such as the Public Service Agency.

Records Support and Leadership

- Records Management Leadership: Provide guidance and advice on records-related issues; liaise with central agencies as appropriate to ensure NRS records needs are met, and support records systems development for the sector.
- Freedom of Information and Protection of Privacy Support: Liaise with central agencies; promote compliance with FOIPPA; assist ministry partners with managing legislated timelines; provide sector-wide advice on routine release strategies, and provide and promote FOI awareness and orientation.
- Litigation Documents Discovery Leadership: Provide advice, guidance, and orientations related to litigation document discovery requirements; coordinate case-specific litigation document discovery activities, and work in partnership with Ministry of Justice legal teams.

EXECUTIVE MEMBER BIOGRAPHY



Reporting to the Chair of the Natural Resource Board, Wes Boyd is one of two ADM/EFOs responsible for Corporate Services for the Natural Resource Sector. Wes is the Executive Financial Officer for the Ministries of Aboriginal Relations and Reconciliation, Agriculture, Energy and Mines, Environment (including Environmental Assessment Office and Climate Leadership) and Natural Gas Development. Wes is the lead for the Financial Services Branch for the sector; and the People and Workplace Strategies Branch supporting the above Ministries.

Wes was appointed ADM and EFO for all Natural Resource Sector ministries other than Forests, Lands and Natural Resource Operations effective April 4, 2016.

Wes joined CSNR from the Ministry of Technology, Innovation and Citizen Services where he was the ADM of Logistics and Business Services. His responsibilities in that position included procurement and supply services, and administration of the *Freedom of Information and Protection of Privacy Act*, on behalf of all ministries.

Wes started his career in the public service in 1989 in the Ministry of Social Services. He has worked in a variety of roles working in the Ministries of Health, Employment and Investment, Finance, Healthy Living and Sport, Olympic Games Secretariat, and most recently at Technology, Innovation and Citizen's Services. Wes also worked at Partnerships BC and BC Ferry Services Inc.; and as the provincial representative on the Community Social Services Employers' Association (CSSEA) Board of Directors.

Wes has a Bachelor of Arts degree in Economics and a Master of Public Administration from the University of Victoria.



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NATURAL RESOURCE SECTOR

Roles & Responsibilities

Natural Resource Sector:

The BC Public Service's natural resource sector (NRS) comprises six ministries – Aboriginal Relations and Reconciliation; Agriculture; Energy and Mines; Environment (including the Environmental Assessment Office); Natural Gas Development; and Forests, Lands and Natural Resource Operations. All natural resource ministries report to the Natural Resource Board and the Environment and Land Use Committee.

Each ministry has its own mission and goals, set out in annual Service Plans, and collectively the NRS regulates and influences activities on 94% of the province's land base. NRS ministries are responsible for administering over 130 provincial statutes that provide for the sustainable management and protection of the Province's natural resources and reconciliation with First Nations.

The ministries making up the natural resource sector have been structured to streamline government processes for critical natural resource industries to better attract global investment, enabling BC to make integrated resource management decisions on the whole of the land base. The NRS generates nearly \$3 billion in direct annual revenue to the Province through mining, oil, gas, electricity, forestry, agriculture, tourism and recreation. The sector's combined annual operating expenses are approximately \$1.3 billion, and its work both directly and indirectly benefits the economic, environmental and social health of our Province.

Environment and Land Use Committee (ELUC)

ELUC, a legislated committee under the *Environment and Land Use Act*, is mandated to ensure that all aspects of preservation and maintenance of the natural environment are fully considered in the administration of land use and resource development. The Committee is responsible for providing direction to the natural resource ministries that balances economic development and stewardship by setting priorities for the land base, managing land use conflicts and providing strategic advice to Cabinet on policies, programs, operations and legislation that impact the natural resource sector. This advice includes consideration of budgetary implications as well as implementation and communication strategies.

The committee is responsible for reviewing Cabinet submissions, requests for legislation and business plans from the natural resource sector ministries.



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Membership (as of April 2017): Honourable Steve Thomson (Chair), Honourable Mary Polak (Vice Chair), Honourable Norm Letnick, Honourable Bill Bennett, Honourable Rich Coleman, Honourable John Rustad, Honourable Mike Morris, Honourable Donna Barnett, Jackie Tegart, Jordan Sturdy, and Eric Foster.

Natural Resource Board (NRB)

The Natural Resource Board is responsible for supporting the Environment and Land Use Committee and for providing it with information and recommendations on policy and operational issues in support of its mandate. This support includes ministries working together to apply resources to highest sector priorities as guided by ELUC, such as sharing and/or collaborating on resources to meet critical government objectives, advancing the one-decision maker approach to authorizations and permits, reviewing high-level business plans to ensure that natural resource operations priorities are being met, and improving and gaining support for ELUC submissions.

The Board is also responsible for oversight of Corporate Services for the Natural Resource Sector and provides direction respecting its services, programs and sectoral plans, and ensures that an appropriate and consistent level of support is maintained across all NRS agencies.

Membership (as of April 2017): Tim Sheldan (FLNR – Chair), Dave Nikolejsin (MNGD- Vice-Chair), Wes Shoemaker (MOE), Doug Caul (MARR), Derek Sturko (AGR), Elaine MacKnight (MEM), Kevin Jardine (EAO), and Paul Jeakins (OGC). Representation at meetings is also maintained by Geoff Moyse (JAG).

NATURAL RESOURCE SECTOR

Ministry Overviews

Ministry of Agriculture

The Ministry of Agriculture supports an innovative, adaptive, globally competitive and socially and environmentally responsible agrifoods sector valued by all British Columbians. The Ministry's support of healthy and safe agrifood and seafood production and post-production processing provides new and value-added products for domestic and international markets, contributing to B.C. jobs and the economy as well as to diversified rural communities. The Ministry champions the agrifoods sector by:

- Supporting practices that promote adaptable, sustainable and competitive agrifoods production;
- Ensuring, in partnership with the Ministry of Health and the Federal Government, a regulatory system that promotes animal and plant health and food safety;
- Delivering programs to stabilize farm incomes when threatened by circumstances beyond farmers' control to ensure continued long-term production;
- Providing guidance and funding to the sector to increase market development;
- Supporting the agricultural industry's contribution to the green economy;
- Working with other ministries, federal partners and other governments, stakeholders and industry to ensure sustainable marine fisheries; and
- Working to balance urban / agricultural interests.

Ministry of Aboriginal Relations and Reconciliation

The Ministry of Aboriginal Relations and Reconciliation leads the Province of British Columbia's reconciliation efforts with First Nations and Aboriginal peoples. Reconciliation can take many forms, depending on the priorities of each community, so the Ministry uses different means to pursue reconciliation by negotiating and implementing agreements and other initiatives. Treaties, agreements, partnerships and other reconciliation initiatives are important tools for government and First Nations to establish negotiated relationships that contribute to prosperous and resilient communities, where social, cultural and economic imperatives are integrated. The Ministry's work includes co-ordinating reconciliation efforts across government, collaborating with stakeholders to build support for reconciliation, and understanding and fostering the opportunities and identified goals of First Nations and Aboriginal peoples. As the province has the fourth largest Métis population in Canada, the Ministry also supports and advances collaboration with the Métis community through the Métis Nation Relationship Accord II.

Ministry of Environment

The Ministry of Environment manages and mitigates the effects of past, present and future activities on BC's environment through leadership in science, governance, assessment, authorizations and compliance. The Ministry is responsible for environmental protection, natural resource law



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enforcement, climate action and BC Parks. This ministry also sets environmental policies and manages scientific knowledge for the sustainable management of water, air, land and living resources, including species at risk and biodiversity conservation. The Ministry is responsible for the Environmental Management Act, which regulates waste discharges, environmental emergencies, contaminated site remediation, and environmental monitoring and reporting. The Ministry provides environmental leadership through developing policy, building knowledge, developing partnerships, encouraging innovation and providing environmental services.

The Environmental Assessment Office, which falls also under the responsibility of the Minister of Environment, is a statutory agency that neutrally administers the review of major projects to assess their potential environmental, economic, health, heritage, and social impacts required by the Environmental Assessment Act. The assessment process is also needed to ensure that the issues and concerns of the public, First Nations, interested stakeholders and government agencies are considered and that compliance and enforcement activities are conducted over the life of the project.

Ministry of Energy and Mines

The Ministry of Energy and Mines is responsible for British Columbia's electricity, alternative energy, mining and mineral exploration sectors. These sectors are made up of diverse interests that explore for and produce coal and other valuable minerals and develop electricity, clean or renewable energy sources including biomass, biogas, geothermal, hydro, solar, ocean, wind and low-carbon transportation fuels. Through teamwork and positive working relationships with its clients and stakeholders, the Ministry facilitates thriving, safe, environmentally responsible and competitive energy and mining sectors in order to create jobs and economic growth in communities across the province. In fulfilling its mandate, the Ministry consults with other ministries and levels of government, energy developers and marketers, mineral exploration and mining companies, First Nations, communities, environmental and industry organizations, and the public.

Ministry of Forests, Lands and Natural Resource Operations

Supporting the Province's vision of environmental sustainability and economic prosperity, the Ministry of Forests, Lands and Natural Resource Operations is the Province's land manager, responsible for stewardship of provincial Crown land, cultural and natural resources. The Ministry ensures the sustainable management of forest, wildlife, and other land-based resources, supports activities that provide benefits for all British Columbians both economically and environmentally, and facilitates safe public access to a wide range of recreational activities such as hunting, fishing and access to British Columbia's wilderness and backcountry.

The Ministry is responsible for policy development, operational management and implementation, and oversees all or part of 59 statutes and associated regulations.



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Ministry of Natural Gas Development

The role of the Ministry of Natural Gas Development and Minister Responsible for Housing is to guide the responsible development and ensure maximum economic benefits to British Columbians from the province's natural gas resources, new export markets related to interprovincial pipelines, oil projects and value-added natural gas products and the province's next new major industrial sector—that of liquefied natural gas (LNG). The role includes ensuring that British Columbians have access to safe, affordable and appropriate housing through policy and programs, technical codes and standards, and services for landlords and tenants. The Ministry's stakeholders are the citizens of B.C. and their representatives at all levels of government, First Nations, community groups, non-profit societies, schools, service organizations, private sector companies, project proponents, and environmental and industry associations. Key to the Ministry's success is its ability to maintain strong, collaborative relationships with stakeholders, partner agencies and other levels of government.

NATURAL RESOURCE SECTOR TRANSITION NOTE

Date: April 26, 2017

ISSUE: NATURAL RESOURCE SECTOR STRATEGIC OVERSIGHT

BACKGROUND:

The six ministries which comprise the Natural Resource Sector (NRS) have a relatively advanced degree of integration, which has developed progressively since 2005.

Regarding strategic planning and oversight, the current model comprises:

- Sector-wide governance, through groups such as the NR Board and NRS ADMs committee;
- Initiative oversight at the NR Board level for key priorities such as the Natural Resource Permitting Project;
- Ministry-level Service Plans, outlining targets and priorities for each component ministry of the NR Sector;

The Natural Resource Board is currently engaged in a process to further evolve integration across the sector, through the provision of:

- A harmonised strategic plan, which encompasses all strategic-level initiatives across all ministries of the sector;
- A prioritisation of strategic initiatives, so requisite resources can be more effectively apportioned;
- Clear accountabilities for cross-ministry sectoral strategic initiatives;
- Ongoing environmental scanning, to ensure emerging opportunities and new directives are accommodated, and existing strategic initiatives re-prioritised accordingly;
- Oversight of strategic initiatives to validate that all sector-wide resources are being optimally utilised, support the provision of appropriate remedial intervention in a timely manner, and ensure that re-prioritisation is conducted as needed;
- Support for sector ministries to create their composite service plans, with clear linkages to the overarching NR Sector Strategy, and to evolve their ministry-level strategic planning and oversight to advance the overall maturity level throughout the sector.

SUMMARY:

- A harmonised approach to strategic planning for the NR Sector has been committed to by the NR Board with the goal of approval by the end of FY 2017/18.
- This approach will deliver a holistic strategic plan, identify priorities and provide oversight of strategic initiatives.,.
- This approach will realise many benefits for the sector, represents a natural evolution of the Sector's integrated approach, and will lead to increased maturity in strategic planning, initiative prioritisation, and oversight, for all constituent ministries of the NR Sector.
- In addition to direct benefits from harmonised strategic planning and oversight, the strategic approach will support the Sector's transformation agenda, through the provision of an aspirational desired end-state.

DECISION REQUIRED: N/A

NATURAL RESOURCE SECTOR TRANSITION NOTE

Date: April 3, 2017

ISSUE: NATURAL RESOURCE SECTOR INTEGRATION AND TRANSFORMATION

BACKGROUND:

Natural Resource Sector (NRS) ministries have been progressively integrating land management activities and pursuing a transformation approach in support of government priorities since 2005.

- The drivers for a more integrated sector have been:
 - Improving efficiency for review of major projects, such as mines where authorizations are needed from multiple ministries;
 - The ability to coordinate negotiations and consultations with First Nations where provincial interests cannot be met by siloed approaches by a single ministry;
 - Improved efficiency of major technology projects or client services that arise through the economies of scale from a sector perspective; and
 - The ability to address issues like cumulative effects on the land base that must be coordinated across several ministries in order to meet the public interest.
 - Budget pressures across government compelling shared services, integration of common functions and stronger coordination of business
- Early steps involved the establishment of the Integrated Land Management Bureau and an associated Board of Natural Resource Deputy Ministers in 2005 to consolidate permitting and provide better client service in the sector.
- In 2005, FrontCounter BC (FCBC) was established to pilot the first integrated client-facing service counter in Kamloops for natural resource clients and the public. Expanding to 29 communities by 2011, FCBC is the client-facing natural resource services provider for most NRS permitting today.
- In response to increasing budget pressures across government, increasing land and resource-use pressures and economic drivers like the BC Jobs plan, government initiated the Resource Management Coordination Project in 2008 to begin a virtual integration of common services and functions across the natural resource ministries.
- Having optimized the opportunities of virtual integration, 2010/11 saw a structural re-organization of parts of the NRS ministries to form Forests, Lands and Natural Resource Operations (FLNR).
- Under the Environment and Land Use Cabinet Committee (ELUC), and the supporting Natural Resources Board of Deputy Ministers (NRB), FLNR became the ministry responsible for integration of natural resource sector decision making and overall land and resource management coordination.
- The structural re-organization aligned the NRS and in 2013 to align administrative systems, policy, and the 'one land manager' approach to major projects and land and resource management were further coordinated by setting up the Natural Resource Transformation Secretariat (NRTS) to deliver the Natural Resource Permitting Project (NRPP).

SUMMARY:

- The partnership between FCBC and NRTS has been key to the successful implementation of the NRS Online Services website.
- Continued support of sector integration and transformation - including the Natural Resource Permitting Project - will ensure that our natural resource sector, which generates close to \$3B in annual revenue to the province and over 156,000 jobs, remains a key driver of economic activity throughout the province.
- NRPP is a multi-year initiative aimed at reducing red tape, putting citizens and business first, improving services, streamlining processes, integrating government decision making and improving access to information.
- Charged with developing a single-sector operating model, NRPP supports NRS ministries to transform and streamline their business for more effective client service and achievement of government priorities.
- There is now one location for NRS clients to access services through the new NRS Online Services website that was launched in December 2016. Clients can explore for development opportunities by accessing the latest land information in one location through a new mapping tool and new electronic land activity reports. The application process is also simplified through access to e-guidance documents.
- NRPP is on track and on budget to deliver the \$57M Phase 1 commitments of the project by the end of Fiscal 17/18 s.13,s.17
- s.13,s.17

DECISION REQUIRED: N/A

NATURAL RESOURCE SECTOR TRANSITION NOTE

Date: March 29, 2017

ISSUE: s.12,s.16
priorities.

to meet provincial economic

BACKGROUND:

s.12,s.16

MARR is responsible, on behalf of natural resource sector deputy ministers, for managing the
s.12,s.16

and managing all s.12,s.16 spending plans to support negotiations. The Natural Resources Board (NRB) and Deputy Ministers' Working Group on First Nations and LNG (DMWGFNLNG) have delegated authority to approve mandates and funding for negotiations
s.12,s.16

s.12,s.16

In June 2016, Treasury Board approved:

- s.12,s.16
- Delegated authority to the DMWGFNLNG to approve individual LNG Agreements;
- Delegated authority to the NRB and DMWGFNLNG to move up to s.12,s.16
s.12,s.16
- A quarterly reporting process to the Deputy Secretary to Treasury Board.

s.12,s.16

s.12,s.16

	2016/17	2017/18	2018/19
s.12,s.16			
Total	141	139	60

SUMMARY:

s.12,s.16

Current signed and committed agreements within the spending plan already account for most of the approved contingency allocation, leaving little room for new government priority negotiations.

s.12,s.16

s.12,s.16

- MARR will continue to work with Treasury Board staff to identify flexible mandating options, while maintaining fiscal discipline. The sector is also seeing a significant increase in socio-cultural initiatives at numerous tables. These are often low risk and high return initiatives in negotiations; however, the FNFE streamlined approval criteria do not currently contemplate these initiatives

**NATURAL RESOURCE SECTOR
TRANSITION NOTE
ABORIGINAL LIAISON PROGRAM**

Date: May 26, 2017

ISSUE: STRENGTHEN NATURAL RESOURCE SECTOR RELATIONSHIPS WITH FIRST NATIONS THROUGH EXPANSION OF THE ABORIGINAL LIAISON PROGRAM

BACKGROUND:

Endorsed by the NR Board and the Executive Land Use Committee of Government in June 2016, the Natural Resource Sector Aboriginal Liaison Program (NRSALP, ALP or Program) provides a means by which First Nations can have meaningful engagement with all NR Sector activities throughout their full lifecycle.

Since its implementation a little over 2 years ago, the program has expanded to encompass the full NR Sector (now housed within FLNRO but NR Board direction is to maintain as full sector). The Program is well supported by operational staff from Ministries and Agencies across the NR Sector and interest in the Program is growing within First Nations communities across the province¹.

The Program provides opportunities for representatives of First Nations communities to be trained in the content and application of the Province's regulatory framework and to observe how that framework is applied to NRS projects within their Territories. The Program is currently directed towards compliance monitoring s.13

The Program provides many benefits absent from traditional project based interactions including:

- Ensuring information on proposed activities is provided in a meaningful and respectful manner;
- Allowing First Nations involvement in review and assessment of information provided to them by proponents and/or government agencies;
- Ensuring First Nations understand proposed activities and their associated impacts and have the skills and training necessary to assess these activities during consultation;

s.13,s.16

- Ensuring First Nations understand how proposed activities are regulated by the province – for the full lifecycle of the activities;
- Ensuring that First Nations have the education and training necessary for dealing with emergencies or similar situations that may arise during operations; and
- Ensuring First Nations have access to information they need/desire throughout the activity lifecycle.

The ALP has received very positive reaction from Industry, all involved agencies and First Nation communities. It is a collaborative engagement that builds trust in BC Government programs with First Nation communities and provides a higher level of oversight of natural resource activities to the people of BC.

The Natural Resources Board recently approved FLNRO to lead the transition of the ALP to a longer term program with potential Province-wide application. FLNRO is working closely with OGC and other Natural Resource Sector agencies to develop a proposal for government consideration that will include options for a First Nations Liaison Program as a model for incorporation of all NRS First Nation monitoring initiatives under the full NRS whether in the ALP, ESI or other forms of agreement.

Current monitoring programs, agreements and arrangements are not consistent in principle, objective or cost structure.

s.13

SUMMARY:

FLNRO, in consultation with OGC and a Committee of ADM's established under the NRS ADM's is leading the development of a proposal for expansion of the ALP into other areas of the province. At the same time, the cross government team is looking at ways to bring all existing monitoring activities under a sector envelope. The framework will address consistency in principles, objectives and cost structure.

DECISION REQUIRED

- s.13

Agency/Agencies Responsible: FLNRO

APPENDIX 1: Natural Resource Sector Monitoring Partnerships between BC and First Nations

Agreement/ Program	Description	Current Status	Funding Source/ Level	Pending Decisions
Aboriginal Liaison Program	North Area: Compliance monitoring with 7 First Nations groups. 10 FN monitors funded at about \$150k each/ year. Involves FLNRO, OGC, EAO and MEM, MOE.	Program started in 2014 and has been successful to date. Funding in place for 2017/2018 fiscal year.	OGC/ \$1.01M per year	Proposal to government for longer term program planned for fall 2017.
Environmental Stewardship Initiative (LNG)	North Area: Environmental value information collection and analysis. Includes value monitoring as a component. 35 First Nations and FLNRO, NGD, MARR participation.	Started in 2015. New funding commitment to March 31, 2019 (not yet communicated to participants)	NGD/ \$30M over 3 years	None.
Various Agreements	Collaboration and Reconciliation Agreements across the Province include monitoring components to varying degrees.	Various.	Various.	Various.

NATURAL RESOURCE SECTOR TRANSITION NOTE

Date: May 29, 2017

ISSUE: CUMULATIVE EFFECTS FRAMEWORK STATUS UPDATE

BACKGROUND:

Cumulative Effects are changes to environmental, social and economic values caused by the combined effects of past, present, and potential future activities and natural processes. To improve Government's management of cumulative effects, the Ministry of Forests, Lands and Natural Resource Operations and the Ministry of Environment led development of the *Cumulative Effects Framework* (CEF) beginning in 2010. After a period of design and "proof of concept" in several pilot areas, phased implementation of the CEF was approved by ELUC in December 2013.

When fully implemented, the CEF will include policy, procedures, decision support tools and governance structures to support periodic assessments of cumulative effects for a selected set of values and management responses in decision-making across the natural resource sector. Cumulative Effects Assessments are tools to support decision making in: natural resource authorizations, environmental assessments for major projects, First Nations Consultation and Impact Assessment, and other strategic, tactical and operational decisions.

The first phase of CEF implementation has focused on the following priority activities:

1. **Regional implementation:** Implementing cumulative effects assessment and management in selected areas where assessments were completed during the trial phase (Thompson-Okanagan and Cariboo regions), and evaluating effectiveness.
2. **Policy and Procedures:** Developing provincial policy and procedures for cumulative effects assessment and management.
3. **Value Assessments:** For five initial CEF values (aquatic ecosystems, forest biodiversity, old growth, grizzly bear and moose) – developing standard assessment protocols and models, assessing current condition in all regions, and publishing maps and data. Some regions have developed additional region-specific value assessments.
4. **Data systems and tools:** Confirming systems and tools for data access, visualization and reporting, in partnership with the Natural Resource Permitting Project (NRPP).

The current status of each of these activities, and key milestones achieved to date, are as follows:

1. **Regional implementation:** Early Cumulative Effects assessments in the Thompson-Okanagan and Cariboo regions continue to support resource management and decision-making, and inform policy development and

continuous improvement.

2. **Policy and Procedures:** In October 2016 the NR Board approved CEF Interim Policy, and announced this approval and next steps to NRS (Natural Resource Sector) staff in February 2017. s.13

3. **Value Assessments:** In January 2017 the NRS ADMs committee endorsed Interim Standard Assessment Protocols for the first three CEF values (aquatic ecosystems, old growth and grizzly bear). s.13

validation are underway, and will result in variable timelines for publishing value assessments for each region, substantively between June 2017 and Fall 2018.

Some regions have also identified additional regional values and/or have assessment work underway as part of the CEF, or through related initiatives such as the Ecosystem Stewardship Initiative.

4. **Data systems and tools:** data models have been designed and built to support publishing CE values data in the BC Data Warehouse and through NRPP's Natural Resource Sector Online Services.

NEXT STEPS:

s.13

DECISION REQUIRED

- **30-60-90 day issue:** Yes
- **Decision required:** No

Agency/Agencies Responsible:
FLNRO – Resource Stewardship Division

NATURAL RESOURCE SECTOR TRANSITION NOTE

Date: April 3, 2017

ISSUE: FRONTCOUNTER BC'S ROLE IN SUPPORTING THE NATURAL RESOURCE SECTOR

BACKGROUND:

FrontCounter BC was created in 2005 as the single service provider for the Natural Resource Sector. FrontCounter BC provides services to both external clients and internal clients (Partner Agencies) through Service Level Agreements (SLA). FrontCounter BC offers multi-channel services including:

- in-person through 29 office locations throughout the province,
- online through www.frontcounterbc.gov.bc.ca / www.portal.nrs.gov.bc.ca (newly launched single portal for clients), and
- toll free phone at 1-877-855-3222

There are approximately 200 FrontCounter BC staff across the province available to assist natural resource clients and partner agencies. The FrontCounter BC program is administered through a Provincial Team who provides the resources, tools and processes required to deliver services.

Service Level Agreements between FrontCounter BC and the Partner Agencies outline the services that FrontCounter BC provides on behalf of the Partner. FrontCounter BC currently has Service Level Agreements with Forests, Lands and Natural Resource Operations, Ministry of Energy and Mines, Ministry of Environment, Ministry of Agriculture, Ministry of Transportation and Infrastructure and Service BC. Services are defined as 'tiers' and include:

- supporting clients with accessing information about and understanding how to apply for natural resource related authorizations and permits,
- conducting initial application processing work to ensure applications are complete and conducting a status of the application area,
- initiating stake holder referrals and first nations consultation

All FrontCounter BC offices have a public Community Access Terminal for clients to access online information and services and all offices are capable of processing all forms of payment (including the toll free Contact Centre).

Since 2005 FrontCounter BC has been expanding its role in supporting natural resource clients and Partner Agencies by increasing the scope of authorizations handled and increasing the level of services provided. FrontCounter BC leads streamlining efforts through continuous improvement of processes and shifting services from paper to electronic channels. These efforts result in more efficient processing times and improved client service. FrontCounter BC measures client service and collects feedback from clients through various methods including comment cards, online surveys and a monthly Client Satisfaction survey.

NEXT STEPS:

- FrontCounter BC continues to expand the scope of services provided to Partner Agencies to support consistent services for natural resource clients.
- FrontCounter BC continues to improve client service offered through each of the service channels.
- FrontCounter BC works closely with the Natural Resource Transformation Secretariat (NRTS) to enhance online services for clients.

DECISION REQUIRED – N/A

Agency/Agencies Responsible: Ministry of Forests Lands and Natural Resource Operations

Partners:

- Ministry of Energy and Mines
- Ministry of Environment
- Ministry of Agriculture

NATURAL RESOURCE SECTOR TRANSITION NOTE

Date: March 29, 2017

ISSUE: FEDERAL *SPECIES AT RISK ACT* AND CARIBOU RECOVERY IN BRITISH COLUMBIA

BACKGROUND:

Canada's *Species at Risk Act* (SARA, or the *Act*), 2002

Under SARA, recovery strategies must be prepared for all species designated as threatened or endangered species. The designation follows from a recommendation by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) and approval by the Minister of Environment and Climate Change Canada (ECCC). Recovery strategies must identify critical habitat without consideration of the social and economic implications of protection. If the ECCC minister forms an opinion that critical habitat is not “effectively protected” for provincially managed species and habitat on provincial lands, the minister must recommend to Governor in Council (GIC) that an order be made against destruction of critical habitat on provincial lands.

In 2016, ECCC released a draft *Critical Habitat Protection Assessment* (CHPA) policy under SARA to guide the process for assessment of laws and measures to protect critical habitat identified on non-federal lands to inform the ECCC Minister's opinion.

Provinces and territories (PTs) are challenged to protect the critical habitat of SAR in the same manner and to the same degree as required by SARA. The *Act* does not allow consideration of social and economic values when making recommendations to GIC to protect critical habitat, yet PTs must consider those factors when making significant land-use decisions. The *Act* does not adequately recognize other significant recovery investments that may be required for effective recovery of some species at risk (e.g., predator management; disease management).

BC's position is that federal decisions need to better reflect P/T jurisdictional accountabilities and that reforms to SARA or SARA related policies are required to increase flexibility and ensure socio-economic factors are considered prior to making legal decisions to protect critical habitat.

Southern Mountain Caribou (SMC)

Caribou populations are in decline across Canada. In October 2016, the Minister of ECCC made a decision to confirm a *Canadian Environmental Assessment Act* (CEAA) finding of ‘significant adverse cumulative effects’ for the Murray River Coal Mine Project on the use of lands and resources for traditional purposes by Aboriginal Peoples with respect to SMC. To avoid being in a situation where a project approval under CEAA might contradict ECCC's obligation under SARA, ECCC announced an assessment process (CHPA) for SMC.

To support ECCC's assessment, BC agreed to collaborate on a joint Protection Study (the Study) on SMC to review current and past provincial measures to protect and recover caribou. The first phase of the Study, focussing on the Central Mountain herds, was published in February, 2017.

The Study identified critical habitat protection gaps against targets outlined in the federal Recovery Strategy for SMC. This information will inform the federal CHPA and additional protection and recovery measures in BC.

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Boreal Caribou are also listed as threatened under SARA. BC is updating its 2013 Boreal Caribou Implementation Plan (BCIP) to include enhanced recovery actions based on what was learned in the CHPA process for SMC, along with new science and information, and to ensure the plan is in closer alignment with SARA requirements.

To address gaps in caribou protection for all herds, BC announced \$27 million over three years to support recovery efforts across BC. BC needs to work with Canada under a renewed BC/Canada SAR agreement to address jurisdictional issues and to better align SAR management.

SUMMARY

- SARA contains regulatory provisions designed to compel PTs to effectively protect the critical habitat of SAR. If BC does not effectively protect critical habitat, Canada may issue a Protection Order.
- The CHPA process is creating uncertainty for natural resource development.
- BC has a long history of taking action toward the protection and recovery of caribou, with significant social, environmental and economic trade-offs.
- Revisions are underway to BC's implementation plans to protect and recover caribou and to better align with the Federal Recovery Strategy requirements under SARA; consultations are underway with First Nations, industry and the public.

DECISIONS REQUIRED

- **30 day issue:** (none)
- **60 day issue:**
 - s.12,s.16
 - Public review and comment on the revised BCIP
- **90 day issue:**
 - Updates to BCIP and PNCP
- **Decision required:** No

Agencies Responsible:

- FLNRO – Resource Stewardship Division
- Ministry of Environment

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Withheld pursuant to/removed as

s.12;s.13



March 2017

CORPORATE SERVICES for the NATURAL RESOURCE SECTOR

Core Business/Program Area Description/Critical Business Processes:

Formed in 2010, Corporate Services for the Natural Resources (CSNR) is an integrated, sector-focused corporate services organization within the FLNRO which has accountability to provide services to the six ministries that make up the Natural Resource Sector (NRS).

- Ministry of Aboriginal Relations & Reconciliation
- Ministry of Agriculture
- Ministry of Energy and Mines
- Ministry of Natural Gas Development
- Ministry of Environment – including Environmental Assessment Office
- Ministry of Forests, Lands and Natural Resource Operations

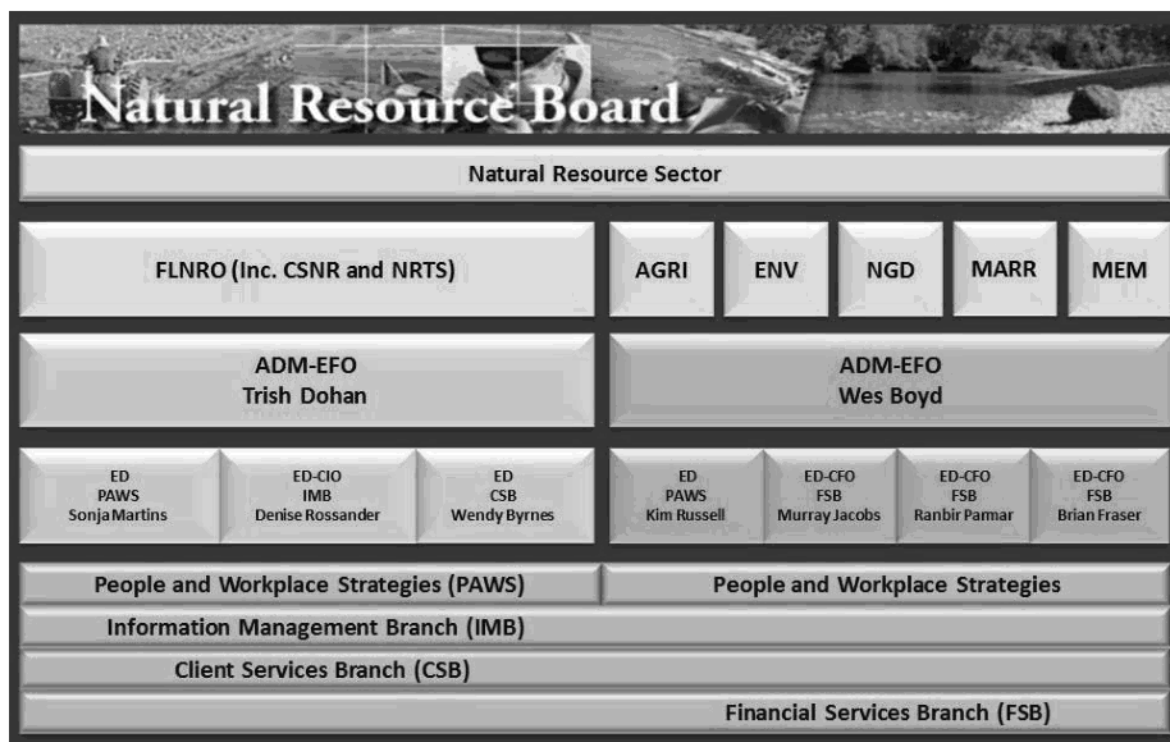
CSNR is led by two assistant deputy ministers (ADMs), each ADM has specific business area accountabilities for the natural resource sector in the service areas of **finance, strategic human resources, client services, and information management**. In addition, each ADM has Executive Financial Officer (EFO) responsibility for one or more ministries.

The corporate services model was designed to be flexible. By using a sector based approach, to share best practises, standardize business processes, and consolidate resources, significant efficiencies have been achieved. Benefits have included:

- Enhancing integration and coordination across the sector;
- Streamlining processes and providing consistent services across the sector;
- Establishing a single accountability for corporate services functions;
- Optimizing use of NRS facilities and assets where possible;
- Synergies in central agency requirements (e.g., sector Workforce Plans, sector Technology and Transformation Plan, NRS Integrated Strategic Plan);
- Providing strategic high level financial overviews to improve and support sector based decisions.

Assistant Deputy Minister / Executive Financial Officer Responsibilities:

Trish Dohan	EFO for Forests, Lands and Natural Resource Operations (FLNRO) Responsible for Client Services Branch, Information Management Branch, and People and Workplace Strategies supporting FLNRO.
Wes Boyd	EFO for Aboriginal Relations and Reconciliation (MARR), Agriculture (AGRI), Energy and Mines (MEM), Natural Gas Development (NGD), and Environment (including Environmental Assessment Office (EAO)) Responsible for Financial Services Branch and People and Workplace Strategies supporting MARR, AGRI, MEM, NGD, and ENV.



Budget: CSNR supports the Natural Resource Sector and each ministry contributes towards the cost:

	Budget	% Budget
MARR	1,672,000	4%
AGRI	2,898,000	7%
EMNG	1,232,000	3%
NGD	252,000	1%
ENV	9,535,000	22%
FLNRO	26,876,000	63%
2016/17 CSNR Total	42,465,000	100%

Full Time Equivalent (FTEs): 496*

*Includes regular and auxiliary positions – FTE numbers as of December 31, 2016.

Related Legislation:

- *Financial Administration Act;*
- *Budget Transparency and Accountability Act;*
- *Balanced Budget and Ministerial Accountability Act;*
- *Financial Information Act;*
- *Supply Acts;*
- *Information Management Act;*
- *Public Service Act.*

Business Services:**Core Business/Program Area Description/Critical Business Processes:**

As a single entity organized to serve the entire sector. This corporate approach has paved the way for more integrated approaches that bring together our people, processes and technologies.

CSNR provides the following services to facilitate operational and strategic decision making across the six agencies.

Finance

- **Financial Planning and Reporting:** Financial planning, monitoring and reporting; budget development; financial and FTE forecasting; Treasury Board & Cabinet Submission support; and chart of accounts maintenance
- **Financial Operations:** Financial systems; expenditure operations including accounts payable, fixed assets and payroll; corporate card programs and accountable advances; input to proposed modification to government financial systems, and fiscal year end processes.
- **Financial Policy, Compliance and Procurement:** Financial policy advice, contract and procurement advice, signing authorities, financial compliance audits, bidder's lists and vendor complaints process.
- **Revenue:** Revenue and receivables management and administration; trust accounting; revenue forecasting and reporting; Fee/Fine Issue Paper support; and FrontCounter BC refund requests.

Information Management / Information Technology (IM/IT)

- **Executive Support:** Guidance, support and advice to Executive regarding their computer hardware, software and operational needs in cases where services are not provided by Shared Services BC (e.g. VIP).
- **Business Service Desk:** Central contact for line of business application issue calls and ordering goods and services from Shared Services BC (iStore ordering); first point of contact for cellular device issues and orders.
- **Telecommunications Services:** Provide province-wide 2-way radio communication enabling field staff to perform business functions in remote areas; maintenance of weather stations.
- **Web Infrastructure Services:** Develop, enhance, maintain and administer web infrastructure technologies; provide advice and facilitate the use of various web service offerings.
- **Strategic Planning Support:** Strategic planning to develop the appropriate transformation and technology plans, IM/IT application vision, and information system plans; assist ministry partners in determining IM/IT capital, and operating investments driven by their annual business plans and requirements.
- **Application Development and Maintenance:** Manage NRS IM/IT business solutions; lead all aspects of systems development and maintenance; coordinate of all aspects of IM/IT

procurement, and contract management within the scope of the Core Policy and Procedure Manual (CPPM).

Facilities, Fleet and Assets

- Facilities Management: Provide building and property management, space planning and accommodation management; manage and coordinate facilities projects and tenant improvements of ministry-owned and corporate properties.
- Fleet Management: Coordinate vehicle locations to meet business priorities; annual vehicle and equipment insurance renewals; accidents and loss reporting and documentation; provide policy and procedures; provide analysis and reports (fleet utilization, fuel consumption, maintenance); manage fleet budgets; and procurement of replacement and emergency vehicle equipment.
- Asset Management: Promote compliance with CPPM; develop local sharing agreements for assets; contribute to the development of capital plans for NRS operating and heavy duty equipment purchases; review storage of assets; and support the development of operational equipment asset inventories across the province.

Security and Safety Services

- People, Assets, IM/IT and Facilities: Proactively identify and offset security risks and exposures; ensure incidents are reported; provide a coordinated response to central authority directives and requests; and raise security awareness across the sector. IM/IT security services include the coordination of information privacy incidents, Privacy Impact Assessment (PIA) reviews, and Security Threat Risk Analysis (STRA) reviews.
- Business Continuity Planning & Emergency Support: Promote compliance with legislation and CPPM by providing support to plan, respond, and restore sector priority business functions; timely first alert notification and effective ongoing communication; site specific information on essential services, staff and resource requirements; and raising business continuity and emergency management awareness through orientations and exercises.

Strategic Human Resource Services

- Workforce Planning: identify people-focused priorities and implement strategies to meet ministry and/or sector business goals. Examples include workforce plans, succession plans, and recruitment and retention strategies. This also includes workforce analysis and reporting services, such as WES analysis and other HR metrics or workforce reports.
- Organization Effectiveness: provide tailored support, advice and recommendations to enhance employee engagement and improve business results. Examples include organizational advice, staffing strategies, team building, leadership development, change management, recognition, and management compensation.
- HR Programs & Initiatives: increase awareness and support ministry implementation of public service and natural resource sector human resources initiatives. Examples include performance management, recognition, health and well-being, diversity and inclusiveness, guidelines and tool-kits, and liaising with central agencies such as the Public Service Agency.

Records Support and Leadership

- Records Management Leadership: Provide guidance and advice on records-related issues; liaise with central agencies as appropriate to ensure NRS records needs are met, and support records systems development for the sector.
- Freedom of Information and Protection of Privacy Support: Liaise with central agencies; promote compliance with FOIPPA; assist ministry partners with managing legislated timelines;

provide sector-wide advice on routine release strategies, and provide and promote FOI awareness and orientation.

- Litigation Documents Discovery Leadership: Provide advice, guidance, and orientations related to litigation document discovery requirements; coordinate case-specific litigation document discovery activities, and work in partnership with Ministry of Justice legal teams.



May 2017

Office of the Auditor General Audit of Climate Change

Issue:

- The Office of the Auditor General of British Columbia is conducting a performance audit of government's management of the risks posed by climate change; the primary focus of the audit is adaptation. (Background on British Columbia's Adaptation Strategy (2010) is included in the note Climate Risk and Adaptation)
- This is the first independent audit of British Columbia's climate change adaptation program. Government welcomes the opportunity to identify what is working well and to receiving suggestions for improvements that will further enhance British Columbia's resilience to a changing climate.
- The audit is coordinated with similar audits federally and in other provinces.

Background:

- The Auditor General is a non-partisan, independent Officer of the Legislature who reports directly to the Legislative Assembly.
- A performance audit reviews the wider management issues of an organization or program and whether it is achieving its objectives effectively, economically and efficiently. Audits are conducted in accordance with the assurance standards of the Canadian Institute of Chartered Accountants.
- The audit will consider:
 - Government action to reduce Greenhouse Gas Emissions, including targets, plans to achieve the targets, current progress and reporting.
 - Government action to adapt to a changing climate, including the 2010 Adaptation Strategy, risks and vulnerabilities and monitoring and reporting on performance and achievements.
 - Efforts of specific ministries to adapt, including Environment, Forests, Lands and Natural Resource Operations, Agriculture, Transportation and Infrastructure / Emergency Management BC, and Community, Sport and Cultural Development.
- CAS is cooperating with the Office of the Auditor General, as are relevant business areas in other ministries.
- Adaptation to climate change is a long-term effort that will benefit from regular reviews. The Climate Leadership Team has recommended regular independent reviews of BC's Climate Action Plans, including adaptation. The government announced establishment of Cabinet Working Group on Climate Leadership in 2016 to provide on-going direction on climate change issues.
- It is anticipated the audit results will be publicly available late-summer of 2017.
- The audit is coordinated with similar audits federally and in other provinces on various aspects of climate action. A national summary report will be released subsequent to jurisdictional reports.

Decision Required:

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May 2017

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OAG Audit of Compliance and Enforcement of the Mining Sector

Issue:

- Mining Audit and Compliance and Enforcement Strategy

Key Messages:

- The recommendations of the Auditor General's report with regard to oversight by the Ministry of Energy and Mines (MEM) and the Ministry of Environment (ENV) of the mining sector were accepted.
- In response to the recommendations, a Deputy Minister Mining Compliance and Enforcement (C&E) Board was established with membership from MEM and ENV, as well as the Environmental Assessment Office (EAO) to oversee C&E planning across mineral exploration, environmental protection and development.
- The BC Mining C&E Strategic Plan outlines government's vision for integrated oversight of the sector by MEM, ENV and EAO.
- The Strategic Plan was released in February 2017, along with a number of measures including a new integrated BC Mine Information website, changes to the Health, Safety and Reclamation Code for Mines in BC, the addition of administrative monetary penalties under the *Mines Act*, and an independent report by Ernst and Young on reclamation securities.
- With Budget 2017, there is a budget increase of \$18 million over three years for mines permitting and oversight and an additional \$9 million for *Environmental Management Act* authorizations and C&E activities.

Background:

- The Auditor General examined the Ministry of Energy and Mines and Ministry of Environment's compliance and enforcement programs and found they were inadequate to protect the province from significant environmental risks.
- The Audit on Compliance and Enforcement of the Mining Sector was released in May 2016. The overall recommendation of the audit was to establish an integrated and independent C&E unit outside of MEM. In response, a Mining C&E Board was established and accepted the 16 sub-recommendations.
- The Mount Polley tailings facility breach in 2014 increased scrutiny of the mining sector. In addition to the Independent Expert Engineering Investigation and Review Panel Report (January 2015) and the Chief Inspector of Mines Investigation Report (December 2015) into Mount Polley, the Auditor General report criticized the oversight of mines.
- The audit also discussed at length degradation of water quality in the Elk Valley. Specifically, the Ministry of Environment was criticized for not addressing selenium level increases in the Elk Valley over a twenty year span and the lack of disclosure by Cabinet when it approved the Line Creek expansion permit.



- Significant progress has been made on the combined 43 recommendations from the Expert Panel, Chief Inspector of Mines and Auditor General Reports.
- Changes have been made on how mining is done in BC including new policies, additional resources and funding to improve permitting processes and strengthen compliance and enforcement. Actions include:
 - A new C&E Board and a new Strategic Plan for compliance and enforcement of mining in BC that outlines government's three-year vision for mining oversight in the province.
 - Completion of Health and Safety portion of mining code (Code) review – updates to the Code based on the unanimous recommendations from the Code Review Committee chaired by the Chief Inspector of Mines which includes an equal number of representatives from First Nations, mine labour unions and industry.
 - Major changes to the management and oversight of Tailings Storage Facilities.
 - Administrative Monetary Penalties (AMP) regulations brought into force – regulations and related penalties for non-compliance with the *Mines Act* and Code.
 - Completion of a cross-jurisdictional review of reclamation securities and release of Ernst and Young reclamation securities report.
 - Launched the BC Mine Information website that provides greater transparency around mining operations in BC: <http://mines.nrs.gov.bc.ca/>.

Next steps in the Auditor follow up process:

- It is expected that Public Accounts Committee (PAC) will request an updated action plan in the summer of 2017 and a subsequent report out to the Committee in fall 2017. This will involve MEM and ENV providing a status update approximately one year after the initial plan was tabled immediately following release of the Audit.
- The Ministries will provide a self-assessment for each recommendation: 'Fully or substantially implemented', 'Partially implemented', 'Alternative action taken' or 'No action taken'.

Attachments

1. Recommendations from the Auditor General's Report on Mining
2. Recommendations from the Expert Panel Report and the Chief Inspector of Mines Investigation into Mount Polley
3. Mining C&E Board Terms of Reference
4. Mining C&E Strategic Plan

Recommendations from the Auditor General's Report on Mining

Auditor General Recommendations	
Part 1: Recommendations for Government	
<p>Recommendation 1.0 – Overall Recommendation</p> <p>We recommend that the Government of British Columbia create an integrated and independent compliance and enforcement unit for mining activities, with a mandate to ensure the protection of the environment.</p> <p>Given that the Ministry of Energy and Mines is at high risk of regulatory capture, primarily because MEM's mandate includes a responsibility to both promote and regulate mining, our expectation is that this new unit would not reside within this ministry.</p>	<p>Response:</p> <p>It is the legislative framework in BC that drives compliance and enforcement activities not the organizational structure. Many provincial governments across Canada have agencies and ministries with the role of promoting and regulating an industry. In the absence of evidence by the Auditor General that this has compromised the integrity of the ministry or its staff, Government does not support the need for a reorganization of the ministries; however we are prepared to further discuss this with the OAG. Government will establish a Mining C&E Board that will address the need for greater integration between the ministries, as well as with the Environmental Assessment Office.</p>
Part 2: Recommendations for Ministry of Energy and Mines and Ministry of Environment	
<p>Recommendation 1.1 – Strategic Planning</p> <p>We recommend that government develop a strategic plan that would detail the activities of an integrated and coordinated regulatory approach, and the necessary capacity, tools, training and expertise required to achieve its goals and objectives.</p>	<p>Response:</p> <p>A Mining C&E Board will be established to oversee an integrated and coordinated regulatory approach to mining in the Province of B.C. The Board will be accountable to the Deputy Minister of Energy and Mines, the Deputy Minister of Environment and the Associate Deputy Minister of the Environmental Assessment Office. The Board will develop compliance and enforcement plans to map out proactive annual activities based on a risk-based approach. The board will also be responsible for furthering longer term strategic improvements in other areas such as: enhancing training; developing policies, procedures and tools; conducting evaluations; and expanding public reporting. MEM will appoint a new Deputy Chief Inspector of Mines for compliance and enforcement to oversee and implement improved C&E.</p>

Recommendations from the Auditor General's Report on Mining

Auditor General Recommendations	
<p>Recommendation 1.2 – Permit Language</p> <p>We recommend that government ensure both historical and current permit requirements are written with enforceable language.</p>	<p>Response:</p> <p>The ministries agree that permits must be written with measureable and enforceable requirements. Both ministries will develop policy to ensure enforceable and measurable requirements are used in all new and amended permits.</p>
<p>Recommendation 1.9 – Incentives</p> <p>We recommend that government create effective incentives to promote environmentally responsible behavior by industry.</p>	<p>Response:</p> <p>The ministries agree that it is useful to consider incentives as part of the compliance and enforcement regime governing mines and will continue to consider additional opportunities to recognize and reward good environmental performers. Furthermore, it is expected that expanded public reporting of compliance and enforcement activities will serve as a very effective incentive for promoting environmentally responsible behaviour.</p>
<p>Recommendation 1.10 – Risk-Based Approach</p> <p>We recommend that government develop a risk-based approach to compliance verification activities, where frequency of inspections are based on risks such as industry's non-compliance record, industry's financial state, and industry's activities (e.g., expansion), as well as risks related to seasonal variations.</p>	<p>Response:</p> <p>Compliance verification activities conducted by the ministries are founded on a risk-based approach; however, the ministries commit to review policies in this regard. The annual compliance and enforcement planning that will take place at the Mining C&E Board, established under recommendation 1.1, will also be risk-based to optimize the capacity and effectiveness of the ministries' collective compliance and enforcement resources.</p>

Recommendations from the Auditor General's Report on Mining

Auditor General Recommendations	
<p>Recommendation 1.12 – Qualified Professionals</p> <p>We recommend that government establish policies and procedures for the use and oversight of qualified professionals (QP) across the natural resources sector. These policies and procedures should have the following:</p> <ul style="list-style-type: none"> • guidance for staff that outlines the specific nature and amount of oversight expected of a QP's work • guidance for staff as to expected timeframe for review and response to QP reports • updated guidance for staff for recognizing and responding to misconduct by a QP • controls in place to ensure that there is no undue influence on the QPs by industry • controls in place to ensure that recommendations by QPs are adhered to 	<p>Response:</p> <p>MEM's efforts are guided by the Mines Act and the Health, Safety and Reclamation Code for Mines in British Columbia. In particular, the Code Review currently underway is considering specific matters such as the need for a qualified individual designated as a mine dam safety manager to oversee all work associated with a tailings storage facility and will clarify the roles and responsibilities of the Engineer of Record at a mine. The Mining C&E Board, established under recommendation 1.1, will consider how MoE and MEM can strengthen the use and oversight of qualified professionals in the mining sector specifically. The Ministry of Forests, Lands and Natural Resource Operations has established a Qualified Persons in the Natural Resource Sector Framework. This framework guides the development and implementation of Qualified Persons policies and procedures specifically for the mining sector. The framework is based on the three essential components of guidance, competency and accountability and ensures the interests of government, resource users, qualified persons and other stakeholders are recognized and addressed.</p>
<p>Recommendation 1.14 – Policies, Procedures and Tools</p> <p>We recommend that government develop policies, procedures and enforcement tools for responding to non-compliances when industry does not meet government's specified timeline.</p>	<p>Response:</p> <p>The ministries agree on the importance of clear policies, procedures and tools to aid in their compliance and enforcement activities. The ministries will review these in light of the recommendations. The establishment of the Mining C&E Board, under recommendation 1.1, will serve to further inter-ministry collaboration and sharing of best practices. Government will also introduce amendments to the Mines Act to provide for Administrative Monetary Penalties in the spring 2016 legislative session.</p>

Recommendations from the Auditor General's Report on Mining

Auditor General Recommendations	
<p>Recommendation 1.15 – Evaluation and Adjustment</p> <p>We recommend government regularly evaluate the effectiveness of its compliance promotion, compliance verification, and enforcement activities and tools, and make changes as needed to ensure continuous improvement.</p>	<p>Response:</p> <p>Annual compliance and enforcement planning and reporting will provide a means to evaluate the effectiveness of the program, to ensure ongoing improved targeting of areas of concern and recognition of strong performers. The ministries will address this recommendation through the establishment of a Mining C&E Board under recommendation 1.1.</p>
<p>Recommendation 1.16 – Public Reporting</p> <p>We recommend that government report publicly the:</p> <ul style="list-style-type: none"> • results and trends of all mining compliance and enforcement activities • effectiveness of compliance and enforcement activities in reducing risks and protecting the environment • estimated liability and the security held for each mine. 	<p>Response:</p> <p>The ministries support public reporting and have been making progress in this area. The Ministry of Environment has been reporting its enforcement actions for many years through published reports and an online searchable database. It reports all of its enforcement actions including orders, administrative sanctions, administrative monetary penalties, violation tickets and court prosecutions. The ministry will work with Ministry of Energy and Mines to explore including their enforcement actions in the reporting. In 2012, the Ministry of Environment published all of its permits for industrial and municipal facilities that discharge waste into the environment, including mines. This dataset provides the opportunity for citizens to access province-wide data on those facilities, including information on fees, locations and discharges. The Ministry of Energy and Mines published all dam safety inspections, emergency response plans and related documents online in 2015. The ministry will continue to publish further documents for all major mines in British Columbia. The ministries will report on trends and effectiveness of C&E in the mining sector.</p>
Part 3: Recommendations for Ministry of Energy and Mines	
<p>Recommendation 1.3 – Security – Adequate Coverage</p> <p>We recommend that government safeguard taxpayers by ensuring the reclamation liability estimate is accurate and that the security held by government is sufficient to cover potential costs.</p>	<p>Response:</p> <p>As seen in the 2014 Chief Inspector's Annual Report, "In the past few years, the value of security deposits has increased to reflect more closely the true costs of reclamation. The total value of securities held by the Province has risen from \$10 million in 1984 to more than \$773 million by the end of 2014."</p>

Recommendations from the Auditor General's Report on Mining

Auditor General Recommendations	
<p>Recommendation 1.4 – Security – Catastrophic Events We recommend that government review its security mechanisms to ensure taxpayers are safeguarded from the costs of an environmental disaster.</p>	<p>Response: Environmental disasters, like the one seen as a result of the Mount Polley tailing facility breach, can result in damage both on and off a mine site. It is the responsibility of the mine operator to ensure sufficient environmental liability insurance is held to meet the risk of such disasters. The Environmental Management Act contains authority for spill response actions and cost recovery to require persons in possession or control of any polluting substance to prepare contingency plans and to implement those plans at their expense in the event of a spill. The Act also provides for the recovery of costs should action to respond to a spill be declared by the Minister. This Act is being amended to proactively require potential polluters to pay into a spill preparedness and response organization. These amendments are due for introduction to the Legislature this year.</p>
<p>Recommendation 1.8 – Reclamation Guidance We recommend that government develop clear and comprehensive reclamation guidance for industry.</p>	<p>Response: Internal work has begun on developing additional guidance materials on a range of reclamation aspects, including erosion and sediment control plans, closure management manuals, reclamation security, etc.</p>
<p>Recommendation 1.11 – Systematic Compliance Verification We recommend that government systematically monitor and record compliance with high-risk mine permit requirements.</p>	<p>Response: As with Recommendation 1.10 above, a risk-based approach to compliance and enforcement workforce planning will uncover poor performers for closer scrutiny.</p>

Recommendations from the Auditor General's Report on Mining

Auditor General Recommendations	
<p>Recommendation 1.13 – Mine Design</p> <p>We recommend that government adopt appropriate standards, review mine designs to ensure that they meet these standards, and ensure that mines, as constructed, reflect the approved design and standards.</p>	<p>Response:</p> <p>This recommendation is presented at the conclusion of the Audit Report section on the Mount Polley TSF breach. There had been nine design stages over the life of the TSF at Mount Polley Mine. All stages, including the design stage in place at the time of the breach had been prepared by the design engineer; a qualified professional. MEM reviewed and authorized permit amendments for each stage of the TSF. Each stage of construction was certified by the Engineer of Record in the as-built reports. The failure of the TSF was not an enforcement issue. Through legislation like the Engineers and Geoscientists Act, government has created technical bodies to formalize accountability and protect the public interest. As appropriate in their role, in response to the Expert Panel findings on Mount Polley the Association of Professional Engineers and Geoscientists BC is developing professional practice guidelines for dam site characterization assessments. Government is also undertaking a review of the Mining Code with labour, First Nations and industry representatives to determine how best to implement the expert panel findings.</p>
Part 4: Recommendations for Ministry of Environment	
<p>Recommendation 1.5 – Environmental Management Act Waste Discharge Fees</p> <p>We recommend that government review its fees under the <i>Environmental Management Act</i> and ensure that the fees are effective in reducing pollution at mine sites.</p>	<p>Response:</p> <p>The Ministry of Environment is committed to reviewing the fee structure for waste discharges under the Environmental Management Act. Work has already been initiated to assess current fees, as well as conduct a cross-jurisdictional scan of fees imposed by other provinces and territories.</p>
<p>Recommendation 1.6 – Cost Recovery</p> <p>We recommend that government adopt a cost recovery model for permitting and compliance verification activities that is consistent across all ministries in the natural resources sector.</p>	<p>Response:</p> <p>The Ministry of Environment recognizes that other natural resource sector ministries, including the Environmental Assessment Office, have begun imposing fees on industry for permitting and compliance verification activities. The ministry will be examining the imposition of fees for these activities. Effective April 1, 2015 permit fees were introduced under the Mines Act and the existing inspection fees were raised. This enabled a budget increase of approx. \$9.3M to the Ministry of Energy and Mines in Budget 2016.</p>

Recommendations from the Auditor General's Report on Mining

Auditor General Recommendations

Recommendation 1.7 – Decision Making – Use of section 137 of the *Environmental Management Act*

We recommend that government publically disclose its rationale for granting a permit under section 137 of the *Environmental Management Act*. Specifically, information should include how factors such as economic, environmental, and social attributes were considered in the determination of public interest.

Response:

As provided for in Section 137 of the Environmental Management Act, Cabinet may consider factors that are in the public interest and beyond those that a ministry director may consider. Discussions underlying the approval of an OIC are a matter of Cabinet confidentiality. However, the results of Cabinet decisions, when they are issued in the form of OICs, are published on the BC Laws website.

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Expert Panel	Implementation	Status
<p>1. Implement Best Available Technologies (BAT) using a phased approach.</p> <ul style="list-style-type: none"> • For existing tailings impoundments. Rely on best practices for the remaining active life. • For new tailings facilities (TSF). BAT should be actively encouraged for new tailings facilities at existing and proposed mines. • For closure. BAT principles should be applied to closure of active impoundments so that they are progressively removed from the inventory by attrition. 	<p>Changes made to the tailings portion of the Health, Safety and Reclamation Code for Mines in BC (Code):</p> <ul style="list-style-type: none"> • Added a definition of Best Available Technology and the requirement of an alternatives assessment that considers BAT in future Mines Permit applications • Environmental Assessment Office requires new mine projects to assess BAT for tailings management 	<p>Completed, July 2016</p>
<p>2. Improve corporate governance:</p> <ul style="list-style-type: none"> • Corporations proposing to operate a tailings storage facility (TSF) should be required to be a member of the Mining Association of Canada (MAC) or be obliged to commit to an equivalent program for tailings management, including the audit function. 	<p>Changes made to the tailings portion of the code:</p> <p>Mines with one or more tailings storage facilities shall develop and maintain a Tailings Management System that includes regular system audits</p> <ul style="list-style-type: none"> • The Mining Association of Canada (MAC) established independent expert task force to review its tailings management requirements under its Towards Sustainable Mining (TSM) program. Recommendations were released in December 2015 	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Expert Panel	Implementation	Status
<p>3. Expand corporate design commitments:</p> <ul style="list-style-type: none"> • Future permit applications for a new TSF should be based on a bankable feasibility that would have considered all technical, environmental, social and economic aspects of the project in sufficient detail to support an investment decision, which might have an accuracy of +/- 10-15%. More explicitly it should contain the following: <ul style="list-style-type: none"> • A detailed evaluation of all potential failure modes and a management scheme for all residual risk • Detailed cost/benefit analyses of BAT tailings and closure options so that economic effects can be understood, recognizing that the results of the cost/benefit analyses should not supersede BAT safety considerations • A detailed declaration of Quantitative Performance Objectives (QPOs). 	<p>Changes made to the tailings portion of the code:</p> <p>New permit application requirements for alternatives assessment of BAT, declaration of QPOs, and proposed program for prediction, identification and management of physical, chemical, and other risks associated with tailings storage facilities and dams.</p> <p>The alternatives assessment for TSFs will consider BAT and will provide a comparative analysis of options considering the following sustainability factors:</p> <ul style="list-style-type: none"> • Environment • Society • Economics 	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Expert Panel	Implementation	Status
<p>4. Enhance validation of safety and regulation of all phases of a TSF:</p> <ul style="list-style-type: none"> • Increase utilization of Independent Tailings Review Boards. • Utilize the concept of Quantitative Performance Objectives (QPOs) to improve regulator evaluation of ongoing facilities. 	<p>Changes made to the tailings portion of the code:</p> <ul style="list-style-type: none"> • All existing mines in British Columbia with TSFs must establish an Independent Tailings Review Board by Dec. 31, 2016. • The Terms of Reference and the proposed membership of the Independent Tailings Review Boards must be approved by the Chief Inspector of Mines. • Mines must submit an annual report to the Chief Inspector of Mines that include details on the activities of the mine's independent tailings review board including: <ul style="list-style-type: none"> • a summary of the reviews conducted that year; • whether the work reviewed that year by the ITRB meets the Board's expectations of reasonably good practice; • any conditions that compromise Tailings Storage Facility integrity or occurrences of non-compliance with recommendations from the engineer of record; and, • a signed acknowledgement by the members of the Independent Tailings Review Board, confirming that the report is a true and accurate representation of their reviews. 	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Expert Panel	Implementation	Status
<p>5. Strengthen current regulatory operations:</p> <ul style="list-style-type: none"> Utilize the recent inspections of TSFs in the province to ascertain whether they may be at risk due to the following potential failure modes and take appropriate actions <ul style="list-style-type: none"> Filter adequacy Water balance adequacy Undrained shear failure of silt and clay foundations 	<p>Final submissions received June 30, 2015. More information available here: http://www2.gov.bc.ca/gov/content/industry/mineral-exploration-mining/dam-safety-inspections-2014</p>	<p>Completed, June 2015</p>
<p>6. Improve professional practice:</p> <ul style="list-style-type: none"> Encourage the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC) to develop guidelines that would lead to improved site characterization for tailings dams with respect to the geological, geomorphological, hydrogeological and possibly seismotectonic characteristics. 	<p>APEGBC professional practice guidelines for dam site characterization assessments</p> <p>https://www.apeg.bc.ca/getmedia/34e1bb3f-cd39-450d-800e-614ac3850bc5/APEG_2016_Site-Characterization-for-Dam-Foundations_WEB_2.pdf.aspx</p>	<p>Completed, August 2016</p>
<p>7. Improve dam safety guidelines:</p> <ul style="list-style-type: none"> Recognizing the limitations of the current Canadian Dam Association (CDA) guidelines incorporated as a statutory requirement, develop improved guidelines that are tailored to the conditions encountered with TSFs in British Columbia and that emphasize protecting public safety. 	<p>Changes made to the tailings portion of the code:</p> <p>The mining code now includes design standards for TSFs that are tailored to the conditions encountered in British Columbia and that emphasize protecting the public and environment including:</p> <ul style="list-style-type: none"> TSF design requirements for the steepness of downstream slopes. A minimum static factor of safety. New seismic and flood design criteria. 	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
1-1 Mine Dam Safety Manager <ul style="list-style-type: none"> Any mine with tailings storage facilities (TSFs) should have a qualified individual designated as a mine dam safety manager responsible for oversight of planning, design, operation, construction 	<p>Changes made to the tailings portion of the code:</p> <ul style="list-style-type: none"> Mines with one or more tailings storage facilities shall designate a TSF Qualified Person for safe management of the Tailings Storage Facility 	<p>Completed, July 2016</p>
1-2 Water Balance Management <ul style="list-style-type: none"> Water management and water balance issues for mining projects must be designed by a qualified professional. These issues require the integration of relevant mine departments. 	<p>Changes made to the tailings portion of the code:</p> <ul style="list-style-type: none"> Impoundments, tailings storage facilities and water management facilities and dams shall be designed by a Professional Engineer Tailings storage facilities must have a water balance and water management plan for the permitted life of mine that is prepared by a qualified person Water balance and water management plans shall be reconciled annually and updated as required, after the commencement of operations 	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
<p>1-3 TSF Operations, Maintenance and Surveillance Manual</p> <ul style="list-style-type: none"> The mine manager should ensure the Operation, Maintenance and Surveillance manual (OMS) required by the Code for all impoundments adheres to applicable CDA and MAC guidelines. Additional guidance for the OMS should include incorporation of an annual risk assessment/risk management plan and relevant findings of an independent technical review board. 	<p>Changes made to the tailings portion of the code:</p> <ul style="list-style-type: none"> An Operations, Maintenance and Surveillance (OMS) manual shall be prepared by one or more qualified person and submitted to the chief inspector prior to operation of the facilities The OMS manual must be reviewed annually and revised regularly during operations, decommissioning and closure of a tailings storage facility or dam and the the risk assessment for all tailings storage facilities and associated dams must also be reviewed annually to ensure that the quantifiable performance objectives and operating controls are current and manage the facility risks QPOs and operating controls are included as part of the OMS 	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
<p>1-4 Mine Emergency Response Plan</p> <ul style="list-style-type: none"> The mine manager must ensure that the Mine Emergency Response Plan (MERP) adheres to applicable regulations, is maintained on a regular basis for currency, incorporates appropriate response measures to emergencies including those involving the TSF, and is written and distributed in such format as to serve as a procedural guide during an emergency or other event. 	<p>Changes made to the Health and Safety portion of the Code (Part 3.7.1):</p> <ul style="list-style-type: none"> The manager shall develop a Mine Emergency Response Plan (MERP), which shall be kept up to date and followed in the event of an emergency; this plan must be tested annually and filed with the Chief Inspector. The Mine Emergency Response Plan must outline the response procedures, contain all of the elements required in the “Mine Emergency Response Plan Guidelines for the Mining Industry” include the emergency preparedness and response plans regarding tailings storage facilities, and include affected communities and First Nations in the identification of potential hazards, emergency communications and responses 	<p>Completed, February 2017</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
<p>1-5 Risk Recognition and Communication</p> <ul style="list-style-type: none"> All mine personnel have a role to play in recognizing and reporting risk conditions, especially those that could affect health, safety and environmental protection; and should be educated in the recognition of conditions and events that could impact TSF safety or contravene applicable permit conditions and regulations. 	<p>Changes made to the tailings portion of the code:</p> <ul style="list-style-type: none"> The engineer of record shall immediately notify the manager in writing of any unresolved safety issue that compromises the integrity of a tailings storage facility The OMS sets out information on QPOs, and performance goals for the mine and TSF. Ensuring employees have been trained in the use of the manual and its operational controls will provide the means for them to determine who to notify and will provide the education to know when an event or conditions occur that could impact TSF safety or integrity. 	<p>Completed, July 2016</p>
<p>2-1 Design Objectives</p> <ul style="list-style-type: none"> Tailings storage and water management systems and structures should be designed for worker and public safety and the protection of the environment. TSF design should incorporate a comprehensive feasibility assessment that considers technical, environmental, social, and economic aspects of the mining project in sufficient detail to support the submitted design. 	<p>Changes made to the tailings portion of the code:</p> <p>The alternatives assessment for TSFs will consider BAT and will provide a comparative analysis of options considering the following sustainability factors:</p> <ul style="list-style-type: none"> Environment Society Economics <p>Minimums have been outlined for Seismic and Flood Design Criteria, Design Slopes (2:1), Static Factor of Safety (1.5), Beach and Inundation Study and Failure Runout Assessments</p>	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
<p>2-2 Independent Technical Review Board</p> <ul style="list-style-type: none"> Mines with impoundments should each develop independent technical review boards (ITRB) to provide additional perspectives on site investigation, site selection, design, construction, maintenance, operations, surveillance, water management and closure. 	<p>Changes made to the tailings portion of the code:</p> <ul style="list-style-type: none"> All existing mines in British Columbia with TSFs must establish an Independent Tailings Review Board by Dec. 31, 2016. The Terms of Reference and the proposed membership of the Independent Tailings Review Boards must be approved by the Chief Inspector of Mines. 	<p>Completed, July 2016</p>
<p>3-1 Professional Reliance</p> <ul style="list-style-type: none"> The Chief Inspector recognizes the necessity of reliance on professional practice for the design, construction, operation and closure of mines and mine facilities. The Regulator does not design the mine or associated structures, and thus is reliant on the professional practice of the designer. Reliance on professional practice requires that the organizations overseeing the professionals or developing guidelines and standards for the professional community incorporate best available practices into their oversight. 	<p>Changes made to the tailings portion of the code:</p> <p>The Code outlines requirements for the designation and reporting responsibility for the mine to designate an Engineer of Record who is a professional engineer.</p> <p>The Engineer of Record has a duty to report any unresolved safety issue that compromises the integrity of the TSF.</p> <p>Additionally, the Code sets out requirements for professionals or designated responsibilities for the creation of water management and water balance plans.</p>	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
3-2 Integration of Standards <ul style="list-style-type: none"> The Regulator should consider and incorporate as appropriate guidelines from these external associations as applicable and consistent with MEM objectives. 	<p>Changes made to the tailings portion of the code:</p> <p>Sections added specifying:</p> <p><u>10.1.8</u> Seismic and Flood Design Criteria, <u>10.1.9</u> Design Slopes <u>10.1.10</u> Minimum Factor of Safety <u>10.1.11</u> Breach and Inundation Study and Failure Runout Assessments</p> <ul style="list-style-type: none"> Mines with one or more tailings storage facilities shall develop and maintain a Tailings Management System that includes regular system audits 	<p>Completed, July 2016</p>
4-1 Review of the Code <ul style="list-style-type: none"> MEM should undertake a comprehensive review of the Code to ensure that the lessons learned and recommendations from this report are fully considered and appropriately incorporated; and that all relevant standards and guidelines from external bodies (such as MAC, CDA, and APEGBC) are fully considered in the review as appropriate. 	<p>The Minister of Energy and Mines appointed a Code Review Committee, pursuant to section 34 of the Mines Act in June 2015.</p>	<p>Completed, February 2017</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
<p>4-2 Life of Mine Planning for Permitting</p> <ul style="list-style-type: none"> Short-term, incremental Mines Act permit amendment applications can obscure life-of-mine conditions and long-term risks. The Regulator should ensure a perspective that spans the life of the mine be considered for Mines Act permit applications, while acknowledging that the nature of mining frequently requires changes to the life-of-mine plan. 	<p>Changes made to the tailings portion of the code:</p> <ul style="list-style-type: none"> A mine plan must be included in the Mines Act permitting application that includes an inventory of areas disturbed to date, and projected over the next 5 years and over the projected life of the mine Mine, environmental protection, reclamation and closure plans shall be prepared in consideration of the HSRC Guidance Document, by qualified professionals or persons who in the opinion of the chief inspector are qualified to perform the work. 	<p>Completed, July 2016</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
<p>4-3 Investigation, Compliance and Enforcement Review</p> <ul style="list-style-type: none"> The Regulator must enhance its investigative capacity, as well as its ability to exercise its existing compliance and enforcement authority under the Mines Act and Code. A supported director-equivalent position specific to investigation, compliance and enforcement should be established to evaluate and oversee these roles. This oversight should extend to applying recommended standards to the Regulator's compliance and enforcement function. A full range of regulatory tools, such as incentives, administrative penalties, outside agency collaboration and other best practices should be considered. 	<p>Deputy Chief Inspector of Mines position in place.</p> <p>The legislation increased penalties available for court prosecutions under the act from \$100,000 and/or up to one year imprisonment to \$1 million and/or up to three years imprisonment</p> <p>Regulation for administrative penalties now in effect to enable penalties for non-compliance (February 2017)</p> <p>Deputy Minister Compliance and Enforcement board created to establish compliance and enforcement oversight.</p> <p>Budget lift for MEM for mines permitting and oversight.</p>	<p>Completed, February 2017</p>
<p>4-4 Geotechnical Oversight</p> <ul style="list-style-type: none"> The Regulator has a responsibility to oversee the decisions of the EoR. The Regulator must maintain sufficient technical capacity to conduct appropriate oversight of the professional opinions on which it relies. A Regulatory Dam Safety Manager dedicated to the coordinated regulatory oversight of tailings dams in the Province could be responsible for ongoing policy development, technical review, and inspection capacity as it relates to tailings impoundments. 	<p>The position of Dam Safety Manager within MEM has been created and filled. Dam Safety Manager to start April 1, 2017</p>	<p>Completed February, 2017</p>

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
4-5 Organizational Review of Inspectorate <ul style="list-style-type: none"> There exists an ongoing need to adequately support the increased tempo of review, monitoring and inspection that would be placed on MEM's inspectorate. It is recommended that a comprehensive internal review of operational and business practices be conducted. 	Organizational effectiveness strategy under review.	Underway
5-1 Internal Records Management <ul style="list-style-type: none"> A formal MEM management system of documentation for all mines from development to post-closure should be established. The system will assist the Chief Inspector in integrating regulatory oversight capabilities; assist with investigation, project tasking, formal documentation and indexing; and enhance the ability of MEM to meet the expectations for transparency and appropriate disclosure within the limits of privacy considerations. 	Records management systems under review.	Underway
6-1 Alignment of Regulatory Objectives <ul style="list-style-type: none"> Agency objectives (environmental protection, worker health and safety, facilities integrity) overlap but are not always integrated. MOE and MEM interests, disciplines and standards should be reviewed for alignment opportunities to support timely and effective program outcomes while optimally fulfilling the mandates of both agencies. 	<p>EAO, MEM and MOE board established to oversee compliance and enforcement oversight.</p> <p>Mining Compliance and Enforcement Strategic plan released. Optimization of resources to effectively coordinate activities for major mines, and protect the environment, human health and public safety.</p>	Underway

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
6-2 Permitting Process Alignment <ul style="list-style-type: none"> Separate permitting processes for MEM and MOE should be reviewed for opportunities to integrate and align these processes as appropriate to avoid duplication and increase efficiencies. 	<p>Integration between Ministry of Energy and Mines and Ministry of Environment is a key priority and the Major Mines Permitting Office was created in 2015.</p> <p>Permitting process is being led by the Major Mines Permitting Office which is accountable to a cross-sector project board. MMPO is working to ensure continuous improvement and process alignment.</p>	Completed 2015
7-1 Collaborative Education <ul style="list-style-type: none"> MEM, the industry, professional organizations, and educational institutions should continue to seek new collaborative opportunities to foster education (including formal academic, onsite or online employee-focused, public-facing, and professional continuing education). 	<p>Ongoing educational programs being supported by Mining Association of BC, BCIT, Community College School of Exploration and Mining, UBC, Northwest Community College and others.</p> <p>Early proponent education program under development to ensure understanding of regulatory requirements and encourage best practices</p>	Underway

**Update on Implementation of Recommendations
from the Expert Panel Report and the Chief Inspector of Mines Investigation Report**

Recommendation by Investigation Report from Chief Inspector of Mines	Implementation	
<p>7-2 Research and Development</p> <ul style="list-style-type: none"> Current technologies in tailings processing, dewatering, and discharge water treatment have not achieved a sufficient level of technical and economic feasibility in many projects. Both government and industry should support research and development efforts to improve these technologies for practical application. 	<p>Changes made to the tailings portion of the code:</p> <p>Government is now requiring an assessment of BAT/BAP under the new EAO requirements.</p> <p>Government participated in various initiatives such as the Mine Environment Neutral Drainage (MEND) Committee who commissioned a study on Tailings Management Technologies which was completed in 2016.</p> <p>Added a definition of Best Available Technology and the requirement of an alternatives assessment that considers BAT in future Mines Permit applications</p> <p>Environmental Assessment Office requires new mine projects to assess BAT for tailings management</p>	<p>Completed, July 2016</p>

Mining Compliance and Enforcement Board Terms of Reference

Purpose

The Mining Compliance and Enforcement Board (the Board) oversees compliance and enforcement planning across British Columbia in all aspects of mineral exploration and development with a key focus on environmental protection. This includes:

- Overseeing strategic improvements that enhance compliance and enforcement effectiveness through integration and coordination of planning, training, policies, procedures, tools, evaluation and public reporting for mines in British Columbia.
- Mapping out proactive annual activities that:
 - support continuous learning, evaluation and improvement,
 - are centered on a risk-based approach, and
 - are informed by key developments in other jurisdictions to ensure BC is a leader in the regulatory oversight of mining.

Scope

- The Board will provide focus, direction and accountability to ensure necessary improvements are made. The goal will be to regularize the changes and integrate into normal operations within 2 years or at the direction of the Board.
- The Board provides guidance and oversight to all compliance and enforcement activity for mines in British Columbia (including but not limited to the *Mines Act*, the *Environmental Management Act* and the *Environmental Assessment Act*).
- The Board ensures that mining compliance and enforcement activities across the sector are measured against seven key elements:



Deliverables

Responding to all OAG recommendations:

- Reporting to Public Accounts Committee on implementation.

Strategic Plan for Mining Compliance and Enforcement:

- Rolling two year plan detailing the activities of an integrated and coordinated regulatory approach. Identifies the necessary capacity, tools, training and expertise required to achieve goals and objectives. This may include opportunities for First Nations and industry input.

Annual Operational Plan for Mining Compliance and Enforcement:

- Annual work plan highlighting operational objectives, deployment of resources, budget and key milestones.

Reporting:

- Ongoing tracking and public reporting of C&E activities and initiatives.

Membership

The Board is comprised of representatives from the:

- Ministry of Energy and Mines (Deputy Minister)
- Ministry of Environment (Deputy Minister)
- Environmental Assessment Office (Associate Deputy Minister)
- The Executive Lead C&E (Secretariat)

Chair

- Deputy Minister, Ministry of Energy and Mines

Meetings

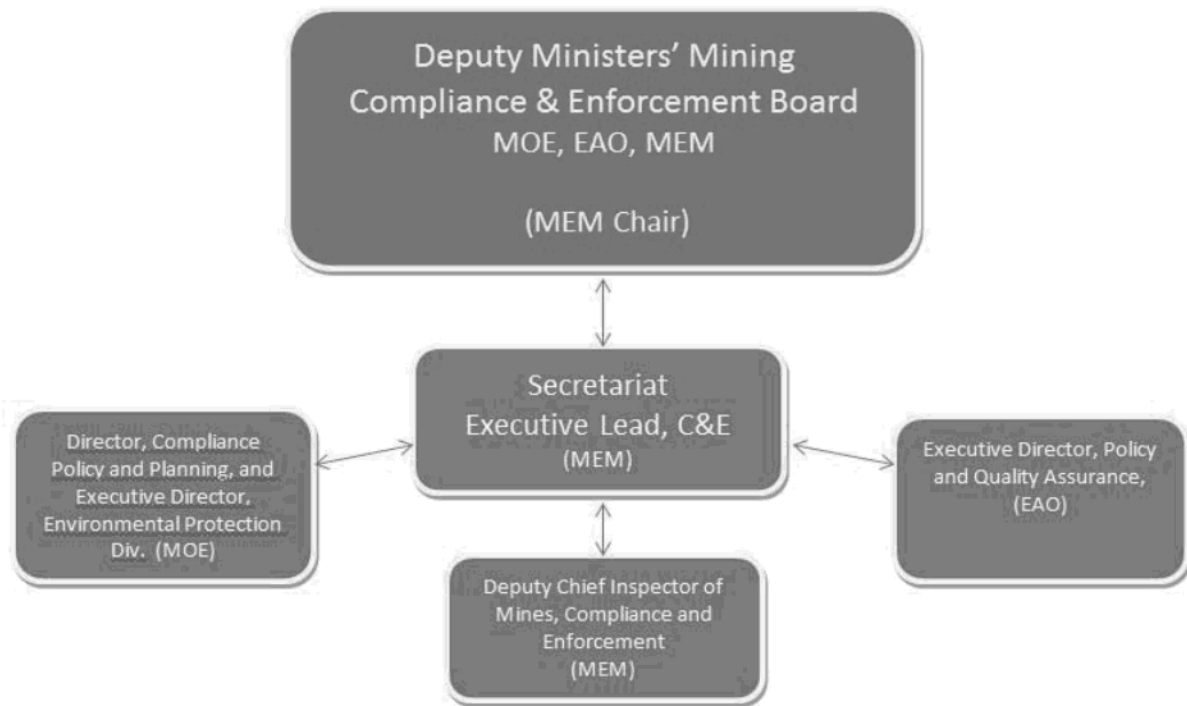
- The Mining C&E Board meets monthly or as needed.
- Standing agenda will include ministry reporting, priority concerns, 30-60-90 of C&E issues and items needing direction.
- There will be an annual cycle of planning and reporting with meetings:
 - February - *to approve strategic and operational plans*
 - October - *for an interim review*

Secretariat

- Where possible, agenda, and background documents will be provided by the Executive Lead to all Board members at least 48 hours prior to meeting.
- The Executive Lead C&E works with all the agencies to provide secretariat function for the Board. MOE Strategic Policy Branch and MOE Environmental Protection Division Regional Operations Branch, EAO Quality Assurance, and the Deputy Chief Inspector of Mines C&E are responsible for C&E within their respective agencies.

- Representatives supporting the secretariat will ensure ADM support and briefings where needed. The secretariat may also use an existing ADM committee (e.g. MMPO project Board or NRS ADMs) where cross agency information or direction is needed.

MINING COMPLIANCE AND ENFORCEMENT



Background

In May 2016, the Office of the Auditor General (OAG) released the report, [An Audit of Compliance and Enforcement of the Mining Sector](#).

In the published OAG report, Government committed to establish a Mining Compliance and Enforcement Board to oversee an integrated and co-ordinated regulatory approach to mining in the province of B.C. The Board does not impact the existing powers or duties of any individual or agency engaged in the regulation of mining in BC, including any individuals charged with making statutory decisions under any applicable enactment.

BC MINING

COMPLIANCE AND ENFORCEMENT

STRATEGIC PLAN

**Ministry of Energy and Mines
Ministry of Environment
Environmental Assessment Office**



I. INTRODUCTION

This Mining Compliance & Enforcement Strategic Plan outlines government's vision for mining oversight in the province of British Columbia as follows:

"Achieving enhanced protection of the environment, human health and public safety through an integrated risk-based approach to mining oversight."

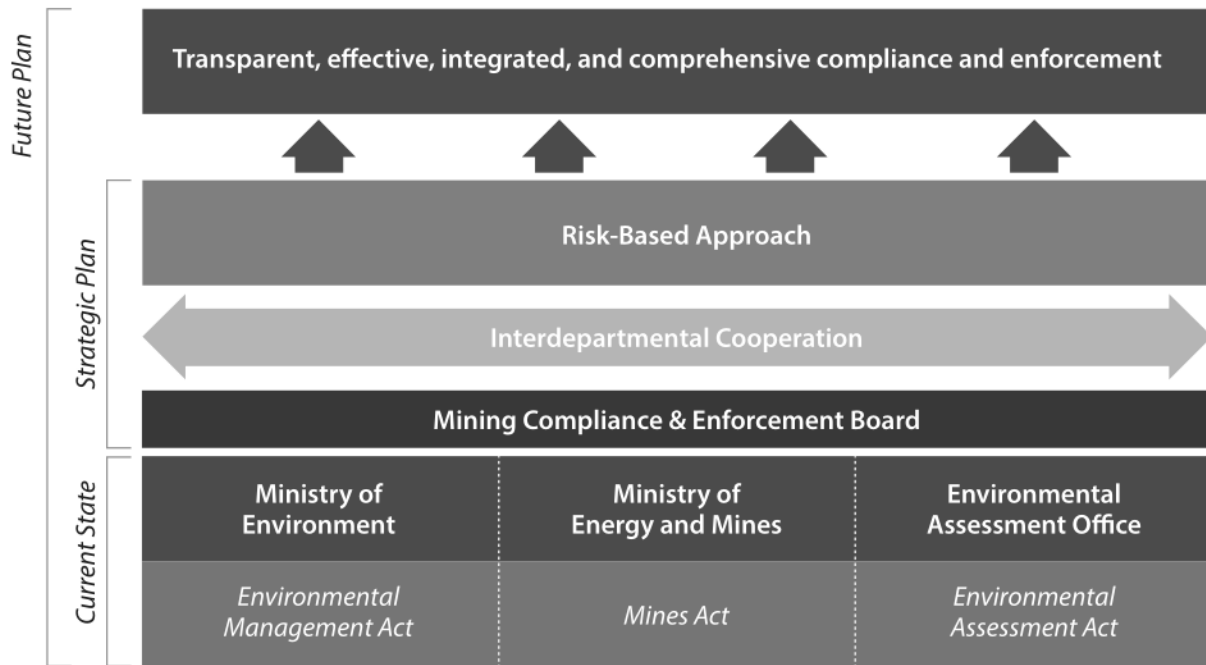
In spring 2016, government established the Deputy Minister Mining Compliance and Enforcement Board (the Board) to help achieve this vision by strengthening the effectiveness of mining oversight across government. The Board comprises the Deputy Minister of Energy and Mines (MEM), the Deputy Minister of Environment (MOE) and the Associate Deputy Minister of the Environmental Assessment Office (EAO).

This plan is informed by the recommendations following investigations into the Mount Polley tailings facility breach and the Office of the Auditor General report on mining compliance and enforcement, and formalizes the integration and coordination of the three agencies' mining compliance and enforcement efforts under the direction of the Board. It also sets out five strategic objectives based on principles of comprehensive compliance and enforcement (C&E), transparency, and engagement with First Nations, communities and industry.

STRATEGIC PLAN OBJECTIVES

- 1** *Integrate a risk-based approach and coordinate resources across the sector*
- 2** *Increase public confidence in how government manages mining across the province*
- 3** *Strengthen linkages between mining C&E and Aboriginal groups*
- 4** *Promote compliance with regulatory requirements*
- 5** *Enhance policy, tools and training to support a comprehensive C&E program*

PROGRESSION TOWARDS MINING COMPLIANCE AND ENFORCEMENT INTEGRATION

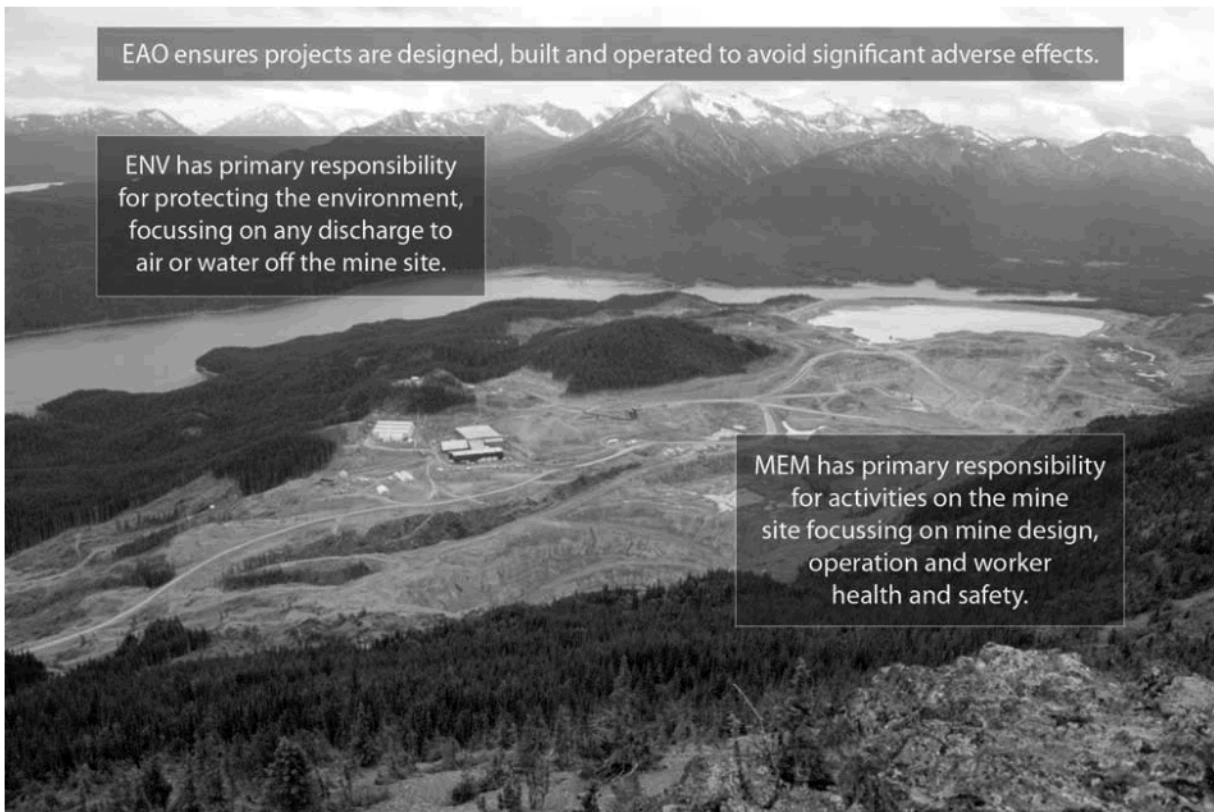


II. REGULATORY OVERSIGHT

It is important to consider B.C.'s regulatory environment when developing a strategic plan for mining oversight, since there are a number of agencies involved. B.C.'s mining sector is governed by a regulatory framework that covers the time from which a mining project is proposed to well into mine closure, including ongoing management of the mine and protection of the surrounding environment. The Environmental Assessment Office, the Ministry of the Environment, and the Ministry of Energy and Mines work together through all stages to ensure mine projects meet all requirements of this regulatory framework.

Additionally, a variety of regulatory partners, including the Ministry of Forests Lands and Natural Resource Operations as well as First Nations, federal and local governments have input into aspects of oversight of mines.

This starts at the authorization stage as proposed projects undergo thorough review to ensure they meet B.C.'s high regulatory standards and potential adverse effects are avoided or mitigated before a project is developed. The ministries and agencies then work together to ensure approved project designs and authorization conditions are adhered to throughout the life of the mine.



III. 2017-2019 STRATEGIES AND KEY ACTIONS

VISION

Enhanced protection of the environment, human health and public safety through an integrated risk-based approach to mining oversight.

PRINCIPLES

- Ensure open, transparent and timely access to mine information
- Engage First Nations, communities and industry in relation to mining compliance and enforcement activities
- Effective and robust C&E program

STRATEGIC OBJECTIVES

1 *Integrate a risk-based approach and coordinate resources across the sector*

STRATEGIES:

- Guide all mining C&E strategic and operational activities based on common risk management framework
- Effectively coordinate on-the-ground activities for major mines
- Optimize human and financial resources to most effectively protect the environment, human health and public safety

KEY ACTIONS:

- Develop and implement a risk framework and risk registers
- Establish and implement a C&E Coordination Committee for Major Mines
- Produce an annual work plan highlighting operational objectives, targets and key milestones

2 *Increase confidence in how government manages mining across the province*

STRATEGIES:

- Ensure mining C&E activities are transparent and open to the public
- Formalize risk management approach to potential mine reclamation liabilities
- Explore use of a dedicated investigative unit

KEY ACTIONS:

- Develop a website where the public can easily access information on major mines in British Columbia
- Update reclamation assurance policy considering best practices in BC and other jurisdictions
- Report out annually on progress in implementing the mining C&E strategic plan through the annual planning and reporting cycle

3 *Strengthen linkages between mining C&E and First Nations*

STRATEGIES:

- Increase opportunities for First Nations to engage during mining authorizations
- Increase opportunities for First Nations to participate in compliance oversight of mines in B.C.

KEY ACTIONS:

- Expand use of collaboration plans with First Nations during environmental assessments and permitting processes
- Develop and offer opportunities for First Nations to participate in compliance oversight of mines

4 *Promote compliance with regulatory requirements*

STRATEGIES:

- Ensure conditions of authorizations are clear, enforceable and complementary
- Work with industry to determine needs for targeted compliance education and encourage best practices
- Increase compliance through education and awareness

KEY ACTIONS:

- Establish common principles for drafting enforceable conditions
- Conduct outreach to determine focus for mining guidance and education needs
- Develop and implement a proponent early education program

5 *Enhance policy, tools and training to support a comprehensive C&E program*

STRATEGIES:







- Provide inspectors with additional C&E tools to address non-compliance
- Explore opportunities where new technologies may be used to strengthen industry compliance
- Strengthen training for mining inspectors

KEY ACTIONS:

- Develop and implement Administrative Monetary Penalties under the Mines Act as an additional enforcement tool for responding to non-compliance
- Develop and pilot use of new information management technology for proponent compliance reporting
- Formalize and implement a cross-agency mining inspector training program

VI. IMPLEMENTATION

Implementation of the strategic plan is laid out in the table below, highlighting key periods of focus over the next three years. Progress will be reported annually, and the plan adjusted as required.

OBJECTIVE	STRATEGY	YEAR 1 - 2017	YEAR 2 - 2018	YEAR 3 - 2019
<i>Integrate a risk-based approach and coordinate resources across the sector</i>	Risk management guides all mining C&E strategic and operational activities			
	Effective coordination of on-the-ground activities for major mines			
	Optimize human and financial resources to most effectively protect the environment, human health and public safety			
<i>Increase confidence in how government manages mining across the province</i>	Mining C&E activities are transparent and open to the public			
	Formalize risk management approach to potential mine reclamation liabilities			
	Explore use of independent investigative services			

<i>Strengthen linkages between mining C&E and First Nations</i>	Increase opportunities for First Nations to engage during mining authorizations			
	Increase opportunities for First Nations to participate in compliance oversight of mines in B.C.			
<i>Promote compliance with regulatory requirements</i>	Increase compliance through education and awareness			
	Ensure permits are clear and enforceable			
	Work with industry to determine needs for targeted compliance education			
<i>Enhance policy, tools, and training to support a comprehensive C&E program</i>	Expand the C&E toolkit to address a diversity of non-compliances			
	Explore opportunities to strengthen organizational infrastructure through new innovative tools			
	Equip inspectors with cross-agency knowledge and awareness			



Auditor General Report on Product Stewardship (Recycling) in BC

Issue:

- The Office of the Auditor General of British Columbia (OAG) performance audit on the effectiveness of the Ministry of Environment's (ENV) oversight of product stewardship (recycling) with a focus on Multi-Material BC (MMBC) dba Recycle BC (RBC).

Background:

- On July 21, 2015 the OAG announced its list of performance audits slated for 2015 -2018. Project #13 under 2015/16 was identified as *Product Stewardship: The effectiveness of the Ministry of Environment's oversight of product stewardship (recycling) with a focus on Multi-Material BC*.
- Given the relative newness of the RBC program at the time and the recognition that the ministry was already pursuing several improvements to its oversight, the OAG determined a full audit would not be of value.
- On November 10, 2016, the OAG released an information report on product stewardship in BC, focusing on ENV's oversight of programs such as RBC.
- The report notes the recycling system in BC is performing well in some areas with positive outcomes and high recovery rates of regulated products.
- In the report, the OAG identified the following opportunities for ENV to improve its management and oversight of the product stewardship program area:
 - ensuring the quality of reporting on recycling outcomes
 - resolving policy implications of approving competing stewardship plans
 - consistently applying compliance and enforcement regimes to eliminate free-riders
 - ensuring province-wide access to recycling services
 - encouraging accountability through transparent financial reporting
- Of the five opportunities presented in the report, the Ministry is making significant progress in most areas and will be working to fully address all the areas by the end of 2018. Actions underway include:
 - Reporting on recycling outcomes
 - In fall of 2016, ENV initiated a contract to study appropriate performance measures for product stewardship programs to enhance existing program monitoring and reporting. Next steps based on the report content and recommendations are currently being considered.
 - A comprehensive review of the third party non-financial assurance framework applied to stewardship agency annual reports was conducted in 2015/2016. Several findings have been incorporated into the 2016 reporting year protocol/guidance material and the remainder are undergoing policy review and discussions for future incorporation.



Competition

- In early 2016, ENV initiated a contract to explore how it might better ensure that various forms of competition can benefit consumers and how these might play out or best be administered/regulated in BC. This report is nearly complete and next steps based on the report content and recommendations are currently being considered.

Compliance and Enforcement

- Since 2013, ENV has brought almost 500 non-compliant producers (“free riders”) into compliance, including 100 since the OAG review was first initiated. By the end of 2017, the Ministry anticipates having almost all packaging and printed paper producers in compliance with the Recycling Regulation – including the newspaper sector.

Province-wide access to recycling services

- ENV continues to work with the various stewardship agencies to ensure expansion of services across the province. For the packaging and printed paper program, ENV expects to have RBC offering industry-funded recycling services to all eligible/waitlisted communities by 2018.

Financial reporting

- s.13
- On May 31, 2017, the OAG has scheduled the first of two follow-up meetings with ENV’s Extended Producer Responsibility (Product Stewardship) program area to ensure progress continues on addressing the opportunities expressed in the report.

Decision Required:

- None



Auditor General Audit on Drinking Water

Issue:

- **Auditor General Audit on Drinking Water**

Background:

- The Office of the Auditor General is in the pre-planning phase of an audit on drinking water.
- The scope of the audit is not yet determined, but it is expected to include source water protection.
- The last audit on protecting drinking water sources was done in 1999, one year prior to the May 2000 Walkerton, Ontario E. coli outbreak in the community's water supply which resulted in seven people dying and thousands sickened. The Walkerton tragedy put drinking water on the forefront for priority attention in jurisdictions across the country.
- BC responded with the Drinking Water Action Plan and *Drinking Water Protection Act* (DWPA) in 2002.
- The **Drinking Water Action Plan** embodied a Source-to-Tap approach to drinking water protection and for the most part this approach continues today.
- The Source-to-Tap spectrum includes source water protection, monitoring, treatment and reporting. Health Authorities and the Ministry of Health are responsible for administering the DWPA including the regulation, testing and monitoring of drinking water systems.
- The Natural Resource agencies have a collective responsibility for source water protection through their legislative mandates and other programs.
- The Ministry of Environment's roles in source water protection include:
 - Developing ambient water quality objectives and guidelines
 - Regulating pollutants and industries that may contaminate water supplies (*Environment Management Act*)
 - Area-based planning to protect water resources (*Water Sustainability Act, Environment Management Act*)
 - Water policy and legislation, groundwater protection regulation, surface and groundwater science, water information and data management
 - Responding to environmental emergencies
 - Ambient and targeted water quality and quantity monitoring



Decision Required:

- We anticipate that the Deputy Minister will be asked to sign off on the “Audit Plan Summary”, along with the Deputy Ministers of Forests, Lands and Natural Resources and Health within the next 90 days.



OAG Audit of Grizzly Bear Management

Issue

- Government of British Columbia Response to Grizzly Bear Audit by the Office of the Auditor General

Background:

- The Office of the Auditor General (OAG) initiated an audit of the Province's Grizzly Bear Management in the summer of 2016 to determine if government was meeting its objective of ensuring healthy Grizzly Bear populations throughout British Columbia.
- Grizzly bears in BC are managed by Grizzly Bear Population Units (GBPU), of which there are 56 in the province. The Province currently reports the status of GBPU's as viable or threatened. This status is based on the difference between the current population estimate, and the estimated population capability for the GBPU, as determined through population and habitat modelling.
- Grizzly Bears are managed by GPBU in order to ensure local conservation and management objectives are being met and to reflect known and suspected fractures in Grizzly Bear distribution. GBPU's have been used for setting priorities for Grizzly Bear conservation during strategic land use planning and are the primary unit for establishing Annual Allowable Harvests (AAH) for viable populations that can sustain a hunt.
- The Province's objectives for Grizzly Bear relate both to management of populations (including harvest management) as well as the management of habitat necessary to support Grizzly Bears. Management for Grizzly Bears occurs in the context of making trade-offs, managing for cumulative effects (Grizzly Bear is one of five provincial cumulative effects framework values), and managing for multiple other values – social, economic, and environmental. This includes sustaining Grizzly Bear populations while providing recreational and economic opportunities (e.g. resident hunting, guided hunting, and viewing), managing for other species, and managing for development on the land (e.g. forestry).
- A scientific review of Grizzly Bear harvest management was conducted by a panel of three independent biologists in March, 2016. The panel concluded that BC's harvest management procedures have attained a high degree of rigour and that adequate safeguards are in place to ensure the sustainability of the hunt. The panel did make several recommendations to improve harvest management and the long-term conservation of BC's Grizzly Bears and recognized that the future of Grizzly Bears in the coming decades will be challenged as the human population in the Province increases. The Province's response (led by FLNR) to this report will be made available in 2017.
- Grizzly Bear management (on-the-ground operations) and the Grizzly Bear harvest/hunt are led by FLNR. ENV supports FLNR on the management of Grizzly Bear populations



of conservation concern, and leads on education (e.g. bear aware programs) and enforcement (e.g. Conservation Officer Service). See Transition Note: Grizzly Bear Conservation.

- The OAG audit spans both FLNR and ENV and was guided by an Audit Plan Summary (APS), developed by the OAG that defined the criteria against which the ministries were to be evaluated.
 - These criteria were primarily based on the Ministry of Environment, Lands and Park's publication: "A Future for the Grizzly: British Columbia Grizzly Bear Conservation Strategy" (1995).
- Staff and senior management from ENV and FLNR were involved in the audit and Deputy Ministers from both agencies were kept apprised of the audit progression.
- The OAG conducted interviews and inquiries through late summer and fall of 2016 and completed that portion of the audit by January 2017.
- A "Facts and Findings" meeting was held in March 2017, where the preliminary findings of the audit were reviewed and discussed with key staff from both ministries.
- We anticipate that the audit will largely support the recent Science Panel report on the hunt, but will be critical of government for a lack of clear objectives and lack of an up-to-date Grizzly Bear management plan. In addition, the audit will likely point to a lack of clear accountabilities between ENV and FLNR regarding overall management of Grizzly Bears.

Recent Activity:

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Decision Required:

s.13



Office of the Information and Privacy Commissioner – Hullcar Investigation

Issue:

- The Privacy Commissioner investigated the Ministry of Environment's response to an information request by the University of Victoria (UVic), Environmental Law Centre (ELC) under the *Freedom of Information and Protection of Privacy Act* (FOIPPA), sections 6 and 25.

Background:

- On October 5, 2015, the ELC requested copies of the Ministry's authorizations and supporting material to allow the spread of effluent for H.S. Jansen & Sons Farm Ltd. ENV staff requested the ELC to submit an FOI request as the nature of the request included private information. The FOIPPA requires all records that contain private information undergo an FOI analysis.
- On November 5, 2015, the ELC also requested soil test results for the fields of the Jansen dairy farm; however, the ELC did not amend their FOI request to include this.
- The original request was completed by ENV staff and closed on December 12, 2015. The FOI release is available publicly on government's open information website and has been since December 2015 – <http://ow.ly/109DPN>
- The Jansen Farm's nutrient management plan and soil tests were not released publicly because ENV staff were advised by the Ministry of Justice that the release of the plan, along with supporting soil samples, would violate the federal *Copyright Act*. However, the information was provided to the Ministry of Agriculture when seeking professional advice on the farm's applications for applying nutrients. Additionally, ENV water sample results are shared with the Interior Health Authority and Steele Springs Water District. All information is forwarded to the experts who make health-related determinations.
- On February 3, 2016, the ELC submitted a complaint to the Office of the Information and Privacy Commissioner (OIPC) claiming the Ministry breached Sections 6 and 25 of FOIPPA with respect to responding to an information request and that the Ministry did not proactively release records that were in the public's interest.
- On June 29, 2016, the OIPC ruled that ENV must disclose the documents immediately, and all future soil test results and nutrient management plans associated with Pollution Abatement/Pollution Prevention Orders issued to Hullcar farmers must also be publicly released. These documents are posted on the ENV website and the website is updated as new reports are received.
- ENV staff continue to be challenged by regulated parties outside of the Hullcar issue regarding public posting of environmental reports, and staff are working with Ministry of Justice to develop a division specific policy for proactive disclosure which is compliant with the federal *Copyright Act*.



- ENV staff are also aware that the Ministry of Finance, Corporate Information and Records Management Office are developing a government-wide section 25 policy to assist government staff in determining when disclosure of information is within the public interest.
- ENV staff completed mandatory training on new procedures for responding to FOIPPA requests that were implemented on conclusion of the OIPC Investigative report, as well as conducted an internal lessons learned session.



Development and Implementation of the Land Based Spill Response Regime

Issue:

- High profile spill incidents have resulted in a lack of public trust in the ability of both industry and the government to appropriately prepare for and effectively respond to spills.

Background:

- Some 4,000 hazardous material spills are reported each year in BC. The Ministry of Environment - Environmental Emergency Program oversees the response to such spills to the environment.
- The ministry has identified patterns with respect to those who spill and the effectiveness of spill response. While many spillers are adequately prepared for the risk they bring, some sectors are not as mature in spill response capability.
- As gateway to the Pacific for Canada, increased economic activity has increased the transport and storage of hazardous materials through BC. The potential for those materials to spill into the environment has also increased.
- In 2012, the Government introduced five conditions necessary to be met before BC would support the development of any heavy oil pipeline project. Condition 3 is: World-leading practices for land oil spill prevention, response and recovery system to manage and mitigate the risks and costs of heavy oil pipelines.
- In 2015, the government committed to having a land-based spill regime in place by spring 2017.
- The Spill Response Regime Project is intended to improve spill preparedness and response in BC. It is a multi-year project that includes the following elements:
 - Legislation and Regulations to:
 - ensure those that bring risk are prepared to respond to land based spills (preparedness).
 - collect meaningful information about spills.
 - provide tools to ensure the environment is cleaned up and restored in the event of damage from spills.
 - Information Management and Technology Strategy to develop systems to:
 - collect and enable analysis of spill information.
 - allow quicker and integrated decision-making.
 - coordinate assets and resources.
 - provide rapid, geo-located incident notification to responders and



stakeholders.

- Expansion of the Environmental Emergency Program to improve:
 - oversight of the management of spills to the environment including environmental restoration.
 - proactive provision of information about spills to the public.
 - recovery of government expenditures from spillers (spill cost recovery).
- A mechanism to fund the expanded environmental emergencies program.
- Explore opportunities to support participation by First Nations and communities in spill planning and response.

Status of Legislation and Regulations:

- Amendments to EMA (*Environmental Management Amendment Act*) passed in May 2016 are not in force. These amendments:
 - enable requirements for land based industries to be prepared for spills.
 - enable requirements for spillers to report and clean up spills including environmental restoration.
 - allow government immunity from liability for spill response actions.
 - improve recovery for the cost of a spill.
 - enable a Preparedness and Response Organization (PRO) to receive a certificate from the Minister – see background note.

s.12,s.13

Potential Next steps:

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- s.13

Key Stakeholders include:

- Canadian Association of Petroleum Producers
- Canadian Energy Pipeline Association
- Canadian Fuels Association
- BC Trucking Association
- Railway Association of Canada
- Responsible Distribution Canada
- Chemical Industry Association of Canada
- First Nations
- Local Governments

s.12,s.13



Capital Regional District Sewage Treatment

Issue:

- Capital Regional District (CRD) implementation of tertiary sewage treatment at McLoughlin Point in Esquimalt and the beneficial re-use of biosolids created by the treatment process.

Background:

- Provincial and federal laws require the CRD to implement a higher level of sewage treatment. Location of a site for a treatment plant has been a contentious issue between the municipalities within the CRD for several years. This issue has received significant media attention, including several articles from the Seattle Times calling for a tourism boycott of Victoria by Washington State residents.
- The CRD has an approved Liquid Waste Management Plan (LWMP) under the *Environmental Management Act* (EMA) and there have been 11 amendments to the plan since it was initially developed in 2003. Sewage treatment was set as a requirement in 2006 by the Minister of Environment. In 2012, the federal government passed a law requiring all high-risk Canadian cities to provide secondary sewage treatment by 2020 at the latest. The CRD's core area was rated by the federal government in the high-risk category.
- In 2014, the CRD began to implement the approved LWMP provisions and capital projects for sewage treatment in order to meet the provincial and federal regulatory standards; however, execution of the approved plan was halted due to the Township of Esquimalt Council's opposition to the McLoughlin Point Wastewater Treatment Plant. The Province did not intervene in the zoning issue with Esquimalt and the CRD was forced to consider alternative options through another LWMP Amendment process.
- Given concerns about pending deadlines, in May 2016, the CRD Board ceded control of the sewage project to a provincially-appointed panel of experts (Project Board) who were required to provide a final recommendation by September 30 in order to meet federal funding deadlines.
- On September 14, 2016, the CRD Board of Directors approved the Project Board's recommendations and on September 30, 2016, the Minister conditionally approved Amendment #11 to CRD's LWMP. Amendment #11 includes: a single tertiary wastewater treatment plant at McLoughlin Point to be completed by December 31, 2020; a residuals treatment facility at Hartland Landfill to achieve Class A biosolids; and further studies with respect to a wastewater treatment proposal in Colwood. The Minister's approval did not include the CRD's proposal to store the Class A biosolids in a biocell at Hartland Landfill and instead, the CRD was directed to develop a definitive plan for the beneficial reuse of



biosolids. The biosolids plan is due June 30, 2019.

- The total project cost is estimated to be \$765 million. The federal government is contributing up to \$120 million through the Building Canada Fund – Major Infrastructure Component and up to \$50 million through the Green Infrastructure Fund. The Province is providing up to \$248 million, and P3 Canada will provide up to \$41 million. The CRD is responsible for the remaining costs.
- The CRD is continuing to move forward with the sewage treatment project under the leadership of the Project Board (Chair: Ms. Jane Bird). Construction activities have now commenced and the CRD is in the process of preparing a plan outlining the procedural steps and schedule it will implement to achieve the definitive plan for the beneficial re-use of biosolids by 2019.
- ENV staff have been informed that the CRD is currently pursuing Integrated Resource Management (IRM) and will be developing an IRM Plan which they envision will meet the provincial requirement for the biosolids plan.
- ENV staff are currently providing input and direction to not only the biosolids component of the project but also for pre-application activities related to the Municipal Wastewater Regulation registration process that will be used to authorize the discharge of effluent from the wastewater treatment plant to the ocean.

Decision Required:

- **30-Day Issue**
 - On May 31, 2017, the CRD is required to submit their plan with steps and schedule for achieving the biosolids plan. Depending on the quality and completeness of this submission, staff and/or the Minister may need to provide feedback to the CRD.



South Island Aggregates/Cobble Hill Holdings

Issue:

- South Island Aggregates/Cobble Hill Holdings (CHH) Contaminated Soil Landfill in Shawnigan Lake – Spill Prevention Order status and next steps

Background:

- *Environmental Management Act* (EMA) Permit 105809 was issued to CHH in August 2013, allowing the company to operate a contaminated soil treatment facility and landfill at an active rock quarry in Shawnigan Lake. The permit decision was appealed by the Shawnigan Residents Association and in March 2015, the Environmental Appeal Board (EAB) upheld the permit. The permit was amended to include five new requirements as directed by the EAB.
- In May 2015, the Shawnigan Residents Association applied for a Judicial Review of the EAB process and later that summer, they requested that the court overturn the permit due to fraud and the existence of a secret profit-sharing agreement with the qualified professional who designed the facility. Also in May 2015, the Cowichan Valley Regional District (CVRD) filed a petition with the Supreme Court of BC alleging that the facility contravenes the local zoning bylaw. While the initial court ruled in favour of the CVRD, CHH was successful in having the decision overturned by the BC Court of Appeal in November 2016.
- The permit was administered by Ministry staff in the Regional Operations Branch, and between April 2015 and December 31, 2016, the Ministry conducted 14 inspections (site visits and office reviews) on various aspects of the permit. The inspections resulted in six Notices of Acceptable Compliance and eight penalties for varying degrees of non-compliance (four Advisory Letters, three Warning Letters and one Order).
- Among the non-compliances, there were significant incidents at the site with respect to water management in the fall of 2015 and the fall of 2016. When the second incident occurred in 2016 and appropriate corrective actions had not been taken by CHH in response to the 2015 incident (despite significant efforts by Ministry staff), the Minister of Environment issued a letter to CHH identifying she was considering suspending or cancelling the permit for failure to comply with the requirements of the permit.
- CHH was not able to fully rectify the non-compliances in a timely manner and in February 2017, the permit was cancelled by the Minister for failure to comply with permit terms. At the same time, a Ministerial Spill Prevention Order (SPO) was issued, requiring CHH and other parties prevent the discharge of leachate and waste to the environment.
- There are approximately 100,000 tonnes of contaminated soil in the landfill (which is covered with a geomembrane) but the landfill is not permanently closed. There are also



approximately 3,000 tonnes of soil in a temporary storage area on the site. The SPO requires CHH to either permanently close the landfill or remove the soil. Ministry staff members met twice with the CHH principals to discuss the SPO and are aware that CHH intends to pursue final closure rather than soil removal. Staff members are reviewing information to determine if the engineering is sound and if the soil can safely remain on the site or if the soil presents a risk to the environment. External, independent consultants have been retained by the Ministry to assist in the review of technical documents, and members of the local community have also been invited to submit feedback on documents received.

- Should any entity seek to establish a landfill or reopen this site as a landfill, a permit application with associated technical & environmental impact assessments and public and First Nations consultation would be required. The Ministry is obliged to assess and consider an application once received.
- A *Mines Act* permit remains in place covering the mining activities on Lot 23; however, a stop work order was issued on February 2, 2017 so the quarry is not active at this time.
- Should CHH fail to follow the requirements of the SPO, ENV would access the current financial security to apply to the ongoing management of the site. All financial and legal means will be pursued to recover costs incurred by the Province in the management of an abandoned property.

Decisions Required:

- s.13
- Should the soil remain on site, an authorization may be needed to landfill the additional 3,000 tonnes of soil currently stored on site.



Organics Management - Harvest Power and revolution organics

Issue:

- Organics disposed of in landfills take up expensive space, generate greenhouse gases, cause odour and are a focal issue with First Nations.

Background:

- The diversion of organics from landfill for eventual beneficial use, such as composting, is a key Climate Leadership Plan (CLP) goal as well as a provincial waste management priority.
- Odour, location and First Nations issues surrounding processing facilities have come to the forefront both practically and politically in recent years.
- Organics disposed of in landfills create methane which has 22 times the greenhouse gas (GHG) impact of CO₂. This material also takes up costly landfill space.
- Organic wastes can include wasted food, municipal wastewater treatment biosolids, yard waste, wood waste and paper/cardboard waste.
- Organics still make up the largest fraction of materials sent to landfills in BC; up to 40%.
- The volume of organics is growing with increased population growth, local government diversion programs and federal wastewater regulations.
- The Ministry is focusing on the following approaches to address this issue:
 - Prevention: The CLP commits to reducing GHGs associated with landfilling organics through setting targets for food waste prevention (30 per cent) and increasing organics diverted from landfills (90 per cent).
 - Diversion: The Ministry Service Plan has a performance measure that 75% of the population be covered by a ban on the landfilling of organics. Currently, BC is at 66% with Metro Vancouver (MV), the Capital Regional District, and the Regional District of Nanaimo having bans in place.
 - Promotion of Circular Economy Approaches: Landfilling organic waste misses the opportunity to use the material as a valuable resource. The Climate Leadership Plan identifies development of a waste to resource strategy that will be informed by a recently completed jurisdictional scan for the circular economy.
 - Regulatory Amendments: The Organic Matter Recycling Regulation is undergoing amendments to ensure it remains protective of human health and the environment, provides increased public transparency and improves facilitation of organics recycling.



- Organics processing capacity has been an issue for local governments due to siting and odour management issues. Specifically, Harvest Power and Revolution Organics operations have resulted in significant challenges:
 - Harvest Power (Harvest):
 - Harvest operates under a waste stream management license and an air quality permit issued by MV and is located on Port Authority land in Richmond.
 - Harvest processes the majority of MV's organic waste. The combination of increased volumes, equipment limitations and sub-standard management practices has led to processing challenges and significant odour issues.
 - MV's most recent air quality permit issued to Harvest has been appealed to the Environmental Appeal Board by Richmond residents due to odour.
 - Harvest also appealed the permit for the use of a non-scientific "sniff" test to determine compliance. The stay request for this portion of the permit was denied.
 - The Province issued an Information Order against Harvest to determine if a Pollution Prevention Order is required.
 - Harvest has stopped receiving food waste which has reduced complaints, however financial viability of the business is now compromised.
 - Ministry staff has been actively working with all parties and are currently monitoring the issue.
 - Revolution Organics LLP (Revolution):
 - Revolution is a composting facility in Lytton that has received numerous odour complaints from residents and Lytton First Nation (LFN).
 - In accordance with amendments made to the Organic Matter Recycling Regulation (OMRR) in June 2016, larger composting facilities require a permit and must comply with OMRR.
 - Revolution does not believe a permit is required to continue operating and has appealed a letter from the director outlining the requirements under the Public Notification Regulation for a permit application to the EAB, which was accepted in April 2017.
 - The EAB hearing will likely take place in October 2017. Revolution continues to operate pending the EAB decision. However, ENV opposes extending a stay on OMRR posting requirements related to the permitting process past the end of August 2017.
 - LFN and Revolution are in litigation over a bylaw requiring commercial vehicles to have a band-issued permit to gain access through their reserve. LFN also made a claim against the Province regarding the road.



- Revolution has an injunction preventing LFN from obstructing the use of the road. There have been several court appeals. The injunction remains in place.
- Along with the approaches mentioned above, Ministry staff are currently developing:
 - comprehensive organics and waste-to-resource strategies
 - an odour management strategy
 - guidance on siting organics-processing facilities
- Primary stakeholders include: local government, waste management companies, the general public, producers of organics and First Nations.

Decision Required:

None required.



Tulsequah Chief Mine

Issue:

- Management of Environmental Liabilities at Tulsequah Chief Mine

Background:

- Tulsequah Chief Mine was operated by Cominco Ltd. (now Teck) between 1951 and 1957. Approximately 600,000 tonnes of massive sulphide ore containing copper, lead, zinc, gold, and silver were produced from the underground mine.
- The mine is located on the east bank of the Tulsequah River, approximately 97 km southwest of Atlin. The Tulsequah River drains into the Taku River and crosses the US (Alaska) border approximately 12 km downstream of the mine site. It empties at Juneau, Alaska.
- No processing of ore was ever done at the mine. All ore was shipped across the river to the Tasu Mine/mill complex.
- All of the environmental liabilities on site are associated with mining between 1951 - 1957. The mine has not operated since that time.
- Acid Rock Drainage (ARD) from surface waste rock and the underground mine workings drain directly to the Tulsequah River. Discharges of untreated ARD are acutely toxic to aquatic life.
- Concerns about the lack clean-up of the ARD discharge have repeatedly been raised by Alaska and by First Nations and stakeholder from Alaska over many years. This issue has been the most significant drag on bilateral relations between BC and Alaska with respect to transboundary waters, and has repeatedly been cited in Alaska media as evidence of poor regulation of mining in BC.
- Two companies in the past 15 years have unsuccessfully attempted to reopen the mine. However, the remote location, lack of road access, significant ARD issues, and financing challenges led to the failure of these attempts.
- The most recent purchase of the mine was by Chieftain Metals Inc. (CMI) in 2010. CMI built a temporary water treatment plant to treat ARD during the construction phase of mine development. They operated the water treatment plant for seven months in 2011-2012. However, due to poor equipment design and expensive water treatment plant operating costs, the water treatment plant was shut down, putting CMI into non-compliance with their EMA effluent discharge permit.
- In 2016, CMI went into creditor protection, leaving the mine unattended as the Receiver refused to take charge and control of the site or to appoint a mine manager. Trespass, vandalism and the maintenance of the water conveyance works are risks for the site.



- Studies have shown that 80% of the metal contamination that leaves the site originates from underground and discharges through the lower portal on-site. This discharge is very low in pH and very high in metal concentrations, mainly copper and zinc.
- There have been two Aquatic Environmental Risk Assessment's (AERA) completed on the site resulting in conflicting preliminary results. The first, completed in 2013, found that the overall risk to aquatic receptors is low. However, it did acknowledge that risks are higher in areas close to the mine discharge points. The study was criticized for focusing on bio-indicators at higher trophic levels (e.g. fish) which may not be the best indicators of risk.
- The second AERA was completed in 2016/2017 and found that the overall environmental risk and specifically, the risk in the zones most directly affected by mine discharge or where fish habitat is significant exceed acceptable thresholds.
- The final draft report for the 2016/2017 AERA was received by ENV on April 18, 2017 and will be released to the public in June 2017 after internal review.
- In March 2017, Black Loon Metals (BLM) Inc., an investment company, advised the Province that they were evaluating the economic viability of restarting the Tulsequah Mine and were looking for certain regulatory concessions from the Province.

- s.13,s.21

- MEM has contacted Teck Resources Ltd. (Teck) regarding the need to address the environmental liabilities on site. To date, Teck has been receptive to working voluntarily with government to assess closure options and implement a permanent closure plan to meet risk-based targets.

Decision Required/Next Steps:

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- s.13

- s.13



Biosolids/Nicola Valley/Organic Matter Recycling Regulation

Issue:

- Land application of biosolids in the Nicola Valley

Background:

Biosolids

- Biosolids are the semi-solid and stabilized organic materials produced when human sewage is processed and treated at municipal wastewater treatment facilities. When dewatered, biosolids look much like moist potting soil.
- In 2015, 38,000 tonnes of biosolids were produced in BC, which represents less than 10% of the total organics stream. This amount is expected to double by 2040 with population growth and new federal requirements for secondary and tertiary wastewater treatment.

Nicola Valley

- In response to concerns raised by local residents and the five Nicola Valley First Nations, on June 17, 2015, the Province announced it would conduct a scientific review of biosolids in the Nicola Valley. This resulted in the development of a literature review and biosolids sampling plan.
- Between October 2015 and March 2016, government worked under a Collaborative Engagement Protocol with the five Nicola Valley Chiefs. Unfortunately, the process dissolved when memberships of the proposed Advisory Committee and Technical Working Group could not be agreed upon.

Provincial Review

- The Ministry of Environment subsequently announced on April 4, 2016 that the scope of the scientific review had expanded beyond the Nicola Valley as part of a province-wide review of the Organic Matter Recycling Regulation (OMRR) which regulates the production, quality and land application of specified types of organic matter (including biosolids).
- As part of the provincial OMRR review, an Intentions Paper describing proposed changes to the regulation was published on October 3, 2016. Those interested were invited to submit comments during the 60-day consultation period which closed on December 2, 2016. A summary of the comments received from industry, local governments, First Nations and others was published on March 28, 2017.
- Based on feedback received and the need to potentially develop additional policy options, government wishes to obtain feedback on several policy areas. Accordingly, a follow-up Intentions Paper is anticipated the fall of 2017. Policy topics for exploration include:
 - enhancing First Nations engagement;



- strengthening qualified professional requirements;
 - improving the authorization process for land applications of managed organic matter;
 - creating more rigorous biosolids processing requirements; and
 - considering more stringent requirements for use of surface application methods for land application of biosolids.
- Stakeholders and interested parties include:
 - Local governments (responsible for operation of wastewater treatment plants and managing the quality of biosolids production);
 - Ranchers in BC's interior;
 - Compost facility operators;
 - Qualified professionals involved in the development and management of biosolids land application plans and compost facility plans (required under the OMRR);
 - First Nations, particularly the five Nicola Valley First Nations, High Bar First Nation and Stswecem'c Xgat'tem First Nation (SXFN); and
 - Local residents impacted by land application or composting activities, particularly in the Nicola Valley.

Scientific Review

- Subsequent to the 2015 announcement, the ministry extended invitations to selected subject matter experts to form an Independent Science Panel; the panel members were asked to work collaboratively to conduct an independent review and provide validation of the proposed sampling plan (completed May 2016) and to review the sampling project phase one results and analysis (completed September 2016).
- Phase two of the biosolids sampling project is currently underway. A report outlining results and analysis of the second phase is anticipated for the summer of 2017. In addition, the first phase of a wildlife risk assessment is currently underway. An information update in the risk assessment is anticipated for the summer of 2017.

SXFN

- On February 4, 2016, a biosolids spill occurred during transport on Big Bar Road near Clinton, BC, followed by a second spill on August 11. On February 9, the Chief of the Stswecem'c Xgat'tem First Nation (SXFN) sent the Minister an email demanding a moratorium on any hauling of biosolids within SXFN territory. After a number of meetings between the Minister and SXFN (February 15, June 28, and September 8), the Minister suggested that ENV and SXFN conduct a pilot project with the objective of enhancing engagement regarding the land application of biosolids in SXFN's asserted traditional territory.



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Packaging and Printed Paper Extended Producer Responsibility Program

Issue:

- Full implementation of the Multi-Material BC (dba Recycle BC) Packaging and Printed Paper extended responsibility program throughout BC

Background:

- As per the requirements in the BC Recycling Regulation, Recycle BC (RBC) (formerly Multi-Material BC (MMBC)) launched its Packaging and Printed Paper (PPP) program in May 2014.
- RBC offered local governments currently providing residential PPP or garbage curbside collection the “first right of refusal” via a financial incentive to continue to provide PPP collection services in their communities on behalf of RBC.
- After negotiations had occurred, 64 local governments (including municipalities, regional districts, and First Nations) representing 150+ distinct communities had accepted the RBC incentive and began providing curbside collection service for RBC.
- Many local governments expressed concern with RBC’s offer and rejected the collection incentive and chose not to participate in the program. Key issues revolved around implementation/operational aspects of the plan including: timing, scope of collection services, financial incentive, penalties for contamination and collector agreements.
- Since launch, numerous complaints have been received from local governments who previously rejected the RBC offer but now wish to be included in the program, but cannot join due to RBC funding constraints.
- RBC has added these communities to a “waitlist” for service, once it has the necessary funding to expand its program.
- RBC claims that ongoing free-riding producers, primarily in the newspaper sector, along with other compliance-based issues, were hindering their ability to expand service to waitlisted communities.
- s.14

- s.12,s.13,s.21



s.12,s.13,s.21

s.12,s.13,s.21

- On-boarding for Kamloops and the Fraser Valley municipalities started in early 2017: Chilliwack started on March 1, 2017. Kamloops, Mission and Abbotsford started on April 3.
- The Ministry has also been working closely with the newspaper sector and has developed an agreement that includes value-in-kind and financial contributions from newspapers (to s.13,s.17), and the requirement to develop a stewardship plan.
- s.13
- The Office of the Auditor General has reviewed the program (see separate note) with largely positive comments.
- Though early implementation of the program posed significant concerns for many stakeholders, the completion of the onboarding plan and agreements mentioned above, ongoing compliance action and continuous improvement measures including potential regulatory change are envisioned to set the stage for more stable and well-received implementation in the future.



Kinder Morgan Trans Mountain Expansion Project

Issue:

- Kinder Morgan Trans Mountain Expansion Project

Background:

- In February 2017, a project management structure was created to provide a strategic interagency approach to permitting, environment management plan oversight, First Nations consultations and any policy issues related to the development Kinder Morgan Trans Mountain Pipeline (TMP) expansion project. The objective is to have a timely and efficient regulatory decision-making process for all provincial regulatory matters related to the pipeline while acknowledging statutory and regulatory requirements.
- The management structure consists of a three-tiered cross-government framework:
 - Deputy Ministers (DM) Committee (responsible for the oversight of the project; provides direction). Dave Nikolejsin, Ministry of Natural Gas Development (MNGD) is the chair of this committee; Wes Shoemaker and Fazil Mihlar are the ENV representatives.
 - TMP Project Board (consists of ADMs and is the focal point for contact with TMP, DM Committee, Natural Resources Canada and the Working Group; responsible for resource allocation). Linda Beltrano (MNGD) is the Executive Lead and chair. Mark Zacharias is the ENV representative. This group meets on a bi-weekly basis.
 - Working Group (consists of Executive Directors and discusses issues regarding permitting, plans related to NEB/ Environmental Assessment Office conditions). Linda Beltrano (MNGD) is the chair. Anthony Danks is the ENV representative. The Working Group has weekly calls.
- The management structure reports to Cabinet through the Minister of Natural Gas Development. The three committees have representation from Ministry of Natural Gas Development (MNGD), Ministry of Transportation and Infrastructure (MOTI), Ministry of Aboriginal Relations and Reconciliation (MARR), Environmental Assessment Office (EAO), Ministry of Environment (ENV), Ministry of Forests, Lands and Natural Resource Operations (FLNRO), B.C. Oil and Gas Commission (OGC), and engage with Ministry of Justice and Government Communication and Public Engagement as needed.
- Note: The Environmental Assessment Office has a separate note on the Environmental Assessment Certificate.



Review of Environment Management Plans:

- Plans prepared by Kinder Morgan (KM) addressing NEB/EAO conditions have opened for consultation with provincial agencies in seven batches. ENV staff members have reviewed batches of plans for numbers 5, 6 and 7. Previous batches were not reviewed during the comment period because no notice was received, the timelines were too tight or KM did not reach out to the ENV experts that were identified as contacts.
- A number of critical issues, about plans drafted by KM to meet the NEB/EAO conditions, have been raised including human-wildlife interactions near construction camps, resourcing for compliance and enforcement, species at risk, water quality and monitoring, waste disposal, spill reporting and fuel storage. ENV is working with EAO and the Working Group to address these issues.

Permitting:

- ENV expects to receive permit applications related to environmental protection, waste discharge and BC Parks. For some environmental protection and waste discharge applications, ENV is still waiting for information from KM and is concerned the June 17 deadline for processing their permits will not be met. BC Parks is in the process of considering applications in four parks and protected areas. Parks staff members anticipate meeting their July 15 deadline.

Consultation with First Nations:

- Provincial agencies with permitting responsibilities are consulting with potentially impacted aboriginal communities regarding the potential impacts of all permitting decisions related to TMP. Permitting agencies will build on the consultation that has occurred to date on TMP. Omnibus letters explaining the permitting process were drafted by FLNRO, signed by MNGD and MARR, and sent to aboriginal communities, dated April 11, 2017.
- BC Parks has sent follow up letters to First Nations identified with aboriginal interests in these areas, notifying them about the permit applications related to parks and protected areas. The letters also specify that procedural aspects of consultation will be delegated to KM.

Next Steps:

1. s.13

2. s.13

TRANS MOUNTAIN EXPANSION PROJECT

- An Environmental Assessment Certificate for the Trans Mountain Expansion Project was issued on January 11th, 2017.
- The Environmental Assessment Certificate includes 37 legally-binding conditions that Trans Mountain Pipeline ULC must meet. The company must also build the project as specified in the certificate's Certified Project Description.
- The Environmental Assessment certificate's conditions are in addition to the 157 conditions required by the National Energy Board.

Background:

- The Trans Mountain Expansion project consists of approximately 987 kilometres of new oil pipeline and the reactivation of 193 kilometres of existing oil pipeline. Trans Mountain will transport crude, semi-refined and refined petroleum products, and the expansion will increase the capacity of the existing pipeline from 47,700 cubic meters per day to 141,500 cubic meters per day.
- On November 29, 2016, the federal government announced its approval of the Trans Mountain Expansion Project with 157 conditions. A number of Aboriginal and citizen groups have initiated litigation regarding the federal approval.
- Trans Mountain Pipeline ULC received an Environmental Assessment (EA) certificate for the Trans Mountain Expansion project. The certificate and the table of conditions can be found at: <https://projects.eao.gov.bc.ca/p/trans-mountain-expansion/docs?folder=23>
- Judicial reviews challenging the issuance of the EA certificate have been commenced by the City of Vancouver and the Squamish First Nation.
- Key conditions of the EAC require Trans Mountain to:
 - consult with Aboriginal groups and provincial agencies when developing and implementing relevant plans and programs required by the NEB and the provincial certificate;
 - develop wildlife species-at-risk offset plans and grizzly bear mitigation and monitoring plans for all impacted Grizzly Bear Population Units;
 - prepare and implement access management plans to avoid or mitigate disruption to access by members of Aboriginal groups carrying out traditional use activities and by provincially authorized trappers and guide outfitters;
 - prepare and implement a worker accommodation strategy that describes the potential environmental and social-economic impacts of construction camps on Aboriginal groups and includes a plan to provide medical and health services for employees and contractors using the construction camps;
 - prepare offset plans for any provincial parks, protected areas and recreation areas that would be impacted by the project;
 - report greenhouse gas emissions consistent with BC's Greenhouse Gas Industrial Reporting and Control Act and offset the greenhouse gas emissions from project construction in BC through the BC Carbon Registry;
 - conduct a research program regarding the behaviour and clean-up of heavy oils spilled in freshwater and marine aquatic environments to provide Trans Mountain and spill responders with improved information on how to effectively respond to spills;
 - develop emergency response plans that include guidelines for: incident notification and communications; oiled wildlife care; volunteer management; environmental sampling and monitoring and describe how Trans Mountain would coordinate emergency response participation of first responders, agencies, municipalities and regional districts, and Aboriginal Groups;
 - increase Trans Mountain's emergency preparedness and response exercise and training program to include full scale exercises or deployments of emergency equipment for certain pipeline rupture and tank fire scenarios before operations begin;
 - implement an Aboriginal marine outreach program along the marine shipping route to address the impacts of increased project-related tanker traffic in the Salish Sea; and
 - provide opportunities for Aboriginal Groups to participate in construction and post-construction monitoring, including training for Aboriginal monitors.

- A decision by provincial Ministers on the project under the British Columbia *Environmental Assessment Act* was required as a result of a January 2016 Supreme Court of British Columbia decision regarding the Environmental Assessment Office's (EAO) equivalency agreement with the National Energy Board (NEB).
- Pursuant to its equivalency agreement, EAO considered the NEB's recommendation report as the assessment for the project. In addition, EAO gathered information throughout the remaining provincial process, including joint consultation with the federal government with 96 Aboriginal groups in BC about the project, to help inform the decision by Ministers on whether to issue an EAC.

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	Sean Broadbent (back-up)	250 812-4732



Hulcar Aquifer 103 Water Quality

Issue:

- Hulcar aquifer, a drinking water source, contains nitrate at levels that for pregnant women, babies under 6 months of age, the elderly, and individuals with weakened immune systems, or chronic heart, lung and blood conditions is unsafe for consumption.

Background:

- Hulcar aquifer is a drinking water source for the Hulcar Valley. There are 53 residents connected to the Steele Springs Water District (SSWD), 22 independent well users, and the Splitsin First Nation which all rely on the Hulcar aquifer for drinking water.
- Interior Health (IHA) issued a “Water Quality Advisory” in July 2014 to all drinking water users in Hulcar Valley – not a “Do Not Drink” or “Do Not Use” order. While there is a level of risk associated with consuming the drinking water, it does not meet the threshold for a “Do Not Use” order. Boiling the water will have no effect on nitrates level.
- ENV collects water samples from the Steele Springs drinking water overflow monthly and assesses them for nitrate levels (only). Samples are sent to an independent lab in Burnaby for analysis. Starting in June 2016, ENV began sampling for other parameters (*E. coli*, phosphorus, water hardness and metals) which will complement the groundwater and surface water monitoring that will be completed by an integrated monitoring plan.
- The April 11, 2017 sample of Steele Springs drinking water overflow showed a nitrate level of 14.2 mg/L. The safe level of nitrate for human consumption is 10.0 mg/L. These results were shared with Interior Health Authority (IHA), Steele Springs Water District, Forest Lands and Natural Resource Operations (FLNRO) and Ministry of Agriculture (AGRI).
- A combination of factors is likely affecting the Hulcar aquifer, but agriculture is believed to be the primary cause. It is understood that the nitrates are coming from several area farms/feedlots (primarily manure), and possibly, to a lesser extent, resident septic systems.
- An inter-agency working group with representation from ENV, AGRI, FLNRO, and IHA are working together to resolve the issue. They are working with First Nations, the local agri-food industry and water district to protect drinking water quality while supporting a sustainable agriculture sector.
- On May 12, 2016, Pollution Abatement Orders were issued to seven of these farm/feedlot operations (three large operators, two small operators, two poultry farms). Two Pollution Prevention Orders were subsequently issued in early June 2016.
- The Orders were issued due to degraded water quality results and to inspections which concluded there are reasonable grounds to believe these operations are contributing to the



high nitrate levels.

- ENV continues to monitor compliance with the Orders, and is seeking to remove Orders once requirements have been substantively achieved.
- In February 2016, the Office of the Information and Privacy Commissioner received a complaint from the University of Victoria, Environmental Law Center requesting the Privacy Commissioner to investigate whether the Ministry of Environment met the obligations under the *Freedom of Information and Protection of Privacy Act* regarding the disclosure of information related to water quality in Hullcar aquifer. ENV was then directed to publicly disclose nutrient management plans, soil test data and results for H.S. Jansen & Sons Farm, and to publicly disclose soil test data and results, and nutrient management plans that are required by any of the Orders issued to Hullcar farmers.
- Government is committed to being fully transparent, and all information concerning sampling and testing, permitting, compliance and enforcement is available on the ENV website.
- Steele Springs is in the process of identifying and securing an alternative source for drinking water for residents connected to the SSWD.
- In May 2017, IHA will be conducting a sampling program on domestic wells in the Hullcar area for nitrate and *E. coli*. The program is voluntary for residents and free of charge.
- The First Nations Health Authority will coordinate with IHA and offer the same sampling program of domestic wells to the Splatshin members.
- The Province has provided \$950K to ensure the residents of the Hullcar Valley have safe drinking water.
 - \$300K is being managed by ARDCorp to cover the costs of a community liaison consultant and to assist the agricultural community in developing Nutrient Management Plans and Action Plans;
 - \$650K is being managed by the Fraser Basin Council.
 - \$300K will be used to develop an alternative water supply for the Steele Springs water district;
 - \$50K will be used for at-tap nitrate conversion for private well owners; and
 - \$300K will be allocated for infrastructure and water protection for the Splatshin.
- ENV has retained a community liaison consultant to: 1) help with dissemination of information to Hullcar residents, 2) help agricultural operators take swift steps to improve their manure management practices, 3) assist SSWD with connecting to an alternative water supply, and 4) assist the Splatshin with water protection plans and improving drinking water infrastructure.



Water Sustainability Act Implementation

Issue:

- The Status of *Water Sustainability Act* Implementation

Background:

- The *Water Sustainability Act (WSA)* was brought into force on February 29, 2016, replacing the *Water Act* as the primary water law in BC.
- For the first time, those who use groundwater for non-domestic purposes such as irrigation, industrial use, water bottling or municipal water systems will require a water licence and pay fees and annual water rentals just like surface water users. Existing groundwater users must apply for a licence by March 1, 2019 to establish their priority date and be migrated to the new regulatory regime.
- In addition to the regulation of groundwater the WSA introduced new fees and rentals for water use, stronger protection for aquatic ecosystems, expanding protection of groundwater related to well construction and maintenance, new tools for protecting users in times of water scarcity, and increasing dam safety and awareness.
- The *WSA* is being implemented in a phased approach; as such, supporting regulation and policy development will continue for several years. The phasing includes:
 - s.13

○ s.13

○ s.13



- In addition to regulatory work, additional policy and guidance are being developed to support WSA implementation including for assessing environmental flow needs, determining domestic uses, and addressing issues related to dugouts.
- As with any new legislation, the first year of implementing the WSA has uncovered some unexpected challenges and provisions that need to be clarified.
 - The key area of concern is that the submission of applications for existing non-domestic groundwater users is far below expectations. As well, the time being taken to process applications is taking longer than expected. Of the estimated 20,000 existing non-domestic groundwater wells only approximately 1000 applications have been received so far. Many users, specifically rural users, have expressed concern about the online application process, digital communication, and the time required to process applications. Some users remain unaware of the legal requirement to obtain a licence by March 1, 2019.
- Government is listening to the concerns of applicants and is responding by :
 - Extending the application fee waiver period from March 1, 2017 to December 31, 2017.
 - Aligning services through FrontCounter BC and participating in sector-led workshops to better support users during the application process;
 - Developing a strategy to improve groundwater licensing compliance under the Groundwater Licensing Compliance Enhancement Project that will access corporate Behavioural Insights and Service Design resources (details provided under transition note titled “Groundwater Licensing Compliance Project”).
- Water rental rates have been raised as a concern, generally for being too low; however this has been generally targeted at the water bottling sector. A separate transition note has been prepared regarding water pricing related to water bottling.
- Rural constituents have voiced concern that implementing the WSA and charging fees for non-domestic groundwater use is a new burden. This concern is usually alleviated when the rates are understood and the users understand they get a water right which provides certainty for their future use.
- Key stakeholders that may raise concerns regarding the implementation of the WSA include the agriculture sector, the mining sector, and guide outfitters.
- The implementation of the WSA is a significant change in BC. It will require continued engagement and communication to ensure the WSA is effectively implemented.

Decision Required:



No decision required at this time regarding WSA implementation. Staff in FLNR and ENV continue to implement the WSA and will bring forward policy and regulations as needed.



Appendix 1 – Summary of current and proposed regulations

Regulation	Timing
Phase 1 – introduced when WSA went into effect	February 29, 2016
Water Sustainability Regulation	
Water Sustainability Fees, Charges, and Tariffs Regulation	
Groundwater Protection Regulation	
Dam Safety Regulation	
Water Districts Regulation	
Clarifying amendments	Fall 2017
Drainage at mines	
Dugouts exempted from definition of a well	
Long-term use of water by regulation for mineral exploration and placer mining	
Update privacy provisions regarding publication of authorization holder information <ul style="list-style-type: none"> • Intent to permit publication of information to support business needs • Short term solution through Minister of Finance order under FOIPPA 	Potentially fall 2017, dependent on analysis of regulation making authority in WSA with Legislative Counsel

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s.12,s.13



Groundwater Licensing Compliance

Issue:

- Improving the application and review process to increase the number of existing groundwater user applications and licenses issued under the *Water Sustainability Act*.

Background:

- The requirement to obtain an authorization for non-domestic groundwater was introduced when the *Water Sustainability Act* (WSA) was brought into effect on February 29, 2016.
- Over 80 FTEs and associated operational funding were provided along with a new electronic application system to support groundwater licensing. Since implementation of the WSA, government has conducted significant external communication and outreach on the new requirements.
- The rate of groundwater application submissions has been significantly lower than expected:
 - There are an estimated 20,000 existing non-domestic groundwater wells that need to be transitioned into the new regulatory structure.
 - Existing groundwater users must apply for a licence before March 1, 2019 in order to establish their date of priority. If not, they will not be in compliance with the WSA and will be treated like a new user.
 - Only approximately 1000 applications have been received to date.
- Despite public outreach, some groundwater users, particularly rural users, are dissatisfied with the licensing process including both the electronic application system and the time being taken to process applications.
- In March 2017, a new Groundwater Licensing Compliance Project was launched using behavioural insights and service design methodologies to help improve the application, review, and decision process and to nudge existing non-domestic groundwater users to apply for licenses before March 1, 2019. Earlier submission of applications and reduced processing time will better meet the target of licensing existing groundwater users. Earlier submission will also mitigate any longer term impact on revenue projections from water rentals paid by users. In addition it will reduce the potential for losing date of first use as well as any compliance and enforcement costs associated with groundwater users who do not apply by the deadline.
- This project will support government's commitment under Goal 3: Enhancing Services to Citizens in the *Where Ideas Work* corporate plan (October 2016, p. 21). The project will also support FLNRO's Strategic Roadmap priorities 1.1: Authorizations streamlining and 2.5: Water Sustainability Act Implementation, as well as Goal 2: Service Excellence of ENV's Environmental and Strategic Policy Division's Strategic Plan.



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- In addition to updating the application and review processes, the period for the exemption of application fees for existing groundwater users was extended from March 1, 2017 to December 31, 2017.

Decision Required: No decision is required at this time.



Water Pricing and Water Bottling Review

Issue:

- Government commitment to review water use charges for bottlers under the *Water Sustainability Act*

Background:

- The *Water Sustainability Act* (WSA) was brought into force on February 29, 2016 along with new water fees and rentals. The main purpose of the WSA, which updated and replaced the former *Water Act*, is to allocate water from surface water and groundwater sources in BC. A key change under the WSA is a new requirement that non-domestic groundwater users obtain water licences.
- Although there was public consultation on the new (increased) pricing rates in February 2015, prior to the WSA coming into force, during the dry summer of 2015 the public and NGOs expressed concerns about the water bottling industry and the low rates they paid in BC and elsewhere in Canada. The level of the charge to divert water for bottling purposes (\$2.25/1000m³ in BC) was the main concern.
- The BC water bottling sector represents a very small fraction of total water use in BC and comprises a small number of major beverage companies (e.g. Coke - Dasani, Pepsi - Aquafina, and Nestle) and a greater number of small operations generally serving very local markets. Water sources include streams, natural springs, groundwater, and municipal systems.
- The main stakeholders expressing concerns about the bottling sector are the Council of Canadians¹, which has held several water related campaigns, and SumOfUs² which has collected over 380,000 signatures in an online petition. The main industry stakeholders are the Canadian Beverage Association and the Canadian Bottled Water Association.
- In July 2015 government committed to undertake a review of pricing for the water bottling sector in response to public and NGO concerns.
- s.13

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- Elsewhere in Canada, Newfoundland recently increased charges for groundwater and icebergs used for water bottling and water based products that are substantially greater than BC (\$500 - \$1000/m³). Ontario recently introduced a moratorium ending Jan 1, 2019 on new or expanded groundwater taking permits for water bottling s.13

¹ <https://canadians.org/tags/bottled-water>

² <https://actions.sumofus.org/a/bc-bottled-water>



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Decision Required:

No decision required at this time.



First Nations and Water

Issue: First Nation water interests and the *Water Sustainability Act*.

Background:

- First Nations value water highly for both spiritual and cultural reasons and like all communities, considers water an essential resource for economic and community development.
- Sustainable management and use of water is an interest that the Province shares with First Nation peoples and the new *Water Sustainability Act* (WSA) was developed to help achieve this common goal for current and future generations.
- Engaging First Nations has been an essential part of developing the WSA and its regulations. Since 2010 the Province has provided numerous engagement opportunities for First Nations, including regional workshops, face-to-face meetings and teleconferences, discussion papers and policy proposals, regular correspondence, a website and blog, and senior-level discussions with the First Nations Leadership Council.
- The WSA and its regulations address some First Nations' interests, for example:
 - A requirement for decision makers to consider the environmental water flows needed to support the health of ecosystems, which in turn protects the rights to hunt and fish;
 - Continued provision for water reservations under Treaty agreements;
 - Provisions for Water Sustainability Plans that can incorporate traditional ecological knowledge and First Nations participation in plan development;
 - Consideration of First Nation uses of water (including spiritual/cultural), methods of agriculture and other activities in planning and in review of water licence applications.
- Key water-related concerns that continue to be raised by First Nations during WSA implementation include:
 - First Nations question provincial ownership of water and assert that they hold Aboriginal rights and title which includes an interest in water;
 - First Nations have expressed disappointment with the WSA engagement process and continue to demand that the Province fully consult with them in developing any new water legislation and regulation;
 - First Nations are concerned about the number of existing groundwater licence applications and their lack of capacity to manage and review the associated referrals; those First Nations with treaties (i.e., Tla'amin, Maa-nulth) are eager to enter into negotiations with the Province to establish groundwater reserves;
 - First Nations have a desire to co-manage water resources, including strategic engagement in planning and decision making in the context of the New Relationship;
 - A number of First Nations wish to explore revenue-sharing of provincial water rentals.



- s.13,s.14

- The Ministry of Forests, Lands and Natural Resource Operations (FLNRO) has developed a consultation strategy, Aboriginal Interest Impact analysis tool, and hired additional First Nations relations staff to manage the consultation workload associated with the licensing of the estimated 20,000 existing non-domestic groundwater users into the provincial water licensing system.
- The Province is providing non-financial capacity building support for First Nations such as training and learning opportunities on water-related topics such as groundwater, environmental flows and hydrology. In addition a number of collaborative water monitoring projects are being established in partnership with First Nations.

- s.13

- In 2015, the Minister of Environment signed a Memorandum of Understanding with the First Nations Leadership Council to create a high-level dialogue to discuss issues of common interest and concern regarding environmental stewardship in BC including water. There has been little activity since the last meeting with the Minister in December 2015.

Decision Required:

No decision required at this time.



Species at Risk Program Review

Issue:

- Development of a new provincial approach to management of Species at Risk (SAR)

Background:

- A recent assessment of “effective protection” for critical habitat of Southern Mountain Caribou under the federal *Species at Risk Act* (SARA) has highlighted challenges between federal expectations and provincial measures taken to date to protect species at risk.
- BC does not currently have stand-alone SAR legislation and relies on a suite of sector-based legislation that is unlikely to meet the SARA test of effective protection (see Section 4, ESSP Background Note 4 – 3 - G) and creates an inequitable regulatory regime for various resource sectors in BC.
- These differences are creating uncertainty for First Nations, industry, and other stakeholders, resulting in delays in major project authorization decisions, and resulting in a loss of provincial and community revenue and stability.
- The issue with caribou has highlighted the need to deal with several broader issues with the provincial approach to management of species at risk (e.g. governance, resourcing, legislative/policy needs, performance management, etc.).
- Federal agencies have indicated an interest in working collaboratively with the provinces and territories to make strategic shifts in their approach to implementation of SARA, including more collaborative approaches focused on priority species and areas (to enable multi-species and landscape scale approaches) and better incorporation of P/T tools, integrated objectives, and increased flexibility under SARA.
- To take advantage of this opportunity, the Province needs to make a commitment to achieve defensible conservation objectives and outcomes for species at risk, along with socioeconomic objectives.

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Decision Required:

90 Day Issue

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Caribou Recovery

Issue:

- Caribou recovery in British Columbia

Background:

- All caribou in BC are woodland caribou. BC's caribou are currently listed as distinct populations under the federal *Species at Risk Act* (SARA) as Southern Mountain (threatened), Northern Mountain (special concern) and Boreal (threatened).
- In 2016, Environment and Climate Change Canada (ECCC) announced a formal Critical Habitat Protection Assessment (CHPA) to determine if critical habitat for Southern Mountain Caribou (SMC) in BC is being "effectively protected" by the laws of the Province.
- In part, this decision was triggered by a finding by the Canadian Environmental Assessment Agency (CEAA) of significant adverse cumulative effects on caribou populations near the Murray River Coal Mine Project and affecting traditional activities by Aboriginal Peoples.
- To support ECCC's critical habitat protection assessment, BC agreed to collaborate on a joint Protection Study for SMC herds. Phase 1, which focused on a spatial assessment of legal habitat protection of the SMC central group was completed in March 2017.
- The Study identified critical habitat protection gaps against targets outlined in the federal recovery strategy. Results of the Phase 1 Study will be used to complete the actual CHPA conducted by the federal government. If effective protection is not found to be in place, SARA has provisions that allow ECCC to legally prohibit activities that threaten destruction of SMC critical habitat through a federal protection order.
- The lack of defined policy process for CHPA decisions by ECCC is creating uncertainty for natural resource development in BC.
- The potentially impacted projects in the SMC study area include a number of proposed mines, oil and gas pipelines, forestry, and electricity generation projects. Recreation and tourism industries in rural communities would also face impacts from a protection order.
- To address gaps in protection, BC announced \$27 million over the next three years to support recovery efforts for all caribou herds in BC and is consulting with First Nations, public, and stakeholders on new protection measures and proposed updates to existing recovery implementation plans.
- BC is working with ECCC to determine if a Section 11 agreement under SARA is beneficial. Section 11 agreements may provide an opportunity to test flexible mechanisms under SARA to recognize provincial action for the protection and recovery of species at risk.
- The Ministry of Environment (ENV) and the Ministry of Forests, Lands and Natural Resource Operations (FLNRO) are working together on caribou recovery; FLNRO is leading development and implementation of the caribou program, and ENV is responsible for broader SAR and SARA policy responses and any science that supports those.



- In April 2017, ECCC received two separate applications from NGOs for emergency protection orders (section 80 orders) for local population units in Wells Gray-Thompson and Central Kootenay.
- On April 20, the Canadian Parks and Wildlife Society initiated a court action to challenge ECCC on the lack of reporting related to unprotected boreal caribou critical habitat across Canada and including BC.

Decision Required:

60 day issue:

- On May 30, public review of a draft Boreal Caribou Recovery Implementation Plan will end and the plan will be need to be revised based on public and stakeholder input. **s.12,s.13**

90 day issue

- **s.12,s.13**
- BC is also working with ECCC to provide information for a 5-year report on Boreal Caribou recovery efforts. BC input is required by May 31. **s.12,s.13**
s.12,s.13



Marbled Murrelet and Northern Goshawk Recovery

Issue:

- Development of Implementation Plans for Marbled Murrelet and Northern Goshawk

Background:

- Both Marbled Murrelet (MAMU) and coastal Northern Goshawk (NOGO) are designated as threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). MAMU are threatened by loss and fragmentation of their old-growth nesting habitat and threats in the marine habitats where they feed (e.g., oil spills, fisheries by-catch). NOGO has small populations and faces loss and fragmentation of their nesting and foraging habitat.
- Environment and Climate Change Canada (ECCC) has a draft recovery strategy for MAMU. It is anticipated that the strategy will be finalized in the future. It is expected that Parks Canada will soon release the Recovery Strategy for (NOGO) for public review and comment. Parks Canada has made a number of improvements in this latest draft based on provincial input.
- Draft recovery strategies for both species set population objectives and identify critical habitat protection requirements for BC; however, they do not consider socioeconomic implications.
- To address socioeconomic implications and guide the protection of critical habitat for these species, the Province is developing MAMU and NOGO Implementation Plans. These plans are required to meet the federal *Species at Risk Act* (SARA) expectations for the province to provide effective critical habitat protection. If effective protection is not established, SARA has provisions that allow ECCC to legally prohibit activities that threaten species recovery.
- While there are technical disagreements between ECCC and the province on specifics of population sizes, home range sizes, and distribution of critical habitats, most of the key elements of the implementation plans have been established.
- The Forest Industry has expressed significant concerns about the impacts of coastal timber supply to accommodate recovery for these species. The Province has made every effort to minimize the impact by co-locating habitat protections and reducing range sizes where appropriate. Impacts are unavoidable in order to avoid federal intervention, but they have been reduced as much as possible.

Decision Required: 90 Day Issue

s.12,s.13

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Grizzly Bear Conservation

Issue:

- There is a confluence of important events and decisions involving Grizzly Bear conservation scheduled to occur in 2017.

Background:

- Grizzly Bears are an iconic wildlife species in BC, apex (top) predators, and indicators of ecosystem health. They are highly valued by First Nations, citizens, and the tourism sector and frequently the subject of media interest.
 - Almost 70% of the bears hunted between 2012 and 2016 were killed by BC residents; long-time supporters of species and habitat conservation and management.
- British Columbia is home to more than 75% of Canada's Grizzly Bear population. In 2016, the International Union for Conservation of Nature (IUCN, global authority on the status of the natural world) released a global assessment of Grizzly and Brown Bears; five areas of BC were classified as critically endangered, endangered, or vulnerable.
- Grizzly Bear management (on the ground operations) and the grizzly bear harvest/hunt is led by FLNRO. ENV works in collaboration with FLNRO on the management of Grizzly Bear populations of conservation concern, and leads on education (e.g. bear aware programs) and enforcement (e.g. Conservation Officer Service).
 - The Grizzly Bear hunt was recently examined by an independent Science Panel of bear experts that concluded "*Assessing the sustainability of wildlife harvest is a challenge for many species, but the BC Grizzly Bear harvest management procedures are rigorous, science-based and have meaningful safeguards. The future of Grizzly Bears in the coming decades, however, will depend on planning, habitat management, population monitoring, and conservative harvest levels.*"
 - Four provincial scientists also published a peer-reviewed paper on the hunt providing parallel recommendations to the Panel.
- The Board of Inquiry of the newly-formed Grizzly Bear Foundation recently released their report outlining 14 recommendations on education, conservation, research in general, and specific recommendations to federal, provincial and local/regional governments (including a recommendation to end the hunt).
- The Office of the Auditor General (OAG) initiated an audit of the Province's Grizzly Bear Management in the summer of 2016 to determine if government was meeting its objective of ensuring healthy Grizzly Bear populations throughout British Columbia. ^{s.13}

s.13



- A US federal government decision on the recovery of the North Cascades Grizzly Bears is expected in December 2017. If the US federal agencies decide on a recovery option for Grizzly Bears in the US portion of the North Cascades, a request for source-bears from a healthy population in BC is likely. There may also be an expectation that BC will manage provincial lands in the BC portion of the North Cascades for population re-establishment.
- The Cumulative Effects Framework (see note: Cumulative Effects Management) includes Grizzly Bears as one of the first values. This work is creating a broad assessment of current grizzly bear habitat conditions intended to inform decision-makers working across the natural resource sector.

Current Activities

- ENV is working with FLNRO to develop a process for setting Grizzly Bear objectives for populations of conservation concern. Grizzly bear management (on the ground operations) is led by FLRNO.

Decision Required:

- **90 Day Issue:**^{s.13}
- **>90 Day Issue:** In 2018, the US may ask for BC Grizzly Bears for North Cascades recovery.



White Nose Syndrome in Bats

Issue:

- Bat populations in BC are at high risk as White Nose Syndrome, a highly invasive fungal disease, was recently confirmed just south of the BC border in both 2016 and 2017.

Background:

- White-nose Syndrome (WNS) is an emerging, invasive disease of North American bats caused by the introduced fungus, *Pseudogymnoascus destructans*. The disease has killed over six million bats in eastern North America since 2006, with 90-100% mortality at some hibernacula. Some previously abundant species (e.g. Little Brown Bat, Northern Bat) are now listed by the *Species at Risk Act* as endangered (through an emergency listing in 2014).
- Bats are extremely important to our environment and our economy, helping to control forest, agriculture, and urban pests. Researchers estimate that bats provide billions of dollars in pest control services *annually* in the United States alone.
- British Columbia has the most diverse bat fauna in Canada (16 species). WNS could have a significant impact on BC's native bats, and the ecosystem services they provide.
- WNS will arrive in BC; it is just a matter of time. Based on its devastating impact on east coast bats, WNS is expected to cause >90% mortality for some bat species and unknown impacts to seven BC bat species, including two species at risk.
- A BC Bat Action Team, including the Wildlife Conservation Society of Canada (WCSC) and other volunteer bat experts, published a *2016-2020 Action Plan in Response to the Threat of White-nose Syndrome* in early January 2017. The plan identifies 83 actions to conserve bats.

Recent Activity

- There is strong interest from ENGOs on this issue. The WCSC sent a letter to the Premier in October encouraging government action on WNS and met with Minister Polak in March offering continued collaboration and requesting formal recognition for their contributions.
- A Provincial WNS Task Team is working across ministries (Environment, Agriculture as well as Forests, Lands and Natural Resource Operations), neighboring provinces and states, and with bat/animal health experts to coordinate provincial efforts to address this threat. The Province must continue to improve surveillance, take urgent steps to learn more about BC bat biology to inform mitigation and conservation priorities, and continue to work with partners such as WCSC, BC Bat Action Team, and the BC Community Bat Program.
- **Stakeholders** are diverse (e.g., ENGOs, other ministries, federal government, U.S. states, Academics, Cavers, BC Hydro, agricultural and forest industries, funding groups such as Habitat Conservation Trust Foundation, Habitat Stewardship Program).



Invasive Mussel Defence Program Enhancements

Issue:

- In March 2017, the Government of BC announced significant enhancements to prevent the introduction of invasive freshwater zebra and quagga mussels into BC.

Background:

- Zebra and quagga mussels are high profile, freshwater invasive species that are spreading in North America. In fall 2016, these mussels were confirmed in a reservoir in Montana. This represents the closest detection to BC and has resulted in increased awareness of this issue.
- The costs associated with the establishment of zebra and quagga mussels in BC (to hydropower, agricultural irrigation, municipal water facilities) are at least \$43 million per year.
- The Provincial Invasive Mussel Defence Program was piloted in 2015. Full-scale operations were launched in March 2016 with annual contributions from BC Hydro (\$1.25M), Columbia Basin Trust (\$250K), Columbia Power Cooperation (\$250K), and Fortis BC (\$250K). The Ministry of Environment leads this program as an intra-ministerial partnership between Ecosystems Branch and the Conservation Officer Service (COS).
- In the 2016 boating season, eight permanent inspection stations were open from April to Sept/Oct, operational 7 days/week, and 10 hours/day. In 2016, the program inspected 24,500 boats and interacted with 50,000 people at the inspection stations. The program intercepted 684 boats from high risk areas and intercepted 17 mussel fouled boats.
- On March 30, 2017, an expansion to the program was announced. Starting summer 2017, there will be nine stations operating from dawn to dusk (two new stations along the southern border) and one station operating 24hrs/day at Golden near AB border (BC's busiest station). The expanded program also includes:
 - an increase from 32 to 68 inspectors;
 - the addition of a multi-purpose mussel detection dog; and
 - a \$450,000 grant provided to the Habitat Stewardship Trust Foundation to enhance the existing lake monitoring program.
- Program partners include: Invasive Species Council of BC, Okanagan Basin Water Board, Shuswap Watershed Council, regional invasive species committees, federal partners (Canadian Border Services Agency, Department of Fisheries and Oceans), provincial ministries (FLNRO, AGRI, TRAN), Program funders (CBT, BC Hydro, Fortis BC, Columbia Power Corporation), western provinces and states (AB, SK, YK, MB, WA, OR, ID, MT).
- s.13



s.13

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Decision Required: 30-60-90 Day Issue

- s.13

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Oceans Protection Plan and Federal Marine Conservation Targets

Issue:

- Federal interest in ocean management and marine planning in BC.

Background:

- Since coming into power in 2015, the federal government has demonstrated a renewed interest in oceans. Reflected in the Liberal party platform, Minister mandate letters, and Budgets 2016 and 2017, numerous efforts have been described to better protect Canadian waters. Two such initiatives are the Oceans Protection Plan (OPP) and the federal Marine Conservation Targets.

Oceans Protection Plan

- The OPP will provide \$1.5 billion in funding over five years, aimed at updating and strengthening marine safety and spill prevention and response along Canada's coasts; coastal planning; restoration; monitoring; and science.
- Specific to the west coast are initiatives aimed at increasing First Nations involvement in marine safety, (including search and rescue, environmental response, and incident command), and marine response measures such as increasing towing capacity and adding new lifeboat stations.
- Climate Leadership Deputy Minister Fazil Mihlar and the Ministry of Natural Gas Development's Oil and Strategic Initiatives Division (OSID) have been responsible for collaborating with the Federal Government on the prioritization and implementation of OPP initiatives, where Transport Canada and the Canadian Coast Guard have been the federal co-leads.
- BC has proposed a governance structure for coordination between federal authorities and the Province on implementation of the OPP which is currently under consideration by the Federal Government.
- The federal government has yet to make any announcements on funding allocation to regions or specific projects. However, BC expects the largest share of the \$1.5 billion to be directed to the West Coast, approximately \$580 million.

Marine Conservation Targets

- Canada has committed to protecting 5% of marine and coastal areas by 2017 and 10% by 2020. These percentage goals are referred to as the federal Marine Conservation Targets (MCTs), and Fisheries and Oceans Canada (DFO) is the lead federal agency.
- Protecting at least 10% of Canada's marine and coastal areas is a part of Target 1, the first of 19 2020 Biodiversity Targets for Canada. The other part of Target 1 – protecting at least 17% of terrestrial areas and inland water – is being tackled through the Pathway to Canada Target 1, a separate process led by Environment and Climate Change Canada (see 2020 Biodiversity Goals and Targets for Canada – Target 1 issues note under BC Parks).



- Currently approximately 0.9% of Canada's marine areas are in marine protected areas (MPAs), including federal, provincial, and territorial designations. In BC, approximately 3.7% of Canada's Pacific waters are included within MPAs.
- The MCT timelines are very ambitious, and BC has concerns with recent developments in advancing MPA development at a rapid pace. Provincial stakeholders, particularly from environmental nongovernmental organizations, as well as seafood and commercial fishing sectors, have expressed similar concerns, and the overall lack of clarity from DFO on how they plan to achieve the MCTs and what this will mean for British Columbians.
- BC, led by the Ministry of Forests, Lands and Natural Resource Operations (FLNRO), has already established numerous MPAs and other conservation measures along the Pacific Coast of Canada and is committed to working with Canada and First Nations to assess how these and other areas contribute to the MCTs.
- BC has requested, but Canada has not yet presented an overarching strategy for achieving the MCTs by 2020, nor specific implementation strategies for achieving targets in each bioregion.
- BC continues to have discussions with DFO from staff level to Deputy Minister level regarding the MCTs and OPP, including participation on the Oceans Task Group, a federal-provincial-territorial working group under the Canadian Council of Ministers on Fisheries and Aquaculture.^{s.13}
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Decision Required:

- None at this time



Federal *Fisheries Act* Review

Issue:

- The role of BC and the Ministry of Environment in the federal review of the *Fisheries Act*

Background:

- Canada's Liberal government announced plans to review all amendments to the *Fisheries Act* (FA) made by the previous Conservative government with a goal of restoring lost protections and incorporating modern safeguards to protect our ocean and freshwater fisheries.
- The Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) created a federal-provincial-territorial Task Group for the Review of the 2012-2013 changes to the FA and to provide recommendations. BC has actively participated on this Task Group, including attending the two face-to-face meetings in Ottawa in October 2016 and May 2017.
- The CCFAM FA Review Task Group produced a recommendations report that will be delivered to CCFAM Ministers at their annual conference June 26-28, 2017 in Whitehorse, Yukon.
- BC's Deputy Ministers coordinated provincial input across the various federal legislation reviews through the Natural Resources (NR) Board. A written submission was sent from Minister Norm Letnick (AGRI) to the Senate Standing Committee on Fisheries and Oceans (SCOFO), tasked with reviewing this legislation. The Committee received hundreds of written submissions and oral presentations from witnesses and produced a recommendations report
- Some recommendations BC considers most important included:
 - DFO to strategically invest in increasing staff capacity to expedite review and approval processes.
 - Revised project review processes to deal with the challenges which have impacted the administration of fish habitat protection in BC.
 - Use of modern safeguards as an opportunity for innovative solutions to achieve better outcomes for fish and fish habitat protection.
 - Include equivalency agreements and the delegation of authority.
 - Develop and provide better data to determine actual and specific effects of 2012-2013 legislative changes on fishery protections.
 - Need for the registry and auditing of the DFO self-assessment system.
- On February 24, 2017, SCOFO released the Recommendations Report based on the feedback they heard during their review period, and included 32 recommendations. BC reviewed the SCOFO recommendations internally and the NR Board had no concerns and agreed that many of the recommendations aligned with BC's interests.
- BC is currently waiting for the Government's response to the SCOFO Recommendations Report s.13 . The response is



expected to provide details about proposed changes to the FA based on the feedback from Canadians, as well as possible timing of legislation/regulatory amendments.

- The Ministry of Agriculture (AGRI) is the provincial lead for the CCFAM as well as the federal review of the *Fisheries Act*. The Ministry of Forests, Lands and Natural Resource Operations (FLNRO) is responsible for legislation, policies and procedures for managing fishing, and for conserving and managing fish habitat. The Ministry of Environment (ENV) took the lead on coordinating the B.C. submission to SCOFO due to experience and capacity in ENV's Strategic Policy Branch. ENV is currently working closely with FLNRO and AGRI to ensure conservation interests are represented.
- The next steps for BC will be:
 - s.13
 - s.13

Decision Required:

- **30-Day Issue: BC review and response to the federal government's response to SCOFO**
- Any federal decisions to change the FA are likely to have implications for various provincial ministries. It is in BC's interest to continue to work closely with DFO as they begin to implement any legislative or policy changes.
- A BC response will require coordination between agencies that have an interest in any legislative changes to the FA, including AGRI; FLNRO; ENV; Environmental Assessment Office; Aboriginal Relations and Reconciliation; Energy and Mines; Natural Gas Development; Transportation and Infrastructure; Oil and Gas Commission; Justice; and the Intergovernmental Relations Secretariat. The B.C. submission to SCOFO was coordinated at the staff level through the internal NRS Fish Committee; this structure will be used to produce another cross-Ministry response.
- BC will decide if a specific response to the federal government's report is required; if so, what that may include. Minister agreement on the final product will be expected.



Potential Federal Funding Reductions to the Hydrometric Monitoring Network

Issue:

- Environment and Climate Change Canada (ECCC) has indicated there may be potential reductions to federal funding for the National Hydrometric Program which might result in reductions for the Canada-BC Hydrometric Monitoring Network

Background:

- The Canada-BC Hydrometric Monitoring Network provides long-term stream flow, water level and water temperature data for many uses in resource/environmental management, economic development and public safety. Measurement is done through a Canada-BC Agreement on Hydrometric Monitoring (1975, 2013), with all of the stations being operated by Water Survey of Canada (WSC), ECCC on behalf of the partnership. Similar agreements exist between the federal government and other provinces and territories.
- The Ministry of Environment, on behalf of the province and provincial partners, administers the program (\$7.8M annually) in collaboration with WSC. Funding for the program comes from the provincial and federal governments, BC Hydro, local governments, First Nations and industry.
- A sustainable hydrometric network and associated funding model has not been in place since 1997, following ECCC and subsequent provincial funding reductions. The network has decreased from its 1993/94 peak of 601 stations, and has been relatively stable since 2008 at around 450 stations. Currently, ECCC funds approximately one third of the cost of the network and the province two-thirds, of which approximately 25% is recovered from our provincial partners such as BC Hydro. The province continues to face an annual budget pressure for hydrometric operations of \$0.6M, with significant pressure from many provincial agencies, partners and stakeholders, and the public to increase the size of the network to meet business needs.
- In 2014, consideration for health and safety led to WSC issuing a cableway directive across the country, which impacted 176 stations in BC and effectively took many of the cableways out of service until repairs could be made or alternative technologies identified. Current cost estimates to address deficiencies for BC cableways is \$8.6M. While the province has created a Special Purpose Account with Environment Canada into which funds can be deposited to fund repairs, the province still faces an outstanding pressure of \$5.2M over the next 5-7 years
- s.13,s.16



s.13

- In 2005, potential funding reductions were met with significant public pressure, including the Irrigation Industry Association of BC, the BC Agriculture Council, the Independent Power Producers of BC, the Mining Association of BC, the Council of Forest Industries, and the Steelhead Society of BC.
- A reduction of the network will have implications to public health and safety (river forecasting, drinking water supply forecasts, bridge design), resource development and associated revenues (large and small hydro, mining, and forestry), resource management (fisheries) and other economic opportunities.
- The Climate Leadership Team has recommended (# 24(b)) the province invest in sufficient monitoring systems to ensure climate change can be managed effectively. Additionally, the province, through the Living Water Smart Strategy, has made a commitment to expanding the hydrometric and climate-related networks.

Decision Required:

- **90 Day Issue**
 - No decision required, unless potential federal funding reduction confirmed.



Carnation Creek Experimental Watershed

Issue:

- Discussions are underway with Ministry of Forests Lands and Natural Resource Operations (FLNR) and forest tenure holders on proposed logging in old growth headwater forest stands within Carnation Creek, a key long-term experimental/research watershed.

Background:

- Located in southwest Vancouver Island, Carnation Creek is a long-term (47-year) watershed-scale investigation of the effects of forest harvest practices and climate change on watershed function, streams, fish habitats, and salmon and trout production.
- Carnation Creek is an internationally recognized multi-disciplinary, multi-agency study on watershed-ecosystem impacts and recovery processes due to historic forestry practices.
 - Over \$19M invested in research and supporting infrastructure, 200+ research publications produced (includes peer reviewed journals and extension notes).
 - Generated the longest continuous datasets on land-use practices and climate change effects on ecosystem/environmental values available anywhere.
 - Landmark contributions to the knowledge of watershed function and the development of legislation, regulations, and best management practices (i.e., *Forest and Range Practices Act*, *Fish Protection Act* (Riparian Areas Regulation), and *Water Sustainability Act*).
- Strong collaboration with local First Nations; Chief Happynook of the Huu-ay-aht First Nation (huuayaht.org) petitioned government to provide long-term, stable funding.
- Coming Next:
 - Historic logging in the watershed was completed prior to 1995. In addition, new logging is currently proposed in old growth headwater forest stands.
 - Discussions on the scope and timing of this logging are underway with FLNR, the Huu-ay-aht First Nation, and Western Forest Products on how to conduct these new operations while allowing research to assess any direct and cumulative impacts.
 - A budget uplift (\$30k) for capital equipment is being sought to augment the research instrumentation to monitor cumulative impacts associated with proposed harvesting.
- Project Partners: Provincial NR Sector ministries; Fisheries and Oceans Canada ; Environment (Water Survey) Canada; ENGO: Hakai Institute; Universities: UBC, BCIT, Vancouver Island U.; U. Western Ontario; Oregon State U.; U. Texas, San Antonio; Western Forest Products; Huu-ay-aht First Nations (HFN Forestry), and Hereditary Chief Happynook (landowner).

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May 2017

BC Parks Overview

Issue:

Overview of BC Parks and the role of division branches

Background:

There are two branches in BC Parks: Provincial Services Branch and Regional Operations Branch.

Provincial Services Branch:

- **Provincial Services Branch has six sections:**
 - Visitor Services and Community Engagement
 - Visitor Programs
 - Capital Investment and Facilities Program
 - Conservation
 - Planning and Land Administration
 - Aboriginal Relations
- The primary focus of **Provincial Services Branch** is:
 - Services and infrastructure related to the recreation side of the BC Parks mandate. This includes providing visitor information and maintaining the BC Parks website and social media channels; delivery of the Discover Camping Reservation Service; responding to visitor inquiries and complaints; business analysis including economic contribution of BC Parks, visitor satisfaction and attendance measurement; provincial coordination of contracted park services, recreation policies and; authorization policies; delivery of annual capital investment dollars for facilities improvement projects; sponsorship policies, procedures and implementation; partnerships with the tourism industry, business and organizations.
 - Planning and Conservation functions related to park management responsibilities. This includes coordinating land administration and information; protected area management planning; implementation of land use decisions for new designations (including terrestrial and marine) resulting from land use plans or acquisitions (including preparation of legislation); management of boundary adjustments proposals and decision processes; maintaining spatial and system data; negotiating new land private acquisitions and donations; setting conservation policy and direction for managing values, species at risk and climate change impacts; and managing data for conservation risks, threats and responses.



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- Aboriginal Relations provides leadership in ensuring that program delivery is consistent with government direction in aboriginal relations. The Aboriginal Relations Section does this by leading the development and oversight of strategic policies developing and updating consultation and accommodation policies and coordinating with the natural resource sector on aboriginal relations. The Aboriginal Relations Section also provides leadership in dealing with highly contentious or litigious files.

Regional Operations Branch:

- **Regional Operations Branch** is comprised of five geographically defined operating regions each under the direction of a Regional Director. The five BC Parks operating regions consist of: West Coast, South Coast, Thompson Cariboo, Kootenay Okanagan and Northern. Regional operations is responsible to deliver the BC Parks core programs and services, and effectively protect and manage 1,033 parks and protected areas throughout the province. Uniformed Park Rangers, both fulltime and seasonal, along with specialist staff in operations, conservation, contract management, community outreach and park planning, manage a park system based on approved recreational opportunities and the protection and education of conservation and cultural values for ecological integrity. Regional operations is the effective boots on the ground, comprised of 136 regular fulltime positions and 37 seasonal fulltime equivalent positions which are used to hire approximately 80 seasonal Park Rangers. Regional staff work closely with policy staff in Victoria and are the first line of engagement with local communities, First Nations, key stakeholders, contractors and park visitors.
- The primary focus of the Regional Operations Branch is direct program and policy implementation within the BC Parks system, which includes the following core components:
 - Protection of natural and cultural values with in all Parks and Protected areas.
 - Public safety and security, responding to natural and man-made occurrences, i.e. flooding, wildfire, avalanches, pollution and contamination.
 - Park Ranger compliance and enforcement program.
 - First Nations agreements and relationship building.
 - Management plan development and public engagement.
 - Planning and management of approved conservation and recreational programs, activities and key initiatives.
 - Implementation of community outreach programs and initiatives, which include volunteers, sponsorship, and partnership opportunities.



May 2017

- Management and planning for safe, clean and fully functional park facilities to BC Parks band and standards.
- Management of in-park services, facilities, information and recreational opportunities through park use permits and private sector Park Operator Agreements.
- Respond to public complaints and requests for information.

Contact information:

Jim Standen

Assistant Deputy Minister, BC Parks and Conservation Officer Service

250-387-1288



May 2017

BC Parks Future Strategy

Issue:

- BC Parks Future Strategy

Background:

- The BC Parks Future Strategy was launched in November 2016.
- The Strategy is a plan to address identified challenges for the provincial parks system, including increased visitation, maintaining facility standards, providing accessible recreation opportunities, seeking financial sustainability, protecting natural and cultural values in the face of landscape changes, and connecting communities and citizens to parks.
- The main goals of the strategy are intended to support BC Parks' existing Strategic Plan by:
 1. Ensuring our conservation mission is maintained and enhanced;
 2. Providing outstanding, financially sustainable recreation services and opportunities;
 3. Expanding public partnership and engagement with BC Parks; and
 4. Redefining BC Parks' relationship with First Nations communities.
- The BC Parks Future Strategy identifies a number of actions that should be taken to reach these goals, and BC Parks is working to implement these actions in a planned, coordinated way.
- A base budget lift of between \$8-9 million each year for the next three years and capital funding lift of \$1.99 million in 2017/18 will be used to achieve these goals including filling staffing vacancies, hiring new staff, and developing new program areas.

Recent Activity:

- BC Parks has identified priority Senior Park Ranger jobs to be filled, and is in the process of evaluating applications submitted in response to the external posting. There will be 28 Senior Park Ranger positions filled as a result of this competition.
- The BC Parks Foundation, an independent non-profit organization, was established January 2017 and was announced with its Board of Directors in March 2017. The Board is fully independent of government and will act only on behalf of the foundation.
- The BC Parks Foundation will help to raise funds to promote and enhance BC Parks, including identified initiatives under the BC Parks Future Strategy. A one-time discretionary grant of \$10 million was gifted to the Foundation from the Ministry of Environment in April 2017



May 2017

- BC Parks Foundation Members:
 - Karla Rockwell (Board Chair)
 - Robert Bateman
 - Ross Beaty
 - Ric Careless
 - Les Doiron
 - Dana Hayden
 - Daniel Johnston
 - Eric Peterson
 - Sophie Pierre
 - Jim Standen

Next Steps:

- s.12,s.13

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Stakeholders:

- BC Parks Foundation
- Ministry of Aboriginal Relations and Reconciliation, Ministry of Forests, Lands and Natural Resource Operations, Ministry Jobs Tourism and Skills Training
- Key marketing partners: Destination BC, Aboriginal Tourism BC, Camping & RVing BC Coalition, BC Ocean Boating Tourism Association, and Park Operators.
- The public (Discover Camping reservation users, website visitors, social media followers, volunteers, etc.)

Legislation, Planning and Land Acquisition

Topic:

- Legislation, Planning and Land Acquisition

Background:

- Between 1911 and the late 1980s, approximately 6% of the province was dedicated to protected areas. Land use planning initiatives starting in the 1990s and the *Protected Areas Strategy* set a goal of protecting 12% of the province by 2000. Further protection recommendations coming from land use plans, agreements with First Nations and private land acquisitions have resulted in a protected areas system managed by BC Parks of 14.4% of the province or approximately 14 million hectares.
- There are 1,033 parks, conservancies, ecological reserves, recreation areas and protected areas across British Columbia. They range in size from less than 1 hectare (Memory Island Park) to almost 1 million hectares (Tweedsmuir Park).
- British Columbia has more land dedicated to protected area status than any other province or territory in Canada.

<u>Designation</u>	<u>Number</u>	<u>Area (ha)</u>
Class A Parks	628	10,515,994
Class B Parks	2	3,778
Class C Parks	13	484
Recreation Areas	2	5,929
Conservancies	156	2,998,504
Designations under the <i>Environment and Land Use Act</i>	84	384,733
Ecological Reserves	148	160,456
Total	1,033	14,069,881

Summary of Legislation

- The Ministry uses a number of different provincial statutes to administer and manage the diverse parks and protected areas system.
- ***Park Act***
This key protected areas statute provides for the establishment and management of provincial parks, conservancies and recreation areas. Parks and conservancies are established by order in council under the *Park Act* or by inclusion in the schedules of the *Protected Areas of British Columbia Act*. Recreation areas are established by order in council under the *Park Act*.

- ***Ecological Reserve Act***

The *Ecological Reserve Act* is one of the key pieces of protected area legislation. The Act provides for the establishment and administration of ecological reserves in the Province. New ecological reserves are created by order-in-council under the *Ecological Reserve Act* or through inclusion in the schedules of the *Protected Areas of British Columbia Act*. BC Parks administers the Act and the ecological reserves.

- ***Protected Areas of British Columbia Act***

The *Protected Areas of British Columbia Act* represents a step in improving the legislative framework for the stewardship of the provincial protected areas system. The Act consolidates in its schedules most of the parks, conservancies and ecological reserves for the purposes of the *Park Act* and the *Ecological Reserve Act*. The Act ensures that the boundaries of these protected areas cannot be altered except by an act of the Legislature, unlike protected areas established by orders in council.

- ***Environment and Land Use Act***

This legislation is under the authority of the Minister of Forests, Lands and Natural Resource Operations. The Act empowers a Land Use Committee of Cabinet to ensure that all aspects of the preservation and maintenance of the natural environment are fully considered in the administration of land use and resource development. BC Parks frequently uses this Act to establish protected areas where another designation tool, such as a park, conservancy or ecological reserve, is not acceptable.

- ***Ministry of Lands, Parks and Housing Act*** [ss. 5(b), and 6 and 9 only, insofar as they relate to the portfolio of the Minister of Environment.]

Section 5(b) describes one of the functions of the Ministry as being to encourage outdoor recreation, establish parks and conserve the natural scenic and historic features of British Columbia. Section 6 provides the Minister with the authority, for the purposes of the Act, to enter into agreements (subject to the approval of the Lieutenant Governor in Council) with the government of Canada, the government of another province, or with any other person or a municipality. (This section is shared with the Ministry of Agriculture and Lands.) Section 9 gives authority to the minister to dispose of, acquire and manage land for ministry purposes.

- ***Ministry of Environment Act*** [s. 5 only]

Section 5 gives the Minister authority to acquire property. This provision is often used in land acquisition initiatives.

- ***Special Accounts Appropriation and Control Act*** [s. 9.6 only]

This Act establishes special accounts, which are accounts in the general fund of the consolidated revenue fund where the authorization to expend money from the account is located in an Act other than a Supply Act. Section 9.6 concerns the Park Enhancement Fund, a special account into which money may be paid from sources as specified in this section (e.g., from the sale of informational material as authorized by the *Park Act*), and from which amounts may be paid by the minister (specified purposes in respect of protected areas).



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Land Acquisition Program

- BC Parks may acquire private land and/or accept land donations to enhance the parks and protected areas system. BC Parks may partner with private individuals, corporations and the non-profit sector to acquire these lands. Key stakeholders/partners often include non-government organizations such as the Nature Conservancy of Canada, Ducks Unlimited, Marine Parks Forever Society and The Nature Trust of BC, local governments and forest companies.
- The Ministry does not have an appropriated land acquisition budget at this time.

- s.12,s.13,s.17

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Planning Program

Land Use Planning and Other Systems Planning

- South Okanagan: In August 2015, the Province released an *Intentions Paper* for public input proposing a framework for enhanced protection measures in the South Okanagan which included a mix of provincial and federal designations. A *Consultation Summary* based on the feedback received on the *Intentions Paper* was released publicly in May 2016 and the Minister also met with Okanagan Nation Alliance member bands (including the Osoyoos Indian Band, Lower Similkameen Indian Band, and the Penticton Indian Band) in September 2016. On January 27, 2017, the Province announced that planning discussions to achieve the objectives outlined in the Province's earlier Intentions Paper are moving forward with the support and participation of the Lower Similkameen Indian Band, Penticton Indian Band and Osoyoos Indian Band. The Province also announced that it would reach out to Parks Canada to engage in these discussions to consider two areas for possible inclusion in a South Okanagan National Park Reserve. The Province and Parks Canada met in February 2017 to initiate discussions.

Boundary Adjustments

- On occasion, the need arises to modify park and protected area boundaries. Boundary adjustments most often require changes to legislation.
- There are three categories of boundary adjustments:
 - **Category 1:** "Administrative housekeeping" adjustments undertaken where there have been errors in the initial legal description of the boundary or an area was captured that clearly was not intended to be captured at the designation stage;
 - **Category 2:** Adjustments intended to alleviate a human health and safety concern; and



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- **Category 3:** Adjustments where a proponent (private or public) is interested in a boundary adjustment to allow for a development or activity not allowed by authorization under the protected area legislation.
- Since 2000, the Provincial government has had a policy in place outlining how requests under Category 3 above are reviewed. This Cabinet-approved policy is the Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines.
- There are three active Category 3 Boundary Adjustment Projects:
 - **Sasquatch Park:** Seabird Island First Nation is requesting the removal of approximately 5.7 hectares of land to enable the use of roads through the park to access timber harvesting areas outside the park. The Province is awaiting receipt of a Stage 2 application from the Seabird Island First Nation.
 - **Kleanza Creek Park:** An adjacent land owner is requesting the relocation of “Gold Creek Access Road” to an existing park road to provide access to DL6639 Block A, R.5 Coast District. The Province has received and completed its review of the Stage 2 application. No decision has yet been communicated.
 - **Maquinna Protected Area:** Hesquiaht First Nation is requesting amendments to enable the construction of a distribution line through Maquinna Protected Area from a proposed run-of-the-river hydropower project to provide electricity to their community. The Province is awaiting receipt of a Stage 2 application from the Hesquiaht First Nation.

Management Planning

- Management plans are required for all provincial protected areas. Management plans are the key tool used to guide decisions on appropriate recreational activities, facility development and conservation of natural and cultural resources in these areas.
- The development of management plans is usually led by BC Parks. In many cases, First Nations and/or other partners collaborate with BC Parks in the development of the management plan. These plans are usually approved at the Executive Director level.
- There are currently 1,033 provincial protected areas. Management direction has been approved for 735 (71%) of these areas. There are currently over 50 active management plan projects in the province.

Contact information:

Jim Standen
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Protection and Conservation

Issue:

- Protection and conservation of natural values in protected areas

Background:

- Protected areas are the core of ecosystem conservation in BC.
 - BC's protected areas represent all of the major ecosystem types in the province.
 - Neighbouring protected areas work together as a network of natural areas that connect habitats and allow species to move.
 - Protected areas provide refuge for many species at risk and their habitat.
- Conservation is a part of every decision BC Parks makes about operating in and developing our protected areas.
 - BC Parks has developed its own impact assessment process to evaluate the effects of human activities in our protected areas. The process will be piloted in 2016/17.
- Not everyone realizes that conservation of protected areas requires active management
 - Our general approach is to let natural processes proceed unimpeded. However, some threats do not respect protected area boundaries (e.g., disease, invasive species, fuel spills, overuse by humans) and these require active response.
 - We also intervene when there is a threat to human health (e.g., hazard trees near high use areas) or a need to restore ecosystems (e.g., in areas with legacy impacts).
 - Hunting, trapping and cattle ranging also take place in protected areas. We are currently working with Range Branch, Ministry of Forests Lands and Natural Resource Operations to finalize a new Memorandum of Understanding on how we work collaboratively with range staff.
- Protected areas interact with the land and activities around them, including communities, other types of conservation areas, infrastructure and development.
 - BC Parks continues to work with some local communities (e.g., Nelson) to reduce concerns about forest fuels, built up from years of fire suppression, in protected areas adjacent to human settlements.
- Protected areas are places where human stresses are reduced, making them more resilient to the effects of climate change which helps the whole province adapt.
 - A network of connected parks provides consistent ecosystem services to human communities and allows other living things to move to new habitats as climate changes.
 - BC Parks is developing a network of staff and volunteers to monitor the ecological effects of climate changes in protected areas.



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Next Steps:

- The BC Parks Futures Strategy supports working with partners to promote our protected areas as a living lab for climate change.
- Continue to engage other agencies and volunteers to support conservation efforts in BC Parks.

Key stakeholders:

- Recreational user groups, stewardship groups, and naturalists (e.g., BC Nature)
- Universities and academics who conduct research about parks
- Non-government environmental organizations
- First Nations with strength of claim
- Communities next to parks
- Hunters, trappers, and ranchers who use park land

Contact information:

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May 2017

First Nations and BC Parks

Topic:

- First Nations and BC Parks

Background:

- Aboriginal rights such as hunting, trapping, fishing, and gathering plants, for food social and ceremonial purposes are protected under Section 35 of the *Constitution of Canada*. Generally speaking, the threshold for proving aboriginal rights is low.
- Aboriginal rights to the land itself (called Aboriginal Title) are also protected under section 35 of the *Constitution of Canada*. Aboriginal Title is different than common law notions of title, such as fee simple title, because aboriginal title is vested in the aboriginal community.
- A body of case law, (aboriginal law), has been developed over time wherein legal tests have been defined for proving aboriginal rights and aboriginal title. This body of case law also describes the rigorous standards under which government will be held accountable when government contemplates conduct that may adversely impact aboriginal rights and title claims, or infringe treaty rights.
- BC Parks manages nearly 15% of the provincial land mass, and First Nations assert aboriginal rights over the entire system.
 - Aboriginal rights to hunt trap fish, gather plants, and treaty rights are accommodated within provincial parks. However, there are two natural limits to the practice of these rights within parks: conservation, and public safety.
 - Aboriginal title has been more difficult to accommodate within BC Parks. First, the *Park Act* only applies to Crown Land, and aboriginal title land is not Crown Land. Second, First Nations are entitled to the economic benefits of aboriginal title, and BC Parks are typically managed to conserve intrinsic ecological, recreational, and cultural values on the land base; not for economic gain. Finally, First Nations have a right to choose the use of aboriginal title land, and under the *Park Act*, the Minister retains full authority regarding park land use decisions.
- s.12,s.13,s.16



May 2017

- Conclusion of court settlements and treaty agreements tends to take a significant amount of time. In the interim, staff spend considerable amount of time and resources consulting and accommodating First Nations as per their obligations as described in aboriginal law. Complexity of aboriginal relations has increased significantly since the Tsilhqotin Decision as First Nations have great expectations that staff will accommodate the economic and shared decision-making component of their aboriginal title claims.
- First Nations have an interest in practicing traditional and ceremonial activities and expressing cultural practices in parks. While these activities are not prohibited, public safety and conservation must not be jeopardized. The BC Parks' Futures Strategy outlines the need to embrace First Nations relationships through traditional practices cultural expression. Implementation of this component of the strategy will be a focus for the BC Parks Aboriginal Relations section.
- First Nations have an interest in operating campsites in BC Parks and advocate for direct awards for these opportunities. An interim policy of direct award contracts is now in place and recommends avoiding entertaining direct award contracts as they circumvent government core procurement policies. Direct awards are only considered in cases where exceptional circumstances exist and a Cabinet or Minister's mandate has been obtained.
- BC Parks works with MARR and JAG to seek and develop corporate tools such as the *Provincial Consultation and Accommodation Procedures*; signing strategic agreements like *Reconciliation Protocol Agreements*; and sharing knowledge among staff in terms of best practices.

s.12,s.13,s.16

Contact information:

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Engagement

Issue:

- BC Parks' Volunteer and Partnership & Donation Programs

Background:

- BC Parks has two dedicated positions to deliver the volunteer and partnership programs: a Manager of Partnerships (currently vacant) and a Community Engagement Specialist. These positions are responsible for public outreach and collaboration, youth engagement, and volunteer & partnership initiation and support.

A) BC Parks' Partnership & Donation Program

- BC Parks developed a partnership framework in 2008 following the establishment of the Park Enhancement Fund (PEF). The PEF has enabled BC Parks to increase partnership and sponsorship opportunities that benefit the provincial park system. (For more information on PEF, please refer to transition note #6 – Recreation Management).
- BC Parks' Partnership and Donation Program provides opportunities for individual citizens, community groups, non-government agencies and private corporations to work with BC Parks on mutually beneficial projects.
- Current partnership and donation opportunities include:
 - Commemorative gifting (e.g. sponsorship of park benches, picnic tables, playgrounds, interpretive signs or other park facilities);
 - Planned giving program (e.g. leaving bequests or donating financial securities or land to BC Parks);
 - Corporate partnership opportunities (e.g. sponsoring specific projects in specific parks).
- BC Parks has created an online credit card portal (known as the Park Enhancement Fund Portal or "PEFP"). This portal allows BC Parks' supporters to donate online to a specific park or project of their choice, and immediately receive an official tax receipt (via email) for donations of \$25 or more.
- Approximately \$3.4 million has been generated from sponsorships, corporate partnerships, donations, bequests, protected areas stumpage, sales of education products and interest on unspent balances.

B) BC Parks Volunteer Program

- In 2012, BC Parks revitalized and improved the volunteer program by consulting with past and present volunteers and developed a Volunteer Strategy, which was released in September 2012 and continues to be implemented. s.13

s.13



- One of the most significant improvements to the program has been the development of the Stewardship Partners Insurance Program with Risk Management Branch (Ministry of Finance). The program enables legally-registered societies and corporations to enter into 5-10 year agreements to undertake work on behalf of BC Parks. In return, all group members are provided General Liability Insurance and Accidental Death and Dismemberment Insurance.
- BC Parks enters into numerous Partnerships Agreements with organized volunteer groups (mainly registered non-profit societies). They range from small community trail clubs to larger provincial societies, all with an interest in protecting and improving our park system.
- In 2015, BC Parks had 54 active Partnerships Agreements, with over 1,600 volunteers contributing over 27,000 volunteer hours in BC Parks.
- Since 2011, BC Parks has invested approximately \$200,000 per year from the Park Enhancement Fund (PEF) to directly support conservation and visitor experience/recreation projects that are led by volunteers and community partners.
- For the 2015/16 season, BC Parks Volunteer Program reached over 39,000 citizens, 95 partners, and leveraged over \$500,000 in investments in parks across the province.
- The Volunteer Program also recognizes our community partners and volunteers through an External Awards Program. Every year, the following awards are given out to outstanding individuals and groups: Volunteer of the Year, Volunteer Legacy Award, Volunteer Group of the Year and Community Partner of the Year. Recipients receive a gift and a celebration and public recognition on BC Parks' website and in BC Parks' annual report. Awards are generally announced in the spring for the previous year's contributions.

Next Steps:

- Continue to engage with our partners and volunteers and make improvements to the Volunteer and Partnership & Donation Programs annually.

Stakeholders:

- Individual citizens/volunteers, community groups, non-government agencies, not-for-profit organizations and private corporations. Examples include: Vancouver Aquarium, Encorp Pacific Canada, Coleman Canada, Marine Parks Forever Society, and Elders Council for Parks in British Columbia etc.

Contact information:

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May 2017

Recreation Management

Issue:

- Recreation Service Delivery in BC Parks

Background:

- Since the mid-1980s, BC Parks' frontcountry campgrounds and day use areas have been maintained and operated by third-party contractors, known as Park Operators.
- In 2015/16, the cost of this recreation service delivery model was approximately \$27 million; \$21.4 million of which was paid for using recreation user fee revenue (camping fees), and \$5.7 million of which was paid with BC Parks vote budget. The projected 2017 budget expenditure for recreation service delivery is \$5 million.
- A key component of the Parks Futures Strategy involves working with sector partners to identify and respond to emerging trends in recreation with the initial focus being on marine tourism and mountain biking.

Next Steps:

- Approximately 60 Park Operators manage more than 230 parks through a series of 1-10 year agreements/contracts. s.13
s.13
- s.12,s.13

Stakeholders:

- Park Operators are primarily private businesses, most of which are small businesses.
- BC Parks contracts 12 agreements/contracts directly to First Nations.
- 16 of the larger Park Operator businesses are members of the BC Society of Park Operators



May 2017

Issue:

- BC Parks Recreation User Fees

Background:

- Description: BC Parks charges fees for recreation activity in parks. Recreation User Fees Regulation approved by Treasury Board allows the Minister to set fees within the established fee ranges. Fee ranges include \$5 to \$35 per party/night. The Regulation has not been changed since 2007. BC Parks reviews and updates the Recreation User Fee Schedule on an annual basis.
- Recent Activity: In 2015, a system-wide increase in BC Parks' frontcountry camping fees was implemented, with an increase of between \$2 and \$5 per party/night in most campgrounds. In 2016, camping fees were increased in some parks by \$1 or \$2 per party/night. The extra revenue generated by the fee increases was put back into maintaining and enhancing the parks system.

Next Steps:

s.12,s.13

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Stakeholders:

- Park Operators
- Treasury Board
- other relevant government ministries
- First Nations groups
- community groups
- general public



May 2017

Issue:

- Park Use Permits

Background:

- Description: Permits under the *Park Act* are used to authorize otherwise prohibited activities, and are issued for commercial/industrial activities, filming, occupation of land, and some research.
- Recent Activity: Approximately 1,500 permits are active throughout the province within any given year. BC Parks charges permit fees for a variety of park uses, including commercial recreation, land use occupancy, filming, trapping, and ski hill operations. Revenue from permit fees for the 2016/17 fiscal year was \$1.8 million.
- Recent activity: In September 2016, changes to permit fees for filming were proposed and approved by Treasury Board. The changes to film permit fees included an increase to fees for major film shoots, which is projected to have a positive fiscal impact and achieve cost-recovery for administration of film permits.

Next Steps:

- s.12,s.13

Stakeholders:

- Any person, business or group providing a commercial recreation service or conducting research activities in a park, or occupying a park.
- FrontCounter BC provides support to BC Parks for administration of park use permits, including assisting clients with questions, applications, and receipt of fees, billing, and other tasks.



May 2017

Issue:

- Capital Investment

Background:

- Description: BC Parks has over \$700 million (est.) worth of facilities in parks across the province. Over the last decade, BC Parks has been working on a backlog to replace, repair and s.13
- Recent Activity:
 - 17/18 capital budget for BC Parks is \$13.98 million (same as last three years), \$13.753 million for facility improvements, \$177,000 for land acquisition and \$50,000 for specialized equipment for regional operations. BC Parks annual capital allocation of \$13.98 million requires additional amortization payments of approximately \$400,000 annually.
 - s.12,s.13

Next Steps:

- The Campsite Expansion Program was announced in November 2016. This program includes expanding campsites at BC Parks and at Recreation Sites, Ministry of Forest, Lands and Natural Resource Operations. The program will result in over 800 new campsites and associated infrastructure in BC Parks and over 1,000 new Recreation Sites over a five-year time frame. Capital and operational funding has been approved for the Program.
- As part of the campground and day use area reconstruction BC Parks is upgrading playground facilities and adding new features such as bike “pump” tracks, new electrified campsites and communal cooking shelters. To ensure our parks are more accessible, BC Parks is installing more accessible facilities and updating and improving facility design and standards.
- The new Park Futures Strategy will help BC Parks achieve a more sustainable financial model for BC Parks and deal with issues, such as budget shortfall due to amortization pressures. As well, additional funding will be devoted to improving backcountry facilities in BC Parks.



May 2017

Issue:

- BC Park Enhancement Fund

Background:

- Description:
 - The Park Enhancement Fund (PEF) was established in 2008 as a special account under the *Special Accounts Appropriation and Control Act*. The purpose of this account is to support BC Parks in earning revenue, attracting donations and aiding in the development of partnership and sponsorship opportunities to benefit the provincial park system.
 - PEF is used to fund various enhancements to the park system, such as: enhanced information, education and interpretation programs; product/partnership development and merchandising; volunteer program support; planning projects; capital investments; and natural and cultural resource assessment, research and restoration. The majority of money in the PEF account is committed to specific projects that we have agreed to with our partners and sponsors.
 - Money from PEF cannot be spent on staff salaries, land acquisition or any other service that is not considered an “enhancement” to the core services provided by BC Parks.
 - Contributions made to BC Parks for the Park Enhancement Fund are eligible for official tax receipts.
- Recent Activity: Since its inception in 2008, PEF has contributed approximately \$16 million to parks and protected areas in BC. The majority of this revenue is generated from the Discover Camping Reservation Service charges (\$12.6 million); a large portion of which is reinvested back into the Discover Camping Reservation Service to pay for its operation. The remainder (\$3.4 million) is generated from sponsorships, donations and bequests, partnerships, protected area stumpage, sale of promotional or educational products, and interest earned on unspent balances.

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Next Steps:

- s.12,s.13

Stakeholders:

- Donors
- Sponsors
- Partners, including community groups, etc.

Contact information:

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May 2017

Marketing and Tourism

Issue:

- Marketing and Tourism in BC Parks

Background:

A) Discover Camping Reservation Service (est. 1996)

- BC Parks provides users the ability to reserve a campsite in over 102 provincial parks. Of the 10,700 frontcountry campsites in BC Parks, approximately 55% of them are reservable.
- In 2016, Discover Camping processed over 187,000 reservations (a 16% increase from 2015). Of these reservations, 71.9% originated from British Columbia, 14.3% from Alberta, 3% from the rest of Canada, 4% from the US and 6.8% from overseas.
- The demand for reservations has grown by 94% over the last five years, requiring BC Parks to annually review and improve the service to ensure fair and equitable access to everyone.
- BC Parks recently announced some significant changes to the Discover Camping system for the 2017 camping season. This includes the ability for users to book a campsite earlier in the season (opening January 2 on a four-month rolling window, instead of a March 15 opening day). BC Parks staff will be working hard over the coming months to ensure all the changes for 2017 are implemented smoothly.
- The reservation service is managed as a user-pay system and service charges have remained at 1996 pricing levels.
- The Discover Camping reservation service has been provided by Camis Inc., a contractor from Guelph, Ontario, since 2009 (their contract will expire in 2019).

B) BC Parks' Marketing Program

- BC Parks markets the opportunities available to park visitors through its own marketing program, as well as through partnership arrangements. Partnership arrangements help BC Parks leverage additional resources to better promote BC Parks.
- Some of BC Parks' key partnership include: Destination BC, Camping & RVing BC Coalition, BC Ocean Boating Tourism Association, Freshwater Fisheries Society and Park Facility Operators.
- BC Parks Marketing products include: BC Parks' Scavenger Quest, Regional maps and brochures, Jerry the Moose mascot, BC Parks' branded merchandise (e.g. coffee mugs, water bottles, etc.), and BC Parks' branded free promotional items (e.g. stickers, magnets, Jerry the Moose antlers).
- The BC Parks website is the main source of information for BC Parks visitors and is used extensively to market BC Parks and promote specific BC Parks initiatives. In 2016, the website received over 4,843,000 website visits.
- The "BC Parks" brand is not only important from an identification point of view but also is used to help leverage resources and sponsorship for the benefit of our provincial parks system.



May 2017

C) BC Parks' Website & Social Media

- The BC Parks website is the key communication tool for BC Parks and an information focal point for the public. Some of the main features include: vital public health and safety messaging, reservation service information, park details, conservation and park planning information, and opportunities for volunteer and partnership initiatives.
- In 2016, BC Parks had over 4.28 million unique visits to the BC Parks website (with an average of 1,000 visits per day).
- In November 2016, BC Parks worked with government communications staff to revamp the “look and feel” of the BC Parks website to align more closely with the British Columbia government brand. The new website changes were launched alongside the BC Parks Future Strategy launch. With the launch of the website updates, BC Parks website is now mobile friendly and can easily be viewed on mobile devices.
- BC Parks also has a prominent social media presence with its Facebook page and Instagram account.
 - Launched in 2011, public interaction with the Facebook page has been overwhelmingly positive, with park visitors, staff and other community members posting comments, photos, and stories, engaging with each other and BC Parks. As of May 2017, there are over 22,200 people who like the page.
 - BC Parks Instagram account launched in May 2016. Instagram is BC Parks greatest form of engagement with its users. As of May 2017, there are over 31,000 followers.

Next Steps:

- Monitor recent changes to the Discover Camping Reservation Service for the 2017 season.
- Continue to engage with BC Park's marketing partners to jointly promote our parks and protected areas.

Stakeholders:

- Camis Inc. (service provider for BC Parks Discover Camping Reservation Service)
- Key marketing partners: Destination BC, Camping & RVing BC Coalition, BC Ocean Boating Tourism Association, Freshwater Fisheries Society and Park Facility Operators.
- The public (Discover Camping reservation users, website visitors, social media followers etc.)

Contact information:

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May 2017

Federal and Provincial Parks Engagement

Issue:

- Intergovernmental Relations

Background:

- In October 2003, Canada and BC signed a Memorandum of Understanding (MOU) respecting the establishment of national park reserves and national marine conservation area reserves in BC. Commitments in the MOU included:
 - Explore the feasibility of establishing a new national park reserve in the South Okanagan to represent the Parks Canada's Dry Interior Plateau natural region.
 - Explore the feasibility of establishing a new national marine conservation area reserve for the waters of the Southern Strait of Georgia surrounding the Gulf Islands National Park Reserve.
 - Canada preparing an interim management plan in order to help determine the conditions under which the Gwaii Haanas marine area in Haida Gwaii that was agreed to in 1988 could be established as a national marine conservation area reserve.
- In January, 2011, Cabinet directed that the Province would not proceed further with the feasibility study respecting the establishment of the proposed national park reserve in the South Okanagan at this time. In August 2015, the Province released an Intentions Paper for public input proposing an alternative framework for enhanced protection measures in the South Okanagan which included a mix of provincial and federal protections. In late spring 2016, BC Parks released a consultation summary report. The public responses totaled over 3,000 submissions, but only a small percentage was specific to the questions asked. Despite the paper being clear that the 2010 national park proposal was not up for reconsideration, a large number of respondents used the Intentions Paper as a venue to voice support or opposition to that proposal. As for issues or interests related to the Intentions Paper proposal, no new interests were raised that were not already known by the Province. The feedback shows the public is very interested and passionate about issues of environmental protection, First Nations cultural values, tourism and recreation opportunities in the South Okanagan.
- On January 27, 2017, the Province announced that planning discussions to achieve the objectives outlined in the Province's earlier Intentions Paper are moving forward with the support and participation of the Lower Similkameen Indian Band, Penticton Indian Band and Osoyoos Indian Band. The Province also announced that it would reach out to Parks Canada to engage in these discussions to consider two areas for possible inclusion in a South Okanagan National Park Reserve.



May 2017

- In February 2017, the Parks Canada / BC Steering Committee met after a long break to discuss issues of mutual concern and interest. This meeting marked the official re-engagement of Parks Canada in future discussions on the proposed South Okanagan protection options put forward by the Province in the Intentions Paper which would include a mix of provincial and federal designations.
- The determination of the feasibility of the proposed national marine conservation area reserve in the Southern Strait of Georgia is ongoing with current efforts focused on joint federal/provincial engagement with the 19 First Nations with interests in the area.
- The establishment of the national marine conservation area reserve in Haida Gwaii was successfully completed in 2010.
- BC is also involved with Environment and Climate Change Canada and Fisheries and Oceans Canada on the establishment of marine protected areas under Canada's *Oceans Act* and *Canada Wildlife Act*. These areas include the Scott Islands national Marine Wildlife Area off the northern tip of Vancouver Island and the Hecate Strait and Queen Charlotte Sound Glass Sponge Reefs MPA which received its federal designation in February 2017.
- BC Parks is directly involved in the Canadian Parks Council which is a coalition of federal, provincial and territorial park agencies working together to better park management across Canada. The Council has developed a number of initiatives such as best practices for working with aboriginal people, managing for climate change, leadership direction and determining the economic value of parks. Currently, the Canadian Park Council continues to work in collaboration on the "Parks for All" vision established at the Canadian Parks Summit in April 2016, the Pathway to Canada Target 1 initiative to achieving Canada's 2020 Biodiversity Goals aimed at protecting at least 17% of terrestrial areas and 10% of marine areas, and connecting Canadians to nature through parks to help improve human health and well-being.
- BC Parks actively participates in the Canadian Heritage Rivers System and represents the Province on the Canadian Heritage Rivers Board. The Canadian Heritage Rivers System is Canada's national river conservation program. This is a commemorative program with no associated regulatory mechanisms. It promotes, protects and enhances Canada's river heritage, and ensures that Canada's leading rivers are sustainably managed. BC Parks is the lead agency in managing the Cowichan River and Fraser River under the governance and best practices of the Canadian Heritage Rivers System.



May 2017

- BC Parks participates in and contributes to the activities of the Canadian Council on Ecological Areas (CCEA), a non-profit organization which has representatives from all federal/provincial/territorial protected area agencies across Canada. CCEA, with the assistance of Environment and Climate Change Canada, maintains the Conservation Areas Reporting and Tracking System (CARTS), which is the authoritative source for protected area data for national and international reporting purposes. CCEA is currently focussed on proposing minimal protection requirements for reporting in CARTS and ultimately jurisdictions' contributions to the achievement of Canada Target 1 of Canada's 2020 Biodiversity Goals. Over the next year, the Province will be completing a review of the existing BC Parks system with respect to the current IUCN management categories that are reported in CARTS.
- **Stakeholders:**
BC Parks also engages with a variety of regional, national, and international park agencies and organizations. These include:
 - Regional districts who have park management programs
 - The National Association of State Park Directors
 - Healthy Parks, Healthy People initiatives and partners in Australia, the U.S. and Africa.



May 2017

Discover Camping Reservations Service (est. 1996)

Topic:

- Discover camping reservation service for BC Parks

Background:

- BC Parks provides users the ability to reserve a campsite in over 102 provincial parks. Of the 10,700 frontcountry campsites in BC Parks, approximately 55% of them are reservable.
- In 2016, Discover Camping processed over 187,000 reservations (a 16% increase from 2015). Of these reservations, 71.9% originated from British Columbia, 14.3% from Alberta, 3% from the rest of Canada, 4% from the US and 6.8% from overseas.
- The demand for reservations has grown by 94% over the last five years, requiring BC Parks to annually review and improve the service to ensure fair and equitable access to everyone.
- The reservation service is managed as a user-pay system and service charges have remained at 1996 pricing levels.
- The Discover Camping reservation service has been provided by Camis Inc., a contractor from Guelph, Ontario since 2009 (their contract will expire in 2019).

Discussion:

- During the 2016 season, growth in campsite reservation demand and media scrutiny prompted BC Parks to review the overall reservation system and identify ways to improve service, maintain fair and equitable access and to address policies prone to abuse. The primary focus for review were:
 - Opening day for online reservations with rolling window of three months
 - Commercial operator “block booking” sites
 - Re-selling and/or transferring reservations
- After the review, the following changes were implemented to create equity and eliminate reservations system abuse:
 - Eliminating the mid-March ‘opening day’ for reservations, and extending the three month rolling window to four months.
 - Commercial operators must enter individual customer names for reservations
 - New measure to prevent reselling of reservations.
 - Restrictions around altering arrival dates to prevent the practice of overbooking around coveted times, including long weekends
 - Implementing a pilot project in select parks to reduce maximum length of stay to seven days during peak camping season to provide
 - Expanding the Discover Camping call centre hours.
- Since changes were implemented on January 2, 2017, Discover Camping has seen a significant reduction in demand pressure on the reservation system. There is an observable increase in availability for key demand periods and the program has received positive feedback from the public regarding the changes.



May 2017

Next Steps:

- Monitor recent changes to the Discover Camping Reservation Service for the 2017 season.
- Continue to engage with BC Park's marketing partners to jointly promote our parks and protected areas.

Stakeholders:

- Camis Inc. (service provider for BC Parks Discover Camping Reservation Service)
- Key marketing partners: Destination BC, Camping & RVing BC Coalition, BC Ocean Boating Tourism Association, Freshwater Fisheries Society and Park Facility Operators.
- The public (Discover Camping reservation users, website visitors, social media followers etc.).

Pan-Canadian Framework on Clean Growth and Climate Change

Issue:

- The Pan-Canadian Framework on Clean Growth and Climate Change was publicly released at the First Ministers Meeting on December 9, 2016 in Ottawa.

Background:

- Consistent with the Trudeau government's 2015 election platform, and following the successful conclusion of the United Nations 2015 Conference of the Parties in Paris, the federal government engaged with provinces and territories in the development of the Pan-Canadian Framework on Clean Growth and Climate Change (PCF) to reach Canada's 2030 emissions goal of a 30% reduction in greenhouse gas emissions from 2005 levels.
- Throughout the development of the PCF, B.C. supported incorporating the principle of climate action and future economic growth going 'hand in hand'.
- It was also important that the PCF provide flexibility for provinces and territories in terms of the actions they take given the diversity of economic and other circumstances in each jurisdiction.
- National Indigenous Organizations were engaged throughout the process.
- A coordinated process of stakeholder engagement sessions and online public consultations took place across the country to gather input and ideas from industry and individuals.
- The PCF has four pillars:
 - Carbon Pricing;
 - Pricing carbon pollution is an efficient way to reduce emissions, drive innovation, and encourage people and businesses to pollute less. However, relying on a carbon price alone to achieve Canada's international target would require a very high price.
 - Specific Mitigation Opportunities: Measures to further reduce emissions across the economy;
 - Complementary climate actions can reduce emissions by addressing market barriers where pricing alone is insufficient or not timely enough to reduce emissions in the pre-2030 timeframe.
 - Adaptation and Climate Resilience: Measures to adapt to the impacts of climate change and build resilience; and
 - Making sure that our infrastructure and communities are adequately prepared for climate risks like floods, wildfires, droughts, and extreme weather events, including in particularly vulnerable regions including Indigenous, northern, coastal, and remote communities. This also means adapting to the impacts of changes in temperature, including thawing permafrost.
 - Actions to accelerate innovation, support clean technology, and create jobs.
 - Positioning Canada as a global leader on clean technology innovation will help ensure that Canada remains internationally competitive and will lead to the creation of new good jobs across the country. Investing in clean technology, innovation, and jobs will bring new and in-demand Canadian technologies to expanding global markets.

May 2017

- At this time, eight provinces and three territories have signed on to the PCF. Manitoba and Saskatchewan have not signed on.
- The PCF committed to Pan-Canadian carbon pricing; a benchmark national carbon price of \$10 per tonne of carbon dioxide equivalent (tCO₂e) emissions for 2018, rising by \$10 each year to \$50/tCO₂e in 2022. The carbon price has to apply to substantially same sources as B.C.'s carbon tax.
 - Provinces could either match the Federal carbon tax levels, or put in place a cap and trade program, with the target equivalent to the National 2030 target.
 - B.C. will not be required to increase its carbon price until other Canadian jurisdictions 'catch up' with our existing \$30/tCO₂e carbon tax, in 2020-21.
 - B.C. specifically negotiated language that allows B.C. to assess the interim report (on pricing equivalency) in 2020 and "determine a path forward to meet climate change objectives."
 - Revenue neutrality, competitiveness and affordability continue to be priorities for B.C.
- Federal, provincial and territorial governments committed to work together, supported by experts, to assess the stringency and effectiveness of carbon pricing systems across Canada; this work will result in an interim report in 2020 to be reviewed and assessed by First Ministers.
- In addition, another early deliverable will be a review of approaches and best practices to address the competitiveness considerations of emissions-intensive trade-exposed sectors.
- The PCF commits federal, provincial and territorial governments to working together through the Canadian Council of Ministers of the Environment (CCME) to:
 - Examine options for the reporting of emissions and inventories to ensure consistency across provinces and territories,
 - Support Canada's reporting to the United Nations Framework Convention on Climate Change (UNFCCC),
 - A pan-Canadian offset protocol framework, and
 - Further exploration into verified carbon credits that can be traded domestically and internationally.
- First Ministers tasked their officials to develop an agenda for federal, provincial and territorial ministers to implement the PCF and to enable the reporting back of progress. Intergovernmental Deputy Ministers have agreed on a governance structure to implement the PCF.
- The federal government asked each jurisdiction to provide proposals for federal-provincial partnership. B.C.'s areas of interest include:
 - Forest Carbon Initiative
 - Upstream natural gas electrification
 - An intertie to connect Alberta to B.C.'s clean electricity
 - Building retrofits
 - Flood mitigation
 - Clean technology initiatives (Venture Capital fund and Tax Credits)



May 2017

BC's Efforts to Promote Climate Action Internationally

Issue:

- BC has taken several important steps to address climate change and is recognized as a leading sub-national jurisdiction in this regard. BC encourages other jurisdictions to follow our carbon initiatives to create further global momentum and to ensure our economy is not placed at a competitive disadvantage for playing our part in addressing climate change.

Background:

- BC is an international leader in the fight against climate change.
- BC participated actively in the December 2015 UN climate negotiations in Paris, forging new partnerships and showcasing our climate actions as an example for others to follow.
- BC worked closely with our domestic and international partners to push for an ambitious agreement at the United Nations Conference of the Parties (COP) 21 in Paris. The province forged several new partnerships prior to and during COP21 that will enable us to continue supporting and encouraging other jurisdictions to take ambitious action on climate change:
 - joined the World Bank Carbon Pricing Leadership Coalition,
 - the Regions Adapt Initiative,
 - the Zero Emission Vehicle Alliance,
 - signed Under2MOU; and
 - reconfirmed membership in The Climate Group's States and Regions Alliance
- BC also participated at COP22 in Marrakech, Morocco in November 2016.
- BC's revenue-neutral carbon tax was recently recognized with a Climate Solutions Award from the United Nations Framework Convention on Climate Change (UNFCCC), Momentum for Change program, which was presented to BC at COP22 in Marrakech in November 2016.
- The Momentum for Change program is spearheaded by the UN Climate Change secretariat to shine a light on some of the most innovative and replicable examples of effective, pragmatic climate action.
- BC's carbon tax, the first, highest and most comprehensive in North America, demonstrates that it is possible to reduce harmful emissions while growing the economy and creating jobs at the same time.
- BC will continue to work at home and internationally to promote climate action, including potentially through participation at COP23 in Bonn, Germany in November 2017.
- BC continues to play a pivotal role in the Pacific Coast Collaborative and was active in the negotiation of the new Pacific Coast Climate Leadership Action Plan which was signed on June 1, 2016.
- BC continues to influence climate action internationally through climate focused MOUs like the ones recently signed with Guangdong Province and Shenzhen City in China.



- BC is also involved with several key strategic regional and international climate action organizations to encourage other jurisdictions to follow our carbon initiatives. Through these organizations, we have been able to leverage broader action as a group that otherwise may not have happened without the Province's participation. Examples include:
 - Carbon Tax: The Province is receiving interest on an international level and is participating as a founding member in the World Bank Carbon Pricing Leadership Coalition to provide an example of a successful carbon pricing model for other jurisdictions. Alberta introduced a carbon levy similar to BC's in 2016, and Canada is committed to ensuring that carbon pricing schemes will be in place across the country by 2018, with a federal backstop price imposed on any jurisdiction that does not have a pricing mechanism of its own in place by that date;
 - Western Climate Initiative (WCI): Through the WCI, BC has been instrumental in regional collaboration to amplify climate actions and encourage other governments to adopt similar policies. WCI is now focused on operation of a cap and trade program for California, Quebec, and Ontario as a viable alternative to BC's carbon tax approach.
 - Low Carbon Fuel Standards: BC was the first jurisdiction in North America to introduce a low-carbon fuel standard. California and Oregon have since also introduced such standards, while Washington continues to work towards a low carbon fuel standard of its own;
 - Tail Pipe Emissions Standards: Originated and first adopted in California, US and Canadian federal governments have modeled their vehicle tailpipe standards on this state and province led approach; and,
 - The creation of a standardized reporting system for GHG emissions: This is currently adopted in eleven States/Provinces and the US Environmental Protection Agency has adopted a similar system based on the same principles and methodologies.
- Natural gas from BC can be part of the global climate solution.
 - China has set a goal of almost doubling the role of natural gas in its energy portfolio and displacing coal use by 2020. BC's LNG could play a critical role in this transformation.
 - Analysis shows that lifecycle GHG emissions from the production and consumption of BC LNG would be more than 20 percent lower than those from coal produced and consumed in China.
 - The amount of emissions China could avoid, through large-scale use of BC LNG, is more than BC's current annual GHG emissions.

Pacific Coast Collaborative: Pacific Coast Climate Leadership Action Plan

Issue:

- BC has been a signatory to the Pacific Coast Collaborative since 2008, at its founding, working alongside Washington, Oregon and California to integrate climate change and energy strategies for 53 million people on the West Coast.
- Through the Pacific Coast Collaborative (PCC), west coast governments have been actively demonstrating how subnational governments can work together to promote climate action.
- On June 1, 2016, BC, California, Washington, and Oregon signed the new Pacific Coast Climate Leadership Action Plan which updated previous commitments with increasingly bold objectives to reflect the need for swift, decisive climate action.

Background:

- The PCC agreement was signed by the Premier of BC and the Governors of Washington, Oregon, California and Alaska in June 2008. Clean energy, regional transportation, sustainable regional economy, innovation, and emergency management are the named priorities of the collaboration. To date, however, the focus of the actual work done by the PCC has been almost exclusively on climate.
- Through the 2016 Pacific Coast Climate Leadership Action Plan the PCC jurisdictions are intensifying their efforts to serve as a global model for how a region can work together to reduce greenhouse gas emissions.
- The 2016 Plan builds on previous PCC commitments and also emphasizes emerging climate issues such as:
 - ocean acidification;
 - the integration of clean energy into the power grid; and,
 - “super pollutants” which are also known as short-lived climate pollutants.
- BC’s involvement in the PCC has enabled the Province to participate in a framework for cooperative action and sharing of information on best practices on issues facing California, Oregon, Washington, and BC.
- The PCC has been active on initiatives such as developing the green economy, promoting Clean Energy Vehicles, and investing in adaptation measures.
- Through the PCC, BC has the opportunity to further develop intergovernmental relationships to promote BC’s policies to reduce greenhouse gas (GHG) emissions as well as develop the green economy.
- The PCC is a model for coordinated regional action which supports national jurisdictions in meeting their climate commitments under the Paris Agreement.
- Current status of key climate actions:
 - Carbon Pricing: Oregon and Washington continue to work towards the implementation of programs to set a price on carbon emissions. In September 2016, Washington released its Clean Air Rule which creates a “cap-and-reduce” rule within the state. It is most similar to a baseline-and-credit system such as BC’s LNG benchmark approach or the program in place in Alberta. Under the rule, large emitters (over 100kt CO₂e/year)

will be assigned an emissions intensity cap. The program will see emissions reduced from these facilities by approximately 1.7% annually. The rule will go into effect on January 1, 2017, and will act as a price signal for emissions reductions.

- Low carbon fuels: BC is continuing to implement its LCFS legislation to achieve a 10 percent reduction in provincial carbon intensity by 2020 and, as announced in the BC Climate Leadership Plan, a 15 percent reduction by 2030. California continues implementing its program. Oregon extended their clean fuels program at the end of 2015. Washington continues to work towards implementation of a low carbon fuel standard.
- Electric vehicles (EV): All PCC jurisdictions joined the West Coast Electric Fleets initiative, pledging to increase the percentage of EVs in their public and private fleets.
- A November 2015 West Coast Clean Economy Jobs Update found that clean economy jobs in PCC jurisdictions grew at a rate of 18.9 percent between 2010 and 2014, more than twice as fast as jobs overall.
- In BC, clean economy jobs over this period grew by 12.5 percent, led by jobs in green buildings and energy efficiency, where the increase in jobs was over 30 percent.
- BC's clean economy GDP increased from \$5.29B to \$6.31B over the same period.
- The BC Intergovernmental Relations Secretariat (IGRS) is BC's lead representative in the PCC. The Climate Action Secretariat supports IGRS, provides advice on the direction and content of PCC agreements, and coordinates implementation and reporting of PCC commitments across the BC government.

Green Economy

Issue:

- The Green Economy is about incenting investment in innovation and technologies that create new economic growth without growth in greenhouse gas emissions.
- B.C. is working closely with the federal government to develop a Pan-Canadian Framework on Clean Growth and Climate Change which will reduce greenhouse gas emissions while growing the national economy.
- As part of the Pan-Canadian Framework, B.C. and the federal government have teamed up to support the development of pre-commercial clean energy projects and technologies through a \$40 million fund jointly administered by B.C.'s Innovative Clean Energy (ICE) Fund and Sustainable Development Technology Canada (SDTC).
- In January 2016, the Premier announced the #BCTECH Strategy that supports growth of B.C.'s technology sector, including clean tech. The government also announced \$100M in venture capital for the tech sector, including the clean tech sector.
- The technology sector is one of the eight key sectors in the B.C. Jobs Plan, a crucial job creator that enables productivity across all industries, and a key component of a low carbon economy.
- Between 2010 and 2014, clean economy jobs in British Columbia grew at an overall rate of 12.5 percent.

Background:

- Canada Budget 2017 announced over \$2.2B to support clean technology research, development, demonstration and adoption as well as to accelerate the growth of clean technology companies.
- In March 2017 B.C.'s ICE Fund and Canada's SDTC fund announced \$40M of new funding to leverage federal, provincial and private sector investments. The parties will conduct a joint call over a three-year continuous intake period to seek out clean-energy projects and technologies. Projects must take place in British Columbia and must demonstrate how the proposed project will result in GHG reductions, commercialization, and economic growth in British Columbia and Canada.
- The Clean Technology, Innovation and Jobs working group under the Pan-Canadian Framework was overseen by Innovation Ministers from across the country and will be presenting their recommendations to First Ministers when they next meet to discuss climate issues.
- Climate action and economic growth go 'hand in hand', and BC supports seeing this principle embedded in the Pan-Canadian Framework.
- At the #BCTech Summit in January 2016, Premier Clark announced the #BCTech Strategy, which includes investment in a \$100M venture capital initiative specifically aimed at the tech sector.
- Illustrating growth in the clean tech sector, at the #BCTech Summit Suncor and Cenovus announced Evok Innovations, a new \$100M non-profit oil and gas cleantech accelerator based in Vancouver. The accelerator strives to leverage the oil and gas resources and B.C.'s

technology expertise to create new clean tech companies and long term technology jobs. Evok announced its first round of investments in September 2016.

- Between 2010 and 2014, clean economy jobs in B.C. grew at an overall rate of 12.5 percent. As of 2014, BC had 68,165 clean economy jobs – equal to 7,600 more clean economy jobs than in 2010.
- The Climate Leadership Plan (CLP), released in August 2016, extends B.C.'s leadership role in reducing emissions and takes the next steps in growing a green economy in B.C.
- The Climate Leadership Plan includes 21 actions in sectors such as natural gas, transportation, forestry and agriculture, industry and utilities, communities and built environment. The actions within the plan are expected to reduce greenhouse gas (GHG) emissions by up to 25 million tonnes CO₂e per year below current forecasts by 2050 by fostering job creation and driving innovation over the next 10 years.
- Since the inception of the carbon tax in B.C., GDP has been growing at a rate comparable to the national average. Between 2007 and 2014, real GDP growth has been 12.4 percent. With relatively stable emissions, this demonstrates a reduction in GHG intensities per dollar of economic output.
- This year, B.C.'s carbon tax was announced as a winner of the United Nations Momentum for Change Lighthouse Activity Award. The award recognizes innovative and transformative solutions that address both climate change and wider economic, social and environmental challenges.
- Now in its sixth year, the Carbon Neutral Government program continues to be a driver of increasing demand for clean tech solutions. For example, through a recently renewed offset contract Canadian pulp and paper industry's first biomass gasification unit was developed and decreased emissions from a BC mill by as much as 50 percent. The B.C.-based clean tech company has since expanded to international markets.
- In April 2013, B.C. became the first province in Canada to adopt the new National Building Code energy efficiency requirements. Green building and energy efficiency was the dominant sector in terms of clean economy employment growth in B.C.
- In 2014, British Columbia established a regulatory benchmark for LNG greenhouse gas emissions of 0.16 t CO₂e/tonne LNG. That makes BC LNG the cleanest in the world.
- LNG companies will have the option to pay into a provincial technology fund to meet their compliance with the benchmark. The technology fund will invest in low carbon, clean energy and energy efficiency technologies across the province.

Clean BC LNG

Issue:

- The greenhouse gas emissions intensity cap BC has placed on the LNG facilities will make BC's the cleanest in the world.
- Climate change is a global issue. By exporting natural gas, BC can help reduce global emissions if dirtier fuels are replaced with the cleanest burning fossil fuel.

Background:

- New legislation (*Greenhouse Gas Industrial Reporting and Control Act*) for industrial GHG emissions came into effect with three supporting regulations on January 1, 2016. The Act requires LNG operations to achieve a greenhouse gas (GHG) emissions intensity benchmark of 0.16 tonnes of carbon dioxide equivalent (CO₂e) per tonne of LNG produced.
- Operations not meeting this world-leading benchmark directly, through the use of lower emission technologies or clean energy, would be able to achieve compliance through flexible options including investing in BC-based emission reduction projects (i.e., offsets) or contributing to a technology fund for long-term GHG reductions.
- Combustion and fossil fuel use emissions from LNG facilities will also be covered by BC's revenue-neutral carbon tax, as will all non-process emissions from upstream natural gas extraction, processing and transmission.
- BC further incents clean LNG facilities through the LNG Environmental Incentive Program, in which lower emission LNG facilities receive an incentive payment for some of their compliance costs if they employ world-leading technology to avoid carbon pollution.
- In its Climate Leadership Plan, the Province developed policies in upstream electrification, methane emissions management, and carbon capture and storage policies to reduce GHG emissions from natural gas extraction, processing and transmission.
- Extraction, processing, transmission and liquefaction GHG emissions could add approximately 24 million tonnes (MT) of GHG emissions in BC if the export market opportunity of 48 million tonnes of LNG is achieved. Government's new methane and upstream electrification policies will further reduce the emissions.
- The GHG emission benchmark's flexible mechanisms (i.e., offsets and the technology fund) can also be used as an incentive to fund upstream GHG emission reduction projects.
- The Chinese government aims to boost the share of natural gas as part of its total energy consumption to 10 percent by 2020 to alleviate high pollution resulting from the country's heavy coal use.
- In 2013, the Province commissioned a study in collaboration with Globe Advisors to assess the global carbon impact of BC's natural gas value chain, from the wellhead to its end-use combustion overseas. Globe Advisors determined that LNG could be a climate solution when it replaces the use of coal.
- A study by the University of Calgary reached similar conclusions, indicating that there is potential for a net benefit to global GHG lifecycle emissions when LNG exports displace the use of coal or oil.



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- Specifically, the University of Calgary report concluded that countries such as China, India, Japan, and Taiwan would lower their GHG emissions associated with power generation by importing BC's LNG and displacing coal.

Climate Action Legislation and Regulations

Issue:

- The Province has a comprehensive suite of climate legislation – amongst the strongest in Canada. Of most significance are the *Greenhouse Gas Reduction Targets Act*, *Carbon Tax Act*, and *Greenhouse Gas Industrial Reporting and Control Act*.
- Climate legislation falls within the responsibility of several ministries, and is implemented across government and public sector organizations with support from the Climate Action Secretariat.

Background:

- Ministry of Environment legislation, through the *Greenhouse Gas Targets Act*, *Greenhouse Gas Industrial Reporting and Control Act* and *Environmental Management Act* establishes the following:
 - Provincial greenhouse gas (GHG) reduction targets;
 - Obligations for carbon neutral government;
 - Emission reporting requirements for industry;
 - Sector-specific emissions limits including the worlds-cleanest LNG benchmark;
 - Compliance reporting requirements for regulated operations (e.g., LNG);
 - Requirements for credible offsets;
 - BC Carbon Registry;
 - Technology Fund framework; and,
 - Requirements for landfill gas methane capture.
- See attached table for full list of legislation and associated regulations.
- Climate legislation highlights include:
 - BC has achieved Carbon Neutral Government status each year since 2010, through direct emission reductions and purchase of BC offsets.
 - Progress to targets is assessed every second year with province wide emissions reported annually.
 - BC reached its interim greenhouse gas target of a 6 percent reduction below 2007 levels by 2012, as reported in the June 2014 progress report.
 - Greenhouse Gas Emission Reporting Regulation obligations for GHG reporting and verification from BC facilities emitting over 10,000 tonnes are being met. Emission and verification reports are required annually. Emission report summaries for 2014 were published in February 2016.
 - Greenhouse Gas Emission Control Regulation establishes the BC Carbon Registry and provides for the issuance, transfer and retirement of offset units and other types of units issued under the *Greenhouse Gas Industrial Reporting and Control Act*.

- Operators of large landfills have submitted landfill gas assessments to the Ministry's Environmental Protection Division. Those generating over 1,000 tonnes annually are required to install landfill gas capture facilities by 2016.
- Climate legislation in other ministries primarily addresses carbon pricing, clean energy, transportation fuels, energy efficiency, and community climate action. (See table below)

Legislation	Purpose	Status
MINISTRY OF ENVIRONMENT		
Greenhouse Gas Industrial Reporting and Control Act (GGIRCA)	<ul style="list-style-type: none"> Sets a GHG emissions intensity benchmark for LNG facilities of 0.16 carbon dioxide equivalent (CO₂e) tonnes per tonne of LNG produced; includes flexible compliance options (offset unit purchases; technology fund contributions at \$25/tonne). 	In force
Greenhouse Gas Emission Reporting Regulation	<ul style="list-style-type: none"> Provides for emission reporting, attribution rules for LNG operations (e.g. calculation of emission sources relative to an LNG facility) and compliance reporting. 	In force
Greenhouse Gas Emission Control Regulation	<ul style="list-style-type: none"> Establishes the BC Carbon Registry. Sets the emission offset framework including requirements for project plans, validation, reports, verification, extensions and monitoring. Sets the price for a funded unit at \$25/tCO₂e. Enables offset projects under the Emission Offset Regulation which was repealed to be transitioned to the <i>Greenhouse Gas Industrial Reporting and Control Act</i>. 	In force
Greenhouse Gas Administrative Penalties and Appeals Regulation	<ul style="list-style-type: none"> Establishes the process for when, how much, and under what conditions administrative penalties may be levied for non-compliance with GGIRCA or its regulations and sets out which decisions are appealable to the Environmental Appeal Board. 	In force
Greenhouse Gas Reduction Targets Act	<ul style="list-style-type: none"> Targets from 2007 baseline: 33% reduction by 2020; 80% by 2050 (Ministerial Order sets interim targets of 6% reduction by 2012 and 18% reduction by 2016). Sets obligations for public reporting on BC's provincial greenhouse gas (GHG) emissions progress towards targets. 	In force
Carbon Neutral Government Regulation	<ul style="list-style-type: none"> Defines the reporting and measurement obligations for government operations. 	In force
Greenhouse Gas Reduction (Vehicle Emissions Standards) Act	<ul style="list-style-type: none"> Enables implementation of vehicle greenhouse gas emissions standards and enables a regulation to set zero emission vehicle mandates. 	Not in force
Vehicle Emissions Standards Regulation	<ul style="list-style-type: none"> Sets vehicle greenhouse gas emissions standards for vehicle manufacturers selling in BC (not in force as comparable federal government standards were subsequently adopted). 	Not in Force (No longer necessary)
Greenhouse Gas Reduction (Emissions Standards) Statutes Amendment Act	<ul style="list-style-type: none"> Amends the Environmental Management Act (EMA). 	In force (Partial)

Landfill Gas Management Regulation	<ul style="list-style-type: none"> Sets requirements for landfill gas methane collection systems by 2016 for large landfills. 	In force
MINISTRY OF ENERGY AND MINES		
Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act	<ul style="list-style-type: none"> Enables regulation that sets renewable (5% for ethanol; 4% for diesel) and low carbon fuel intensity requirements (10% reduction by 2020 relative to 2010) for BC fuel suppliers. 	In force
Utilities Commission Amendment Act	<ul style="list-style-type: none"> Under the Act, Demand Side Measures Regulation sets legislative context for utilities, facilitating the reduction of GHG emissions, reduction of demand, introduction of more renewable resources, provision of transmission infrastructure and introduction of more clean technology. 	In force
Clean Energy Act	<ul style="list-style-type: none"> Sets provincial energy objectives and mechanisms, including those for electricity self-sufficiency, clean or renewable energy, energy efficiency, greenhouse gas emission reductions and fuel switching to lower carbon intensity energy. Regulations in force under the Act include the Greenhouse Gas Reduction (Clean Energy) and the Improvement Financing regulations. 	In force (Partial)
Energy Efficiency Act	<ul style="list-style-type: none"> Longstanding Act that sets energy efficiency standards for a range of equipment and devices. 	In force (ongoing updates)
MINISTRY OF COMMUNITY, SPORT AND CULTURAL DEVELOPMENT		
Local Government (Green Communities) Statutes Amendment Act	<ul style="list-style-type: none"> Sets requirements for GHG targets in official community plans and regional growth strategies and enables local government flexibility in instituting bylaws for parking and development cost charges with lower environmental impacts. 	In force
MINISTRY OF FINANCE		
Carbon Tax Act	<ul style="list-style-type: none"> Sets a price on GHG emissions from burning fossil fuels: currently at \$30 per tonne. 	In force
MINISTRY OF NATURAL GAS DEVELOPMENT: OFFICE OF HOUSING AND CONSTRUCTION STANDARDS		
BC Building Code	<ul style="list-style-type: none"> Regular updates to the Code include measures to reduce energy use; most recent updates took effect December 2014. Solar Hot Water Ready Requirement regulation (enabling for local governments). 	In force (ongoing updates) In force

Environmental Incentive Programs

Issue:

- To address potential competitiveness impacts of companies proactively addressing greenhouse gas emissions and employing advanced technology, B.C. has established environmental incentive programs.
- To address the impact of the liquefied natural gas (LNG) greenhouse gas benchmark on the B.C. LNG industry, the B.C. Government has created a LNG Environmental Incentive Program to incent investment in advanced technology and achievement of world-leading performance.
- s.12,s.13
- The Cement Low Carbon Fuel Program is incenting B.C.'s cement sector to reduce their greenhouse gas emissions by encouraging cement producers to upgrade technology which enables them to increase use of low carbon fuels.

Background:

- The LNG Environmental Incentive Program is a government expenditure program to provide financial incentives for LNG facilities to make best efforts to achieve the greenhouse gas performance benchmark established in the *Greenhouse Gas Industrial Reporting and Control Act* through the use of efficient technology and clean energy.
- To be eligible for the LNG Environmental Incentive Program, LNG facilities must achieve an annual GHG emissions intensity below 0.23 tonnes of carbon dioxide equivalent per tonne of LNG produced (tCO₂e/tLNG).
- The Environmental Incentive will be a graduated payment from 50 percent to 100 percent of actual compliance costs from the purchase of offsets or technology fund units by a LNG facility to reduce their greenhouse gas (GHG) emissions from 0.23 tCO₂e/tLNG (or lower) to 0.16 tCO₂e/tLNG, with a maximum payable of \$25/tCO₂e per year.
- The Environmental Incentive Program addresses the LNG industry's concerns about the competitiveness impacts of the LNG GHG benchmark.
- The Environmental Incentive Program encourages investment in advanced technology and rewards achievement of world-leading performance.
- The potential cost of the program would be a small fraction of the Province's LNG tax revenues.
- s.12,s.13
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- LNG facilities must report greenhouse gas emissions resulting from purchased electricity, including ancillary electricity. Ancillary electricity is electricity used for purposes other than purification, compression or liquefaction of natural gas.
- B.C. Hydro will purchase greenhouse gas offsets for all GHG emissions attributable to electricity supplied to LNG facilities for ancillary purposes.

s.12,s.13

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- The Cement Low Carbon Fuel Program provides incentive funding over five years (2016-2020).
- The program incentivizes the increased use of low carbon fuels to displace coal and this reduces GHG emissions from cement manufacturing.
- To receive funding a cement producer must complete infrastructure improvement projects and establish supply contracts for low carbon fuels. In addition, every year the cement producer must meet a greenhouse gas emission intensity benchmark per tonne of cement produced.
- To date, \$16.2M has been released to B.C.'s two cement manufacturers; infrastructure improvement projects are underway and new low carbon fuel contracts have been formed.
- Both cement manufacturers met emissions intensity benchmarks for 2015 and 2016; remaining benchmarks are being set and will step down incrementally towards a 2019 benchmark that will make B.C.'s cement among the cleanest in the world.
- Anticipated fiscal impacts of the programs:
 - LNG Environmental Incentive Program:
 - No payments are anticipated before 2018.
 - s.12,s.13
 - s.12,s.13
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 - Cement Low Carbon Fuel Program:
 - Budget 2015 provided \$21.6M over three years for the program; over the five year life of the program, the Province will pay up to \$27M in conditional incentives to the cement industry.
 - To receive incentive funding, a cement producer is required to meet criteria in two categories:
 - 1) Development and Supply, by completing infrastructure improvement projects and obtaining supply contracts for low carbon fuels; and
 - 2) GHG Emissions Intensity Benchmark, by achieving an annual greenhouse gas emissions intensity benchmark per tonne of cement produced
 - \$9M of the incentive funding was released in the first year of the program (2015/16) and \$7.2M in 2016/17; \$5.4M is planned for release in fiscal year 2017/18.



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Greenhouse Gas Industrial Reporting and Control Act

Issue:

- The *Greenhouse Gas Industrial Reporting and Control Act* (GGIRCA) and Regulations streamlines many aspects of greenhouse gas legislation into a single system.
- GGIRCA sets an emissions intensity benchmark that provides for the cleanest LNG facilities in the world.

Background:

- Industrial operations emissions reporting requirements and the offset regulatory framework are consolidated under one Act. These elements were previously found under the *GHG Cap and Trade Act* (Reporting Regulation) and the *GHG Targets Act* (Emission Offset Regulation). Reporting operations and offset project proponents have transitioned to GGIRCA and its Regulations.
- GGIRCA sets a GHG emissions intensity benchmark for LNG facilities of 0.16 carbon dioxide equivalent (CO₂e) tonnes per tonne of LNG produced.
- LNG Operations not meeting this benchmark directly through the incorporation of lower emissions technologies or the use of clean energy are able to achieve compliance with the benchmark through flexible options including purchasing B.C. based offsets for each tCO₂e emitted over the benchmark, or through payments of \$25 per tCO₂e to the Ministry of Environment for clean technology investment.
- GGIRCA and its regulations were brought into force January 1, 2016 by OIC.
- The entire Act was brought into force, except for item 1 in the Schedule of Regulated Operations respecting coal based electricity generation and Part 4, Division 4 of the Act respecting Public Requests for Investigations.
 - There are currently no coal based electricity generation facilities in BC, and the purpose of Division 4 is for equivalency agreements with other jurisdictions which may be necessary at a later date.
- Three Regulations were made under the Act:
 1. The GHG Emission Reporting Regulation provides for emission reporting, attribution rules for LNG operations (e.g. the calculation of emission sources relative to an LNG facility) and compliance reporting. Specifically, the Regulation:
 - Requires all industrial operations with over 10,000 tCO₂e emissions to report their emissions each year and operations over 25,000 tCO₂e have their reports independently verified.
 - Sets emissions attributable to an LNG Operation to include emissions directly from the LNG facility, from other facilities purifying natural gas used by the LNG facility, and from the use of electricity.

- LNG Operations are required to submit compliance reports, additionally to emission reports, and include information respecting the total emissions attributable to the facility, the amount of electricity used, and the amount of LNG produced.
2. The GHG Emission Control Regulation (GGECR) is structured into four parts:
 - BC Carbon Registry - establishes government-operated registry where compliance units are issued, transferred and retired;
 - Emission Offset Projects - sets requirements for project plans, validation, reports, verification, extensions and monitoring;
 - Funded Units - sets the price for a funded unit at \$25/tCO₂e. Money is used to contribute to the development and deployment of clean technologies aimed at reducing long-term emissions through the technology fund; and,
 - Transition - required that applications to transition offset projects from under the Emission Offset Regulation to GGECR be made to the Director before June 30, 2016.
 3. The GHG Emission Administrative Penalties and Appeals Regulation establishes the process for when, how much, and under what conditions administrative penalties may be levied for non-compliance with GGIRCA or its regulations, and sets out which decisions are appealable to the Environmental Appeal Board.
- Bill 19, *Greenhouse Gas Industrial Reporting and Control Act Amendment Act*, 2016 created a framework for new entrants with an emission limit (e.g. LNG) and expanded the scope of BC Carbon Registry participants to allow for voluntary offset market participants. These amendments are not in force. Regulatory amendments are required which are expected to be finalized by the Fall of 2017.

Provincial Greenhouse Gas Inventory and Accounting

Issue:

- BC publishes an annual inventory of provincial greenhouse gas (GHG) emissions. The information is published with an 18-24 month delay, as much of the data is derived from the federal government's inventory prepared on a similar schedule. For the purposes of accounting for progress to BC's legislated targets, BC includes GHG offsets generated through improved forest management. BC GHG emissions net of forest management offsets were estimated to be 62.7 million tonnes (Mt) carbon dioxide equivalent (CO₂e) in 2014. BC's 2014 emissions prior to deducting offsets were 64.5 Mt.
- BC's GHG inventory (BC GHG Inventory or Provincial Inventory) follows internationally accepted methods and relies significantly on data produced by Environment and Climate Change Canada (ECCC). Methods used in production of this data are in a process of continuous improvement. New methods are back-cast to prior years leading to some annual revisions of prior year emissions data. The 2013 data year saw a major change to the global warming potential for methane and had significant revisions from the back-casting process. The 2014 data year included minor changes.

Background:

- ECCC annually publishes the National Greenhouse Gas Inventory Report (NIR), which presents GHG emissions at national and provincial levels. It is released under Canada's commitment as a signatory to the UN Framework Convention on Climate Change (UNFCCC). The 2015 year release occurred in April 2017.
- The BC Provincial Inventory is based on the data in the NIR. The 2015 Provincial Inventory will be published in summer 2017. The Provincial Inventory provides the figure for gross emissions for BC that is used as part of the assessment of BC's progress towards meeting its GHG reduction targets.
- BC gross emissions (not including forest offsets) have been:
 - 2014: 64.5 Mt
 - 2013: 64.7 Mt
 - 2012: 63.7 Mt
 - 2011: 62.7 Mt
 - 2010: 62.7 Mt
 - 2009: 63.1 Mt
 - 2008: 66.8 Mt
 - 2007: 66.3 Mt
 - 1990: 58.3 Mt
- Gross emissions went down between 2007 and 2014 in the electricity, petroleum refining, manufacturing, buildings, transport, industrial process, agriculture, waste and deforestation line items, and went up in the mining and fugitive upstream oil and gas line item.
- Forestry and agricultural land use are presented in the BC Greenhouse Gas Inventory as memo items and are currently not counted towards provincial gross or net emissions, with the exception of forest management offsets.
- BC's practice is to include net deforestation and to adjust the NIR for identified discrepancies. Where there is agreement on the discrepancy ECCC usually makes the

correction for discrepancies in subsequent years. For 2014, the NIR reported BC emissions of 62.9 Mt. The Provincial Inventory estimate of gross emissions was 64.5 Mt, due to a change made to the mining and upstream oil and gas line item, and to the inclusion of net deforestation.

- In accounting for progress to legislated targets, BC takes into consideration actions undertaken in forest management initiated for climate purposes that are not included in the NIR. For 2014, this totalled 1.8 Mt of forest carbon offsets.
- Based on this methodology, the estimate for BC's 2014 gross GHG emissions is 64.5 Mt while the estimate of net emissions for progress to targets is 62.7 Mt.
- In 2014, BC met its interim 2012 reduction target of 6 percent below 2007 levels by 2012.
 - 2014 Provincial Inventory emissions are 5.5 percent below 2007 levels.
- International rules with respect to how other GHG are counted relative to carbon dioxide in emissions inventories changed in the 2013 data year. The effect of this change increased the relative impact of methane and decreased the relative impact of nitrous oxide.
- Changes to international accounting rules for forest carbon may also affect national reporting in the future.
- Any methodology change is applied to current and all prior years' emissions amounts. Data revisions for prior years ensure that consistent methods are used across years, and robust comparisons can be made for emissions over time. However, revisions can affect the estimates of emissions reductions achieved in any given year.
- Although the 2012 emissions inventory was materially changed by the adjustment to international rules for carbon accounting, these changes did not affect BC's attainment of its 2012 interim emission reduction target.
- In the 2013 emissions inventory, a number of changes in the methodology were made of calculating BC's emissions:
 - BC updated the global warming potential of methane (increased methane emissions by 19 percent)
 - BC updated the global warming potential of N₂O (decreased N₂O emissions by about 3 percent)
 - Data underwent additional review to ensure information was as accurate as possible
- 2014 inventory changes were minor.
- The sectors in which there was a change from the 2013 to the 2014 inventory were:
 - Stationary combustion emissions (1% higher after revision)
 - Fugitive emissions (1% higher after revision)
 - Industrial processes and product use emissions (5% lower after revision)
 - Agriculture emissions (2% lower after revision)
 - Waste emissions (1% lower after revision)
- Deforestation emissions (8% lower after revision)

Large Industrial Emissions

Issue:

- In December 2016, the Ministry of Environment posted annual greenhouse gas emissions reports for calendar year 2015 for industrial operations in the province.
- The reports provide a comprehensive and accurate picture of trends in GHG emissions from BC industrial operations, which benefits companies and government by providing the foundation for emission management measures.

Background:

- Annual reporting for industrial operations emitting 10,000 tonnes of GHG or higher is a requirement of the Greenhouse Gas Emission Reporting Regulation under the *Greenhouse Gas Industrial Reporting and Control Act*.
- Facilities must report previous year's emissions by May 31st.
- Operations that emit 25,000 tonnes or more must have reports verified by an accredited verification body by May 31, to ensure accuracy and consistency in the data across industries and over time.
- An industrial reporting operation can encompass more than one individual facility in the case of electricity transmission and oil and gas extraction, processing and transmission. The Regulation defines these types of facilities as linear facilities operations. The Ministry recognizes the differences in facility types in its publication of the industrial reporting data.
- 2015 emission report summaries were publicly posted in December 2016. Posting of reported emissions provides open and transparent information to industry and the general public and is in keeping with commitments to open government.
- There are 106 companies with 130 facilities over 10,000 tonnes reporting in 2015.
- The total 2015 GHG emissions from all industrial operations in BC over 10,000 tonnes are 19.4 megatonnes (Mt) of carbon dioxide equivalent, which is 31 percent of total provincial emissions.
- The total emissions in 2015 were 4.6 percent lower than in 2014. All sectors saw a decrease in emissions in 2015 over 2014, with the exception of waste treatment, which saw a 0.8 percent increase.
- Total electricity import emissions were 0.75 Mt, 65 percent lower than in 2014, and are additional to the 19.4 Mt of industrial emissions occurring within BC. 2015 was a high water year, meaning that less imported electricity was needed.
- Companies with the largest emissions in 2015:
 - Spectra Energy Transmission: 4.5 Mt
 - Teck Coal Limited: 1.5 Mt
 - Canadian Natural Resources: 1.2 Mt
- Individual facilities with the largest emissions in 2015:
 - Transmission Mainline - Spectra Energy Transmission: 1.2 Mt
 - Fort Nelson Gas Plant - Spectra Energy Transmission: 1.0 Mt
 - Richmond Cement Plant, Lafarge Canada Inc.: 0.8 Mt

- Data on industry emissions is important because:
 - It provides valuable baseline and progress data for the Province and for industry;
 - Is used by BC companies to develop energy-savings plans; and,
 - The provincial government is using the information to help inform existing and potential climate and energy policies.
- BC companies report through the Single Window BC-Canada website that allows them to provide data only once, meeting both governments' GHG reporting requirements.
- The Reporting Regulation under the *Greenhouse Gas (Reduction) Cap and Trade Act* was replaced with the GHG Emission Reporting Regulation under the *Greenhouse Gas Industrial Reporting and Control Act*. The new Regulation maintains emissions reporting and adds compliance reporting for regulated operations (e.g. LNG Operations).
- Changes to the emission reporting framework under the new Regulation are minor and primarily provide clarity of policy and streamlining of process, including a bi-annual verification schedule for facilities with a history of positive verifications.
- The regulation is consistent with international GHG accounting rules:
 - Electricity import emissions are not included in the provincial inventory as they occur outside of BC; however, they are reported under the Regulation as they may be used to influence reductions in these emissions.
- Carbon dioxide emissions from wood biomass emissions are reported under the Regulation. Currently these emissions not count toward provincial and national greenhouse gas emissions totals. However, these emissions are under consideration to be included as line items in national and international inventories.

Progress Toward BC's Greenhouse Gas Targets

Issue:

- British Columbia monitors its progress towards the Greenhouse Gas Targets set out in the Province's 2008 Climate Action Plan through its Provincial Inventory.
- B.C. reached its first greenhouse gas (GHG) emissions interim reduction target of 6 percent below 2007 levels in 2012.
- B.C. implemented Climate Action Plan 2008 and subsequent climate policy in order to meet its first interim target. The Climate Leadership Plan (CLP), announced in August 2016, is expected to lead to an annual reduction in emissions of up to a further 25 million tonnes from current forecasts by 2050.
- The B.C. government recognizes more actions are required to continue reducing emissions and remains committed to achieving its long term 2050 target of 80 percent below 2007 levels.
- B.C. is working with other governments through the Pan-Canadian Framework to implement policy to meet Canada's targets, and will continue to develop new policy over time to ensure we are on track to 2050.

Background:

- In B.C.'s 2014 Provincial Inventory, B.C.'s GHG emissions for 2012 were 62.2 million carbon dioxide equivalent tonnes (CO₂e) including with offsets from forest management projects, down from 66.3 million tonnes in 2007.
- B.C. reached its interim GHG target of a 6 percent reduction below 2007 levels by 2012. 2014 figures indicate a 2012 emission reduction of 6.3 percent with offsets.
- B.C.'s 2014 emissions were 62.7 million tonnes (Mt) CO₂e with offsets. The 2015 Provincial Inventory with updated emissions will be released in summer 2017.
- That B.C.'s emissions have remained relatively stable during the economic recovery demonstrates the effect of policy, behaviour change and increasing energy efficiency.
- Government's Climate Action Plan (2008) set out commitments to help the Province in achieving its GHG reduction targets, a majority of which are either complete or substantially underway. These include:
 - Creating a revenue neutral carbon tax which reduces emissions and stimulates investment;
 - Demonstrating leadership through Carbon Neutral Government;
 - Partnering with local governments to create the Climate Action Charter, which commits the 187 local government signatories (out of a total of 190) to creating energy efficient, compact communities;
 - Establishing an adaptation strategy to prepare for the impacts of climate change; and,
 - Implementing various standards, including those for fuels, energy efficiency, landfill gas management, and green community development.
- In August 2016, government announced the Climate Leadership Plan with 21 new actions which is expected to lead to an annual reduction in emissions of up to 25 million tonnes CO₂e per year in 2050, including:

- 45% reduction target for methane emissions from the natural gas sector by 2025;
 - Electrification of upstream natural gas production and processing;
 - Advancing the Low Carbon Fuel Standard from 10% in 2020 to 15% by 2030;
 - Enhanced Clean Energy Vehicle Incentives;
 - Improved sequestration of carbon in our forests;
 - 100% clean or renewable electricity for the integrated grid; and
 - New building and heating equipment efficiency standards.
- The new Climate Leadership Plan provides the next step in achieving B.C.'s 2050 target. To achieve the legislated 2050 target, B.C. will need to reduce total emissions to approximately 13 million tonnes by 2050.
 - The Plan was informed by the recommendations of the Climate Leadership Team (CLT) which were released in November 2015, as well as public, industry and other stakeholder engagement. With the launch of the CLP, and announcements since, the Province has addressed 19 of the CLTs recommendations.
 - Climate action creates new opportunities for businesses and families in B.C.'s low-carbon economy. Energy efficiency and alternative transport help families to save money. More efficient businesses are more competitive. A 2012 Globe Foundation report stated the green economy could grow to between \$20.1 and \$27.4 billion in 2020 in B.C., supporting 225,000 jobs.
 - Climate action helps make communities healthier. Actions that encourage walking and cycling, and that deliver more efficient equipment and cleaner fuels, improve health.
 - Climate action helps make communities safer. B.C. will continue to be impacted for decades to come by GHG emissions already released into the atmosphere. Integrating potential impacts in community planning, such as increased incidence of forest fires and floods, makes communities more resilient.
 - In the original 2012 emissions inventory, B.C.'s emissions were 61.5 Mt of CO₂e, and net of offsets from forest management projects, they were 60.5 Mt for a 6 percent reduction from the original 2007 emissions total of 64.3 Mt CO₂e.
 - In 2013, all previous emissions inventories were revised to use more recent global warming potentials for CH₄ and N₂O along with other methodological changes. This back-casting is standard global procedure as methodologies evolve.
 - The change in the number of offsets accounted for in the 2012 target year was caused by the inclusion of two additional forest carbon offset projects (Haida and Cheakamus). In addition, some of the projects were also re-stated in order to account for actual removals of offsets. This led to an increase in offsets of 700 Kilotonnes of CO₂e.

B.C.'s Revenue Neutral Carbon Tax

Issue:

- Tax policy decisions are the prerogative of the Minister of Finance. The carbon tax was reviewed in Budget 2013. While economic analysis conducted for the review indicates that the carbon tax has had a small negative impact on gross domestic product (GDP) in the province, BC GDP growth remains among the highest in Canada. Budget 2013 froze carbon tax rates at \$30/tonne of carbon dioxide equivalent emissions (tCO₂e) and government has committed to maintaining the freeze for five years.
- BC's broad-based, revenue-neutral carbon tax is the foundational policy for BC's climate action. It provides a signal in the economy to reduce greenhouse gas emissions and encourages sustainable economic activity and green jobs. The carbon tax covers the purchase and use of fossil fuels by both individuals and industry and returns these revenues to both groups primarily through lower income taxes.
- BC is working with other jurisdictions through the Pan-Canadian Framework to implement climate policies to meet Canada's 2030 targets. BC has stated that it is prepared to increase the carbon tax when other jurisdictions catch up, and if revenue neutrality, industry competitiveness and affordability are maintained.
- The Pan-Canadian Framework on Clean Growth and Climate Change (PCF) committed to Pan-Canadian carbon pricing; a benchmark national carbon price of \$10 per tonne of carbon dioxide equivalent (tCO₂e) emissions for 2018, rising by \$10 each year to \$50/tCO₂e in 2022. The carbon price has to apply to substantially same sources as BC's carbon tax.

Background:

- The carbon tax was introduced in 2008 at \$10/tCO₂e, and with annual \$5/tonne increases, reached \$30/tCO₂e on July 1, 2012.
- The carbon tax applies to emissions from the use of fossil fuel in BC (including flaring), which account for roughly 70 percent of BC's total emissions.
- A review of all aspects, positive and negative, of the carbon tax was announced in Budget 2012. The review concluded:
 - Revenue neutrality is working to provide protection for economic growth and it was agreed this would be maintained. The best way to protect growth is to continue to provide the broad-based tax reductions for businesses, individuals, and families that have been in place since the carbon tax was introduced.
 - Relief and support for the affected industrial sectors includes the greenhouse growers' relief program that returns part of the carbon taxes paid by greenhouse operators, a carbon tax exemption for marked agricultural fuels, and transitional incentives for BC's cement sector to encourage the adoption of cleaner fuels.
- In considering BC's continued leadership in this area, BC has to take into account the competitiveness of its emissions-intensive, trade-exposed industries given that key jurisdictions, such as the US, do not have climate plans as strong as BC's.
- Budget 2013 froze the carbon tax rate at \$30/tCO₂e in order to give competing jurisdictions time to catch up with BC's carbon pricing leadership.

- There has been some progress on carbon pricing internationally with France, Mexico, California, Ontario and Quebec implementing new programs and China planning a national roll out of its cap and trade program in 2017.
- Canada, Newfoundland, Nova Scotia and Alberta have all announced either plans to implement carbon pricing or an increase in the rate or scope of carbon pricing.
- BC continues to have a leadership position on climate action, and its carbon tax is a key component of this position. In a December 2014 speech, World Bank President Jim Yong Kim praised BC's carbon tax as "one of the most powerful" examples of carbon pricing.
- In September 2016, BC's carbon tax won a UN Momentum for Change Lighthouse Activity Award for being amongst the most innovative, scalable and replicable examples of government action to address climate change.
- The tax provides a clear signal to emitters to take many of the environmental and social costs of their emissions into account in their decision making. The resulting efficiencies reduce costs for businesses and households.
- The carbon tax encourages growth in the clean technology, alternative energy, and other low-carbon sectors.
- Both industry and individuals pay carbon tax on the fossil fuel they use and both receive tax reductions as part of the Revenue Neutral Carbon Tax Plan.
- Emissions from the purchase and use of fossil fuels are covered at the same rate per tonne of greenhouse gas emissions regardless of the fossil fuel, the sector, the region or use. This increases the efficiency of the tax. (The exception is the exemption of marked fuels for farmers, which also have different treatment from under the Motor Fuel Tax Act.)
- Revenue from the carbon tax also goes to designated revenue measures such as the Northern and Rural Homeowner Benefit, and the Low Income Climate Action tax credit.
- The carbon tax is estimated to have generated \$1.26 billion in revenues in 2015/16. An amount equal to or greater than this amount will be returned to British Columbians through tax reductions.
- The carbon tax is expected to generate \$1.23 billion in 2016/17.
- In March of 2016, First Ministers committed in the Vancouver Declaration to develop a suite of measures to meet Canada's 2030 target. The resulting Pan-Canadian Framework process includes a working group on carbon pricing.
- BC is working through the Pan-Canadian framework to further the implementation of carbon pricing measures in other jurisdictions, encouraging others to achieve the same level of carbon pricing that BC has achieved. Additional carbon pricing after that is achieved would have to maintain revenue neutrality and affordability for British Columbians.
- On October 3, 2016 Canada announced plans for a national carbon price starting at \$10 per tonne of CO₂e in 2018 and rising \$10 per year until it reaches \$50/tCO₂e in 2022. The announcement states that provinces will have to match the Federal carbon price, or put in place their own tax or cap and trade program, with the cap equivalent to the Canadian 2030 target (30% reduction from 2005), or Canada will impose an equivalent carbon price on that province. BC has indicated it is supportive in principle, subject to specific details. BC specifically negotiated language that allows BC to assess the interim report (on price equivalency) in 2020 and "determine a path forward to meet climate change objectives."

Climate Leadership Plan

Issue:

- The Climate Leadership Plan sets out B.C.'s next phase of action to reduce harmful GHG emissions and reach our 2050 emission reduction target of 80% below 2007 levels.

Background:

- The Climate Leadership Plan contains 21 new strategic actions that span the province's transportation and industrial sectors, as well as communities, the built environment and government operations.
- Actions will reduce net annual GHG emissions by up to 25 million tonnes below forecasts by 2050.
- The plan is expected to create up to 66,000 green jobs over the next ten years.
- The Climate Leadership Plan builds on B.C.'s 2008 Climate Action Plan, and reflects recommendations made by the Climate Leadership Team and broad public engagement.
- A Cabinet Working Group on Climate Leadership was convened in 2016 to ensure the plan remains relevant and effective in meeting our long term goals.
- B.C. has committed to reviewing the plan every five years.

Summary of 21 new climate actions and status

Natural Gas

- Reducing upstream methane emissions through targets, incentives, standards
 - Clean Infrastructure Royalty Credit Program announced
 - \$13.7 million in royalty deductions for 13 clean infrastructure projects approved
- Developing regulations for carbon capture and storage
- Powering natural gas production and processing with clean electricity
 - Recent amendments to GHG Reduction Regulation enable potential development of electrical infrastructure in the northeast

Transportation

- Increasing B.C.'s Low Carbon Fuel Standard
 - Preparing legislative amendments; preparing for stakeholder consultations on targets
- Encouraging fleets to switch to renewable natural gas
 - Recent amendments to GHG Reduction Regulation enable utilities to increase incentives for renewable natural gas and recover costs
- Expanding the Clean Energy Vehicle Program
 - \$40 million in incentives to be distributed over three years
- Expanding support for electric vehicle charging stations in buildings
 - Developing policies and regulations in coming year
- 10-year Transportation Plan, including rapid transit
 - \$2.5 billion provincial commitment over three years in BC on the Move plan
 - Recent announcement to match certain federal capital funding for transit

Forestry and Agriculture

- Optimizing carbon storage by increased use of residual wood, rehabilitating forests, fertilization and high density planting
 - Forest Carbon Initiative investment of \$150 million for Forest Enhancement Society of B.C. to plant tens of millions of trees and other forest management activities
 - Program funding of \$9 million over three years to implement Forest Carbon Initiative
- Expanding nutrient management for B.C. farms
 - Expansion underway to support demonstration, implementation and monitoring of beneficial nutrient management practices to reduce GHG emissions

Industry and Utilities

- Making B.C.'s electricity 100% renewable or clean
- Advancing efficient electrification that reduces emissions
 - Recent amendments to GHG Reduction Regulation enable BC Hydro to offer incentives to switch to clean electricity
- Helping fuel marine vessels and commercial vehicles with natural gas
 - Recent amendments to GHG Reduction Regulation enable utilities to increase incentives for switching vessels to LNG and investing in LNG bunkering
- Developing new energy efficiency standards for gas fired boilers
- Expanding incentives for adoption of efficient gas equipment
 - Recent amendments to Demand-Side Regulation allows FortisBC to expand incentives for technologies that reduce emissions of gas-fired equipment

Communities and Built Environment

- Amending regulation for more energy efficient buildings
- Encouraging Net Zero Ready Buildings through building code, optional step codes, and incentives
 - Energy step code established in BC Building Code
- Working with local governments to refresh actions under the Climate Action Charter
 - UBCM working groups to provide advice
- Strategy to reduce waste and turn it into valuable resources

Public Sector Leadership

- Promoting use of low carbon and renewable materials in public sector buildings
 - Education and guidance materials being developed for building professionals and public sector organizations
- Mandating 10-year emissions reduction and adaptation plans for provincial public sector
 - Planning guidelines under development



May 2017

Pan-Canadian Framework and other on-going processes:

- Continue to collaborate with federal, provincial and territorial counterparts in areas such as carbon pricing, mitigation, adaptation and clean technology; note recent national carbon price to start at \$10 per tonne in 2018 and rise to \$50 per tonne by 2022.
- Address further CLT recommendations through Pan-Canadian Framework and other processes.
- Continue to work with local governments on Climate Action Charter.
- Seek further participation of First Nations in new opportunities.

Clean Transportation Initiatives

Issue:

- BC has taken a comprehensive approach to the reduction of greenhouse gas (GHG) emissions from the transportation sector, which accounts for 37% of provincial emissions. Climate Leadership Plan commitments build on this approach.
- Ministry of Energy and Mines administers B.C.'s successful CEV program and B.C.'s Renewable and Low Carbon Fuel Requirements.
- Ministry of Transportation and Infrastructure has developed a 10 year transportation plan for the province that recognizes the role of investment in alternative transportation options in reducing greenhouse gas emissions.

Background:

- BC's approach addresses the key factors contributing to transport GHGs:
 - Vehicle fuel efficiency:
 - BC contributed to increasingly more stringent national vehicle emission standards for light duty vehicles out to 2025.
 - BC's Scrap-it program continues to provide incentives for owners to scrap older, high emission vehicles.
 - Other groups, such as FPIInnovations, are actively working to reduce emissions from heavy duty transport.
 - Vehicle fuel intensity:
 - B.C.'s Renewable and Low Carbon Fuel Requirements regulation requires a 10% reduction in carbon intensity of transportation fuels by 2020, avoiding 2.3 million tonnes of GHGs between 2010 - 2012. The Climate Leadership Plan commits to increasing this requirement to 15% by 2030.
 - *Clean Energy Act* regulations allow utilities to incent conversion of heavy duty vehicles and marine vessels to natural gas. Under the Climate Leadership Plan, utilities are allowed to double the incentive if renewable natural gas is used.
 - BC Ferries is working to replace marine diesel with natural gas.
 - Kilometers travelled:
 - Ongoing investments in transit (such as the Evergreen Line) and cycling infrastructure reduce vehicle kilometers traveled.
- Ministry of Energy and Mines administers BC's CEV program. Incentives up to \$5,000 are available for battery electric or plug-in hybrids, and up to \$6,000 for hydrogen fuel cell vehicles. With the SCRAP-IT incentive, savings can add up to \$11,000.
- B.C. introduced the Clean Energy Vehicle (CEV) Program in 2011 and has since committed more than \$31 million for vehicle purchase incentives for battery electric and hydrogen fuel cell electric vehicles, investments in charging and hydrogen fueling infrastructure, research and training.

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- For 2017, BC has committed \$40 million to continue the CEV program. This funding will support fueling charging infrastructure, research, public awareness, and purchase incentive programs for CEVs. Additional incentives are available for bikes, electric scooters, car share and transit passes when older vehicles are scrapped.
 - BC has the highest ratio of CEV sales to non-CEV sales in Canada with over 4,800 ZEVs on the road.
 - BC has the largest charging network in Canada with over 1,100 public, Level 2 charging stations and 30 fast-charging stations.
 - Investments in the CEV program have supported 2,800 CEV purchases and 1,250 charging stations.
 - In 2015, BC joined the International Zero Emission Vehicle Alliance.
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- In March 2015, Ministry of Transportation and Infrastructure launched BC on the Move: a 10-year transportation plan, reinforced by a commitment of \$2.5 billion over its first three years.
 - The plan addresses pedestrian, cycling and transit infrastructure as well as powering trucks, buses and ferries with cleaner alternative fuels such as natural gas instead of diesel. The Climate Leadership Plan highlights BC on the Move as a key element of climate action in the transportation sector.
 - Transportation emissions account for 25 million tonnes out of BC's total 64 million tonnes of emissions. 16 million tonnes are from industrial and commercial transport, and 9 million tonnes are from light-duty, mainly personal transport.
 - Personal transportation emissions have seen small decreases since 2007. Industrial and commercial transportation emissions have been increasing.

Built Environment Initiatives

Issue:

- B.C.'s August 2016 Climate Leadership Plan includes four measures to reduce built environment emissions in the areas of buildings, communities, and waste.
- New measures build on a suite of existing programs and successful local government climate action.

Background:

- Reducing emissions in the built environment is key to achieving GHG targets. The sector presents many opportunities. B.C.'s Climate Leadership Plan commits to:
 - new policies to encourage development of net zero buildings, including accelerated energy requirements in the B.C. Building Code and new financial incentives;
 - stronger energy efficiency regulations for heating equipment, including gas fireplaces, natural gas space and water heating, and air source heat pumps;
 - refreshing the Climate Action Charter with local governments to support continued local action in the areas of low carbon land use and resilient infrastructure;
- Creating a waste-to-resource strategy that includes materials exchange pilots, food waste reduction programs, and increased organic waste diversion. New B.C. Building Code standards have increased energy efficiency requirements for new commercial buildings and new residential structures.
- The Province's new *Building Act* (2015) establishes more consistent building requirements throughout B.C.
- The Province brought the B.C. Energy Step Code into force in April 2017, which brings in measures beyond requirements of the Building Code and within boundaries of the new Building Act. Local governments have the option to voluntarily use the Step Code.
- BC Hydro and FortisBC implemented a home energy retrofit incentive program and run the Home Energy Rebate Offer (HERO) program to provide grants for energy efficiency upgrades to customers.
- In March 2017 the Demand Side Management (DSM) Regulation was amended to make it easier for FortisBC to expand its portfolio of DSM measures. Amendments also allow and encourage utilities to run programs that support adoption of the Step Code and help with the transition to higher energy efficiency standards for buildings.
- For 2017-20, \$25 million is approved from the Innovative Clean Energy (ICE) fund to support a range of Ministry of Energy and Mines programs that increase building energy efficiency.
- The Province's Landfill Gas Management Regulation took full effect in 2016, requiring large landfills to capture a minimum of 75% of emissions. In addition, the majority of local governments in major regions are now banning organics from their landfills and implementing curbside organic collection programs.
- The Province's Carbon Neutral Government program has a LEED gold requirement for new public buildings.



May 2017

- Over 80% of the buildings that will be standing in 2050 are already built.
 - Reducing emissions in existing homes and buildings is therefore essential to achieving greenhouse gas emission reduction targets.
 - The Province continues to work with energy utilities, local governments, the construction sector, and other partners to identify policies and programs to address GHG reductions in existing commercial and residential buildings.
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- Emissions from the built environment (including buildings, deforestation and waste) represent 24% of BC's total emissions.
 - Emissions in this area are down 9.4% since 2007 due to climate action in community planning, building regulations, and waste diversion.

Local Governments and the BC Climate Action Charter

Issue:

- The Climate Leadership Plan Action Area for Communities and the Built Environment includes a commitment to refresh the Climate Action Charter.
- As part of their leadership commitment, local governments can invest in practical, credible GHG emission reduction projects within their community as a means of achieving or making progress on their carbon neutral status.

Background:

- The Climate Leadership plan calls for updating and refreshing the Climate Action Charter to maintain momentum and leadership at the community level through policies, programs and regulations that:
 - Encourage Low Carbon Land Use planning that supports compact, complete, connected and centered communities.
 - Increase the use of decision support tools that provide information needed to create more resilient green infrastructure.
 - Strengthen the ability of communities to adapt to the impacts of climate change.
- The Climate Action Charter is managed in partnership between the Ministry of Community, Sport and Cultural Development and UBCM members. The Climate Action Secretariat provides technical support to the partnership and local government Charter signatories.
- The BC Climate Action Charter voluntarily commits local governments to:
 - Be carbon neutral in respect of their corporate operations for 2012;
 - Measure and report on their community's GHG emissions profile; and,
 - Create complete, compact, more energy efficient communities.
- As of 2015, 174 local governments reported on their corporate and community-wide climate actions. 146 local governments measured their corporate emissions, and 54 local governments achieved carbon neutrality.
- Over 90 communities contributed to their own climate action reserve funds.
- In 2015, local governments offset or balanced their corporate greenhouse gas emissions by over 142,000 tonnes.
- Local governments report on their action through the Climate Action Revenue Incentive Program (CARIP). Highlights for 2015 included references to urban forest policy, local food production, eco-asset strategies, transportation demand management.
- Expansion of organic collection and diversion programs continues with 60% of communities in BC having programs.
- Adaptation planning and actions were included for the first time in 2015 CARIP reports. Actions on urban landscaping, drought and flood mitigation planning and fire hazard assessments were reported.

- Communities have a large influence over community-wide emissions (40%) and adaptation planning and support BC's ability to reach our GHG reduction targets.
- Established in 2007 after BC local governments, UBCM and the Province signed the BC Climate Action Charter, the Green Communities Committee (GCC) plays an important role in building local government capacity to plan and implement climate change initiatives.
- GCC is co-chaired by the Ministry of Community, Sport and Cultural Development and the UBCM.
- The Climate Action Secretariat has worked in partnership with the Green Communities Committee to support local governments in taking action to make their own operations carbon neutral.
- The Becoming Carbon Neutral guidance document provides local governments three options to achieve credible carbon neutrality:
 - Undertake a GCC framework supported local GHG reduction project;
 - Develop an alternative project that meets GCC framework criteria; and,
 - Purchase offsets that meet high standards.
- 187 of 190 local governments have signed the BC Climate Action Charter.
- Community-wide emissions make up over 40% of provincial GHGs, and local government corporate emissions are relatively small.
- Under the *Local Government (Green Communities) Statutes Amendment Act* (Bill 27) local governments are required to include GHG emission targets, policies and actions in their Regional Growth Strategies and Official Community Plans.

Methane Reduction Strategy

Issue:

- The B.C. government has developed a strategy to address methane emissions, a greenhouse gas twenty-five times more potent than carbon dioxide.
- Aligning with Canada's methane agreement with United States and Mexico, B.C.'s Climate Leadership Plan included an action to reduce methane emissions in the oil and gas sector by 45% by 2025.
- The federal government is bringing forward regulations to reduce methane emissions from the oil and natural gas sector by 45% by 2025. B.C.'s Climate Leadership Plan committed to a 45% reduction by 2025 in methane emissions from the oil and gas sector.
- B.C. is also addressing methane emissions in the waste and agriculture sectors, with its Landfill Gas Capture Regulation and its Nutrient Management program at BC farms.

Background:

- Methane is a useful and marketable product, and is the core constituent of natural gas. By reducing or capturing intentional, and by avoiding inadvertent, emissions, facilities can either sell the non-emitted methane or benefit from its use.
- Of the greenhouse gases (GHGs), methane has the second-largest impact on BC's GHG emissions, contributing 10.6 million tonnes of carbon dioxide equivalent (CO₂e) to the Province's total emissions.
- Although methane lasts a shorter time in the atmosphere than does carbon dioxide, during that time it has a significantly stronger warming effect. Averaged over a 100-year period, its global warming potential is twenty-five times stronger than that of carbon dioxide.
- Key sources of methane in British Columbia are the oil and gas, waste, agriculture and coal mining sectors.
- The Province recognizes the impact of methane emissions and has taken decisive action to reduce methane emissions across B.C.'s economy.
- In March, 2016, Canada and the United States agreed to cut methane emissions in their oil and gas sectors by 40 to 45%. In June, Mexico also agreed to this target.
- The federal government is expected to release draft regulations this spring outlining their regulatory approach to achieving their methane reduction commitment.
 - The regulation is expected to be in force January 1, 2018.
 - The regulation is phased in and will require action from industry by 2020 and will be in full effect by 2023.

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- B.C.'s Climate Leadership Plan committed to a 45% reduction by 2025 in methane emissions from the oil and gas sector, which is forecasted to reduce future emissions by 1.2 million tonnes of CO₂e.
- This methane reduction plan has three phases—a legacy phase that will focus on existing natural gas infrastructure, a transition phase that addresses infrastructure constructed between 2015 and 2018, and a future phase that will set standards for natural gas infrastructure installed after the transition phase.
- The Clean Infrastructure Royalty Credit program, which will help stimulate investment to convert to lower methane-emitting infrastructure, and its new offset protocol that will further encourage innovative projects that reduce methane emissions provide incentives to the energy sector.
- Outside the oil and gas sector, methane reduction strategies have been applied to the waste sector which produced over 4 million tonnes of CO₂e in 2014: B.C.'s Landfill Gas Management Regulation requires landfills that produce more than 1,000 tonnes of methane annually to design and install a landfill gas management system at their facility by 2016 with a performance standard of a 75% reduction of methane emissions.
- B.C.'s Climate Leadership Plan addresses agriculture methane emissions through its Nutrient Management Program, which will demonstrate best practices to reduce fertilizer use and methane emissions, and is expected to lead to a 100,000 tonne reduction in GHG emissions.

Carbon Offset Portfolio

Issue:

- The Climate Investment team builds and manages a diverse portfolio of carbon offset projects to uphold government's commitment to a carbon neutral public sector. The investments in the portfolio further drive BC's clean economy and enable BC's leadership on climate action.
- The Province will retire a portfolio of high quality offsets in June 2017 thereby helping BC reach its carbon neutral commitment for the seventh year in a row.

Background:

- A diverse offsets portfolio is developed by the Province to support BC's legislated Carbon Neutral Government commitment.
- Annually, the Province publishes the Carbon Neutral Government Year in Review. This document includes a description of each offset project, identifies the volume of offsets retired to achieve carbon neutrality, and discloses the average price paid per offset unit.
- This portfolio is managed by the Ministry of Environment (Climate Action Secretariat, Climate Investment team) on behalf of all ministries and public sector organizations in support of the Province's legislated Carbon Neutral Government commitment.
- Climate Investment is responsible for investing the \$10M annual offset procurement budget to secure offsets for the Carbon Neutral Government commitment from greenhouse gas emissions reduction projects throughout BC. The offset procurement budget was temporarily increased to \$13M for FY15/16 and FY16/17 to allow for the buildup of an inventory of offsets.
- Ministry of Environment met its fiscal year 2016/17 financial target of \$13 million in offset purchases and **s.17**
- To become carbon neutral, all 126 BC public sector organizations annually measure, reduce, report, and offset their remaining emissions. The Ministry facilitates this final step through investments in high-quality BC-based offsets that reduce or sequester greenhouse gas (GHG) emissions.
- The Province's offset portfolio meets the strict BC legislative and regulatory requirements and is guided by the principles of credibility, transparency and accountability while providing carbon finance to innovative reduction projects that encourage and leverage private sector investments.
- Every offset project considered for the government's portfolio is audited by third-party accredited professionals to ensure they meet the requirements of the BC *Greenhouse Gas Industrial Reporting and Control Act* and the BC Greenhouse Gas Emission Control Regulation. This approach is consistent with offset systems now being developed and implemented in Quebec, Ontario, California, China, South Korea and elsewhere.
- BC's portfolio of offset projects is significantly cutting emissions in the province every year, responding to demand of approximately 700,000 offsets annually for Carbon Neutral Government.

- Details about individual carbon offset projects in the portfolio are publicly available on a third-party environmental registry, the BC Carbon Registry. Formal registration ensures offsets are not double-counted and allows the public to learn more about specific projects. Offsets in the portfolio demonstrate leadership in supporting the growth of BC's green economy and other key government objectives such as the BC Jobs Plan and the #BCTECH Strategy.
- The portfolio objectives balance fiscal responsibility with making targeted investments to overcome barriers in key sectors. Portfolio development has centered on targeting the following project attributes:
 - Lower-cost offsets;
 - Projects advancing clean technology;
 - Community based projects;
 - First Nations projects; and
 - Projects that have not previously contracted their offsets to the Province.
- The Province's investments in offset projects are a proven catalyst for economic development in BC. Since the Carbon Neutral Government program began in 2008 through to 2014, the Province invested \$53.4 million to purchase 4.5 million tonnes of offsets. The purchase of offsets has contributed \$372.5 million to provincial GDP and 4,438 jobs in person-years (EcoRessources study, 2015). In 2015 and 2016, the Province purchased an additional 2.5 million tonnes of offsets valued at \$30.6 million.
- BC is demonstrating that environmental commitment and economic growth can happen at the same time. Offsets projects in BC are driving real change in behavior to reduce emissions and advance commercialization of clean technology across industry sectors.
- Offset projects have leveraged capital to generate even greater private sector investments in clean technologies and jobs as well as preserving BC's environmental capital through forest sequestration projects.
- Like the carbon tax that puts a price on carbon, offsets are another price-driven mechanism to encourage behaviour change that leads to reductions in greenhouse gas emissions. Climate action mechanisms like carbon offsets provide incentives for companies, municipalities and cooperatives to take meaningful action to reduce their emissions. Their actions reverberate throughout BC, supporting jobs and generating revenue. As with the carbon tax, putting a price on carbon has proven to change behaviour for the benefit of the environment.
- Projects in the offset portfolio support green technology and jobs in BC's Green Economy. Examples include:
 - Innovative natural gas transmission efficiency improvements that reduce the amount of methane that is released into the atmosphere;
 - Particulate scrubbers in biomass combustion projects;
 - Landfill methane capturing systems that introduces renewable natural gas into the FortisBC commercial pipeline system; and,



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- Forest carbon projects that represent the culmination of significant effort and collaboration by the local First Nation communities and the BC government. Established conservation and heritage sites, improved forest management, and jobs are some of the opportunities derived from these projects.

Carbon Neutral Government

Issue:

- B.C.'s commitment to carbon neutral government operations is a key Provincial strategy for taking leadership on climate action. This commitment – founded in legislation – is the first for any province, territory or state in North America.
- B.C. has achieved carbon neutrality for six consecutive years and in the process has saved energy, reduced operating costs and greenhouse gas (GHG) emissions, while creating clean jobs, and healthy communities in B.C.
- The Carbon Neutral Government program has enabled B.C.'s public sector to strengthen its capacity for efficiency, support proof-of-concept projects, spur the development and adoption of clean technology and turn energy savings into cost savings that can be reinvested in public services such as health care and education.
- The Province supports the public sector in improving energy efficiency, implementing clean technologies and decreasing emissions by leveraging funding, providing centralized program governance, and accelerating GHG emissions reductions.

Background:

- In 2010, B.C. became the first government at the provincial, territorial or state level in North America to take 100 percent responsibility for the greenhouse gas pollution from its operations by becoming carbon neutral.
- B.C.'s commitment applies to each of its 126 provincial public sector organizations (PSOs) including the provincial government (ministries and independent offices), school districts, post-secondary institutions, Crown corporations, and health authorities.
- Carbon neutrality is about achieving net-zero greenhouse gas emissions.
- The 2015 reporting year marked a significant milestone for B.C.; the sixth successful year of the Province's carbon neutral government commitment. Results for the 2016 reporting year will be finalized on June 30, in accordance with governing legislation.
- Carbon Neutral Government demonstrates a commitment to taking action on climate change in Government's own operations. It allows the public sector to:
 - Be a part of creating clean jobs, healthy communities, and deploying clean energy and new technologies in public buildings across B.C.
 - Save on energy costs that can be reinvested in public services such as education and health care.
- Engage 300,000 public servants in taking action on climate change, and in turn reach out to the two million British Columbians who work, learn or visit government buildings each year. Every day, nearly two million British Columbians work in, learn in, or visit public sector buildings that are carbon neutral.
- Public sector organizations follow a five-step process to achieve carbon neutrality:
(1) measure the GHG emissions from their operations; (2) reduce their emissions as much as practicable; (3) offset any remaining emissions by purchasing high-quality, made-in-B.C. carbon offsets; (4) report publicly on progress; and, (5) periodically undergo third party verification.

- Other jurisdictions have publicly committed to following B.C.'s carbon neutral lead, including Washington State, Yukon, Ontario and Manitoba.
- The following table summarizes the total carbon dioxide equivalent emissions and weather normalized emissions for PSOs for the first six years of the carbon neutral government program:

Year	Emissions (TCO ₂ e)	Weather Normalized Emissions (TCO ₂ e)
2010	812,948	844,849
2011	864,155	818,471
2012	834,573	818,340
2013	796,012	776,019
2014	768,953	783,402
2015	738,697	800,873

- Overall, public sector emissions in 2015 were lower than 2010 levels by 74,000 tonnes or 9.1%, and on a weather normalized basis, by 44,000 tonnes (5.3%).
- For 2015, the public sector paid \$15.6 million to purchase offsets for the 624,585 tonnes of GHG emissions that require offsetting under the legislation, plus an additional \$11,475 (459 tonnes) to account for routine adjustments to prior years.
- Since the Carbon Neutral Government program began in 2008, the Province has invested \$53.4 million to purchase 4.5 million tonnes of offsets. The purchase of offsets has contributed \$372.5 million to provincial GDP and 4,438 jobs in person-years.
- The Carbon Neutral Government program is a catalyst for change in B.C.'s public sector.
- Since the initiation of the Carbon Neutral Government program, the Province has leveraged funding to support the public sector in improving energy efficiency, implementing green technologies and decreasing emissions.
- Achieving carbon neutrality has created the basis for substantial improvements to operating efficiency in the delivery of public services – a heightened focus on operating costs, a fundamental shift in the way operating decisions are made, and in some cases, significant short-term investments for long-term benefits.
- For every 1% improvement in energy efficiency, \$4 million in fuel costs are saved annually based on an estimated annual \$400 million in energy/fuel expenditures.
- The public sector now has considerable expertise and knowledge about the technologies and approaches that can be used to reduce both emissions and costs.
- Public sector emissions reductions have relied on adopting clean and energy efficient technologies and practices. These include renewable forms of energy, leading edge equipment, highly skilled professional services and better operations management practices.
- The Carbon Neutral Government program has begun to focus on supporting PSOs in achieving even greater GHG emissions reductions. A key part of this work is to identify the strategies and tools the program can use to help PSOs capitalize on their opportunities for significant emission reductions and related operating savings.

- Under agreements with the Province, BC Hydro and FortisBC have provided B.C.'s public sector organizations with funding to undertake energy efficiency projects.
- In 2014, the Province extended the successful Carbon Neutral Capital Program (CNCP) for school districts to the health authorities and post-secondary institutions, expanding total funding from \$5 million to \$14.5 million. These funds are generally equal to or greater than the annual amount each sector pays in carbon offsets and is used for capital projects that reduce GHG emissions and result in energy conservation.

CNCP Funding Allocations	
Sector	Amount of CNCP Funding (\$)
K-12	5,000,000
Health	5,700,000
Advanced Education	3,800,000
Total	14,500,000

- Past CNCP Projects have included:
 - Heating/cooling system upgrades: replacing existing end-of-life/over-sized boilers, installing heat recovery systems; conversions to renewable fuels;
 - Ventilation/air distribution: upgrade fan systems and optimizing air delivery;
 - Lighting: upgrades to more efficient lighting (LEDs and high efficiency fluorescent);
 - Building automation systems: introducing/upgrading building controls and sensors; and,
 - Installing solar hot water and photo voltaic to supplement domestic hot water systems and electricity.
- These projects are reducing GHG emissions, operating costs, and the amount of offsets each sector requires to achieve carbon neutrality. They also contribute to the overall reduction in GHG emissions the public sector is mandated to achieve.
- School districts will have received \$25 million over the last five fiscal years (including 2016/17) from the Carbon Neutral Capital Program to improve the electrical and mechanical efficiency of their facilities. Examples of School Projects Supported by the CNCP:
 - The new heat pumps at Palmer Secondary school in the Richmond school district will lower the school's greenhouse gas emissions by approximately 76 percent. This new system will allow SD 38 to save more than \$19,000 on annual energy costs and \$5,000 on annual carbon offsets.
 - By replacing its old boilers with a more-efficient model powered by wood waste, the Cowichan Valley school district will be able to cut the school's greenhouse gas emissions by 168 tonnes and its annual energy costs by more than \$54,000, in addition to saving more than \$4,000 each year in carbon offsets.



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- Since fiscal 2008/09, the Province has provided school districts with an additional \$20.5 million for projects that reduce GHG emissions, including:
 - \$10.5 million – from the Public Sector Energy Conservation Agreement fund
 - \$10 million – Energy Efficient Mechanical Upgrades Program
- Between fiscals 2008/09 and 2016/17, the Province also provided school districts with \$29.9 million in carbon tax reimbursements.

Climate Risk and Adaptation

Issue:

- Climate change is already impacting North America, Canada and British Columbia (B.C.) and additional impacts to our natural environment, economic prosperity and the health of British Columbians are anticipated.
- The Province is taking action to manage the risks associated with climate change, including sea level rise, a changing water cycle and more frequent and intense weather extremes.
- The Climate Action Secretariat facilitates and supports initiatives across government to ensure that investments in infrastructure and programs and our management of natural resources address current climate hazards and anticipate future climate risks.
- Adaptation is one of four priorities for Canada in the Pan-Canadian Framework on Clean Growth and Climate Change. B.C. is working with Canada to advance mutual adaptation priorities in the province.

Background:

- Preparing for Climate Change: British Columbia's Adaptation Strategy (2010) outlines steps the provincial government has taken to moderate harm and take advantage of new opportunities associated with a changing climate.
- The Climate Action Secretariat (CAS) is responsible for coordinating the overall government approach to managing adaptation, which focuses on:
 - Sustaining and enhancing regionally relevant climate science and decision support tools;
 - Ensuring government can continue to deliver on its priorities as the climate changes; and,
 - Collaborating with other levels of government, the private sector and civil society to enhance B.C.'s resilience to weather and climate.
- CAS has partnered with other ministries and organizations across B.C. to leverage federal funding for adaptation projects on issues relating to coastal management, economic instruments and the natural resource and healthcare sectors.
- B.C.'s Climate Leadership Plan includes new actions to increase the resilience of public sector organizations to climate change:
 - Developing guidelines for public sector operations to reduce emissions and plan for climate change adaptation; and
 - Mandating the creation of 10-year emissions reduction and adaptation plans for provincial public sector operations.
- Other ministries are developing their own understanding of how climate change might impact their priorities and are planning their response accordingly:
 - The Ministry of Forests, Lands and Natural Resources Operations has developed climate action plans for business areas sensitive to climate change.
 - Through federal Growing Forward funding, the Ministry of Agriculture is supporting the efforts of industry to develop innovative products, tools and processes to adapt to climate change.

- The Ministry of Transportation and Infrastructure has assessed climate change impacts to the province's transportation infrastructure, and is addressing and revising standards where appropriate.
- The Ministry of Environment worked with the Ministry of Health produce a series of Health and Climate Change information sheets on what can be done to prepare and adapt in frontline health care, health care facilities, communities, and public health.
- Local governments have a significant role to play in ensuring that BC is prepared for unavoidable climate change impacts. Many local governments in BC have developed and are starting to implement plans to reduce risk and vulnerability related to climate change and its impacts.
- In its 2016 and 2017 budgets, the federal government allocated more than \$360M to take action on adaptation priorities identified in the Pan-Canadian Framework over 2016-2020. These include building the science and knowledge foundation to support ongoing action and federal programming to support adaptation in First Nations, communities, infrastructure, public health, coastal regions and Canada's north, and disaster risk management. CAS will work with relevant ministries and federal government departments to secure federal investments in adaptation programs and projects in B.C.
- The Office of the Auditor General of British Columbia is conducting an audit of government's management of the risks posed by climate change; the primary focus of the audit is adaptation (see also OAG Audit issues note).

Science on Climate Change

Issue:

- Warming of the climate system is unequivocal. According to the Intergovernmental Panel on Climate Change (IPCC), it is “extremely likely that human influence has been the dominant cause of the observed warming since the mid-20th century”.
- Continued emissions of greenhouse gases will cause further warming and changes in all components of the climate system. Most aspects of climate change will persist for many centuries even if emissions of CO₂ are stopped.

Background:

- Recent reports by the IPCC¹, U.S. Global Change Research Program² and Natural Resources Canada³ emphasize that climate change is already impacting North America, Canada, and BC:
 - BC's climate is changing, with observed changes in air temperature, precipitation, glacier extent and other indicators.
 - Changes in climate are increasingly affecting our natural environment, economic sectors and the health of British Columbians.
 - Extreme weather events are a key concern and there is growing confidence that some types of extreme events will increase in frequency and/or intensity as the climate continues to warm.
- According to scientists at NASA and NOAA, 2016 was the warmest year on record globally. Globally-averaged temperatures were 0.99 degrees Celsius warmer than the mid-20th century mean. This makes 2016 the third year in a row to set a new record for global average surface temperatures. Observed and expected impacts for BC include:
 - Increased risk of summer drought, particularly in snowmelt systems due to declining snowpack and glaciers as well as earlier peak runoff and warmer summer temperatures;
 - Increased risk of flooding due to more extreme precipitation and shifts to more winter rain in snowmelt systems;
 - Impacts to infrastructure, including an increasing risk of damage, shortened asset life, and reduced safety performance due to sea level rise and higher storm surge, increased river flooding, more extreme heat and precipitation events;
 - Impacts to terrestrial, aquatic, and marine ecosystems and related ecosystem services, including commercially important activities such as timber production, fisheries, and tourism due to ocean acidification, changes in water quality and streamflow volumes, forest fires and increased competition from invasive and non-native species; and,
 - Increased risk of illness and mortality associated with more extreme heat events and reduced air quality.

¹ Fifth Assessment Report (AR5)

² 2014 National Climate Assessment

³ Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation

- Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions. BC is taking action across the economy to reduce emissions. Continued leadership in climate action along with our partners around the world will drive global emissions reductions. (See note BC's Efforts to Promote Climate Action Internationally).
- Further changes in climate are inevitable, even if GHG emissions stop today. Adaptation is a necessary response to climate change, complementing global measures to reduce greenhouse gas emissions. BC can enhance the social and economic resilience of British Columbians to the negative impacts of climate change by adjusting to anticipated changes ahead of time (see note Climate Risk and Adaptation).

#BCTech Strategy

Issue:

- The technology sector supports the B.C. economy at its very foundation and is a key driver of growth for the economy.
- To support this growth, starting in December 2015 with the announcement of the \$100 million BC Tech Fund, the Ministry of Technology, Innovation and Citizens' Services (MTICS) released the #BCTECH Strategy.
- The #BCTECH Strategy is the culmination of extensive engagement with B.C.'s technology sector and is a key component of the BC Jobs Plan. The strategy focusses the government's efforts around three key pillars: Talent, Capital and Markets.
- Since releasing the strategy, the BC Government has begun or accomplished all 50 action items in the strategy.

Background:

- The technology sector supports the B.C. economy at its very foundation and is a key driver of growth for our economy with more than 92,000 jobs.
- The tech sector employed around 4.6% of British Columbia's workforce in 2014, more than the mining, oil and gas, and forestry sectors combined.
- Average weekly earnings of high tech employees were \$1,590 per week, compared to just \$900 for the average B.C. worker.
- The strategy was built in partnership with seven ministries and includes 50 actions the government is taking to support growth of B.C.'s technology sector.
- The #BCTECH Strategy is one of the eight key sector strategies under the BC Jobs Plan. It builds on and replaces the B.C. Technology Strategy published in 2012.
- Kensington Capital Partners, a leading Canadian alternative asset management firm was announced as the #BCTech Fund manager in October, 2016.

Key #BCTech Strategy highlights include:

- A \$100 million BC Tech Fund to expand the availability of local venture capital in B.C. to support promising companies with sufficient access to capital in order to realize their growth potential in the province.
- Talent development in schools – to provide children an opportunity to learn the basics of coding.
- At the post-secondary level, \$450 million is being targeted for training, leading to in-demand jobs in the sector.
- The introduction of \$4.5 million over the next five years to open a technology stream within the Canada Job Grant Program so tech companies can train and re-train current employees.
- Assurances that British Columbians are first in line for jobs. However when BC talent is tapped and companies need to be able to attract skilled workers from across Canada and around the world, the province is working with all levels of government to remove those barriers to bringing skilled workers to B.C.

- Improving access to markets by continuing to simplify government procurement, creating opportunities to share ideas, encourage business growth through exports and facilitate 100% Internet connectivity in B.C.
- Continue expanding the BC Developers' Exchange to understand how new approaches to open data, open source code, open Application Program Interfaces (APIs) and open innovation can bring about both new business ideas and streamlined ways for the public sector to buy software innovations.
- There are 3 CAS-related items highlighted in the 2016 Progress Report; all three are in progress:
 - Centralize a procurement program of green technologies to accelerate their adoption by local government and other public sector organizations (for example the LED Street Lights Across BC procurement program)
 - Increase the demand for clean tech solutions through the Carbon Neutral Capital Program for ministries, K-12 schools, health authorities, public post-secondary institutions, provincial Crown corporations and agencies
 - Increase adoption of clean tech through government's LNG technology fund, as well as legislation stating that the entire B.C. public sector be carbon neutral by reducing its greenhouse gas emissions to net zero each year

Conservation Officer Service Overview

Background:

- There are 155 positions in the Conservation Officer Service (COS), of which 148 are sworn Conservation Officer (CO) positions and seven are civilian positions:
 - Provincial Operations: 118 full-time positions comprised of one Deputy Chief, eight Inspectors, 20 Sergeants, one Provincial Coordinator - Restorative Justice and First Nations Relationships, 88 Field Officers. Provincial Operations also includes eight auxiliary seasonal Conservation Officers. Provincial Operations is responsible for public safety including response to human-wildlife conflicts. Provincial Operations is also the primary enforcement agency for environmental legislation within the natural resource sector
 - Provincial Investigations Branch (PIB): 23 positions comprised of one Deputy Chief, Provincial Investigations, two Inspectors, six Detective Sergeants, and 14 Detectives. A considerable number of PIB staff are currently assigned to the Mount Polley Investigations Unit. PIB is comprised of a Special Investigations Unit (covert, undercover operations), a Major Investigations Unit (MIU), and an Intelligence Unit that are responsible for investigating environmental and forest crimes, and complex investigations of significant impact upon human health, the environment and government revenue.
 - Headquarters and Program Support: 14 positions comprised of the Chief Conservation Officer, one Deputy Chief, two Inspectors, three Sergeants and seven civilian positions. Program Support is responsible for providing strategic leadership, policy and procedures development, personnel development and training, and COS resource management.
 - For the 17/18 fiscal, the COS is relying on vacancies and managed hiring to offset ongoing budget pressures.

Type of position	2017/ 2018	2016/ 2017	2015/ 2016	2014/ 2015	2013/ 2014	2012/ 2013	2011/ 2012	2010/ 2011
Front line Conservation Officers and Sergeants	108	108	107	107	106	105	105	105
Plainclothes Detectives and Detective Sergeants	20	21	21	22	22	22	24	25
Restorative Justice First Nations Relationship Coordinator	1	1						
Total – front line CO staff	129	130	128	129	128	127	129	130
Inspector and Executive Officer	16	16	16	16	16	17	17	17
Training Sergeant	2	2	2	2	2	2	2	1
Predator Conflict Reduction and Response Coordinator	0	0	1	1	1	1	1	1
Sergeant, Quality Assurance	1	1	1	1	1	1	1	1
Total – non front line CO staff	19	19	20	20	20	20	20	20
Total – Sworn Officers	148	149	148	149	148	148	150	150
Civilian	7	7.3	7.3	7.5	8.5	8.5	9.5	11.5
Total Conservation Officer Service positions (sworn officer and civilian)	155	156.3	155.3	156.5	156.5	156.5	159.5	161.5

- The COS is a natural resource law enforcement agency that specializes in public safety as it relates to human-wildlife conflict, commercial environmental and industrial investigations, and other compliance and enforcement services for the natural resource sector. Conservation Officers have the authority to enforce over 30 provincial and federal statutes combined.
- The COS undertakes investigations and enforcement in response to violations detected through internal compliance verification activities, reports from the public and other agencies, and proactive enforcement patrols. COs are also appointed as Special Provincial Constables under the *Police Act* and have unrestricted appointments to enforce all Acts and Statutes, and protect the public and preserve the peace.
- COs are located in 44 communities in the province. Deployment of officers within the province is based upon a number of criteria including, call demand for public safety and enforcement concerns, population size, level of industrial/commercial and recreational activity, number of existing officers within the area, emerging environmental trends, and partnership opportunities.
- The COS is responsible for ensuring public safety as it relates to human-wildlife conflicts, environmental crimes, Controlled Alien Species (CAS), forest crimes such as arson, and recreational activities such as hunting in close proximity to urban settings. The COS is responsible for investigating environmental and forest crimes that impact upon human health, the environment, and government revenue, e.g. fraudulent forest scaling practices. The COS enforces a variety of environmental regulations related to recreational activities, e.g. fishing and hunting regulations. The COS is also now the lead agency for the enforcement of the Off Road Vehicle Legislation.
- In 2016/17, the COS received approximately 29,431 calls regarding human-wildlife conflicts compared to 27,969 in 2015/16; 29,200 in 2014/15; and 28,065 in 2013/2014. These numbers are very similar to conflict levels from previous years.
- The COS delivers a number of its services through partnerships and other types of agreements with other agencies, partners and private corporations. Examples of these partnerships include:
 - In 2011, a partnership MOU signed with the Regional District of the East Kootenay to pay for a portion of a CO FTE to address environmental issues resulting from recreational use in sensitive habitats;
 - Staff is involved in negotiations being led by the Ministry of Aboriginal Relations and Reconciliation and the Maa-Nulth First Nations regarding providing services to enforce Maa-Nulth First Nations treaty laws. The Maa-Nulth First Nations would be responsible for providing funding for any enforcement services delivered by the COS.
- The level of effort to investigate and take enforcement action varies depending upon the nature of the activity. Investigations into complex violations of environmental protection and human health regulations require a significant investment in resources. A typical environmental investigation can take hundreds of hours and numerous personnel to properly investigate.

- The number of case files, tickets and warnings has remained relatively stable over the past nine years.

Year	FY 06/07	FY 07/08	FY 08/09	FY 09/10	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17
/Total Case Files	7,139	6,743	8,207	8,937	8,706	8,171	9,745	9,996	9,819	9,791	10,431
RTCC	44	49	47	48	42	37	59	41	56	31	25
Tickets	2,436	1,989	2,096	2,190	1,961	2,220	2,563	2,631	2,693	2,528	2,640
% change over previous FY	18%	-18%	5%	4%	-10%	13%	15%	3%	2%	-7%	4.4%
Warnings	3,067	2,466	2,441	2,598	2,452	2,623	3,439	3,612	3,250	2,942	3,672
% change over previous FY	34%	-20%	-1%	6%	-6%	7%	31%	5%	-10%	-10%	24.8%

- The COS is using Community Environmental Justice Forums (Regional Premiers Award) to address non-compliance as an alternative to issuing tickets or taking an offender to court. The COS also utilizes Civil Forfeiture for assets and property used in the commission of environmental crimes.
- The COS utilizes the Report All Poachers and Polluters 24/7 toll-free hotline that allows the public to report known suspected poachers and polluters. 1-877-952-RAPP (7277) or Cellular #7277.

Stakeholders:

- General Public

Contact information:

Chief Conservation Officer
Doug Forsdick
250-567-8929

Compliance and Enforcement in the NRS

Issue: Compliance and Enforcement Service Capacity

Background:

- Compliance and enforcement in the natural resource sector is primarily undertaken by the Ministry of Environment's Conservation Officer Service. Other agencies also participate in varying levels and degrees of compliance and enforcement. These include Park Rangers, Natural Resource Officers (NRO), Oil and Gas Commission, Ministry of Mines' compliance and enforcement staff and Environmental Assessment Office staff.
- While each of the agencies has a specific mandate, there are a number of issues where collaboration between staff is beneficial to resolve non-compliance that impacts upon one or more of the mandates of the agencies. Processes to optimize collaboration have been in place for several years and work is underway to make improvements to ensure the effective delivery of inspection, investigation and enforcement services. In general, most Major Investigations or investigations that would be heard in the criminal justice system are led by the Conservation Officer Service.
- The COS and FLNRO NRO staff have recently worked to clearly identify lead and support roles to ensure efficient service delivery and lack of confusion with stakeholders and the general public.
- In addition to seeking operational efficiencies, the COS continues to:
 - collaborate on information sharing and public reporting through the Ministry's public Environmental Enforcement Reporting program;
 - harmonize training standards with other law enforcement agencies;
 - deliver environmental law enforcement training;

Next Steps:

- The COS and FLNRO NRO leadership teams are working together to further refine collaboration within the sector. Other agencies such as the Oil and Gas Commission, the Environmental Assessment Office (EAO), and the Ministry of Energy and Mines are also engaged in these discussions.

Stakeholders:

- FLNRO
- Oil and Gas Commission
- Environmental Assessment Office
- Ministry of Energy and Mines
- General Public

Contact information:

Chief Conservation Officer
Doug Forsdick
250-567-8929

Conservation Officer Service Capacity

Issue:

- Capacity of the BC Conservation Officer Service

Background:

- The Conservation Officer Service (COS) is a law enforcement agency specializing in the enforcement of natural resource sector legislation as well as responding to public safety concerns including human-wildlife conflicts. The COS has staff located in 44 locations throughout the province, seven of which are staffed with one officer, the remainder having two or more officers. Priorities for the COS include preserving public safety; protecting human health and the environment; protecting personal and public property; and safeguarding government revenues.
- The Conservation Officer Service enforces over 30 pieces of Provincial and Federal legislation.
- The COS contracts Emergency Management BC to operate a 24-hour Report All Polluters and Poachers (RAPP) call center for the public to report suspected violators and human-wildlife conflicts. The call center receives over 4,000 reports of violations a year and approximately 30,000 calls regarding human-wildlife conflicts. The public expects to receive service from Conservation Officers (COs) 365 days a year.
- The peak call demand period for the COS is from May to the end of November as this is the active season for wildlife and there is increased human recreational activity. During this peak period, call volume generally exceeds CO capacity necessitating a more stringent prioritization of response to calls for service. At times, officers from other geographic areas are deployed to assist in areas experiencing extreme call demand. This can affect service at the base locations of the deployed officers.
- The COS encourages all staff to utilize technology such as rugged laptops to increase their mobility and efficiency.
- The creation of new regulations or initiatives in the absence of implementation funding can impact the CO Service's ability to maintain existing service delivery levels. Discussions with partner agencies continue to identify potential solutions and increase collaboration.
- For the 17/18 fiscal, the COS is relying on vacancies and managed staffing to offset budget pressures.

Stakeholders:

- General Public

Contact information:

Chief Conservation Officer
Doug Forsdick
250-567-8929

Human-Wildlife Conflict Management

Issue:

The Conservation Officer Service (COS) is the primary responder to human-wildlife conflicts where there is a risk to public safety, conservation concerns or where significant property damage has occurred.

Background:

- The public is encouraged to report human-wildlife conflicts that threaten public safety or result in significant property damage by calling the Report All Poachers and Polluters (RAPP) line, toll-free at 1 877 952-7277 (RAPP), or visit the RAPP website at: www.rapp.bc.ca
- In 2016/17, the COS received approximately 29,431 calls regarding human-wildlife conflicts compared to 27,969 in 2015/16; 29,200 in 2014/15; and 28,065 in 2013/2014. These numbers are very similar to conflict levels from previous years.
- The COS is accountable and responsible for investigating all incidents involving wildlife attacks on humans led by a Predator Attack Team using the Incident Command System. The system is designed to achieve the coordination necessary for an effective, efficient and provincially consistent response to predator attacks on humans.
- The Predator Attack Team is a leader in North America and is called on to deliver workshops throughout North America.
- It is not operationally possible for COs to attend every call. As a result, when public safety is not deemed to be at risk, or if the behaviour of wildlife is considered to be natural or normal, callers are provided information to help prevent conflict situations by properly managing attractants such as garbage, compost, bird seed and pet food stored outdoors.
- COs assess each call based upon its own individual merits, giving consideration to the seriousness of the incident, time delay in calling, likelihood that the offending wildlife is still in the area, risk to people or property, or the availability of an officer in relation to distance required to attend.
- A CO will usually attend a human-wildlife conflict call if:
 - Dangerous wildlife appears to be sick, injured or acting in an unusual manner;
 - Dangerous wildlife is causing or has caused serious and ongoing property damage, and the landowner has taken reasonable steps to avoid conflict;
 - Public safety is at risk due to a bear, or other large predator, becoming accustomed to human food or garbage and associates people with food (i.e. food conditioned).

- Over the last 20 years, the number of bears killed due to human-bear conflicts has gone down. This can be credited, in part, to public awareness programs such as Bear Smart and WildSafeBC (formerly Bear Aware) as well as improved enforcement tools regarding feeding of dangerous wildlife.
- Amendments to the *Wildlife Act* in 2013 provided CO's the ability to issue tickets or appearance notices for a court appearance to deal with people who repeatedly and negligently fail to secure attractants. These tools complement existing tools and are expected to reduce the number of bears that come into conflict with people.
- ENV partnered in 2013 with the BC Conservation Foundation to launch WildSafe BC. WildSafe BC is an expansion of the highly successful Bear Aware program, expanding the focus from reducing human-bear conflicts to reducing human-wildlife conflicts. This will allow the utilization of the existing infrastructure and delivery models to help communities address their growing problems with deer, coyotes, cougars and other wildlife.
- Relocating wildlife is neither viable nor a long-term solution to managing human-wildlife conflicts. When wildlife is relocated, it most often returns to conflict situations or does not survive, as it has to compete with established populations.

Next Steps:

- Continue supporting the BC Wildlife Federation in promoting the WildSafeBC program to increase the number of communities involved,
- Continue increasing awareness of the Bear Smart Program;
- Continue using social media as a platform to inform the public of human-wildlife conflict issues and concerns.

Stakeholders:

- General Public
- BC Wildlife Federation
- Bear Smart BC
- Wildsafe BC
- Outdoor enthusiasts
- Guide Outfitter Associations
- Local Governments and Regional Districts
- First Nations

Contact information:

Chief Conservation Officer
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Major Investigations

Issue:

- The Conservation Officer Service (COS) has several hundred open case files that range from violation tickets awaiting payment through to major investigations of environmental non-compliance that threaten human health and safety. In many cases, major investigations attract media attention.

Background:

- The majority of these investigations are completed by COS Provincial Investigations Branch; however, COs from Provincial Operations (uniform division) at times have carriage of these complex investigations.
- The COS manages some of these large complex files by utilising a major case file management system (MCM) which allows the tracking of large-scale investigative effort, evidence, staff time and financial resources allocated to major and complex investigations. The COS Major Case Management system has been reviewed and endorsed by the both RCMP Major Crimes and Combined Forces Special Investigations Unit. Often major investigations are conducted jointly in a team approach with other agencies to take advantage of staff resources, experts, and other enforcement options.
- Our most common partners in joint Major Investigations are the RCMP, Environment and Climate Change Canada and the Department of Fisheries and Oceans Canada. Major investigations are usually focused on large-scale environmental violations such as the Mt. Polley/Imperial Metals investigations which are an ongoing investigation since August of 2014 lead by the BCCOS with an investigative team comprising of investigators from BCCOS, Environment Canada and Department of Fisheries and Oceans. Other ongoing Major Investigations are focused on trafficking in wildlife meat, unlawful hunting/ angling guiding and trafficking in bear parts (gallbladders).
- British Columbia is one of two provinces that pioneered the use of civil forfeiture in Canada to deter unlawful activity by removing supporting instruments and proceeds. The COS has utilized civil forfeiture where deemed appropriate and has presented several cases to the civil forfeiture office for their consideration. Some of the cases have resulted in the civil forfeiture of firearms, a vehicle and a covenant placed for compliance on private property that were used in the illegal activities. The COS also developed the Community Environmental Justice Forums, which is an alternative resolution measure based on the Restorative Justice Program. The CEJF is managed by the COS Provincial Investigations Branch and is recognised and endorsed by the Ministry of Attorney General Crown Counsel as an alternative to the criminal justice system.

Contact information:

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Livestock Protection Program

Issue:

- The Conservation Officer Service and the BC Cattleman's Association (BCCA) work together to respond to livestock loss as a result of wildlife attacks. The BCCA works under a permit issued by Ministry of Forests, Lands and Natural Resources (FLNRO) for verifying attacks by wolf and coyote on beef, dairy and sheep livestock only. The type of predator involved will determine who attends the complaint.

Background:

- The COS responds to human-wildlife conflicts where livestock loss has occurred and the predator has been confirmed to be cougar or bear. The COS role has been to verify the species that may have killed livestock and to remove the predator(s) involved if appropriate. In verified losses, compensation will be paid to the producer through the Ministry of Agriculture Business Risk Management Branch for dairy and beef livestock only.
- The COS had a dedicated coordinator position in place for four years. This position was developed to oversee responses to livestock depredation and played an operational role in educating, training and equipping agencies and individuals involved in livestock-predator interactions.
- In April 2015, the COS made a decision to move the dedicated Provincial Predator Conflict Prevention and Response Coordinator position to the Williams Lake COS office as a field Conservation Officer in the Thompson Cariboo Zone.
- As this unfolded, there was a transition of the coordinator roles and responsibilities to COS officers in the regions. At the Inspector level, the COS continued to confirm verifications for compensation requests to the Ministry of Agriculture (AGRI), as well as verification training for producers in British Columbia.
- As of April 2017, there are 707 COS trained non-government verifiers in British Columbia and these numbers are increasing. This verification training is delivered by the COS Wildlife Conflict instructors. All COS field staff are trained in verification process for attacks by predators on all livestock.
- In October 2015 – March 2016, the COS participated in a wildlife and agriculture conflict reduction review with engagement across the agriculture sector with AGRI and FLNRO. One area specifically dealt with predator wildlife and attacks on livestock. The BCCA proposed a Livestock Protection Plan for verification and mitigation services to the dairy, beef and sheep producers for attacks by wolves and coyotes in British Columbia.

- In March 2016, FLNRO issued BCCA a permit for this newly developed program to provide verification and mitigation services on Crown and private land where attacks by wolves and coyotes have been verified in attacks on dairy, beef and sheep only. This permit is valid until March 2019 and covers the entire province except for Haida Gwaii. This three-year program is administered by BCCA and supported by \$250,000 from the BC government and \$50,000 from BCCA.
- Engagement and consultation was concluded in October 2016, with a final permit issued to BCCA for the Peace Region to conduct verification and mitigation services for attacks by wolves and coyotes on dairy, beef and sheep.
- Conservation Officers will maintain the role of responding to all livestock losses due to other wildlife such as cougar and bear and perform verifications as well as mitigation as work priorities dictate.
- The COS continues to partner with stakeholders that have an interest in this on coordinating monitoring, verification, mitigation, compensation and outreach efforts.

Stakeholders:

- Local livestock producers and producers groups:
 - BC Cattlemen's Association, BC Dairy Foundation, BC Sheep Federation, BC Sheep Breeders Association, etc.
- Industry:
 - Agriculture and Research Development Corporation, BC Agriculture Council, etc.
- The Ministry of Agriculture
- BC Wildlife Federation
- BC Guide/Outfitters Association
- BC Trappers Association
- Local hunters and trappers

First Nations Interest:

- Dene Tha' First Nation
- West Bank First Nations
- Ktunaxa Nation Council

Contact information:

Chief Conservation Officer
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Controlled Alien Species

Issue:

- The Ministries of Environment (ENV) and Forests, Lands and Natural Resource Operations (FLNRO) have responsibilities related to controlled alien species within BC. The Conservation Officer Service (COS) is tasked with compliance and enforcement and public outreach and education related to the Controlled Alien Species (CAS) Regulation.
- Enforcement actions are managed by the COS in response to those situations where there is the highest risk to public safety or a threat to the environment.

Background:

- The CAS Regulation controls the possession, breeding, shipping and releasing of animals not native to BC that pose a risk to the health or safety of people and to wildlife and wildlife habitat.
- Approximately 1,300 species are currently designated as CAS in BC.
- Effective April 1, 2010, individuals cannot possess, breed, release or transport CAS in BC, with the exception of individuals who possessed a CAS on or before March 16, 2009, who can keep the animal until its death, subject to being granted a permit from the Ministry.
- The regulation ensures that recognized institutions and industries can continue to possess these animals under specific circumstances. Certified research and educational institutions and accredited zoos and aquariums require a permit (and in some cases a management plan) to acquire, breed and possess CAS. The film industry requires a permit to temporarily bring CAS into BC.
- No new positions or funding was provided to support the implementation and administration of the CAS Regulation. Instead, CAS has been prioritized as a work activity among the Ministries' other mandated activities.
- The Ministries are using an Incident Management Team (IMT) approach when responding to CAS non-compliance. The IMTs consist of Conservation Officers (COs), FLNRO staff and members from the academic and scientific community.
- The COS has trained officers across the province to respond to CAS non-compliance. Specialized equipment for handling CAS is located in the North, the Coast and the Interior and is accessible to CO's trained in dealing with CAS. The COS responds in a prioritized manner to CAS non-compliance where public safety or a threat to the environment is at risk. Recently, eight Conservation Officers received specialized training in Ontario related to the handling of CAS species. These officers are CAS Specialists and provide their specialized skill set to all officers within the COS.

- Not all reported non-compliance is pursued immediately as it takes time to verify whether non-compliance is taking place. Numerous ads on the internet for the sale of CAS are hoaxes or in other jurisdictions.
- Compliance and enforcement of the *Wildlife Act* must also be balanced against other public safety concerns such as human wildlife conflicts.
- As of October 31, 2016, FLNRO has approved 90 permit applications covering approximately 288 CAS animals (includes multiple animals of the same species).
- There have been identified links with unpermitted CAS being possessed by persons associated to criminal organizations. The CAS has both a value to these individuals as a status symbol and as a deterrent to protect illegal proceeds such as drugs, cash and weapons.
- The significant difficulty in dealing with CAS investigations and CAS seizures is the inherent risk in handling the animals, as well as the lack of short-term and permanent storage in BC for these species. Many provinces and the United States have prohibitions on the import of the animals, making solutions for finding permanent accommodations extremely difficult with the most likely option being euthanasia. The option of euthanasia is publically unpopular, especially with some species such as primates.
- In December 2012, an amendment was made to the CAS regulation to include invasive species that could impact BC waters if introduced. These species include snakeheads, Asian Carp, goby, Oriental weatherfish, bullheads, western mosquitofish, other cyprinids, zebra mussels, quagga mussels, and Conrad's false mussel. Since March 2015, the compliance and enforcement of Schedule 4-listed species zebra and quagga mussels is being delivered through the Invasive Mussel Defense program with direct collaboration with the COS. The added Aquatic Invasive CAS species listed under Schedule 3 will require additional COS effort to focus on both the pet trade and live fish food trade that can bring in the aquatic invasive fish species. The impact of the introduction of any of these species in BC would be very high both environmentally and economically.

Contact information:

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Chief Conservation Officer
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May 2017

Mt. Polley Integrated Investigation

Issue:

- Mt. Polley Integrated Investigation

Background:

- The investigation into the cause of August 4, 2014, Mount Polley Tailings Pond breach is underway, being led by the British Columbia Conservation Officer Service in partnership with Environment and Climate Change Canada and Department of Fisheries and Oceans Canada.
- The Conservation Officer Service uses the highest level of major case file management techniques, as well as internationally recognized systems such as the incident command system. Major Case Management supports major investigations by efficiently processing, organizing, indexing, and ultimately disclosing the large quantities of information derived from these investigations

Next Steps:

- The investigation is very complex and ongoing. The joint investigative team is reviewing a significant amount of seized materials and is preparing a submission to Crown Counsel for review. There is no definitive data for the Crown Counsel submission. A briefing will be scheduled at the Minister's convenience.

Stakeholders:

- Environment and Climate Change Canada;
- Department of Fisheries and Oceans Canada;
- Soda Creek and Williams Lake Indian Bands.

Public Education and Outreach Conducted by the COS**Issue:**

- The role that the Conservation Officer Service plays in educating and conducting outreach to the public

Background:

- The Conservation Officer Service (COS) provides law enforcement and public safety services to the citizens of British Columbia. At times, the work of Conservation Officers can be controversial. COS has recently made a concerted effort to increase their profile to educate the public and highlight the positive work that is accomplished.
- The outreach and public education that is conducted by COS is often on behalf of other programs and ministries within government that do not have the resources or ability to carry out this important activity.
- The Conservation Officer Service began posting to Facebook in 2012. There are currently 7,600 page Likes, with daily growth. Recent single posts have reached over 50,000 people with over 22,000 post-engagements. The largest number of people reached with a single post was 105,000. Facebook has proven to be a very valuable social media companion to the COS Twitter account.
- On September 1, 2016, the COS created a Twitter account and posted their first tweet. This has been a tremendous opportunity to highlight the positive work that the COS is doing. To date, over 100 tweets have been sent out, with some reaching over 10,000 viewers. The expansion into this area of social media has exposed the work that Conservation Officers do to a different segment of society that was perhaps not reached previously. It also allows the COS to be pro-active with their messaging of contentious issues.
- COS staff have attended all of the major tradeshow where they have had the greatest opportunity to reach a large number of stakeholders. The events have included BC Outdoors Show, Snowmobile and All-Terrain Vehicle (ATV) Shows, Edmonton Snowmobile and ATV show, and other similar venues.
- COS executive have ensured that they meet or have dialogue on a regular basis with their key stakeholders such as the Guide Outfitters Association of BC (GOABC), the British Columbia Wildlife Federation (BCWF), and the BC Cattleman's Association (BCCA) This has provided an opportunity for the COS to highlight the work they are doing. The stakeholders then communicate that message directly to their members. Staff have attended all of the major annual general meetings for each of these groups. This has increased the positive relationship with these groups and messaging of the COS.
- Front line Conservation Officers continue to have both pro-active and reactive interaction with the media related to the work they do. On an average year, the number of media contacts is in excess of 550, with the vast majority reflecting the COS in a positive fashion.

- The COS has worked with government communications staff to organize bi-weekly provincial media calls. This has proven to be extremely successful with numerous media outlets attending. Calls have included major media from throughout the province, with as many as 21 outlets calling in and reporting on the successes and accomplishments of the COS over the previous two weeks. Uptake from the media to these opportunities has been high.
- The COS executive attended the 2016 Union of BC Municipalities' annual meeting and staffed a booth in the trade show. The booth was extremely well attended by many of the delegates. It was an opportunity to grow some of the existing relationships with key municipal and regional districts. The interaction also allowed COS staff to educate those governments about attractant management and innovative ways to reduce human-wildlife conflicts, as well as partnering with the COS.
- The COS has purchased an outreach trailer that will be available at all high profile shows, events and annual general meetings in BC. The trailer will house various displays that highlight the work the COS is involved in, as well as other positive initiatives being carried out within the natural resource sector by partners of the COS.
- The COS Ceremonial Troop was formed in 2005. The profile of the troop has been raised in the last two years with staff attending major functions such as the peace officer memorial, funerals for fallen officers, Remembrance Day events, award ceremonies and other public outreach events.

Next Steps:

- The COS will continue to maintain and increase their effort in public education and outreach focussing on the positive work that COS and government partners are carrying out within the natural resource sector.

Stakeholders:

- BC Wildlife Federation
- Guide Outfitters Association of BC
- BC Trappers Association
- BC Snowmobile Federation
- BC ATV Association
- Freshwater Fisheries Society of BC
- Habitat Conservation Trust Fund
- General Public



Cosmetic Use of Pesticides

Issue:

- On July 1, 2016, changes to the Integrated Pest Management Regulation came into effect regarding the cosmetic use of pesticides.

Background:

- The *Integrated Pest Management Act* (IPMA) and Regulation (IPMR) are the primary regulatory tools governing the sale and use of pesticides in the province. The ministry relies on the federal *Pest Control Products Act*, and the expertise of the Pest Management Regulatory Agency of Health Canada, to evaluate and determine acceptable uses for pesticides registered for sale in Canada.
- The ministry conducted extensive public consultation on the sale and cosmetic use of pesticides from 2009 to 2014. As part of the consultation, a Special Committee of the Legislature was struck in 2011 and provided recommendations in 2012. In response to feedback received during consultation, the B.C. government amended the IPMA in 2013 and the IPMR in December, 2015.
- The recent changes to the IPMR are to ensure:
 - Pesticides will be used by people with knowledge and training;
 - Pesticides will be used as part of an Integrated Pest Management (IPM) process; and
 - Public interaction with pesticide vendors at the point of sale will increase.
- No registered pesticide, or pesticide use, was banned outright. The use of pesticides in landscaped areas on public land still requires a license and must be conducted by trained people.
- For most uses of pesticides in landscaped areas on private land, the Ministry now requires either a certificate (for residents) or a license (for commercial properties and service providers). This includes pesticide use on lawns, flower beds and ornamental trees and plants on such properties as single family homes, golf courses, botanical gardens and cemeteries.



- Residents can obtain a “Residential Applicator Certificate” that is valid for ten years by completing an online course and passing an exam.
- Residents do not generally require a license or certificate to use pesticides on their own private land for:
 - Food gardens and hobby farms;
 - Pesticide use inside structures or in outside areas to control structural pests (e.g., rodents, carpenter ants, wasps);
 - Forests that are not managed for timber production; and
 - Areas used for commercial agriculture.
- Domestic pesticide vendors are now required to display most pesticides in a manner that prevents customer access, such as a locked cabinet. In addition, pesticide dispensers must now:
 - Confirm the intended use is appropriate for the product;
 - Advise the customer that a license or certificate may be required to use the product; and
 - Advise the customer that municipal bylaws may restrict the use of the product.
- The IPM Program conducted compliance promotion and assessment activities in 2016 for domestic pesticide vendors after the amendments came into force. Inspectors will shift into verification and enforcement in 2017 and plan to visit every pesticide vendor within the next three years.
- As of May, 2017, about 700 people have obtained Residential Applicator Certificates.
- Approximately 40 B.C. municipalities have bylaws restricting the use of pesticides on municipal and private residential land. Seven provinces – Manitoba, Québec, Ontario, New Brunswick, Prince Edward Island, Nova Scotia, and Newfoundland and Labrador – have implemented restrictions on the use of pesticides on lawns and landscaped areas.



Integrated Pest Management

Issue:

- The Integrated Pest Management Program administers the *Integrated Pest Management Act* (IPMA) and Regulation, which govern the sale and use of pesticides in BC.

Background:

- Pesticide use in British Columbia (BC) is regulated by both federal and provincial legislation. Municipalities may also create bylaws to regulate certain uses of pesticides on residential and municipal land.
- Pesticides can only be used in Canada if they have been evaluated and registered by the Pest Management Regulatory Agency (PMRA) of Health Canada. The agency has a large staff trained to conduct health and environmental reviews and to establish general conditions for the use of pesticides.
- BC further regulates the sale and use of pesticides under the IPMA and Regulation IPMR. The goal of the IPMA is to ensure that no unreasonable adverse effects occur from the application of pesticides and to promote the use of Integrated Pest Management (IPM) as a means to reduce unnecessary pesticide use.
- The IPMR establishes:
 - site specific and area wide authorizations for pesticide use
 - standards for the use, sale and storage of pesticides
 - training requirements for applicators and dispensers
- Authorizations under the IPMA include both registrations and statutory decisions.
- Types of uses regulated by the IPMR include (proponent sectors):
 - Forestry on public and private land
 - Industrial vegetation management (e.g., oil and gas, utilities, etc.)
 - Invasive plant and animal control
 - Mosquito control
 - Landscaping on public and private land
 - Structural pest management (e.g., rats, bed bugs, etc.)
 - Pesticide vendors (commercial and domestic sales)

IPM Program

- The IPM Program spans three branches in Environmental Protection Division and is responsible for:
 - Issuing authorizations and overseeing public and First Nation consultation
 - Setting standards and developing best management practices
 - Developing training material and certification exams
 - Conducting outreach and compliance promotion with proponents
 - Verifying compliance with the IPMA and IPMR



Current topics of interest

- Aquaculture
 - Until recently, only federally registered drugs were used in aquaculture to control pests. These drugs are excluded from the IPMA.
 - Resistance development to these drugs has led companies to consider the use of pesticides, which requires a permit under the IPMA in BC. This has created a need for additional industry outreach to help companies understand our regulatory system and avoid unnecessary delays.
- Glyphosate
 - Glyphosate is a herbicide that holds strong public interest and whose carcinogenic risk the World Health Organization recently reassessed.
 - The PMRA is reviewed its position on glyphosate and released a re-evaluation decision in April 2017 supporting continued registration with minor amendments to the labeled use conditions.
 - The PMRA believes that the use of glyphosate products following the revised conditions will not present a cancer risk to humans nor result in unreasonable adverse impacts to the environment.
- Neonicotinoids
 - Neonicotinoids are a group of neurotoxic pesticides formulated in a wide variety of products used to control insects.
 - Recent studies in eastern Canada found a high amount of bee mortality likely resulting from the use of neonicotinoids in corn and soybean crops. As a result, the federal PMRA created best management practices in 2013 for the use of neonicotinoids in treated seed.
 - Following a re-evaluation of the environmental risk from these products, the PMRA released a proposed decision in late 2016 calling for a phase-out of all commercial agricultural uses of three neonicotinoids and have expanded their risk review to include two others.
 - There is considerable public interest in their use, particularly for the risk they may present to bees. However, PMRA's proposed phase-out is for the protection of aquatic insects.
 - Except in a few specific cases, agricultural pesticide use does not require any authorization under the IPMA.
 - Any changes to the B.C. regulatory model should be done in consultation with the Ministry of Agriculture, the agricultural sector, beekeepers and the pesticide industry.



Regulatory Changes Underway: EMA and IPMA

Issue:

- The *Environmental Management Act* (EMA) and its 38 associated regulations and codes of practice govern the discharge of waste into the environment. The *Integrated Pest Management Act* (IPMA), and its associated two regulations govern the sale and use of pesticides in BC.

Background:

- Regulations and Codes of Practice under both Acts are either Lieutenant Governor in Council approved (via Order in Council) or Minister's regulations approved by the Minister (denoted below).
- Regulations and Codes are created through a transparent process that involves stakeholders and the public. Major steps include problem scoping, posting a Policy Intentions Paper, providing formal consultation period (at least 45 days), legislative drafting, and Caucus and Cabinet review (optional for Minister's regulations). Minister's briefings are provided during the process in order to confirm desired outcomes and obtain formal direction/approval.
- Regulations and Codes range in content from relatively simple and administrative (e.g., data assurance) to highly complex and controversial (e.g. requirements for composting organics and biosolids management).
- Stakeholders consulted during the regulatory process include the regulated sector (e.g., individual companies and industry associations), First Nations, local government, other ministries, professional associations and industry experts, non-government environmental organizations and citizens.
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- There are numerous proposed regulatory projects that are under consideration and Minister's Office direction will be sought to confirm priorities and timing expectations prior to undertaking a specific Regulation or Code's development/amendment.



EMA Authorization Backlog and New Fee Proposals

Issue:

- Waste discharge permit processing continues to challenge current resource capacity and meeting client and public expectations for timely decisions

Background:

- Under the *Environmental Management Act* (EMA), wastes (solid, liquid and air) can be discharged into the environment either under permit, approval or a code of practice (registration); there are currently almost 4000 authorizations (2145 permits/approvals and 1774 registrations). There are an average of 635 requests for new permits or amendments to existing permits received each year.
- Authorizations vary in complexity due to location, quantity, quality, level of treatment and public/First Nations interest in the discharge; authorizations are needed for discharges of waste to the air, water or land.
- Annual discharge fees are required for each permit/approval and for some registrations on their anniversary date; the fee is a minimum \$100 charge plus a pollutant-specific per tonne charge thereafter. There are minimal fees for permit amendments and no fees are collected for ministry conducted inspections or monitoring activities. Permit fees are based upon a polluter pay principle.
- To support timely authorizations, the application process has undergone a Lean process review to maximize efficiencies; the Regional Operations Branch of the Environmental Protection Division (EPD) has realigned staff to specific sector and specialized functions (i.e. there is a Mining Team, Compliance Team, Monitoring Team); application forms have been updated and automated; guidance documents have been produced for specific sectors.
- EPD continues to look for opportunities for bundling authorizations through the NRPP work undertaken by FLNRO; EPD is a full participant in the Major Mines Project Office which is producing significant efficiencies for the Ministry of Environment and Ministry of Energy and Mines permitting activities.
- Waste discharge fees have not changed since a phased implementation of a 40 percent increase between 2004 and 2006.
- A comprehensive 2015 cross-jurisdictional scan of waste permit fees indicated that the fees charged by BC were either the lowest fees charged by any jurisdiction with a similar system, or very close to being the lowest (70-98 percent lower).



- The current waste permit fee structure does not reflect program costs. Current revenues from discharge fees are \$13.5M while program costs forecasted for 2017/18 are \$30.5M.
- EPD has received contingency funding for a number of years to support authorizations and compliance activities for the LNG and Mining sectors. In 2017/18, a \$3M add to base replaced the previous years' mining and compliance contingency funds thereby ensuring continued service to the mining sector and ensuring timely compliance follow-up for many sectors.
- The program's revenue translates to a cost recovery of only 64 percent - well below the TB target range of 75 percent to 125 percent. The fee revenue is not reflective of the level of service expended to deliver EMA authorizations, compliance and monitoring activities. In 2016/17, 50,900 hours or 28% of staff time were spent by ROB staff managing and reviewed authorizations; 26,480 hours or 15% of staff time were spent by ROB conducting compliance functions; and 18,290 hours or 10% of staff time were spent by ROB conducting monitoring functions.
- All waste discharge fees are directed to the Sustainable Environment Fund (SEF) special account. If revenue into the SEF is less than expected or delayed, the Ministry will delay additional program or other offsetting expenditures to order to not put the SEF in a deficit position.
- Currently, the backlog of applications awaiting processing is 406, resulting in an average 18-month time to decision. Currently, the backlog is heavily weighted towards the forestry sector followed by local government and a number of other industries
- Authorization holders range from local/provincial governments, industry, small businesses, and individuals; the top five permittees with the largest fees are Metro Vancouver, Canfor Pulp, Westcoast Energy, Teck Coal, and Rio Tinto.

Decision Required:

- **90 Day Issue**
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EMA Compliance activities in the Regional Operations Branch

Issue:

- The Environmental Protection Division (EPD) of the Ministry has an increased focus on compliance and enforcement activities under the *Environmental Management Act*.

Background:

- On May 3, 2016, the Auditor General of British Columbia released a report on the Ministry of Energy and Mines and the Ministry of Environment's efforts in compliance and enforcement of the mining sector. It had several recommendations for government which are applicable to more than just the mining sector.
- In May 2016, Treasury Board approved contingency funding of \$2M to address several of the recommendations from the Auditor General.
- The key performance targets set by Treasury Board as part of the approval included:
 - Compliance Inspections – conduct at least 2000 inspections per year (base line was 515)
 - Authorization Inspections – Inspect at least 25% of all authorizations annually (baseline was 5%)
 - Complaints Response – 50% of all complaints received are responded to within one week (baseline 10%).
 - Training – Increase training hours to 100 hours annually (baseline is 35 hours)
 - Documented Compliance Status – Complete 5 cross sector/agency audits per year (baseline 0)
- To deliver on these performance targets, the Compliance Team within Regional Operations Branch of EPD has over 42 base staff focused on compliance functions. 50% of the compliance staff have less than one year with the BC Public Service. The majority of staff were hired in the fall of 2016.
- The Compliance Team is divided into four focus areas/sections:
 - Planned inspections – conduct regularly planned inspections of EMA authorized sites, inspect a site at a minimum frequency of once every four years;
 - Promotion – conduct outreach and education to permittees, stakeholders, community groups, First Nations and industry associations;
 - Reactive – manage and respond to complaints (approx. 2000 per year) as well as conduct compliance inspections; and
 - Provincially Significant Projects - provide focused attention on files of significant importance as well as lead sector audits.



- With the increase in resources and focus on all aspects of compliance, outcomes are more predictable, consistent and efficient benefiting staff, the public and EMA authorization holders.
- In 2016/2017, the Compliance Team spent 50,900 hours or 15% of staff time delivering compliance activities. In the first four months of 2017, 688 EMA compliance inspections were conducted and 339 complaints were logged with staff responding to 85% of complaints within one week.
- In 2016/17 seven sector/area-based audits were conducted:
 - Sewage (pump and haulers) in North East;
 - Sawmill Air Permits;
 - Burrard Inlet Effluent Permits;
 - Asphalt Plants;
 - Oil and Gas Air Permit Monitoring;
 - Oil and Gas Inverts; and
 - Qualified Professionals.
- These audits are in the final draft stages.
- The Compliance Team is leading compliance activities on the Elk Valley Area-Based Management Plan, South Island Aggregates, Revolution Organics, Mount Polley Pollution Abatement Order, the Hullcar Aquifer and many others.
- The first Annual Compliance Report documenting all compliance efforts for 2015 by the Environmental Protection Division was released in the fall 2016. The 2016 Annual Compliance Report is currently being drafted by ROB's Compliance Promotion team.

Decision Required:

Within 90 days
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Permit Refresh Project

Issue:

- Outdated permit requirements are challenging for compliance staff and clients to efficiently determine compliance on *Environmental Management Act* (EMA) authorizations.

Background:

- The Permit Refresh Project was developed based on the Auditor General report, 'An Audit of Compliance and Enforcement of the Mining Sector', May 3, 2016 – recommendation #1.2 "Permit Language – We recommend that government ensure both historical and current permit requirements are written with enforceable language".
- Staff experience challenges trying to efficiently determine compliance on EMA authorizations with various versions of conditions with differing compliance points.
- Inconsistent environmental protection provisions exist across the province due to inconsistent foundational permit conditions.
- Inconsistent condition language shows up in permits issued to the same client or same type of operation within a sector.
- The public has high expectations that the Province will ensure environmental protection by issuing enforceable authorizations.
- Increased permitting effort is needed by authorizations staff to fully refresh an authorization. This reduces the productivity/timely review of incoming applications, thus contributing to the application backlog.

Required Outcomes:

- 1000 EMA authorizations to be refreshed so that the oldest vintage authorization is September 2010.
- Develop renewed policy for permit condition usage and development.
- Train staff and complete a manual with procedures to reflect permit refresh requirements.
- Reduce effort required by compliance and authorization staff to perform compliance and authorization duties.
- Increase the clarity and consistency for permittees regarding environmental protection requirements.
- Increase transparency for public.



Recent activities:

- Presentations on the project were given to:
 - Business Council of BC - October 18, 2016 and January 17, 2017.
 - Council of Forest Industries – November 16, 2016.
- Ministry of Energy and Mines and the Environmental Assessment Office informed of the project September 2016.
- As of May 5, 2017 – 148 EMA authorizations have been sent for decision to a statutory decision maker and 65 have been signed.
- Auxiliary and contract staff have been used for this project as budget allows.



Canadian Ambient Air Quality Standards for Nitrogen Dioxide

Issue:

- The development of new national air quality standards for nitrogen dioxide (NO₂).

Background:

- The Air Quality Management System (AQMS) is a national approach to managing air quality in Canada that is being implemented across Canada except Quebec.
- Under the AQMS, the Canadian Ambient Air Quality Standards (CAAQS) are national air quality voluntary targets that drive air quality improvements to protect human health and the environment.
- CAAQS are developed under the auspices of the Canadian Council of Ministers of the Environment (CCME). However, provinces and territories may modify as necessary.
- To date, CAAQS have been adopted for three pollutants: fine particulates or PM_{2.5}, ground-level ozone and sulphur dioxide.

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- NO₂ is a gaseous pollutant that is primarily associated with fuel combustion.
- Major sources in BC include motor vehicles and the upstream oil and gas sector.
- NO₂ has known impacts on respiratory health and the environment and no safe threshold has been identified.
- A multi-stakeholder working group was tasked with drafting the recommendations on new CAAQS for the CCME's Air Management Committee.
- The working group consisted of representatives from health and environmental groups, First Nations, industry and federal, provincial and regional governments.
- In March 2017, the working group reached general consensus on new 1-hour and annually averaged NO₂ standards for 2020 and 2025 achievement.

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- The Ministry has briefed numerous stakeholders including Spectra Energy and the LNG Alliance and will brief the BC Business Council Air Issues Working Group in June 2017.



- A common message has been that the ministry is willing to work with affected stakeholders to reduce emissions over time.



Northeast Air Quality Monitoring Project

Issue:

- Monitoring project to address public concerns about air emissions from oil and gas development in the Peace region

Background:

- The Northeast Air Quality Monitoring Project is a partnership between the BC government, the BC Oil and Gas Commission (OGC), the Canadian Association of Petroleum Producers (CAPP) and Spectra Energy, to address public concerns about possible air quality issues related to oil and gas development in the Peace region.
- Historically, air monitoring in the Northeast has focused on major point sources, including some oil and gas facilities. Initiated in 2012, the Northeast Air Quality Monitoring Project is a multi-year phased collaboration between stakeholders, industry and government, aimed at providing long-term air quality information to the public and decision-makers. The project is being implemented in three phases under the guidance of a Steering Committee, composed of representatives of each of the partner agencies with engagement of local community members and stakeholders in the development of the air monitoring network.
- In Phase 1 (Complete. December 2012 - March 2014)
 - Established an Advisory Group to engage with the local community which provided advice and further context in site selection.
 - Deployed three automated air quality monitoring stations at Doig River, Farmington and Tomslake. The equipment measures sulphur dioxide (SO₂), total reduced sulphur (TRS) and some basic meteorological parameters.
 - Analyzed existing ambient air quality data
- In Phase 2 (Complete. July 2014 – May 2016)
 - Continued the operation of the three portable air monitoring stations and expanded with installation of an air monitoring station in Fort St. John, which measures nitrogen oxides (NO_x), sulphur dioxide, ozone (O₃) and particulate matter (PM_{2.5} and PM₁₀) and is part of the Canadian Air Quality Health Index (AQHI) network.
 - Continued to engage with the community by separating the Phase 1 Advisory Group into a Technical Advisory Group (TAG) and a Public Outreach Group (POG). The TAG and the POG provided valuable advice and direction on both public engagement and the types and location of monitoring needed in the Peace region to address public concerns about oil and gas development.



- An assessment of the data collected in Phases 1 and 2 indicated that ambient air in Northeastern BC is relatively clean; TRS and SO₂ concentrations in the area of Tomslake, Farmington and Doig River were very low compared to BC Air Quality Objectives.
- While Phases 1 and 2 have increased the understanding of ambient air quality in Northeast BC, given the distributed pattern of industrial activity and small rural node communities throughout the region, important knowledge gaps still exist.
- Phase 3 (On-going, November 2016 – date)
 - Ambient monitoring in new sites will enhance the understanding of air quality in the region and demonstrate to local communities that government, regulators and industry are continuing to address their air quality concerns.
 - Specifically, the three portable monitoring stations have new sensors added to measure nitrogen oxides, ozone and particulate matter, and were re-located to Rolla, Taylor and Blueberry River.
 - s.13
- Interested parties include: the oil and gas industry; First Nations; BC government agencies; CAPP; OGC; Peace Environment & Safety Trustees Society; NE Oil & Gas Health Advisory Committee; Northern Lights College; South Peace River Stockmen's Association; local governments; and members of the public.



Wood Stove Exchange Program

Issue:

- The wood stove exchange is a program targeted at improving air quality in communities by providing incentives for residents to switch to cleaner heating options.

Background:

- The Wood Stove Exchange Program has operated in BC since 2008
- The program offers education on clean wood burning practices and cash incentives to encourage British Columbians to get rid of smoky old wood stoves that contribute to air pollution.
- Residential wood heating is the largest or second largest contributor to fine particulate matter (PM_{2.5}) pollution in many BC communities.
- PM_{2.5} is a contributor to heart and lung health problems. It is the pollutant of greatest concern in most BC communities.
- Five BC communities exceed the national standards for PM_{2.5}. In each of these communities, wood smoke is a significant contributor to PM_{2.5}.
- Since its inception the program has resulted in nearly 7000 old smoky wood stoves being replaced with cleaner alternatives.
 - Replacement appliances can be clean burning certified wood stoves, pellet stoves, gas stoves or electric heat pumps
- In recent years the program has been funded at \$200,000 per year. Accounting for the costs of running the program about 650 incentives of \$250 each are funded each year.
- Indirect benefits of the program include increasing the awareness of wood smoke pollution and highlighting BC Government commitment to improving air quality.
- The BC Lung Association is a partner with the Province in administering the program.
- The program is delivered locally through the co-operation of local governments and community groups. Currently there are 16 communities and regional districts participating.
- A call for proposals will be issued in July 2017 to solicit participating communities for 2018.



MT POLLEY – CURRENT STATUS (ENV)

Issue:

- Current environmental discharge and remediation status at Mount Polley Mine

Background:

Permitting

- Mount Polley Mining Corporation (MPMC) operates under the requirements of a series of permits (effluent, air and refuse discharges) and a Pollution Abatement Order issued under the *Environmental Management Act* (EMA).
- In March 2017, MPMC received consent for a material alteration to their EA certificate for their long-term plan to manage mine influenced water for the site.
- The amendment to the effluent discharge permit was subject to a comprehensive technical review by the Cariboo Mine Development Review Committee (CMDRC) which includes representatives from provincial and federal agencies, First Nations, local governments (City of Williams Lake and Cariboo Regional District), and the community of Likely.
- An independent statutory decision-maker (SDM) issued a decision to amend the permit to allow the discharge to Quesnel Lake to continue to 2022, subject to conditions necessary to protect the environment. The SDM considered all comments and feedback from the public, First Nations, government agencies, and the applicant when making the decision.
- Conditions in the permit specify the level of treatment, quality and quantity of discharge, and monitoring and reporting.
- The local community preferred the effluent be piped to the Quesnel River. The discharge to Quesnel Lake was selected by MPMC after reviewing alternatives, including a pipeline to the Quesnel River, and considering various factors including environmental, technical, social and economic criteria. The discharge into Quesnel Lake is designed to preserve the lake water quality, protect water uses, and aquatic life.
- Since June 23, 2016, tailings have been deposited and contained in the repaired Tailings Storage Facility in accordance with the geotechnical approval provided by MEM.
- The discharge authorization was amended April 7, 2017 to allow the release of treated mine water from the mine site directly to Quesnel Lake at depth via a pipeline during the remaining permitted mine life of four years. This discharge is expected to be replaced after closure with a passive treatment through wetlands with the discharge to the watersheds local to the mine site.
- Work has commenced to install the pipeline and related appurtenances to support moving the discharge point from Hazeltine Creek to Quesnel Lake.
- Until the pipeline is commissioned in the fall of 2017, treated water is discharged into



Hazeltine Creek and flows through a sediment pond for further treatment. From there, the treated water enters a pipeline that discharges approximately 40 to 50 metres below the surface of Quesnel Lake (out of range of drinking water intakes).

- Treated water discharged to the lake is required to meet environmental water quality guidelines for aquatic and public health at the edge of a 100 metre dilution zone in Quesnel Lake.
- MPMC suspended the discharge to the lake during the spring due to high runoff in Hazeltine Creek that uses up the capacity of the pipeline and outfall from the ponds to Quesnel Lake.
- MPMC objected to having a requirement in their permit to meet stringent WQG at the edge of the initial dilution zone. In particular, they are concerned to total copper exceedances caused by local creeks flowing into the lake during freshet. The limit for total copper was clarified to be a 30-day average so that no single sample would impact the ability to continue to release water off the site.
- MPMC and a local property owner have appealed the recently amended permit. MPMC contends that the amended permit is too restrictive given background water quality, while the local property owner contends that the permit does not require sufficient treatment of the effluent.
- Amnesty International has raised concerns about the mine being allowed to return to full operations, and has sought information from ENV regarding the TSF breach, monitoring, remediation, decision making, and status of the investigation.
- A United Nations Working Group on Business and Human Rights is visiting Williams Lake met with local government on May 29, 2017, and is meeting with BC government staff to learn more about the lessons learned from the TSF breach.

Remediation of Tailings Spill Impacted Area

- While full environmental remediation will take years, significant progress has been made in the remediation efforts done to-date.
- The Pollution Abatement Order (PAO) and an order under the *Water Act* (FLNRO), outline requirements for the company to carry out assessment and mitigation activities.
- To meet the requirements in the PAO, MPMC is executing the long-term mitigation and remediation plan, and are currently focused on detailed site investigation, long-term remediation, and restoration monitoring.
- Remediation and restoration work done over the past two years includes:
 - Reconstruction of Hazeltine Creek channel has restored the connection to Polley Lake, and Quesnel Lake foreshore restored at the mouth of Hazeltine Creek,
 - Fish habitat created in the creek between Polley Lake and the mine discharge point,
 - Removal of spilled tailings from both sides of the Upper Hazeltine Creek,
 - Erosion control including re-vegetation, re-sloping, and placement of large woody



- debris as mammal habitat has been installed along the Hazeltine Creek corridor, and
 - Trees “suffocated” by the spilled material have been removed along with the spilled material and the area has been renovated, and replanted.
- A series of reports and assessments are required under the PAO to inform long-term remediation and restoration plans:
 - A Post-Event Environmental Impact Assessment Report was completed which reports out on the physical, chemical and biological impacts of the spill,
 - A Detailed Site Investigation was completed which reports out on the contaminants of potential concern informing the risk assessments, and
 - A revised human health risk assessment will be submitted by end of May 2017 and an ecological risk assessment by September 2017.

Monitoring:

- The company is required to implement a Comprehensive Environmental Monitoring Plan (including fish monitoring) with reports due annually at the end of March.
- A long-term project led by FLNRO, called the Quesnel Lake Acoustic Study, is underway and tracks the movements, behavior, and mortality rates of Lake Trout, Rainbow Trout and Bull Trout in Quesnel Lake.
- The ministry continues to conduct independent monitoring related to the mine discharge and spill impact, as well as conduct compliance verification to ensure the discharge is compliant with the conditions of the permit and the PAO.

Compliance

- As of May 2017, MPMC is in full compliance with the PAO and has minor administrative non-compliances with the effluent discharge permit.
- There two drinking water and aquatic life exceedances at the Likely Bridge monitoring site; one total aluminum value which exceeded the drinking water guideline, and one total copper value which exceeded the aquatic life guideline in March 2016.
- The Quesnel River at Gravelle Ferry monitoring site has recorded elevated levels of total phosphorous, chromium, copper and dissolved aluminum exceeding aquatic life guidelines, but this is the result of contributions from other tributaries to the Quesnel River downstream of Quesnel Lake, in particular the Cariboo River.
- The Conservation Officer Service, the Department of Fisheries and Oceans, and Environment and Climate Change Canada are jointly investigating the Mount. Polley Tailings Facility Failure; the investigation is ongoing. Environmental Protection staff are providing support as required.

First Nations and Public Engagement

- First Nations and local communities are active participants in the review work being done through committees established to engage in the technical review process.



- The ministry is engaged through the CMDRC to review the updated mine closure and reclamation plan, and to review an updated Environmental Assessment Certificate.
- There continues to be a collaborative relationship between the Province, the Williams Lake Indian Band and Soda Creek Indian Band as per the Letter of Understanding signed in August 2014. Also, a Government-to-Government technical working group with the two First Nations continues to meet regularly. Commitments have been made to provide capacity to First Nations to review outstanding reports required under the PAO.
- Information is also being shared with the Tsilhqot'in National Government and Lhtako First Nations who use downstream waters during aboriginal fisheries, although the mine and Quesnel Lake is not in their territory.



Alaska/Montana Mining and Water Quality Issues

Issue:

- US Tribes, government agency and stakeholder concerns about potential impacts of BC mining activities on water quality in Alaska and Montana are being addressed through Transboundary Water Quality Working Groups.

Background:

Alaska

- US Tribes and stakeholders in Southeast Alaska have concerns about existing and potential impacts to water quality and fisheries values downstream of historic (e.g. Tulsequah Chief Mine in the Taku River watershed), operating (e.g. Red Chris mine in the Stikine watershed) and new mine developments (e.g. KSM mine in the Unuk watershed), occurring upstream in BC in a number of transboundary watersheds.
- In response to these concerns, BC and Alaska made formal commitments to enhance and protect the shared transboundary waters and fisheries under the November 2015 MOU and October 2016 Statement of Cooperation (SOC), between the State of Alaska and the Province of BC.
- A key element of the SOC is establishing a Bilateral Working Group (BWG), consisting of the commissioners of the Alaska Departments of Environmental Conservation, Fish and Game, and Natural Resources and the Deputy Ministers of the British Columbia Ministries of Energy and Mines and Environment, to establish and oversee a Technical Working Group on Monitoring (TWG-M).
- The TWG-M is comprised of experts nominated from agencies and ministries of the BWG; the TWG-M has been tasked with:
 1. Providing recommendations to the BWG on: the scope, elements and funding of a coordinated monitoring approach; ways to collect, import or link trustworthy data stored by others; and presenting data and information in an accessible way.
 2. Engaging with First Nations, Tribes, industry and others on key concerns.
 3. Finding efficiencies and avoiding duplication.
- The TWG-M developed a preliminary draft Program Description and Two-Year Work Plan and received approval in principal from the BWG on April 20, 2017, to allow for: continued consultation with First Nations and Tribes; for refinement of the options in the proposed plan; and to seek opportunities for funding partners for elements of the plan.
- TWG-M will bring back the Program Description and Two-Year Work Plan for final review and approval of the BWG at the next meeting (July – September, 2017).



- Interested parties include: Central Council of Tlingit and Haida Indian Tribes of Alaska, NGO's, State/Provincial and Federal agencies, US and Canadian communities, First Nations, Nisga'a Nation.

Montana

- Lake Koocanusa, in Southeastern BC is a shared waterbody with the State of Montana. In 2012, the Montana Department of Environmental Quality (DEQ) included Lake Koocanusa on its list of impaired waters due to the impacts of upstream coal mining.
- As provided for in the 2003 Environmental Cooperation Arrangement and 2010 MOU, BC and Montana have formal commitments to protect and enhance the transboundary environment.
- In response to water quality concerns raised by Montana DEQ and the US Environmental Protection Agency (USEPA) during the development of the Teck Coal Ltd. (Teck)'s Area Based Management Plan (ABMP) for the Elk Valley, BC committed to establishing a working group as the proposed forum, along with government-to-government discussions, through which future water quality criteria/objectives for Lake Koocanusa would be discussed.
- The Lake Koocanusa Monitoring and Research Working Group (Working Group) was established in November 2014 by ENV and Montana DEQ. The primary objectives of the group are to collaborate for the purposes of protecting Lake Koocanusa by determining water monitoring priorities, developing water quality research plans and determining a scientifically-based target for selenium that provides protection for the aquatic health of the lake. Ideally, one number may be established for the entire lake and adopted by both Montana and BC regulators through respective processes for establishment of water quality criteria/objectives.
- Interested parties include: the Ktunaxa Nation Council (KNC), Confederated Salish and Kootenai Tribes (CSKT), Kootenai Tribe of Idaho (KToI), federal and state/provincial agencies and NGO's.
- The Working Group, comprised of representatives of the interested parties, established a Steering Committee (SC), a Stakeholder Committee, a Monitoring and Research Committee (MRC) and a Selenium Sub-committee (SeSC). The MRC has collaborated to draft terms of reference, prioritize and recommend monitoring activities, and to establish working relationships with selenium experts and local ecologists. The SeSC has drafted a conceptual model of selenium and a fish food web model for Lake Koocanusa, and prioritized selenium monitoring and modelling activities for 2017.
- In 2017, the SC will finalize the Memorandum of Understanding that establishes the Working Group. The MRC and SeSC will investigate opportunities for laboratory-based research on burbot, a socially and ecologically important fish in Lake Koocanusa and will discuss how BC and Montana policies and standards will be used to guide further monitoring and research.



Rio Tinto Appeal

Issue:

- Rio Tinto's *Environmental Management Act* (EMA) waste discharge permit is currently under appeal.

Background:

- A waste discharge permit amendment was issued in April 2013 to Rio Tinto for their Kitimat smelter to reflect an increased sulphur dioxide (SO₂) limit and a reduction in other emissions; the SO₂ limit was determined using the best information available from qualified professionals inside and outside the ministry.
- Permit and permit amendment decisions are made by a statutory decision maker (SDM) and are made with advice from qualified professionals who are experts in their field of study/practice. In this instance, the SDM concluded the amended permit is protective of human health and the environment.
- The amendment was appealed by two Kitimat residents (Emily Toews and Elisabeth Stannus). The Environmental Appeal Board (EAB) upheld the ministry's permit decision on December 23, 2015 and made some recommendations for consideration which the ministry is currently following up on.
- The permit contains a requirement for the development and implementation of an Environmental Effects Monitoring Plan (the "Plan") which was submitted and deemed acceptable by the Director. The approval of the Plan is currently under appeal. UNIFOR Local 2301 (Union representing the smelter workers) appealed the approval of the Plan.
- The EAB's December 4, 2014 decision on the Plan was that it did not constitute a decision and therefore was not appealable.
- The EAB has since reconsidered its decision and determined the Plan is, in fact, an appealable decision after a Judicial Review (JR) sent it back to the EAB to reconsider. The JR is currently under appeal at the BC Court of Appeal, filed by Rio Tinto.
- The appeal of the Plan decision is also currently before the EAB. The Ministry of Environment (ENV) is awaiting direction from the EAB on next steps.

Further Details:

- The amended permit granted by ENV in April 2013 authorizes the current limit of 42 tonnes of SO₂ per day as compared to the previous limit of 27 tonnes. As a result of the smelter upgrades, there will be less total fluoride, total particulate and polycyclic aromatic hydrocarbon emissions.
- The EAB held a hearing from two Kitimat residents regarding the permit amendment granted by ENV in April 2013 allowing increased SO₂ emissions as part of the Rio Tinto smelter modernization project. The hearing ended June 30, 2015 and on Dec. 23, 2015 the EAB upheld the permit amendment.
- The EAB made recommendations to ENV including:
 - requiring Rio Tinto to update the human health section of their Plan;
 - Rio Tinto undertaking a provincially-led regional health study;
 - developing a health advisory system for Kitimat; and
 - taking into account conclusions from the Prince Rupert Airshed Study.
- The Plan was a requirement of the permit decision and includes impact threshold criteria, that, when exceeded, would trigger requirements for emissions reductions and/or other mitigation. The Plan includes scrubbing and other options for mitigation. An SDM may also require mitigation measures under EMA if s/he deems them necessary.
- The specific criteria for the Plan were set out in a Letter of Approval by the SDM in October 2014. Unifor subsequently appealed the letter but in December 2014, the EAB ruled it was not an appealable decision. Unifor launched a petition to the BC Supreme Court arguing the EAB was wrong in their decision and on Sept. 4, 2015, the Court ruled the EAB must reconsider Unifor's appeal. Rio Tinto has appealed this decision and it has not yet been heard by the Courts.
- On Nov 16, 2015 the EAB reconsidered its previous decision and reached the conclusion that the Plan was an appealable decision. ENV is awaiting direction from the EAB on how and when it will move forward with this appeal.
- A key argument from the hearings was that ENV allowed Rio Tinto to pay an ENV employee's salary, from 2007-2013. This employee was tasked by ENV to review the waste discharge permit amendment application and make recommendations to the SDM.
- In this instance, there was an MOU between ENV and Rio Tinto. The MOU references the position as seconded to allow an ENV employee to exclusively work on Rio Tinto applications for new authorizations or amendments to existing authorizations. However, the employee worked for ENV the entire time; in addition to reviewing applications, he did compliance inspections and data reviews of the Rio Tinto facility and reported his findings to the SDM.
- For large and complex projects that require significant staff time to review and assess technical information submitted in support of EMA applications, applicants may fund ENV staff to exclusively review and process their application. A contractual MOU is one means of formalizing the company's contribution for an expedited review.



Recycle BC Packaging and Printed Paper Stewardship Program

Background:

About Recycle BC:

- As required under the Recycling Regulation, producers of Packaging and Printed Paper (PPP) (commonly referred to as the contents of the “Blue Box” materials) were required to submit a stewardship plan to the Ministry of Environment by November 19, 2012 and implement their approved plan by May 19, 2014.
- Recycle BC (RBC) (formerly Multi-Material British Columbia (MMBC)) is an industry-led and financed organization, also known as a Product Stewardship Agency. RBC is a not-for-profit company, incorporated under the national Not-for-Profit Act.
- RBC assumed responsibility for managing residential PPP recycling on behalf of industry in May 2014.

Stewardship Plan:

- RBC has a stewardship plan approved by government, which defines the program for managing of PPP material, including:
 - Program objectives;
 - Targets; and
 - Operational performance measures.
- RBC, like the other 20+ Stewardship Agencies operating in BC, is required to conduct third party audit/verification on an annual basis of the performance measures identified in their plan, and is subject to a number of reporting and performance requirements under the Regulation.

RBC Operational Structure:

- In total, RBC has contracts in place with +200 organizations including local governments and private entities (See Figure 1)
- The below graphic identifies the two sides to the RBC operational structure; the collection side and the processing side. Collectively the annual operating cost of the RBC program is estimated to be approximately \$100M.

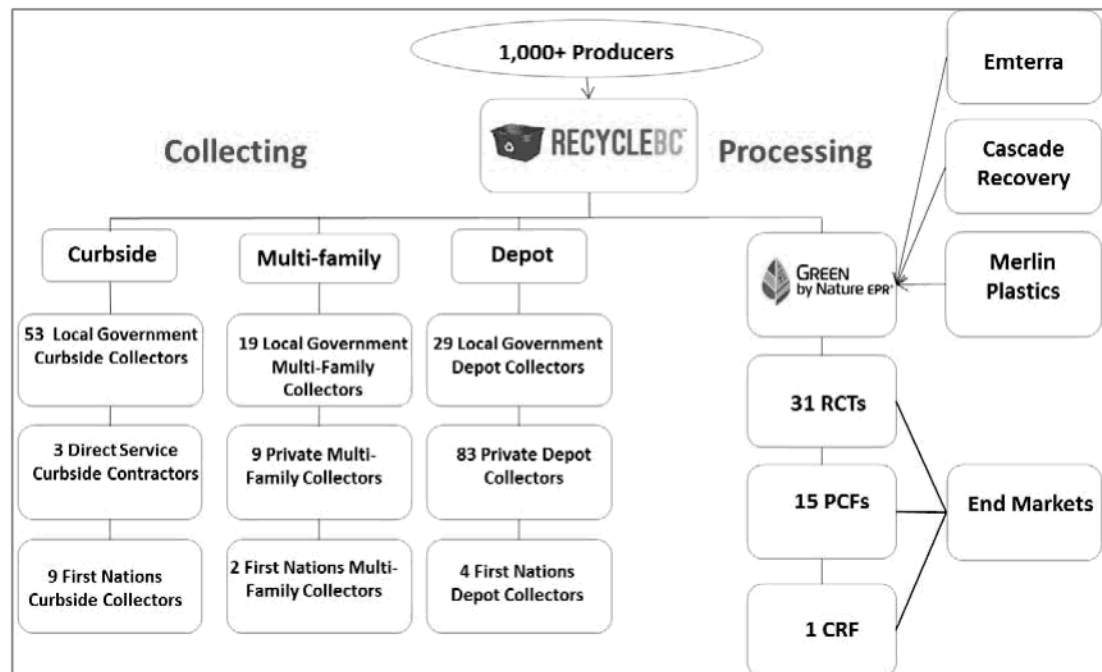


Figure 1: RBC Operating Structure, indicating the various public, private and first nations entities that RBC contracts with. Receiving, Consolidation and Transfer facilities (RCTs), Pre-Conditioning Facilities (PCFs), Container Recovery Facility (CRF)

Fees:

- RBC represents the large majority of producers of PPP whose products end up in the residential waste stream in BC.
- RBC is 100% financed by the fees paid by its Producer members.
- RBC's fees are based on the weight and type of the materials that a producer supplies into the residential marketplace. Fee rates are calculated to ensure fairness and to cover the costs associated with collection, transportation and processing of each material.

Waitlist:

- Until recently there were over 30 communities throughout BC that have requested, but do not receive PPP collection service from RBC. RBC was unable to expand service to these communities due to a lack of financial resources resulting from on-going non-compliant PPP producers - including the newspaper industry. Government has been strategically working with RBC and the newspaper industry (by far the largest non-compliant producer) to address the compliance issue and close the gap in service.
- In December 2016, the Ministry and RBC signed a legal agreement outlining the provisions needed to facilitate the phased on-boarding of all waitlisted communities by January 2018.
- So far, Kamloops and the Fraser Valley communities (Abbotsford, Mission and Chilliwack) have been offered collection service by RBC and have established collection contracts with them. As further compliance milestones are reached, more communities will receive offers.



Key High Risk/High Profile Sites

Issue:

- Overview of major case files managed by the Land Remediation Section

Background:

Teck, Trail Operations –

- The Trail lead and zinc smelter operated by Teck Resources Ltd (Teck) has been in operation for over 100 years.
- Since construction of the KIVCET smelter in 1997 stack emissions of lead have dropped by 99%. Teck is pursuing further reductions in lead emissions under their Fugitive Dust Reduction Program. Enclosure of stockpiled in-process materials in 2015 is expected to reduce fugitive dust emissions by a further 25%.
- MOE has been working with Teck, Interior Health and the City of Trail to reduce risks to human health from smelter metals in Trail since 1988. In 2001 the Trail Area Health and Environment Committee (THEC) was established between the agencies.
- THEC provides a comprehensive, risk-based program (the Trail Area Health and Environment Program or THEP) to reduce human health risks by reducing exposure to smelter metals from ongoing Teck operations and from historical soil contamination in the Trail area.
- The program involves reductions in smelter stack emissions and fugitive dust, air quality monitoring and dust control in the community, and targeted soil remediation.
- Monitoring of children's blood lead levels since 1989 has shown children's average blood lead levels in Trail have dropped from 13.5 to 4.5 ug/dL. The Canadian standard is 1.5 – 2.0 ug/dL.
- Historic metal and SO₂ emissions have caused contamination and vegetation die off within the Lower Columbia River Valley from Castlegar to the US Border.
- Remediation and restoration of some of the contaminated areas cannot be achieved without excessive cost and no assurance of success.
- The ministry and Teck are working toward designating the contaminated area outside as of the smelter site (City of Trail and Lower Columbia Valley) as a Wide Area Site under Section 14 of the Contaminated Sites Regulation, with Teck Ltd. named as the sole responsible party.
- The main benefit of the Wide Area Site (WAS) designation is that it legally names Teck as the responsible party for smelter-related contamination and exempts innocent property



owners from smelter contamination-related liability. Another significant benefit is the allowance for the use of blood lead as a remediation target for human health protection where approved by the provincial medical health officer (s18, CSR). The Trail Health and Environment Program is founded on a blood lead target established by the medical health officer.

- Before finalizing the designation, Teck intends to consult with the public on the proposed remediation plans.
- The City of Trail and surrounding municipalities have concerns about a Wide Area Site designation in their communities. The ministry has proposed minor regulatory changes that may address the city's concerns.

Island Copper –

- In 2004 BHP Billiton Diamonds Inc. (BHP) obtained a Certificate of Compliance (CoC) for a non-core area (eg. non mine works area) associated with the former Island Copper mine site near Port Hardy. The CoC facilitated a transfer of ownership from BHP to the Quatsino First Nation (QFN) who were interested in the lands to explore economic opportunities for their nation.
- To facilitate the transfer, the Province and QFN signed an indemnity agreement, releasing BHP from any liability associated with future remediation costs.
- The CoC contained a requirement for on-going monitoring of water discharges to Rupert Inlet across the site. The required monitoring was not completed until 2014 and revealed that conditions in a number of discharges were markedly higher than reported in 2004 (indicative of high risk discharge), and that the environmental risk assessment completed in 2004 was in doubt.
- s.13

Britannia Mine –

- Between 1904 and 1974 the Britannia Mine was the largest copper producer in the British Commonwealth. Until 2006 it was also the largest discharger of acid mine drainage in North America, daily releasing more than 300 kg of copper and zinc into Howe Sound. Soil, sediment, surface water, and groundwater were also contaminated by mining activities on



the site.

- The Crown Contaminated Sites Program in FLNRO has taken on the task of remediation at Britannia, with the Ministry of Environment as the regulator.
- Completed remedial actions have included capping and sealing of shafts and adits. Water is collected within the mine, treated and discharged to a deep outfall into Howe Sound. Drainage has improved and surface water is now diverted at the mine head (Jane Basin). Additionally, a groundwater management system is in place and surface hot-spots such as concentrate piles have now been removed.
- Significant environmental benefits have resulted after the years of remediation and the reduction of heavy metals entering Britannia Bay. In 2003 the intertidal zone was dominated by pollution-tolerant species that flourished in high levels of metals found in the marine waters and sediment pore. By 2010, the shoreline was supporting healthy and abundant rockweed, which inhabits all areas of Howe Sound and is an indicator of a healthy intertidal zone that is home to a large variety of species.
- The gradual return of species that depend on a healthy shoreline such as shellfish, resident rockfish and salmon have also been observed.
- The Land Remediation Section continues to oversee the ongoing remedial actions at the Britannia Mine site. Activities scheduled for the near future include investigating of shoreline tailings, storm water capture and treatment, groundwater management system optimization, environmental monitoring, and habitat surveys which will eventually lead to managed risk-based closure of this high risk site.

Rock Bay –

- BC Hydro and Transport Canada have been working with Environment Canada and the Ministry of Environment on the investigations and remedial plan for this site since the early 90's.
- The 6.8 acre site, located along Government Street and Pembroke Street in Victoria, was the location of a coal gasification plant which operated from the 1860's to the early 1950's. Soil, groundwater, and/or offsite sediments are contaminated with process wastes – predominantly coal tars (substances include hydrocarbons and metals).
- The accepted remedial plan is to excavate the contaminated soils and reduce the contamination to a level acceptable for a commercial land use. Offsite impacted marine sediments will also be addressed. Although a cleanup to numeric standards/ criteria is being pursued some level of risk assessment/risk management will also be used.
- The remedial cost, initially estimated at approximately 30M, is being shared by BC Hydro and Transport Canada. The remediation project was completed in 2016.

Vancouver Shipyards –



- The Seaspán, Vancouver Shipyards site in North Vancouver is seriously contaminated with creosote and metals from historic operations and poses a high risk to the marine environment.
- After many years of inaction, the Ministry of Environment ordered Domtar Inc (the original owner) and Seaspán (current owner) in February 2010 to address soil, groundwater and sediment contamination.
- In response to the order, Seaspán and Domtar submitted independently prepared remediation plans in September 2010, both of which were rejected in November 2011. Both plans were resubmitted and the director accepted the plans in January 2013. Seaspán and Domtar committed to implementing the Domtar remediation plan at an estimated cost of 35 million dollars. The remediation plan includes the construction of a sheet-pile wall and associated groundwater pump and treatment system, dredging of contaminated sediments and subsequent placement of an engineered sediment cap.
- Since January 2013, the parties have been conducting additional site investigations on the properties located to the west of Vancouver Shipyards where contamination has migrated and obtained the necessary permits/approvals to implement the remediation plan from Port Metro Vancouver, who own the foreshore lands.
- Substantive implementation of the remediation plan commenced in February 2017 with the start of construction of the sheet pile wall. Remediation implementation is scheduled for completion in the spring of 2019.



May 2017

2020 Biodiversity Goals and Targets: Pathway to Canada Target 1

Issue:

- Pathway to Canada Target 1 is a national initiative aimed at protecting at least 17 per cent of Canada's terrestrial and inland water areas by 2020.

Background:

- A Strategic Plan for Biodiversity was adopted in 2010 at the Conference of the Parties for the Convention on Biological Diversity. The strategic plan includes 20 biodiversity targets, known as the Aichi Targets, to be achieved by 2020 in order to reverse the global decline of biodiversity. Aichi Target 11 focusses on the conservation of biodiversity through protected areas and other measures:

By 2020, at least 17% of terrestrial and inland water areas and 10% of coastal and marine areas, especially areas of importance for biodiversity and ecosystem services, are conserved through effectively and equitably managed, ecologically representative and well-connected systems of protected areas and other effective area-based conservation measures, and integrated into the wider landscape and seascape.

- In 2015, Canada adopted the “2020 Biodiversity Goals and Targets for Canada,” outlining 19 targets in support of the international Aichi Biodiversity Targets. Canada Target 1, which is aligned with the numeric component of Aichi Target 11, states that:

By 2020, at least 17% of terrestrial areas and inland waters, and 10% of marine and coastal areas of Canada are conserved through networks of protected areas and other effective area-based measures.

- Federal, provincial and territorial ministers responsible for parks, protected areas, wildlife and biodiversity conservation have committed to developing a Pathway Toward Canada Target 1.
- The Pathway will be developed through a variety of forums including; the National Advisory Panel (NAP), National Steering Committee (NSC), Indigenous Circle of Experts (ICE) and seven Expert Task Teams that are currently developing discussion papers on the various themes of Canada Target 1.
- The Pathway initiative will develop recommendations for the Parks Ministers and the Conservation, Wildlife and Biodiversity (CWB) Ministers for early 2018.
- The Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) Oceans Task Group (OTG) has been tasked with working towards Canada's commitment to protecting 10% of marine and coastal areas by 2020.
- At the end of 2015, 10.6 per cent of Canada's land and freshwater have been recognized as protected. As of March 31, 2015, the protected area system managed by BC Parks covers approximately 14.4 % of the province's terrestrial areas and 0.9% of the province's marine areas. Environment Canada's Canadian Sustainability Indicators identify that 15.3% of BC's

land base is protected (including federal designations, provincial Wildlife Management Areas and some other effective area-based conservation measures (OECM) like private conservation lands).

- It is unclear which and what portions of provincial/territorial parks and protected areas will count towards this target. Since Canada Target 1 is focused on biodiversity conservation, it is unlikely that all parks and protected areas managed by BC Parks will count toward this target, as not all areas contribute in a meaningful way to the biodiversity conservation goal. It is suspected that a minimum standards approach will be adopted, drawing from the work of the Expert Task Teams and the recommendations of the NAP.
- Both the Aichi Target 11 and the Canada Target 1 were explicitly written to include OECMs in addition to more traditionally designated protected areas. OECMs focus on long-term conservation, address threats to biodiversity, and provide conservation benefits, but are not formally designated protected areas. An OECM Expert Task Team has been tasked with defining standards for protected areas and OECMs. The OECM Expert Task Team is preparing a discussion paper for the NAP, and a preliminary draft of the discussion paper was sent to two early reviewers in the Ministry of Environment. Comments provided are currently being incorporated into the discussion paper. It is expected that the standards for protected areas and OECMs will be quite similar. BC may have a number of OECMs but it is currently unclear which OECMs will be recognized and using what criteria.
- OECMs and Indigenous Conservation Areas (ICA) are major components of this project. The Ministry is awaiting further guidance on the concept of ICAs from the ICE and NAP.
- Anthony Danks, Executive Director, Strategic Policy Branch, is the Province's representative on the National Steering Committee. Brian Bawtinheimer, A/Executive Director, Regional Operations division – North Area, Forests, Lands and Natural resource Operations, is the Province's representative on the Indigenous Circle of Experts.

Decision Required:

- **30-60-90 Day Issue**
 - **Upcoming meetings:**
 - The NSC is meeting in Ottawa June 6-7th to discuss Pathway progress and to begin planning for the October Canadian Parks Council DM meeting where Pathway reports will be reviewed by jurisdictions for the first time.
 - The NAP is being formally announced in Ottawa on June 7-9th
 - The ICE is meeting in Ottawa June 6-7th.

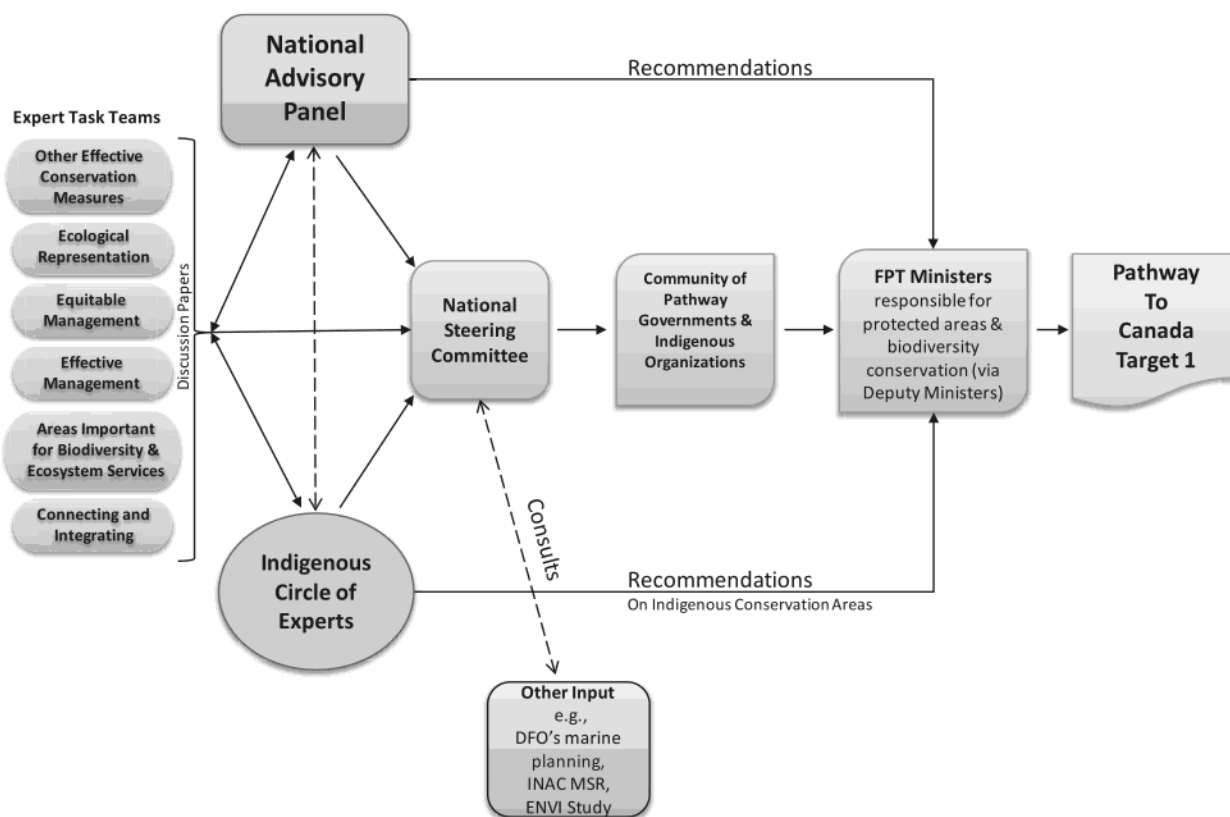
Attachments:

Appendix 1- Pathway Components and Workflow and Pathway Timelines

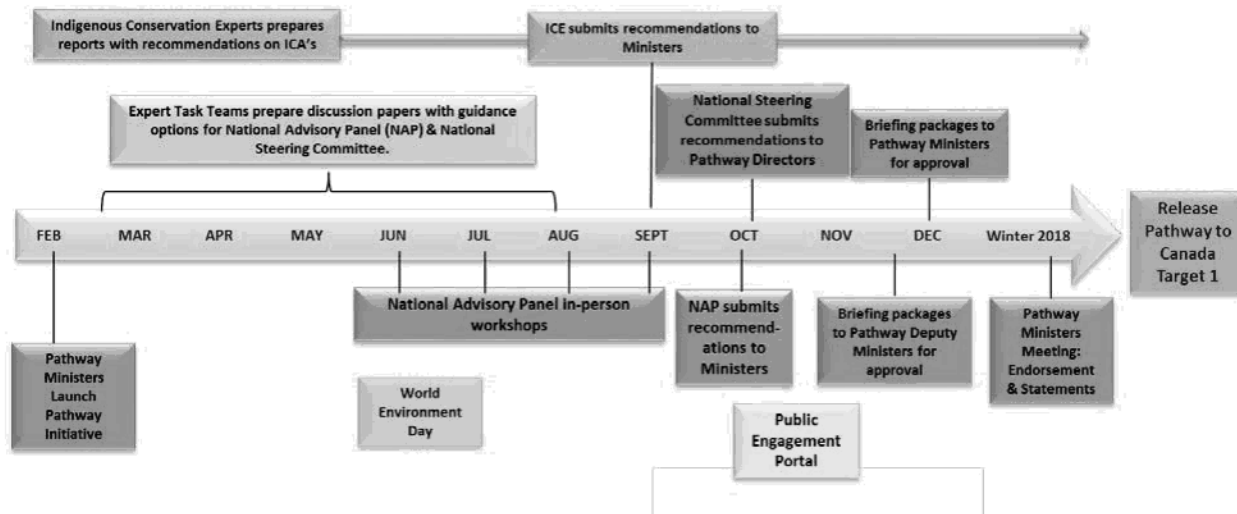
Appendix 2 - Total percentage of terrestrial areas and inland waters protected by province and territory

Appendix 1:

Pathway Components & Workflow



Pathway Timelines





May 2017

Appendix 2:

Total percentage of terrestrial areas and inland waters protected by province and territory
(December 31, 2015)

Province or territory	Percentage of terrestrial areas protected by province and territory
British Columbia	15.3
Alberta	12.6
Yukon	11.9
Ontario	11.1
Manitoba	10.8
Nunavut	10.1
Quebec	9.8
Nova Scotia	9.7
Northwest Territories	9.3
Saskatchewan	8.5
Newfoundland and Labrador	7.3
New Brunswick	4.6
Prince Edward Island	3.1



May 2017

Protected Areas Framework for British Columbia's South Okanagan

Issue:

- Moving forward with planning discussions on enhanced protection measures for the South Okanagan.

Background:

- In October 2003, Canada and BC signed a Memorandum of Understanding (MOU) related to the establishment of national park reserves and national marine conservation area reserves in BC. Commitments in the MOU included an initiative to explore the feasibility of establishing a new national park reserve in the South Okanagan to represent the Parks Canada's Dry Interior Plateau natural region.
- In January, 2011, Cabinet directed that the Province would not proceed further with the feasibility study regarding the establishment of the proposed national park reserve in the South Okanagan at this time.
- In August 2015, the Province released an Intentions Paper for public input proposing an alternative framework for enhanced protection measures in the South Okanagan which included the concept of a provincial conservancy referred to as Area 2 (Testalinden/Mt. Kobau). While Area 1 (South Kilpoola and Chopaka) and Area 3 (White Lake basin) were identified for possible national park reserve.
- In late spring 2016, BC Parks released a consultation summary report. The public responses totaled over 3000 submissions however only a small percentage were specific to the questions asked. Despite the paper being clear that the 2010 national park proposal was not up for reconsideration, a large number of respondents used the Intentions Paper as a venue to voice support or opposition to that proposal.
- As for issues or interests related to the Intentions Paper proposal, no new interests were raised that were not already known by the province. The feedback indicated the public are very interested and passionate about issues of environmental protection, First Nations cultural values, tourism and recreation opportunities in the South Okanagan.
- On January 27, 2017, the Province announced that planning discussions to achieve the objectives outlined in the Province's earlier Intentions Paper are moving forward with the support and participation of the Lower Similkameen Indian Band, Penticton Indian Band and Osoyoos Indian Band. The Province also announced that it would reach out to Parks Canada to engage in these discussions to consider two areas for possible inclusion in a South Okanagan National Park Reserve.



May 2017

- In February 2017, the Parks Canada / BC Steering Committee met after a long break to discuss issues of mutual concern and interest. This meeting marked the official re-engagement of Parks Canada in future discussions on the proposed South Okanagan protection options put forward by the Province in the Intentions Paper which would include a mix of provincial and federal designations.
- A follow up Parks Canada/BC Steering Committee meeting is scheduled for June 2, 2017 which may involve further dialogue regarding concept area boundaries/configurations.

Key Stakeholders:

- The Grasslands Park Review Coalition;
- The South Okanagan-Similkameen National Park Network (SOSNPN), and;
- Canadian Parks and Wilderness Society (CPAWS).

Decision Required:

- No decision is required at this time.



May 2017

Enhancing Park Visitor Experience in the Sea to Sky Corridor

Issue:

- BC Parks is developing a strategic plan to manage recreational use in the Sea to Sky area to provide a high quality, sustainable park experience.

Background:

- BC Parks provide the nature-based experience tourists and locals in the Greater Vancouver Area are seeking.
- Since the Olympics in 2010, park visitation in the Sea to Sky corridor has increased by over 25%. Some parks, such as Joffre Lakes Park near Pemberton, have seen growth of over 60%.
- The seasonality of park use in the area is evolving, with more visitors than ever before coming to parks during the shoulder seasons when parks are on reduced service levels or even closed.
- Park facilities and operational resources are not aligned to accommodate such high levels of use, resulting in deteriorating facility conditions and impacts to both visitor experience and park values.
- To date, BC Parks has taken certain measures to address the over-capacity issues in the Sea to Sky corridor including developing and redesigning park facilities (e.g. parking lots, campgrounds, and trails) and employing the reservation system for high visitation campgrounds.

Next Steps:

• s.13

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May 2017

**Sunshine Coast Regional District's Water Withdrawal Infrastructure Plans
for Chapman Lake in Tetrahedron Park**

Issue:

- The Sunshine Coast Regional District (SCRD) has applied to install additional water-withdrawal infrastructure at Chapman Lake in Tetrahedron Park.

Background:

- Tetrahedron Park was established in 1995 to protect the integrity of the SCR D's community watershed area and preserve the wilderness and natural values of the area.
- The area was established as a Class A park with a commitment to re-designate the park at some time in the future if the need to expand the community water supply arose.
- SCR D maintains infrastructure on Chapman Lake in Tetrahedron Park under a park use permit to provide their community water supply. The current permit allows the SCR D to drawdown Chapman Lake by 3 metres.
- In April 2016 the SCR D made an application to BC Parks to construct a trench to install permanent piping in Chapman Lake to allow for further drawdown of Chapman Lake. The new infrastructure would allow an additional 5-metre drawdown of the lake.
- s.14
- s.13

Decision Required:

- s.12,s.13

Page 339 to/à Page 340

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s.12;s.13

Page 341 to/à Page 342

Withheld pursuant to/removed as

s.16;s.13

Caribou Recovery in Protected Areas

Issue:

- Clarifying the Role of Parks and Protected Areas in Caribou Recovery in BC

Background:

- Caribou are a species at risk in British Columbia.
 - Caribou are a member of the deer family, featured on the Canadian quarter, and an iconic presence in many BC parks and protected areas.
 - Caribou in south and central BC are legally listed as *Threatened*, and protected under the federal *Species at Risk Act (SARA)*. In 2014, the *Committee on the Status of Wildlife in Canada* recommended that the federal Minister change this status to *Endangered* (the highest level of risk before a species is considered extinct).
 - Despite significant investments to recover caribou in BC, the species continues to decline.
- Protected areas are the core of caribou habitat conservation in BC, but efforts to recover caribou to date have largely focused outside of parks and protected areas:
 - The Province has made significant investments to protect caribou habitat, most notably the announcement to protect 2.2 M hectares in 2008.
 - A large portion of this protected habitat occurs in BC's parks and protected areas where it is apparently intended to provide refuge for caribou. This large scale protection is central to the province's credibility to manage species at risk on the working land base.
- Treating protected areas as refuges for caribou, and making decisions to recover endangered caribou may be controversial:
 - One example is the past permitting of helicopter skiing within caribou range in BC Parks. Heli-skiing is identified as a threat to caribou in federal recovery strategies, and in some cases, is taking place within areas that have been identified as critical habitat for herds in decline. Several heli-skiing permit renewals in this situation are currently awaiting decision by regional Statutory Decision Makers: these may be controversial.
 - A second example is the interest from MFLNRO to cull wolves and potentially other caribou predators from within parks and protected areas. Protected areas have traditionally not allowed this type of interventionist management, except in extreme situations. If predator management were allowed in a protected area, it would likely be necessary to demonstrate that all other pressures on caribou have been removed, and that culling within a park is a last resort.
 - Given the continued decline of caribou in BC and the Province's intention to invest \$27M over the next 5 years to recover them, this is a critical time to clarify the role of protected areas in caribou recovery in BC.

Next Steps:

- Seek opportunities and resources to clarify the role of protected areas in caribou recovery in BC with the larger natural resource sector in BC.
- Keep communications open with BC Parks regions and with other agencies to ensure that proper briefings precede difficult decisions.

Key stakeholders:

- Other provincial natural resource agencies
- Federal government
- Recreational user groups, stewardship groups, and naturalists (e.g., BC Nature)
- Universities and academics who conduct research about parks
- Non-government environmental organizations who have positions on species at risk and/or predator control
- First Nations
- Communities next to parks
- Hunters, trappers, and ranchers who use park land



May 2017

Office of the Auditor General Audit of Climate Change

Issue:

- The Office of the Auditor General of British Columbia is conducting a performance audit of government's management of the risks posed by climate change; the primary focus of the audit is adaptation. (Background on British Columbia's Adaptation Strategy (2010) is included in the note Climate Risk and Adaptation)
- This is the first independent audit of British Columbia's climate change adaptation program. Government welcomes the opportunity to identify what is working well and to receiving suggestions for improvements that will further enhance British Columbia's resilience to a changing climate.
- The audit is coordinated with similar audits federally and in other provinces.

Background:

- The Auditor General is a non-partisan, independent Officer of the Legislature who reports directly to the Legislative Assembly.
- A performance audit reviews the wider management issues of an organization or program and whether it is achieving its objectives effectively, economically and efficiently. Audits are conducted in accordance with the assurance standards of the Canadian Institute of Chartered Accountants.
- The audit will consider:
 - Government action to reduce Greenhouse Gas Emissions, including targets, plans to achieve the targets, current progress and reporting.
 - Government action to adapt to a changing climate, including the 2010 Adaptation Strategy, risks and vulnerabilities and monitoring and reporting on performance and achievements.
 - Efforts of specific ministries to adapt, including Environment, Forests, Lands and Natural Resource Operations, Agriculture, Transportation and Infrastructure / Emergency Management BC, and Community, Sport and Cultural Development.
- CAS is cooperating with the Office of the Auditor General, as are relevant business areas in other ministries.
- Adaptation to climate change is a long-term effort that will benefit from regular reviews. The Climate Leadership Team has recommended regular independent reviews of BC's Climate Action Plans, including adaptation. The government announced establishment of Cabinet Working Group on Climate Leadership in 2016 to provide on-going direction on climate change issues.
- It is anticipated the audit results will be publicly available late-summer of 2017.
- The audit is coordinated with similar audits federally and in other provinces on various aspects of climate action. A national summary report will be released subsequent to jurisdictional reports.

Decision Required:

- s.13



May 2017

○ s.12,s.16

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PCF Next Steps

Issue:

- PCF Next Steps: Federal funding for forest carbon initiative, upstream electrification, BC-AB intertie, and adaptation (flood mitigation)

Background:

- The Pan-Canadian Framework on Clean Growth and Climate Change (PCF) included jurisdictional appendices that highlighted the intended areas of collaboration between the jurisdiction and the Government of Canada.
- British Columbia and Canada expressed their intention to collaborate in five specific areas:
 - The Forest Carbon Initiative - British Columbia, the Government of Canada and First Nations will work together to reduce GHG emissions through forestry activities, including reforestation, enhanced silviculture techniques, and the salvaging of unmerchantable trees for processing into dimensional lumber and bioenergy. The initiative is expected to reduce emissions by 12 Mt in 2050 and create 20,000 jobs.
 - Adaptation/flood control infrastructure - British Columbia and the Government of Canada will support projects across the province to make infrastructure more resilient to a changing climate, and to help communities adapt to a changing climate. Flood mitigation will be an area of focus.
 - Electrification of upstream natural gas activities - British Columbia and the Government of Canada will work together to bring clean grid electricity to natural gas operations in northeast BC. They will co-fund the construction of new transmission lines and other public electrification infrastructure that could serve up to 760 megawatts of upstream natural gas processing load and avoid up to 4 Mt of emissions per year.
 - Upgrading an electricity transmission line between BC and Alberta - British Columbia and the Governments of Canada and Alberta will work together to restore the capability of the existing high-voltage electricity grid interconnection with Alberta. This project will improve access to clean electricity in Alberta and will result in lower GHG emissions and air pollution, and improved grid reliability in both provinces.
 - Clean Technology Innovation - British Columbia and the Government of Canada will work together to spur the development and commercialization of new technologies that will reduce emissions and create jobs for Canadians.
- s.13,s.16

- BC already announced \$150 million in spending in February 2017 to “treat” forests to reduce wildfire hazards, rehabilitate forests damaged by fire and disease and increase BC’s carbon sink. The money will be managed by the Forest Enhancement Society of BC.

- Federal Budget 2017 announced a number of targeted funds that could be used to fund the Federal share of the initiatives. There is still a very limited amount of clarity exactly which targeted funds would be the source for the bilateral initiatives.
- The \$2 billion Low Carbon Economy Fund which was established in Budget 2016 to support provincial and territorial actions that materially reduce greenhouse gas emissions, and extended in Budget 2017 to span over five years, is a potential funding source for the Forest Carbon Initiative.
- Upstream natural gas electrification and BC-AB electricity intertie could be potentially funded from Green Infrastructure funds, of which \$9.2 billion will be provided for bilateral agreements. The Federal government has also brought up the Canada Infrastructure Bank as a potential source but a loan arrangement would not be in the spirit of the agreement in principle between BC and Canada.
- Flood mitigation could be potentially funded from the \$2 billion Disaster Mitigation and Adaptation Fund, which is to be used to support national, provincial and municipal infrastructure required to deal with the effects of a changing climate.
- Federal government has informed BC that they will engage with BC after a new government has been sworn in to start the discussion on bilateral funding.

Decision required:

- s.13,s.16
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PCF Next Steps

Issue:

- PCF Next Steps: Comparability of carbon pricing and mechanisms to protect EITE.

Background:

- The Pan-Canadian Framework on Clean Growth and Climate Change (PCF) committed to Pan-Canadian carbon pricing; a benchmark national carbon price of \$10 per tonne of carbon dioxide equivalent (tCO₂e) emissions for 2018, rising by \$10 each year to \$50/tCO₂e in 2022. The carbon price has to apply to substantially same sources as BC's carbon tax.
- Provinces and territories (PTs) will retain the flexibility to establish and design individual broad based carbon pricing mechanisms to suit their own particular circumstances, including carbon tax, cap-and-trade, intensity benchmark, or combinations of mechanisms.
- For PTs that elect to implement cap-and-trade systems, these systems must be aligned with Canada's target of reducing national greenhouse gas (GHG) emissions by 30% below 2005 levels by 2030, and should lead to similar expected reductions as would occur under the benchmark national carbon price.
- If PTs do not have a broad based carbon pricing instrument that meets these requirements in place by 2018, the Federal government will impose one.
- The Federal Government released the Technical Paper on the Federal Carbon Pricing Backstop on May 18, 2017.
- BC is currently analyzing the paper and the written comments to Environment and Climate Change Canada are due on or before June 30, 2017.
- The PCF also committed to establishing an approach to the review of carbon pricing, including expert assessment of stringency and effectiveness that compares carbon pricing systems across Canada, to be completed by early 2022 to provide certainty on the path forward. An interim report will be completed in 2020 which will be reviewed and assessed by First Ministers.
- BC will not be required to increase its carbon price until other Canadian jurisdictions 'catch up' with our existing \$30/tCO₂e carbon tax, in 2020-21.
- BC specifically negotiated language that allows BC to assess the interim report (on pricing equivalency) in 2020 and "determine a path forward to meet climate change objectives."
- s.13,s.16

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Page 350

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s.12;s.14;s.21;s.13



Conservation of Species at Risk and Biodiversity in BC

Issue: Legislation, Policy, and Management Approach

Background:

- BC is world renowned for its unique and diverse geography and biodiversity. Intact predator-prey systems, ecosystems, plants and animal species found nowhere else in Canada, all contribute to BC's rich natural biodiversity (**see note 4-17b Biodiversity Strategies and Agreements**).
- Effective conservation of BC's biodiversity is complicated by the sheer numbers of species and ecosystems at risk that are found in British Columbia (44% of all species listed under the federal *Species at Risk Act* SARA occur in BC); overlapping jurisdictional responsibilities; a complex suite of legal and policy tools; competing socioeconomic pressures on the land-base; and availability of adequate resources.
- A recent audit on biodiversity by BC's Office of the Auditor General concluded that there are significant gaps in government's understanding of biodiversity in B.C.; that government does not know if its actions are resulting in the conservation of biodiversity; and that government is not adequately measuring and reporting on its progress in the conservation of biodiversity.
- Protection of BC's Species at Risk (SAR) is currently managed by a mix of provincial legislation including the: *Wildlife Act*, *Forest and Range Practices Act*, *Oil and Gas Activities Act*, *Land Act*, *Park Act*, *Ecological Reserves Act*, *Environmental and Land Use Act*, and *Environmental Assessment Act*.
- Legislative protection is not available for all species (e.g. invertebrates, and many plants), nor on all lands (e.g. private or municipal lands). In addition, BC's legislative tools do not provide consistent protection across all natural resource sectors producing gaps in legislative effectiveness/fairness and the need to apply several, often misaligned, legislative tools.
- Under SARA, the province is required to 'effectively protect' critical habitat for SAR. If critical habitat is not found to be effectively protected, SARA has provisions to enable the Federal government (or others via the courts) to enact legal provisions to limit development activities that may threaten a species or its critical habitat. **s.13,s.14**
s.13,s.14
- ENV and MFLNRO have joint accountability for conservation of SAR and biodiversity in the province with ENV leading on strategic policy, legislation, and science and MFLNRO leading on implementation of conservation actions.
s.13
- A review the SAR program is currently underway and will recommend changes required to ensure BC is able to meet its obligations for conserving biodiversity and maintaining jurisdictional authority regarding SAR management (**see note 4 – 17b referenced above**).



Conservation of Species at Risk and Biodiversity in BC: Status and Trends

Issue:

- Assessing Status and Trends

Background:

- The BC Conservation Data Centre (ENV) is responsible for maintaining the authoritative lists of species and ecological communities for BC, assessing their provincial status, mapping locations, and distributing that data and information.
- The CDC uses the NatureServe status assessment system, a widely accepted standard used throughout all jurisdictions in North America. The CDC also collaborates with the federal government (ECCC) and NatureServe Canada in the National General Status program which assesses the national status of species in Canada every 5 years.
- CDC currently statuses 7765 species (2734 animal species, 5031 plants species) and 637 ecological communities. 827 species and 164 ecological communities are on the CDC Red List (Extinct, Extirpated, Endangered, or Threatened). A further 825 species and 178 ecological communities are on the CDC Blue List (Special Concern).
- Most species groups are showing slow, gradual declining trends in species status.
- More than 50% of all amphibians, reptiles and freshwater fish in BC are of conservation concern (Red or blue-listed). Of particular concern are amphibians in the southern parts of BC with very small populations which are threatened by introduced disease.
- 45% of mammal species in BC are of conservation concern. Of particular concern are a suite of bat species whose populations are declining across the continent due to an introduced fungal disease; species with rapidly declining population trends (e.g., caribou, Western Toad), those with small populations and high threats (e.g., American Badger, Vancouver Island Marmot)
- 26-37% of birds, butterflies, and plants are of conservation concern. Large widespread declines in aerial insect eating birds (flycatchers, swallows, swifts, nighthawks) are of particular concern. These declines are not currently explained by a single factor. Many plants most at risk occur in very rare localized habitats (vernal pools, sand dunes, Garry Oak Meadows, interior grasslands) which are highly threatened.
- The status of pollinator species in general (e.g., bees, moths, butterflies) are of serious concern. Their ecological role makes these declines and potential declines problematic. Declines in these groups are being documented nationally.
- CDC data and information are key inputs to most operational and major project (EAO) decisions. Red and Blue lists are used to scope terms of reference for major projects and as key values for municipal, oil & gas, and forestry operational and planning decisions.
- Data and information delivery is primarily on-line via BC Species and Ecosystems Explorer



(BCSEE), CDC iMap tool, and via the BC Geographic Warehouse. BCSEE receives around 400,000 searches for information annually. CDC processes 600-800 additional custom requests annually (primarily for complex requests or for secure data).

Recent Activity

- In response to a recent client survey CDC is working on two major enhancements: upgrading its BCSEE tool to improve spatially based searches and developing science-based range and predictive distribution maps for Red and Blue-listed species and ecosystems. Both will improve clients' clarity about species and ecosystems at risk needing consideration in resource management decisions.
- Two recently released reports (NatureServe Canada: "On Guard for Them: Species of Global Conservation Concern in Canada - 2017" and "Wild Species 2015: The General Status of Wild Species in Canada" – s.13), have both demonstrated BC's significant responsibility in the conservation of species at risk. BC has more species of global conservation concern than any other jurisdiction in Canada by a wide margin and almost 40% of the 1659 species considered nationally at risk (of a total of 29848 assessed). This is in large measure due to the fact that BC is the most biodiverse province in Canada.



Conservation of SAR and Biodiversity in BC: SAR/Biodiversity Strategies and Agreements

Issue:

- BC's Species at Risk (SAR) and Biodiversity Strategies and Agreements

Background:

Species at Risk Agreements

- In 1996, Canadian jurisdictions signed the *Accord for the Protection of Species at Risk*, which made commitments to work together on the listing of SAR, developing recovery and actions plans, applying prohibitions to prevent killing or harm, and protecting critical habitat for SAR.
- In April 2005, BC was the first jurisdiction in Canada to sign a bilateral agreement on SAR with the federal government. BC's bilateral agreement has facilitated cooperation and communication between federal and provincial agencies on SAR issues in BC, and has been a model for other jurisdictions. The bilateral agreement expired in April 2015.
- Provincial and federal staff drafted a revised agreement in 2016 that updated current practice and strengthened certain areas such as shared funding and limiting process requirements of SARA with respect to implementation.
- The revised agreement was postponed in order to consider the joint Southern Mountain Caribou Critical Habitat Effective Protection on Non Federal Lands assessment (SMC CHP-NFL (**see note #3 – 21 Caribou Recovery**), as well as consideration of the SAR program review (**see note #3 – 20 SAR Review**).
- s.13,s.16

- s.12,s.13

Biodiversity Agreements

- In 2010 Canada adopted a Strategic Plan for Biodiversity at the UN Convention on Biodiversity. The plan includes 20 global biodiversity targets called "Aichi targets." To meet the targets, Canada developed 19 national biodiversity targets to achieve by 2020. At a Feb. 2017 meeting of Federal-Provincial-Territorial Ministers responsible for Conservation, Wildlife and Biodiversity, BC committed to work cooperatively with the Federal government and other provinces and territories to achieve the 2020 biodiversity goals.



Conservation of Ecosystems, SAR, and Biodiversity: Conservation Science Priorities

Issue:

- Conservation Science underpins ongoing and emerging actions to manage the interface between protecting biodiversity, our natural environment and supporting a resourced-based economy.

Background:

- Accredited science professionals work across the provincial public service, including the Ministry of Environment, to inform, coordinate and deliver on provincial priorities.
- Within the Environmental Sustainability and Strategic Policy Division, there is a Conservation Science team (approximately 22 FTEs) that includes the Ministry's core science staff who deliver applied research programs, in collaboration with other ministries, governments, as well as academic, ENGO, and industry orientated organizations.
- This team is uniquely positioned to acquire, analyze, and communicate best available knowledge on how complex ecosystems, habitats, and species dynamics respond to conservation threats and impacts, to inform Natural Resource Sector business areas:
 - Species and Ecosystems at Risk: Science leadership on status assessment, recovery planning and research to fill critical knowledge gaps.
 - Ecosystem Management: Original research and science-based assessments to inform land and water-based resource use decisions and restoration initiatives.
 - Invasive Species Assessment and Management: Risk assessments, original research, and coordination of response to invasive animal threats, including zebra mussels (see information note titled: Invasive Mussel Defense Program).
- Select existing conservation science priorities include:
 - Informing forest harvesting operations to minimize environmental impacts (see background note titled Carnation Creek).
 - Facilitating collaboration across the Government of BC in response to conservation priorities and emerging issues (e.g., see background notes titled White Nose Syndrome in bats, Invasive Mussel Defence Program).
 - Assessing habitat requirements and habitat restoration priorities for species at risk.
 - Collecting information on harvested and at-risk carnivores (in particular grizzly bears, badgers, fishers and wolverine) and converting this science into effective extension and conservation programs to help government and industry manage these species sustainably.
 - Informing Caribou recovery: Leading discussions with the federal government on areas of scientific disagreement; leveraging the team's primary research data on specific caribou herds, bringing in key experts, and leveraging past and ongoing science initiatives to inform a common understanding of the status and requirements of the species and individual herds.
 - Developing an Environmental Flow Needs Research Plan: Better science is essential to improve environmental flow decision-making under the new *Water Sustainability*



Act (i.e. how much water to leave in streams to protect fish) vs traditional approaches that focus on managing for industry needs (i.e. hydro, agriculture).



Conservation of SAR and Biodiversity in BC: Terrestrial Wildlife Conservation Highlights

Issue:

- British Columbia is the most biodiverse province in Canada, with more terrestrial species and more ecosystem types than any other province or territory.

Background:

- BC also contains healthy population of many species that have disappeared or are disappearing from other parts of North America (e.g. Grizzly Bear, Caribou). This has increased our global responsibility and scrutiny for many species (e.g. we have the most intact large mammal fauna on the continent, including large predators and their prey systems).
- Conserving this biodiversity has significant socioeconomic benefits for British Columbia (e.g. carbon capture, water retention, water cleaning, pollination services, nutrient recycling, pest control). Wildlife is a major draw for tourism in BC (e.g. bear viewing and birders contribute more tourism revenue than skiers in North America).
- Many of our species are restricted to narrow, linear habitats that run north south, along valley bottoms and ridge tops making them vulnerable to certain types of human activities.
- The biggest threats to terrestrial wildlife have been urbanization and agriculture; however increasing threats are being experienced from the spread of invasive species, linear development such as roads and utility corridors, forestry, new pesticides, climate change impacts on ecosystems, and recreational activities.
- Of concern are widespread and dramatic declines in some species that have important roles in the ecosystem that are not well understood and not easily attributed to a single factor (e.g. Caribou, Marbled Murrelet, Bumble Bees, Swallows, Swifts and other aerial insectivores) and declines or threats of declines related to threats of disease/fungal infections (i.e. bats and amphibians).
- The status of pollinator species in general (e.g., bees, moths, butterflies) are of serious concern. Their ecological role makes these declines and potential declines of significant concern.

Recent Activity

- Assessment of risk to species and ecosystems in BC is a Ministry responsibility through the BC Conservation Data Centre (CDC) and in Canada via the Committee on the Status of Endangered Wildlife in Canada (COSEWIC). The Ministry coordinates the recovery planning process for species at risk (218 species to date). We are also involved in baseline studies to look at impacts on systems at risk (e.g. pollinator systems, furbearers) and interagency invasive species management programs.



Conservation of SAR and Biodiversity in BC: Aquatic Wildlife Conservation Highlights

Issue:

- British Columbia has a low number of fish species (66); however, many of these species have evolved interesting adaptations, making them unique in the world and important to our understanding of how species evolve.

Background:

- As with terrestrial wildlife, FLNR leads on operational management of aquatic wildlife while ENV leads on strategic policy and conservation science aspects. First Nation governments are also actively engaged in decision-making.
- Conserving aquatic biodiversity has significant socioeconomic benefits for British Columbia (i.e. subsistence/recreational/commercial fishing, nature-based tourism, water retention/flood prevention, water quality).
- Trends in fish species are mixed, depending upon the specific population, their geographic location, and pressures from human activities, climate and other stressors. However, many appear to be under pressure such as Thompson River coho, chinook, and steelhead, several southwest Vancouver Island chinook and steelhead populations, and bull trout populations in both north and south interior areas.
- Major threats to aquatic conservation include habitat loss and degradation (land use changes associated with urbanization and agriculture), invasive species (i.e. bass, perch, zebra mussels), fish passages issues (due to hydro dams and road culverts), and water diversion.
 - Hydroelectric dams block or disrupt fish passage, dramatically change nutrient dynamics and fish community composition in reservoirs; and impact downstream ecological communities (i.e. survival rates of species at risk).
 - Introduced invasive fish pose a significant risk to BC's world class fisheries and completely disrupt existing ecosystems. Zebra mussels, if established, would clog intake pipes of hydropower, municipal water and agricultural irrigation systems.
- Assessment of risk to species and ecosystems in BC is a Ministry responsibility through the BC Conservation Data Centre (CDC) and in Canada via the Committee on the Status of Endangered Wildlife in Canada (COSEWIC).

Recent Activity

- The ministry works to mitigate threats to freshwater biodiversity including:
 - Researching innovative ways to improve the recovery of aquatic species at risk and mitigate threats.
 - Developing an Environmental Flow Needs Research Plan to improve environmental flow decision-making under the new *Water Sustainability Act* (i.e. how much water to leave in streams to protect fish) vs traditional industry-centric focus.



Federal *Species at Risk Act*

Issue:

- How the Federal *Species at Risk Act* (SARA) affects conservation of Species at Risk (SAR) and Biodiversity in BC.

Background:

- In 1996, all Canadian jurisdictions signed onto the National Accord for the Protection of Species at Risk (the Accord) and agreed to “establish complementary legislation and programs that provide for effective protection of species at risk”. The federal *Species at Risk Act* (SARA) is Canada’s commitment to the Accord.
- SARA is designed to protect species individuals (e.g. protecting individual caribou from killing, harming, or harassing), their residences (e.g. a nest or den if applicable), as well as the critical habitat they rely on. Recovery strategies must be prepared for all threatened or endangered species, and must identify critical habitat “to the extent possible, based on best available information”.
- On federal lands and for federal species (e.g. migratory birds, aquatic species on any lands), the legal protection measures for both individuals and critical habitat apply as soon as a final recovery strategy is posted on the SARA registry.
- These immediate protections do not apply on provincial, municipal, or private lands for provincial species (which are the majority of species listed under SARA).
- The Province and/or municipalities are expected to use legal tools that ‘effectively protect’ species individuals, their residences, and their critical habitat (i.e. achieve an equivalent level of protection to the SARA) on provincial Crown, municipal, and private lands.
- The SARA is structured as “safety net” legislation that can be invoked if the Province does not use legislation that ‘effectively protects’ species individuals, their residences, and their critical habitat. There are three ways the SARA safety net can be applied.
 1. SARA s.34: If, after consultation with the Province, the federal Minister is of the opinion the laws of the province do not ‘effectively protect’ species individuals and their residences, s/he must recommend to Governor in Council (GIC) that a Protection Order be made to protect the species individuals and their residences.
 2. SARA s.61: If, after consultation with the Province, the federal Minister is of the opinion critical habitat on provincial lands is not ‘effectively protected’ by provincial legislation, s/he must recommend to GIC that a Protection Order be made to prevent destruction of critical habitat (s. 61).
 3. SARA s.80: If the federal Minister is of the opinion that there are imminent threats to the survival or recovery of any listed species, s/he must recommend to GIC that an Emergency Protection Order be made. A section 80 order may include provisions prohibiting activities that may adversely affect the species individuals, their residences, and/or their critical habitat.
- Although the federal government prefers to use a stewardship approach as opposed to a legal approach to achieve protection objectives on private lands, they can and will use



safety net tools to achieve protection if required (e.g. western chorus frog Emergency Protection Order on private development lands in Quebec).

- SARA does not allow consideration of social and economic values when making recommendations to protect critical habitat, yet BC must consider those factors when making significant land-use decisions under its own legislation. Federal cabinet may also consider these factors when deciding whether or not to issue a protection order under SARA.
- BC's position is that SARA policies and federal decisions need to better reflect provincial accountabilities by:
 - developing a more collaborative and nuanced approach to the identification of critical habitat under SARA that is based on agreed to science and mapping methods, and focusses critical habitat identification based on risk of destruction, habitat capability, occupancy, and/or other factors;
 - recognizing recovery actions and investments outside of critical habitat protection that may be required for effective recovery of some SAR (e.g., predator management; disease management), allowing recovery efforts to focus on addressing the most significant threats;
 - improving SARA-related policies to increase flexibility to protect and recover species using a variety of tools and to ensure socio-economic factors are considered prior to making legal decisions to protect critical habitat;
 - recognizing/acknowledging that P/T's needs to make land-use decisions that reflect and appropriately balance the full suite of social, economic, and environmental outcomes;
 - increasing collaboration to align efforts on SAR planning and management; and
 - reducing SARA's heavy process requirements, in order to focus limited resources/capacity on implementing effective recovery actions.



Cumulative Effects Management

Issue:

- The BC Cumulative Effects Framework

Background:

- Cumulative effects (CE) are defined as changes to environmental, social, and economic values caused by the combined effect of past, present, and potential future human activities and natural processes.
- Since 2014, BC has been developing a CE framework to address CE impacts. The CE framework is a set of policies, procedures, and decision-support tools that helps identify and manage CE consistently and transparently across British Columbia's natural resource sector.
- The framework incorporates the combined effects of all activities and natural processes into decision-making to help avoid unintended consequences to identified economic, social, and environmental values.
- The framework is led by the Ministry of Forests Lands and Natural Resource Operations (FLNRO) with support from Ministry of Environment (ENV) and other Natural Resource Sector agencies. A team of executive members of the government's five natural resource sector ministries reviews all cumulative effects framework policy and procedures and provides advice and guidance to the ministers. Subject matter experts from ENV and FLNRO provide technical information and analysis.
- In 2014, an initial set of five values was prioritized for developing assessment procedures: old growth forest, aquatic ecosystems, grizzly bears, forest biodiversity, and moose.
- Cumulative Effects pilot projects tested foundational concepts for a Cumulative Effects Framework; pilots occurred in four regions (Skeena, Cariboo, Thompson-Okanagan, and Northeast) and were completed in 2014.
- Subsequent to the pilot phase, policy development and provincial value assessment commenced and the Cumulative Effects Policy and three provincial value assessment protocols received interim approval in winter/spring 2017 (with two other values expecting interim approval by summer 2017).
- The current phase includes staged implementation of the CEF policy using the Grizzly Bear, Aquatic Ecosystems and Old Growth values in certain regions before the end of 2017. CE assessments are also being carried out in the northern area of the province through the LNG Environmental Stewardship Initiative (ESI) (see Section 4, ESSP Background Note: 4 - 6). Other regions and other values will be rolled out subsequently.



- The CE framework informs and guides CE considerations through existing natural resource sector legislation, policies, programs and initiatives. Integrating the CE framework into existing natural resource decision-making processes will ensure cumulative effects are identified, considered, and managed consistently.
- In May 2015, the BC Auditor General released a report titled, “Managing the Cumulative Effects of Natural Resource Development in B.C.” The audit contains nine recommendations to encourage improvements with managing cumulative effects and help government meet its expectation for sustainable development. Government is acting on all nine recommendations to improve the CE framework.

Natural Resource Sector: Federal-Provincial Relations

Issue:

- Engagement with the federal Government on Sector Issues

Background:

- There is a constitutional division, or distribution of legislative powers, between the federal and provincial governments. The federal government has jurisdiction over matters of national interest and the provinces over matters of local or provincial interest. With respect to environmental management, these delineations often blur due to either one government assuming responsibilities not within their legislative sphere or Federal legislation that provides a framework or minimum standard under which the province must operate. Under these frameworks accountabilities and interactions between the levels of government can be unclear, particularly when the province is perceived as the primary regulator (e.g., air quality, climate change).
- This shared jurisdiction of environmental management is complex and requires close cooperation, collaboration, and communication among governments to be effective and to achieve sustainable natural resources management.
- One of the mechanisms provinces, territories and the federal government have developed to work more effectively together is the creation of ministerial-led intergovernmental forums for collective action on issues of national and international interest. Ministers set the strategic direction and the broad outcomes and senior officials establish working groups of experts to provide cross-agency collaboration to accomplish specific goals. For the natural resource sector these forums (councils) include the:
 - Canadian Council of Fisheries and Aquaculture Ministers (CCFAM) – AGRI leads
 - Council of Conservation, Wildlife and Biodiversity (CCWB) – ENV leads
 - Canadian Council of Ministers of the Environment (CCME) – ENV leads
 - Canadian Council of Forest Ministers (CCFM) – FLRNO leads
 - Council of Energy Ministers (CEM) – MEM leads
- Due to the complex nature of many of the files, the federal-provincial-territorial committee structure does not always provide the perfect fit for coordination among provincial ministries. Climate change, species at risk, response to federal reviews and others priorities require ministries to be flexible and adaptable when responding to the federal government if we want to represent the broader provincial interest and achieve the best outcomes.
- Recent examples include coordinated approaches when dealing with the federal Fisheries Act review, the review of the Canadian Environmental Assessment Act and responding to the Critical Habitat Assessment under the Species at Risk Act. These efforts require the establishment of cross-sector committees specially developed to have the necessary staff from the representative ministries across the natural resource sector, with a lead ministry established.
- The Pan-Canadian Framework on Climate Change has required an exceptional effort of coordination, leadership and inclusiveness to ensure the right mix in British Columbia

participates in working groups and reports up through to ministers to ensure a unified voice for BC in these important discussions.

SUMMARY:

- Provincial natural resource ministries continue to work together to represent a unified BC perspective to the federal government. Given the cross agency interests with a number of these existing forums, there is an opportunity to improve and refine the model.
- The attached Table 1 summarizes select priority areas of engagement with the federal government, roles and responsibilities, and areas where more clarity is required.

Table 1. Summary of Priority Areas of Engagement with the Federal Government

Area of Engagement	Prov Strategic Lead	Prov. Oper. Lead	Clarity Needed	Challenges with Provincial Agencies	Federal Agency	Federal Act	Provincial Act (Owner)	Forums	Provincial Challenges with Federal Gov't
Wildlife Management <i>Species at Risk</i>	ENV	FLNRO	Yes	<i>Improve communication b/w agencies on policy direction, priorities setting, performance mgmt and public reporting.</i>	<i>Envir and Clim. Change</i>	<i>Species at Risk</i>	<i>Wildlife (FLNRO)</i>	<i>Ministers of Conservation, Wildlife and Biodiversity (MCWB), Provincial Species at Risk Committee, Species at Risk Coordinating Committee</i>	s.13,s.16
<i>Wildlife Health</i>	FLNRO	FLNRO/AGRI/ENV	Yes	<i>Inadequate resourcing across sector, interest groups and FN governments to address issues.</i>	<i>Envir and Clim. Change</i>		<i>Wildlife (FLNRO)</i>	MCWB	
<i>Biodiversity</i>	ENV	ENV/FLNRO	No		<i>Envir and Clim Change</i>	<i>Species at Risk</i>	<i>Wildlife (FLNRO)</i>	MCWB	
<i>Migratory Birds</i>	FLNRO	FLNRO	No		<i>Envir. and Clim Change</i>	<i>Migratory Birds Convention</i>		MCWB	
<i>Riparian Areas</i>	FLNRO	FLNRO/ENV	No	<i>n/a</i>	<i>Fish and Oceans</i>	<i>Fisberies</i>	<i>Riparian Areas Protection (FLNRO)</i>	<i>Bi-lateral</i>	
<i>Invasive Alien Species</i>	ENV (aquatic) FNRO(terrestrial)	ENV/FLNRO	Maybe	<i>Lack of dedicated resources for Invasive Animal Species; dealt with on a case-by-case basis</i>	<i>Envir and Clim.Change</i>	<i>Fisberies Wildlife</i>	<i>Wildlife (FLNRO)</i>	MCWB	
Fisheries Management <i>Aquaculture/Market Access</i>	AGRI	FLNRO	Yes	<i>AGRI needs to work with FLNRO and ENV to understand ecological implications</i>	<i>Dept. Fish. and Oceans</i>	<i>Fisberies</i>	<i>Fish Protection (ENV), Land (FLNRO), Integr. Pest Manage. (ENV)</i>	CCFAM	
<i>Infrastructure</i>	MOTI	MOTI	No		<i>Transport Canada</i>	<i>Navigation Protection</i>		<i>Ministers Responsible for Transportation and HWY Safety</i>	
<i>Review of Federal Fisheries</i>	AGRI	ENV/FLNRO	Yes	<i>Competing provincial agency interests that need to prioritised</i>	<i>Dept. Fish. and Oceans</i>	<i>Fisberies</i>	<i>Fish Protection Act (ENV), Riparian Areas Protection</i>	CCFAM	

Area of Engagement	Prov Strategic Lead	Prov. Oper. Lead	Clarity Needed	Challenges with Provincial Agencies	Federal Agency	Federal Act	Provincial Act (Owner)	Forums	Provincial Challenges with Federal Gov't
							(FLNRO) Water Sustainability (FLNRO)		s.13,s.16
<i>Aquatic Invasive Species</i>	ENV	ENV/FLNRO	No	<i>n/a</i>	<i>Dept. Fish and Oceans</i>	<i>Fisheries</i>	<i>Wildlife (FLNRO)</i>	<i>CCFAM/ MCWB</i>	
<i>Steelhead</i>	FLNRO	FLNRO	No	<i>Commercial Fisheries(Agri) vs. conservation of species (FLNRO)</i>	<i>Dept. Fish and Oceans</i>	<i>Fisheries</i>	<i>?</i>	<i>Bilateral</i>	
Oceans Management <i>Marine Protected Areas</i>	FLNRO	NRS	Yes	<i>Balancing of competing provincial priorities – economic development vs. conservation</i>	<i>Dept. Fish. and Oceans</i>	<i>Fisheries Oceans</i>	<i>Fish Protection (ENV) Land (FLNRO), Wildlife (FLNRO), Park (ENV), Ecolog. Reserves (ENV), Protections Areas of BC (ENV) Environ. and Land Use (ENV)</i>	<i>CCFAM, Bi-lateral, Tri-lateral</i>	
<i>Marine Plans</i>	FLNRO	FLNRO	No	<i>n/a</i>	<i>Dept. Fish. and Oceans</i>	<i>Fisheries</i>	<i>Land (FLNRO)</i>	<i>No Forum</i>	
<i>Oceans Protection Plans</i>	ENV	MNDG	No	<i>n/a</i>	<i>Transport Canada Dept. Fish and Oceans (Canadian Coast Guard)</i>	<i>Oceans</i>	<i>Environ. Manage. (ENV)</i>	<i>No forum</i>	
Forestry	FLNRO	NRS	No		<i>Natural Resources Can.</i>		<i>Forest (FLNRO) FRPA (FLNRO) Great Bear Rainforest (FLNRO)</i>		
Climate Change (Pan Canadian Framework)									
<i>Mitigation</i>	ENV	NRS	No		<i>Enviro and Clim Change</i>	<i>Canadian Environ. Prot. UN Paris Agreement</i>	<i>Greenhouse Gas Reduction Targets (ENV) Greenhouse Gas Industrial Reporting and Control (ENV)</i>	<i>First Ministers/ CCME</i>	
<i>Adaptation</i>	ENV	NRS	No		<i>Natural Resources Can.</i>			<i>Adaptation Platform</i>	
<i>Clean Energy</i>	MEM	NRS	No		<i>Natural Resources Can.</i>		<i>Clean Energy (MEM)</i>	<i>First Ministers</i>	
<i>Clean Tech & Innovation</i>	MTICS/JTST	NRS	No		<i>Natural Resources Can.</i>			<i>First Ministers</i>	
<i>Pricing</i>	Finance	NRS	No		<i>Envir. and Clim.</i>		<i>Carbon Tax(FIN)</i>	<i>First</i>	

Area of Engagement	Prov Strategic Lead	Prov. Oper. Lead	Clarity Needed	Challenges with Provincial Agencies	Federal Agency	Federal Act	Provincial Act (Owner)	Forums	Provincial Challenges with Federal Gov't
					<i>Change</i>			<i>Ministers/CCME</i>	s.13,s.16
Environmental Assessments									
Assessments	ENV (EAO)	NRS			<i>Environ. and Clim. Change</i>	<i>Canadian Envir. Assess.</i>			
CEAA/NEB Review	ENV (EAO)	NRS			<i>Environ. and Clim. Change</i>				
Air Quality									
<i>National Air Quality Management Systems (AQMS)</i>	ENV	NRS	No	<i>Implications for existing and new industrial emitters in regions of BC</i>	<i>Environ. and Clim. Change</i>	<i>Canadian Environ. Prot.</i>	<i>Environ. Manage. (ENV)</i>	CCME	
First Nations									
<i>Treaty</i>	MARR/JAG	FLNRO/NRS	Yes		<i>Indigenous and Northern Affairs</i>	<i>Constitution S.35; UNDRIP</i>			
Pipelines (Inter-provincial)	OGC	FLNRO	No		<i>National Energy Board</i>				
Water									
<i>Emerg. manage. & mitigation</i>	EMBC	EMBC/FLNRO	Yes	<i>FLNRO not being represented</i>					
Parks									
<i>Pathway to Target One</i>	ENV	NRS	Yes		<i>Environ. and Clim. Change Parks</i>	<i>Species at Risk National Parks</i>	<i>Parks (ENV)</i>	MCWB	



Roundtable on the Environment and the Economy

Issue:

- Roundtable on the Environment and the Economy

Background:

- The Roundtable on the Environment and the Economy was created based on a deliverable outlined in Minister of Environment's mandate letter (June 10, 2013). The letter requested the Minister to create a new roundtable of representatives from communities, industry, First Nations and the environmental sector to provide guidance on how to balance environmental protection with economic development (see attached Terms of Reference). The Minister worked with the Parliamentary Secretary and the Roundtable on the Environment and the Economy to promote environmentally-responsible economic development in BC. The meetings with stakeholders were scheduled on a quarterly basis.
- The Roundtable held its first meeting on March 24, 2014 in Vancouver. Ten meetings have occurred to date. The latest meeting was held in Vancouver, on January 26th, 2017.
- The most recent (2016-2017) topics of discussion included BC's Climate Leadership Team and the Pan Canadian Framework on Climate Action, B.C. Jobs Plan 2016, and Southern Mountain Caribou Protection and Recovery. Once a year, meetings include a field trip, with the purpose of providing the Roundtable members with an illustrative example of where the environment and the economy are working together in B.C. The latest field trip took place in Squamish, on October 12, 2016. The tour included visits to key sites that follow a green economy model: the Carbon Engineering pilot plant, the Britannia Mine and the Sea-To-Sky Gondola.
- A performance review was conducted and discussed with members. This process led to the creation of a meeting format and pre-meeting process that engaged Roundtable members in the agenda development for discussion at future meetings.
- Thank you letters signed by Deputy Minister Wes Shoemaker were sent to participants, dated May 2, 2017.
- The Environment Minister's new mandate letter may ask for the continuation of the Roundtable of the Environment and the Economy. If it is, the Ministry will canvass for a meeting date in the fall. Roundtable members have provided positive feedback about this forum and have expressed a desire to continue to participate in these meetings if the forum is continued.
- Current Terms of Reference and Roundtable membership list is attached (please, see attachment 1).



Roundtable on the Environment and the Economy

Terms of Reference

Purpose

To advise the Minister of Environment with respect to balancing environmental protection and economic development.

Objectives

- To receive feedback from roundtable members on proposed government policies and initiatives;
- To enable frank and forthright discussions on the economic and environmental issues facing the province;
- To develop a better understanding of the diverse perspectives on the environment and the economy; and
- To provide a forum for participants to build relationships, share information and perspectives.

Outcomes

- Feedback on proposed government policies and initiatives;
- A better understanding of the economic and environmental issues facing the province from the perspective of all sectors represented; and
- Guidance for the Minister of Environment on how to balance the environment and the economy.

Topics for Discussion

The topics for discussion will be set by the Minister of Environment in consultation with roundtable members and Chair of the roundtable. Other natural resource sector Ministers, the Natural Resources Board of Deputy Ministers and the Environment and Land Use Committee may also propose topics for discussion.

Depending on the nature of the topic, natural resource sector Deputy Ministers, academics and technical experts may be invited to participate.

Prior to roundtable meetings, the topics for discussion will be circulated to members along with a few prompting questions to help stimulate and focus the conversation. Summaries of the roundtable discussions will be posted on the Ministry of Environment website.



Members of the Legislative Assembly

Honourable Mary Polak, Minister of Environment Jordan Sturdy, MLA - West Vancouver-Sea to Sky (Chair) & Parliamentary Secretary on Energy Literacy and the Environment

Members

The following agencies represent the five sectors:

Environment

- Lisa Matthaus, Provincial Lead, Organizing for Change
- Al Martin, Director of Strategic Initiatives, BC Wildlife Federation
- Linda Hannah, Regional VP (BC Region), Nature Conservancy of Canada
- Matt Horne, Associate Regional Director for British Columbia, Pembina Institute

Industry

- Greg D'Avignon, President and CEO, Business Council of BC
- Brad Herald, Canadian Association of Petroleum Producers Vice President, Western Canada Operations,
- Karina Briño, President and CEO, Mining Association of BC
- Brent Mooney, BC Agriculture Council
- Susan Yurkovich, President and CEO, Council of Forest Industries
- Paul Kariya, Executive Director, Clean Energy BC

Communities

- Gary MacIsaac, Executive Director, UBCM
- Vacant, Local Government Representative First Nations
- Douglas White III, Councillor, Snuneymuxw First Nation

Labour

- Frank Everitt, President, United Steelworkers of BC
- Philip Hochstein, President, Independent Contractors and Businesses Association
- Irene Lanzinger, President, BC Federation of Labour

Location, Frequency and Duration of Meetings

It is anticipated that meetings will be held in Vancouver. Meetings are proposed to be scheduled every three to four months for a half to full day depending on the topic(s) under discussion.

Overview of ENV Compliance and Enforcement

Issue:

An overview of how the Ministry of Environment ensures compliance with its regulatory requirements.

Background:

Ensuring compliance with its regulatory requirements is one of the ministry's principal objectives. From pollution prevention to pest management to commercial activities in provincial parks, the ministry works with regulated parties to achieve compliance, rectify problems and ultimately minimize the harm to human health and the environment. When compliance is not achieved through voluntary efforts, or when the gravity of the violation is significant, the Ministry pursues progressive enforcement action.

The Ministry's **Compliance Management Framework** provides the strategic context for its compliance and enforcement program. It includes the principles, goals and objectives that guide compliance-related work. It also outlines the ministry's approach to ensuring the effective delivery, management and reporting of compliance activities.

The **Compliance and Enforcement Policy and Procedure** provides operational guidance to ministry staff in responding to non-compliance. It outlines the procedures all staff follow to ensure a risk-based assessment of non-compliance and guides staff on the selection of the most appropriate enforcement response. The policy provides consistency, clarity and predictability regarding the consequences of non-compliance, as well as assurance that ministry resources are directed to the highest priorities. The balanced and principled use of compliance and enforcement tools demonstrates the ministry's commitment to building public confidence.

Ministry compliance and enforcement staff have defined skills and authorities.

- **Program staff** (environmental protection officers, pesticide officers) undertake inspections to verify compliance and are equipped to issue advisories, warnings, orders and administrative penalties (fines) and sanctions (for example, suspending or cancelling a permit); Park Rangers issue verbal warnings and violation tickets for unauthorized activities in BC Parks and Protected Areas.
- **Conservation Officers** are authorized to investigate non-compliance and issue violation tickets and lay formal charges. Laying formal charges may result in a court conviction.

In recent years the Ministry has expanded its tools, including the use of administrative monetary penalties and restorative justice.

Environmental Compliance and Enforcement Reporting

The ministry is a national leader in environmental enforcement reporting. The enforcement reporting program has two goals:

1. demonstrate government's commitment to transparency; and
2. promote deterrence among regulated parties and the public.

The ministry produces a variety of public reports:

Quarterly Environmental Enforcement Summary

- is published on the ministry's website four times per year. This report includes the orders, administrative sanctions, violation tickets, court convictions and restorative justice cases of the Ministry. It also includes orders issued by the Environmental Assessment Office and enforcement actions under some of the legislation administered by the Ministry of Forests, Lands and Natural Resource Operations.

Environmental Violations Database

- is an online searchable database of all the data included in the quarterly summaries, dating back to 2006. Currently, there are over 23,000 enforcement actions and \$9M in fines recorded in the Environmental Violations Database.

Compliance Inspections Report (new in 2016)

- the first annual report was published in 2016 (for 2015 results) and included 600+ inspections.
- the report highlights the number of inspections conducted under the *Environmental Management Act*, including breakdowns by sector, receiving environment, types of discharges, etc.
- names all the companies that were in and out of compliance.

Environmental Fines Collection

- effective mechanisms must be in place for collecting environmental fines if they are to have the intended effect on deterring harmful behaviours. In the past, less than half of the penalties imposed by the courts were paid. Over the last few years, the ministry put in place new mechanisms to improve the collection rates of both tickets and court fines. Currently, 91% of court fines are paid and this information is reported to the public on an annual basis.



Knowledge Management Branch

Issue:

- Knowledge Management Branch and its roles and responsibilities within the Natural Resource Sector.

Background:

- Knowledge Management Branch (KMB) was created in 2010 and is part of the Environmental Sustainability and Strategic Policy Division (ESSPD) of the Ministry of Environment (ENV).
- KMB supports the Natural Resource Sector and its partners through development of standards and guidelines, scientific/technical advice and support, advancing the use and application of relevant knowledge and best practices, conducting ambient and environmental monitoring to support natural resource decision making, and publicly report on the results;
- The branch is comprised of 3 sections: Environmental Monitoring, Reporting and Economics (EMRE) Section, Technical Services (TS) Section and Ecosystem Information Section (EIS).
- EMRE has responsibility for a variety of business areas including: the administration or operation of provincial air, groundwater, snow and water quality monitoring networks; economic analysis and expertise; and Environmental Reporting. The section directs monitoring equipment procurement and installation, data collection and management activities, quality assurance procedures, and reporting of air and water quality trends and state of the environment information.
- Technical Services is responsible for the operation and delivery of the Provincial Hydrometric Program, library services, the analytical chemistry laboratory, as well as management of the scientific publications process and research information for ENV and the NRS.
- Ecosystem Information is responsible for information services regarding the collection, standardization, management and distribution of a variety of provincial ecosystem data and information for the Natural Resource Sector. This includes fish and wildlife inventory and habitat information, fish passage, terrestrial ecosystems, soils, and terrain information.
- KMB leads several key responsibilities, programs and initiatives on behalf of the Natural Resource Sector and the provinces.
- One key responsibility is for the provincial hydrometric network, a significant part of the provincial air, water and climate monitoring networks, and includes the administration of the BC-Canada Hydrometric Monitoring Agreement. This agreement is a partnership with Environment and Climate Change Canada that has been in existence since 1985 and operates approximately 450 monitoring stations around the province.
- KMB is a sector leader in corporate data custodianship, data management, and Open Data and Information.



- The branch is responsible for two major sector initiatives to modernize information systems that support both water management (Water Information Services Project) and species and ecosystems decisions (Species and Ecosystems Information Systems Modernization).
- The branch has responsibility for ENV's State of Environment Reporting legislative obligations through the Environmental Reporting program.



Modernization of our Information Systems **(Water, Species and Ecosystems)**

Issue:

- Information systems that support water management, as well as species and ecosystems decision making, are being updated and modernized.

Background:

- The majority of government business in the Natural Resource Sector (NRS) relies on data, information and subsequently, knowledge to inform policies and decisions.
- Many of the information systems that support this information acquisition, storage, distribution and analysis are old, use out-of-date technology, are siloed across various agencies, and are not integrated or coordinated.
- Additionally data access for staff, clients and the public is not effective or efficient.
- Systems are expensive to build, maintain and operate, and there is significant staff capacity lost using inefficient or outdated tools.
- Across the NRS the desired future state would see coordinated, timely and accurate capture, reporting, and access to data and management information and tools to support risk management, improved evidence-based decision making, decreased conflicts across organizational and jurisdictional mandates, and enhanced transparency for interested citizens and the general public.
- Capital investments in infrastructure and major Information Management/Information Technology (IM/IT) projects are overseen by the Office of the Chief Information Officer (OCIO)
- Two major sector initiatives have been given approval by the OCIO: The Water Information Services Project (WISP) and the Species and Ecosystem Information Modernization (SEISM).
- On behalf of the sector, ENV has a leadership role in both of these projects.

WISP

- WISP was originally proposed as an IM/IT business case to DMCTT in 2015/2016. Although not selected for funding that year, the OCIO approved first year funding of \$500K for 2016/2017 for WISP as a minor capital project. Subsequent funding was notionally identified by the OCIO at \$6.5M over 7 years.
- WISP was formally launched in April 2017 and will take a multi-year, multi-agency business transformation approach that will examine the water management business process improvements and associated changes in information systems that support water management



activities and decisions. The agencies currently involved include: ENV (KMB and WSPB), FLNRO, NRPP, and IMB, but other agencies can and will be brought in as required.

- The project will identify gaps, legacy systems, siloed data, inefficient processes and undertake work to address these issues.
- Early on, WISP identified a sub-project around the business and information for groundwater wells and drilling.
- The sub-project was named GWELLS and has been selected as one the Innovation Hub's "catalyst projects" identified in the new corporate plan (Where Ideas Work) and will be part of the Continuous Service Improvement Lab (CSI Lab) where the team will utilize innovative systems development methodology (called DevOps).

SEISM

- SEISM was proposed as a business case in 2016/2017 and approved by the OCIO to commence in 2018/2019.
- Funding was notionally identified by the OCIO at \$6M over 5 years.
- Similar to WISP, a multi-year, multi-agency business transformation approach will be taken. As well, options for innovative systems development within this project will be pursued.
- Although SEISM is over 10 months away, introductory communications within the NRS have begun to raise awareness of the work and to start identifying potential project team members.



Water, Air and Climate Monitoring Networks

Issue:

- The Ministry of Environment (ENV) manages a variety of stations and networks for climate, weather, snowpack, groundwater, water quantity and water quality (collectively, the Climate Monitoring Networks) providing key information for: forecasting flood, fire and drought events; predicting impacts of climate change; developing climate adaptation or mitigation strategies; supporting water allocation decisions; and informing infrastructure (engineered) design, land use planning, and natural resource management.

Background:

- B.C. is geographically complex and juxtaposed between continental and maritime climates. This results in a variety of regional climates and a diversity of biological and ecological environments.
- ENV manages a variety of stations and networks that collect air, climate, weather, snowpack, groundwater, water quantity and water quality information which include:
 - Air quality (43)
 - Meteorological stations (30);
 - Automated snow/weather stations (39);
 - Manual snow survey stations (63);
 - Hydrometric stations (447 full-year; 5 seasonal);
 - Observation wells (190);
 - Long-term water quality monitoring stations on rivers and streams (40);
 - Lakes monitoring network (69); and
 - Biomonitoring (350 reference sites; 8 long-term sentinel sites; variable annual monitoring sites).
- In FY16, ENV spent approximately \$5.6M on operations, maintenance and improvements to the various stations and networks.
- Many of the networks are operated through formal partnerships or agreements with the federal government, other provincial agencies, municipal and local governments, or industry.
- A 2003 Business Review published by the Sustainable Resource Management Ministry reported a 19:1 economic benefit to monitoring cost ratio for the hydrometric network alone.
- Water, air and climate monitoring networks provide both immediate and long-term information that is key to government, our clients, industry and stakeholders for: forecasting flood, fire and drought events; predicting impacts of climate change; developing climate adaptation or mitigation strategies; supporting water allocation decisions; and, informing infrastructure (engineered) design, land use planning, and natural resource management.



- Timely, reliable and accurate data provide forecasters with better information to issue warnings of imminent danger, leading to better societal outcomes with avoided catastrophes.
- There are gaps and deficiencies in BC's current environmental monitoring networks that make it difficult to adequately and accurately model climate change and other impacts, particularly in regional environments. Generally speaking, network gaps are greatest in the northern part of the province where industrial development is driving a greater need for data.
- Past budget pressures have resulted in network reductions and static budgets at reduced levels have prevented the growth or adaptation of existing networks, along with years of deferred upgrades and maintenance (particularly to the hydrometric network).
- Government (provincial and local), industry stakeholders and First Nations are requesting more and better monitoring to improve forecasting of emergent conditions and climate change which requires modernization and expansion of the existing networks.
- Proposals and submissions to update and expand BC's climate monitoring networks to meet current and emerging demands have been made through BC's Climate Leadership Plan and FLNRO's Climate Change program.



BC State of Environment Reporting

Issue:

Environmental Reporting BC provides access to scientific data and information in the form of indicators that examine the state and trends of different aspects of our environment and how they relate to British Columbians.

Background:

State of Environment reporting is the name or brand given when a large amount of environmental information is reported for one place at one time.

State of Environment reporting is a statutory requirement in Canada and every province & territory produces a 'State of Environment' report.

In November 2012, ENV launched Environmental Reporting BC, the refreshed delivery model for the B.C. State of Environment report.

Environmental Reporting BC transitioned from the production of paper-based reports (six BC State of Environment reports and one special topic report from 1993 to 2007) towards: a timelier, iterative reporting model; a stronger on-line and design-oriented presence; emphasis on delivering reporting products that are easy to find and understand; stronger integration of reporting products with NRS programs and partners; and more open, repeatable and transparent reporting.

ENV's State of Environment report is currently delivered digitally through the Environmental Reporting BC web property and @EnvReportBC social media Twitter channel.

Indicators—significant variables which can be measured in a defined way—are typically used to convey the status or trends of various environmental attributes (e.g. status of air quality, species status, trend in water levels).

B.C.'s State of Environment indicators are selected to achieve a balance across the identified core topic areas— air, climate change, water, plants & animals, sustainability, and land & forests—as well as a balance of state, pressure, and response indicators within topics.

There are numerous key criteria considered around the selection of individual environmental indicators, for example being scientifically credible, readily communicable, and responsive to changes within a useful reporting time-scale.

Since the 2012 rebranding launch, Environmental Reporting BC has released:

- 21 indicators;
- 4 supporting multimedia reporting products (2 infographics & 2 videos);
- 29 reporting and program data sets in the BC Data Catalogue under the Open Government License – BC; and,



- 18 sets of analysis code and tools in [GitHub](#), an open code sharing platform.

All refreshed State of Environment reporting content has been created in partnership with NRS program areas (e.g. Climate Action Secretariat, Environmental Protection Division, BC Parks, Environmental Sustainability & Strategic Policy Division, Ministry of Forest, Lands and Natural Resource Operations).

On-going collaborations with DataBC have been instrumental in achieving progress on the open, repeatable and transparent reporting model (open data and code, early adopter of the [BC Developer's Exchange experiment](#)).

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Example Environmental Reporting BC published indicators and products:

- Plants & Animals: [Status of Invasive Species in B.C. & Invaders! Invasive Species in B.C. video](#)
- Climate Change: [Change in Size of B.C. Glaciers \(1985-2005\)](#)
- Sustainability: [Municipal Solid Waste Disposal in B.C. \(1990-2015\)](#)
- Water: [Long-term Trends in Groundwater Levels in B.C. & It's Called Groundwater! video](#)
- Land & Forests: [Protected Lands & Waters in B.C.](#)
- Air: [Status of Fine Particulate Matter in B.C. \(2011-2013\)](#)

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Liquefied Natural Gas Environmental Stewardship Initiative

Issue:

- The BC Liquefied Natural Gas Environmental Stewardship Initiative (LNG ESI)

Background:

- LNG ESI is a \$30 million initiative announced in 2015 as part of the Province's First Nations' LNG Benefits Framework to enhance support from First Nations in the north area for LNG facilities, natural gas pipelines and associated upstream development.
- The LNG ESI was a response outside of regulatory processes to ongoing First Nations' requests to address broader environmental concerns that were being raised in LNG-related regulatory processes and provincial benefit negotiations. It is one of the first collaboratively developed initiatives among First Nations and the Province.
- Goals of the LNG ESI are to undertake new, collaborative approaches to establishing environmental legacies related to LNG development and to generate high quality, accessible and trusted environmental information to inform natural resource decision-making.
- LNG ESI has been actively developed with stakeholders. Representatives of the LNG industry believe that projects should support increased regulatory certainty and predictability to enable long-term investment decisions for pipeline and LNG development.
- Five demonstration project agreements have been negotiated in the four LNG ESI regions in the north area (see appendix).
- Approximately 30 First Nation groups across the north are participating in these projects, along with representatives from the LNG and natural gas industry, and the federal government.
- s.13
- s.13,s.16
- First Nations and the Province agreed to develop the LNG ESI through a series of demonstration projects that would be implemented through four regional forums (North Coast, Skeena, Omineca and Northeast). Projects are guided by signed enabling agreements among the participating First Nations and the Province (MARR, FLNRO and MNGD).



- ENV has contributed to the LNG ESI by:
 - ENV is one of 4 Ministry executive sponsors of this initiative;
 - ENV has staff engaged in delivery of the projects, and provided services in support (e.g. data management).
 - ENV engagement will likely increase as the project matures and require policy direction related to land base measures in response to cumulative effects and monitoring assessment results.
- The primary goal of the LNG ESI demonstration projects is to develop a legacy of high quality, accessible and trusted environmental information that supports future resource management and enhances collaboration with First Nations.
- Projects are now underway and will begin to show results later in 2017 and early 2018.
- All 35 First Nations potentially impacted by LNG across the northern B.C. were invited to participate in the ESI development process. Approximately 30 First Nations are currently involved in ESI and project development.
- The structure and operation of the LNG ESI is supported by a LNG ESI Governance Working Group (GWG), which includes membership from the participating Nations, the Province and industry. The GWG plays a collaborative decision-making role over the allocation of available LNG ESI funding to support demonstration projects.
- The GWG has allocated (but not fully spent) \$16.2 million to support the demonstration projects to date. The Province retains ultimate authority over LNG ESI funds.
- LNG ESI has expended \$4.09M to date. The remaining funds, \$25.91M has been allocated for an updated 3 year spending plan within the First Nation Funding Envelope as \$11.91M in 2017/18, \$7.0M in 2018/19 and \$7.0M in 2019/20.
- The GWG is set to discuss the balance of the LNG ESI funds through 2017. First Nations participating in the LNG ESI have expectations that the LNG ESI will continue beyond the initial three-year, \$30M commitment.
- s.13
- Government direction will be sought in the coming year on emerging project recommendations and the future direction of LNG ESI.



Appendix: LNG ESI Demonstration Projects:

Northeast

- The Ministers of Aboriginal Relations and Reconciliation (MARR), Forests Lands and Natural Resource Operations (FLNRO) and Natural Gas Development (MNGD) signed an agreement with First Nations in the Northeast to pursue a Regional Strategic Environmental Assessment (RSEA) in September 2015.
- RSEA participants include the Blueberry River First Nation, Doig River First Nation, Halfway River First Nation, Prophet River First Nation, West Moberly First Nations, Saulteau First Nations, and McLeod Lake Indian Band and key natural gas proponents: Shell Canada, TransCanada, Progress Energy and ConocoPhillips.
- \$6.3M has been allocated to undertake a cumulative effects assessment of the risks of natural resource development to values associated with the exercise of Treaty 8 rights.
- The RSEA is being linked to the provincial Northeast coordinated negotiation strategy for the natural resource sector and could provide an alternative, collective venue for dealing with regional land management disputes rather than through separate government-to-government negotiations with individual First Nations.

Omineca

- The Ministers of MARR, FLNRO and MNGD signed the Carrier Sekani First Nations Omineca Demonstration Project agreement in April 2016. The project follows through on a commitment made in a government-to-government agreement made with the Carrier Sekani First Nations and the Carrier Sekani Tribal Council (CSTC). The project agreement has been extended to March 2018.
- Signatories to the project agreement include the Carrier Sekani First Nations (Nadleh Whut'en, Nak'azdli, Saik'uz First Nation, Stelat'en First Nation, Takla Lake First Nation, Tl'azt'en Nation, Ts'il Kaz Noh First Nation (Burns Lake Indian Band) and the Carrier Sekani Tribal Council
- \$3.0M has been allocated to develop a cumulative effects assessment, management and monitoring framework with a focus on moose, fish and forest biodiversity.

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Skeena

- The Minister of MARR, FLNRO and MNGD signed the Skeena Sustainability Assessment forum and Indigenous Stewardship Projects Framework in May 2016.



- Participating First Nations include: Gitanyow Nation; Office of the Wet'suwet'en (representing Wet'suwet'en Hereditary Chiefs); Lake Babine Nation; Wet'suwet'en First Nation; Gitksan Nation; Skin Tyee Nation; and the Moricetown Band. The Nee Tahi Buhn Band is currently in the process of finalizing its participation.
- \$3.9M has been allocated to develop a demonstration project focused on environmental monitoring including medicinal plants, grizzly bear, fish habitat, moose, and wetlands.
- s.13

North Coast

- The Ministers of MARR and FLNRO signed two agreements at the end of January 2017: one to conduct a Cumulative Effects Demonstration Project and one to conduct a North Coast Ecosystem Restoration Demonstration project.
- Participating First Nations include: Kitselas; Kitsumkalum; Gitga'at; Gitxaala; Metlakatla; and, Haisla.
- Nisga'a and Lax Kw'alaams are not participating.
- \$3.0M has been allocated for habitat restoration projects around the Douglas Channel and longer-term environmental monitoring and assessment in the Prince Rupert harbour area.

2017 Highlights

Summary: The 17/18 budget for Ministry Operations is significantly greater than 16/17 with the bulk of the increase being for BC Parks. The budgets for the Environmental Assessment Office (EAO) and the two special accounts are very constant through the three years of Budget 2017.

- The full Ministry budget is made up of the Ministry Operations vote, the EAO vote, the Park Enhancement Fund special account, and the Sustainable Environment Fund special account.
- The \$21.4M or 18.3% increase in the **17/18** Ministry Operations vote is mainly due to:
 - \$10M increase for BC Parks Foundation. This is one time, so is removed from the budget in future years.
 - \$8.7M for BC Parks Futures Strategy and campsite expansion.
 - \$3M to support authorizations, compliance, and enforcement of the Environmental Management Act.
 - \$0.8M to implement and monitor several components of the Greenhouse Gas Industrial Reporting and Control Act (GGIRCA) regulatory program.
- The \$10.8M decrease in the **18/19** Ministry Operations vote is mainly due to:
 - The absence of the \$10M for BC Parks Foundation.
 - The declining payment schedule for cement industry incentives to transition to lower GHG production.
- Budget 2017 provides additional funds of \$40.35M over the three year period.

Capital

- The Ministry's capital budget is about \$21.5M in 17/18. This has increased by \$3.5M or 20% due to:
 - An additional \$5.5M for campsite expansion; and,
 - A \$1.96M decrease in the allocation for fleet replacement due to the conclusion of a 3 year fleet replacement.
- The additional funds for campsite expansion amount to \$16.8M over the 3 years of Budget 2017. As a 5 year expansion program, the total amount is \$22.9M including FLNRO.
- In addition, the Ministry has 17/18 \$2.17M notional access to Capital Contingency (e.g., vehicles).

MINISTRY OF ENVIRONMENT 2017/18 Budget Highlights

Ministry Budget

- ENV's 2017/18 budget is **\$171.212M**. This represents an increase of **\$21.467M**, or 14.3%, net increase from the previous year. The net budget increase is comprised of:
 - o **\$21.425M** net increase in the Ministry Operations Vote;
 - **\$10.0M** increase for **BC Parks Foundation**
 - **\$8.678M** increase to support **BC Parks Futures Strategy** and **campsite expansion**
 - **\$1.050M** increase in salary and benefits from the **Economic Stability Mandate and Dividend**
 - **\$3.0M** increase to provide funding for **Environmental Management Act** applications and enforcement into base, previously funded by Contingencies Vote
 - **\$0.786M** increase for implementation of **Greenhouse Gas Industrial Reporting and Control Act**, previously funding from Contingencies Vote
 - **(\$1.800M)** planned decrease in **cement industry** transitional incentives
 - **(\$0.181M)** planned decrease for **Water Sustainability Act** implementation
 - **(\$0.108M)** decrease from the ending of prior funding to support **Liquefied Natural Gas**
 - o **\$0.042M** increase in the EAO vote;
 - **\$0.072M** increase in salary and benefits from the **Economic Stability Mandate and Dividend**
 - **(\$0.030M)** decrease from the ending of prior funding to support **Liquefied Natural Gas**
- The capital budget is **\$21.465**million – an increase of **\$3.528** million or 16.4 per cent from 2016/17 representing **\$5.491 million** in campsite expansion offset by a decrease of **\$1.963** million in vehicle purchases.

\$ millions	2016/17	2017/18	\$ Change	% Change
Vote 21 - Ministry Operations	117,182	138,607	21,425	18.3%
Vote 22 - Environmental Assessment Office	11,828	11,870	42	0.4%
Sub-Total	129,010	150,477	21,467	16.6%
Park Enhancement Fund	1,800	1,800	-	-
Sustainable Environment Fund	18,935	18,935	-	-
Total	149,745	171,212	21,467	14.3%

\$ millions	2013/14	2014/15	2015/16
Vote 21 - Ministry Operations	99,863	101,243	118,122
Vote 22 - Environmental Assessment Office	8,754	11,714	11,610
Sub-Total	108,617	112,957	129,732
Park Enhancement Fund	1,500	1,800	1,800
Sustainable Environment Fund	18,935	18,935	18,935
Total	129,052	133,692	150,467

**SUMMARY OF LEGISLATION ADMINISTERED
BY THE
BRITISH COLUMBIA
MINISTRY OF ENVIRONMENT**

**PREPARED BY: STRATEGIC POLICY BRANCH
ENVIRONMENTAL SUSTAINABILITY AND
STRATEGIC POLICY DIVISION**

CURRENT AS OF MAY 1, 2017

ASSIGNMENTS OF LEGISLATIVE RESPONSIBILITIES CONTINUED AS PER OIC 233/2013 --
JUNE 7, 2013.

ACTS ADMINISTERED BY THE MINISTRY OF ENVIRONMENT [□]

Act	O.I.C.	Notes
College of Applied Biology Act	233/13	
Ecological Reserve Act	233/13	
Environmental Assessment Act	233/13	
Environmental Management Act	233/13	The Act except the following: (a) s.5(f) as that provision relates to portfolio of the Minister of Forests, Lands and Natural Resource Operations; (b) Divisions 1 and 3 of Part 8 (administered by the Min of AG)
Greenhouse Gas Industrial Reporting and Control Act (In force Jan 1, 2016 – OIC 796/15)		In force except Division 4 of Part 4, section 53 (1) (f) and item 1 of the schedule.
Greenhouse Gas Reduction Targets Act	233/13	
Greenhouse Gas Reduction (Vehicle Emissions Standards) Act	233/13	(Not in force; comes into force by regulation)
Integrated Pest Management Act	233/13	
Land Title Act	233/13	s. 219 (1), (2), (3)(a) and (b), (4)-(9.2), (10), (11)(a), (12) and (14) as these provisions relate to the portfolio of MoE.
Ministry of Environment Act	233/13	The Act except the following: (a) s. 4(2)(d); (b) s. 4(2)(b),(e),(f) and (g) and s. 6.1 as those provisions relate to the portfolio of the Minister of FLNRO.
Ministry of Lands, Parks and Housing Act	233/13	Only ss. 5(b), 6 and 9 as those provisions relate to the portfolio of MoE.
Park Act	233/13	
Protected Areas of British Columbia Act	233/13	
Special Accounts Appropriation and Control Act	233/13	Section 9.6 only.
Sustainable Environment Fund Act	233/13	
Wildlife Act	233/13	Only the following: (a) s.3(b) as that provision relates to the portfolio of the Minister of Environment; (b) ss. 6 and 108(2)(a).

□

□ Acts are assigned by Order in Council issued under the *Constitution Act*. Administration of acts can change quickly. Readers are advised to confirm all information with appropriate legal research before relying upon it.

In addition, the Minister of Environment has authority by regulation under the *Constitution Act* (OIC 233/13) to act as minister responsible for the *Wildlife Act* for the purposes of administering ss. 149.1(1)(a)(iv) and 154(2)(a)(ii) of the *Forest and Range Practices Act* and section s. 10(2) of the *Oil and Gas Activities Act*, and as minister responsible for the *Water Act* for the purposes of s. 150(1)(a)(ii) of the *Forest and Range Practices Act*.

SUMMARY OF LEGISLATION[□]

College of Applied Biology Act, S.B.C. 2002, c.68

This act establishes the College of Applied Biology, which is responsible for: protecting the public interest by preserving the scientific methods and principles that are the foundation of the applied biological sciences; upholding the principles of stewardship of aquatic and terrestrial ecosystems and biological resources; and ensuring the integrity, objectivity, and expertise of its members. To achieve this, the registrar issues each practicing member a certificate of registration, which indicates good standing and compliance with the Act and its rules.

The Act defines both the College's members and the council that governs them. It provides for the enrolment, admission, reinstatement and standards of conduct and competence of the members. Disciplinary guidelines such as hearings, reviews and appeals are also included.

Regulations:

- *Application Regulation, B.C. Reg. 229/03*

Ecological Reserve Act, R.S.B.C. 1996, c. 103

The *Ecological Reserve Act* is one of the key pieces of protected area legislation. The Act provides for the establishment and administration of ecological reserves in the Province. New ecological reserves are created by order-in-council or through addition to the schedules of the *Protected Areas of British Columbia Act*. British Columbia Parks administers the Act and the ecological reserves.

Regulations:

- *Ecological Reserve Regulations, B.C. Reg. 335/75*
- *Application of Park Legislation to Ecological Reserves Regulation, B.C. Reg. 364/97*

Environmental Assessment Act, S.B.C. 2002, c. 43

□

□ Citations for all acts and regulations are to the most recent or original versions: these are frequently amended and can change quickly and with little notice. Readers are strongly advised to update all acts and regulations and confirm all information with appropriate legal research before relying upon it.

This Act creates a comprehensive environmental assessment process for British Columbia. An Environmental Assessment Certificate is required before a major project can be built, unless the Executive Director under the Act has determined that a Certificate is not required for the project. The Act details the process that is required before deciding whether to issue a Certificate. Regulations under the Act set out what types of projects must undergo a review. The Minister may also designate a project as reviewable under section 6 of the Act. The Environmental Assessment Office is responsible for receiving and processing all applications under the Act.

Regulations:

- *Concurrent Approval Regulation*, B.C. Reg. 371/2002
- *Prescribed Time Limits Regulation*, B.C. Reg. 372/2002
- *Public Consultation Policy Regulation*, B.C. Reg. 373/2002
- *Reviewable Projects Regulation*, B.C. Reg. 370/2002
- *Transition Regulation*, B.C. Reg. 374/2002

Environmental Management Act, S.B.C. 2003, c. 53

The *Environmental Management Act* is one of the major enabling statutes for the Ministry. The Act governs environmental protection and management in British Columbia, replacing the former Waste Management Act and Environment Management Act as of July 2004.

A primary feature of the new *Environmental Management Act* is that it implements a shift to risk and results-based regulation of waste management in the province. The Act is designed to greatly reduce the number of waste discharge permits that have been administered by government as per the requirements of the former *Waste Management Act*. The *Environmental Management Act* eliminates the need for site-specific permits for low to medium risk activities as long as the operations in this category follow a code of practice. Only high risk activities will continue to need permits. Activities that are in the lowest category of risk will not need any ministry approval, but will continue to be subject to a prohibition against causing pollution.

The *Environmental Management Act* regulates industrial and municipal waste discharge, pollution, air quality, hazardous waste and contaminated site remediation as well as other general matters. It provides power to correct detrimental environmental impacts and to respond to environmental emergencies. It also continues the Conservation Officer Service and the Environmental Appeal Board.

Specific legislated responsibilities under the *Environmental Management Act* include:

- conducting research and investigative activities;

- preparing policies, strategies, objectives and standards for the protection and management of the environment;
- preparing environmental plans for flood control, drainage, soil conservation, water resource management, waste management, and air quality management;
- requiring and regulating certain environmental assessments;
- issuing environmental protection orders;
- declaring environmental emergencies and allocating the required resources to control emergencies;
- recovering moneys spent during an emergency from the responsible party;
- regulating the confinement, storage, disposal and transportation of hazardous waste;
- approving discharges requiring a permit;
- regulating spill prevention, reporting and response activities;
- regulating the production of regional solid, liquid and biomedical waste management plans;
- designating sewage control areas;
- delegating waste management powers to the Greater Vancouver Regional District and other eligible regions;
- regulating contaminated sites;
- issuing pollution abatement orders;
- establishing and administering the Conservation Officer Service; and
- establishing and operating the Environmental Appeal Board (EAB)
(Note: Divisions 1 and 3 of Part 8 of the Act, concerning powers and procedures of the EAB and regulations in relation to the EAB, are assigned to the Ministry of Attorney General (OIC 233/13).

Regulations:

- *Agricultural Waste Control Regulation*, B.C. Reg. 131/92 (Environmental Management Act, Health Act)
- *Antifreeze Regulation*, B.C. Reg 142/2009
- *Antisepstain Chemical Waste Control Regulation*, B.C. Reg. 300/90
- *Asphalt Plant Regulation*, B.C. Reg. 217/97
- *Cleaner Gasoline Regulation*, B.C. Reg. 498/95
- *Code of Practice for the Concrete and Concrete Products Industry*, (M290/2007; effective date March 1, 2008)
- *Code of Practice for the Discharge of Produced Water from Coalbed Gas Operations*, B.C. Reg. 156/2005

- *Code of Practice for Industrial Non-Hazardous Waste Landfills Incidental to the Wood Processing Industry*, B.C. Reg. 263/2010
- *Code of Practice for the Slaughter and Poultry Processing Industries*, B.C. Reg. 246/2007 (M176/2007)
- *Code of Practice for Soil Amendments*, B.C. Reg. 210/2007 (M169/2007)
- *Conservation Officer Service Authority Regulation*, B.C. Reg. 721/2004
- *Contaminated Sites Regulation*, B.C. Reg. 375/96 amended 2002
- *Environmental Appeal Board Procedure Regulation*, B.C. Reg. 1/82
- *Environmental Data Quality Assurance Regulation*, B.C. Reg. 301/90
- *Environmental Impact Assessment Regulation*, B.C. Reg. 330/81
- *Gasoline Vapour Control Regulation*, B.C. Reg. 226/95
- *Hazardous Waste Regulation*, B.C. Reg. 63/88
- *Land-based Finfish Waste Control Regulation*, B.C. Reg. 68/94
- *Landfill Gas Management Regulation*, B.C. Reg. 391/2008
- *Motor Vehicle Emissions Control Warranty Regulation*, B.C. Reg. 116/96
- *Municipal Wastewater Regulation*, B.C. Reg. 87/2012
- *Mushroom Composting Pollution Prevention Regulation*, B.C. Reg. 413/98
- *Oil and Gas Waste Regulation*, B.C. Reg. 208/96
- *Open Burning Smoke Control Regulation*, B.C. Reg. 145/93
- *Organic Matter Recycling Regulation*, B.C. Reg. 18/02
- *Ozone Depleting Substances and other Halocarbons Regulation*, B.C. Reg. 387/99
- *Permit Fees Regulation*, B.C. Reg. 299/92
- *Petroleum Storage and Distribution Facilities Storm Water Regulation*, B.C. Reg. 168/94
- *Placer Mining Waste Control Regulation*, B.C. Reg. 107/89
- *Public Notification Regulation*, B.C. Reg. 202/94
- *Pulp Mill and Pulp and Paper Mill Liquid Effluent Control Regulation*, B.C. Reg. 470/90
- *Recycling Regulation*, B.C. Reg. 449/2004
- *Solid Fuel Burning Domestic Appliance Regulation*, B.C. Reg. 302/94
- *Spill Cost Recovery Regulation*, B.C. Reg. 250/98
- *Spill Reporting Regulation*, B.C. Reg. 263/90
- *Storage of Recyclable Material Regulation*, B.C. Reg. 133/92
- *Sulphur Content of Fuel Regulation*, B.C. Reg. 67/89

- *Vehicle Dismantling and Recycling Industry Environmental Planning Regulation*, B.C. Reg. 200/2007
- *Waste Discharge Regulation* (B.C. Reg. 320/2004)
- *Wood Residue Burner and Incinerator Regulation*, B.C. Reg. 519/95

Greenhouse Gas Reduction Targets Act, S.B.C. 2007, c. 42

This Act sets greenhouse gas emissions reduction targets for British Columbia as a whole. It also sets requirements for the Provincial government to reduce greenhouse gas emissions and become “carbon neutral”. The Act sets a 33 per cent reduction target for 2020 and a target for 2050 to reduce greenhouse gas emissions by at least 80 per cent compared to the level of emissions in 2007.

The legislation also requires that interim targets for 2012 and 2016 be set by the Minister by the end of 2008.

The “carbon neutral” requirements apply starting in 2008 with respect to greenhouse gas emissions produced by government business travel by the Legislative Assembly and by Provincial government ministries and agencies. In 2010 the requirements will be expanded to apply to all emissions from government operations, as well as the operations of schools, colleges, universities, health authorities, crown corporations and other public sector organizations that may be identified by regulation.

Regulations:

- *Carbon Neutral Government Regulation*, B.C. Reg. 392/2008
- *Emission Offsets Regulation*, B.C. Reg. 393/2008

Greenhouse Gas Industrial Reporting and Control Act, S.B.C. 2014, c. 29

(In force January 1, 2016 except for Division 4 of Part 4, section 53 (1) (f) and item 1 of the schedule.)

This Act repealed the GHG Reduction (Cap and Trade) Act and provides for the setting of intensity-based performance standards for greenhouse gas emissions from prescribed industries. The sole prescribed industry listed in the schedule to the Act at the time of enactment was “liquified natural gas operation” (LNG facilities). (“Coal-based electricity generation operation” was also listed as a prescribed industry in the Bill, but that item was not brought into force on January 1, 2016.)

For LNG facilities, the emissions intensity benchmark is 0.16 tonnes of carbon dioxide equivalent per tonne of LNG produced.

(For coal-fired electricity generation, the benchmark (if and when it is brought into force) is zero GHG emissions. The requirement previously under the *Environmental Management Act* to use carbon capture and storage will be prescribed in regulations under the new Act.)

The Reporting Regulation under the former GHG (Cap and Trade) Act was shifted over to the new Act with only minor amendments. As such, reporting operations that emit over 10,000 tonnes of carbon dioxide equivalent, or CO₂e will continue to report their emissions and reporting operations that emit over 25,000t CO₂e will continue to have their reported emissions verified by a third party.

Regulated operations can meet the benchmark by adopting energy efficient technology or using clean energy to power the operation. Regulated operations can also comply with the benchmark by purchasing offsets, purchasing earned credits or purchasing funded units that would be used to invest in clean technology research and development for long-term emission reductions. A registry is used to help the government track compliance.

The standards for high quality offsets and the processes to create offsets will be prescribed by regulation. There will be a positive list of protocols issued by the Director to provide certainty on how to quantify emission reductions and removals.

Earned credits may be generated where a regulated operation performs below the emissions limit applicable to that operation.

The Act currently provides that revenue from the purchase of funded units by operators will be collected by the Minister of Environment to put into a technology fund or directly fund clean technology opportunities. Amendments are in development for introduction in Spring 2017 to establish a funded unit and technology fund framework that will be administered arms-length from government.

Regulations:

- *Greenhouse Gas Emission Administrative Penalties and Appeals Regulation*, B.C. Reg. 248/2015
- *Greenhouse Gas Emission Control Regulation*, B.C. Reg. 250/2015
- *Greenhouse Gas Emission Reporting Regulation*, B.C. Reg. 249/2015.

Greenhouse Gas Reduction (Vehicle Emissions Standards) Act, S.B.C. 2008, c. 21 (Bill 39 - 2008) (Not in force; comes into force by regulation.)

This Act will also support the overall goal of meeting B.C.'s GHG emissions reduction targets. The Act provides authority to set GHG emission standards, by regulation, for new light-duty vehicles. These standards will be equivalent California's, becoming more stringent for each model year until 2016.

In addition to setting the GHG emission standards for new vehicles, the Act requires larger vehicle manufacturers to include a percentage or set number of zero-emission vehicles in their fleets each year. This aligns with California's approach.

The Act also provides for the generation of credits by manufacturers where their vehicle fleets more than meet the required standards. These credits will be transferable between manufacturers and model year fleets, allowing flexibility for achieving compliance.

Regulations: none – development on hold.

Integrated Pest Management Act, S.B.C. 2003, c.58

This Act replaces the former *Pesticide Control Act* and implements a shift to risk and results-based management of pesticide use by removing the requirement for ministry permits for most pesticide uses. Only pesticide uses of high concern, those prescribed by the minister, require approval by permit. For most pesticide uses, the new system requires proponents to develop Pest Management Plans in accordance with the regulations and the principles of integrated pest management, submit a notification document of the intended use of pesticides to the administrator, and use the pesticides strictly in accordance with the notice and the standards set by the administrator.

Regulation:

- *Integrated Pest Management Regulation, B.C. Reg. 604/2004*

Land Title Act, R.S.B.C. 1996, c. 250

[Section 219 (1), (2), (3)(a) and (b), (4)-(9.2), (10), (11)(a), (12) and (14) as these provisions relate to the portfolio of the Minister.]

Section 219 authorises the Minister to designate a person as a covenantee for the purposes of registering a covenant as to use and alienation against the title to land. The authorities concerning covenants listed above are shared by the Ministry of Environment, the Ministry of Forests, Lands and Natural Resource Operations, the Ministry of Energy, Mines and Natural Gas, and the Ministry of Community, Sport and Cultural Development. Each Minister may exercise the general s. 219 authority insofar as it relates to the portfolio of the Minister. In the case of the Ministry of Environment, the authority relates to covenants

concerning the right to flood or requiring measures relating to flood hazard prevention or mitigation.

Ministry of Environment Act, R.S.B.C. 1996, c. 299 [Except s. 4(2)(d)]

This Act established a previous incarnation of the Ministry of the public service of the Province called the Ministry of Environment. The name of the Ministry came full circle in 2005. The purposes and functions set out in the Act include:

- administering matters relating to the environment;
- encouraging and maintaining an optimum quality environment;
- undertaking, commissioning and co-ordinating environmental studies;
- developing and sustaining public information and education programs;
- planning, designing, constructing, operating and maintaining all the structures necessary to carry out its mandate.

The Act also gives the Minister authority to acquire property and to enter into agreements with other governments with the approval of the Lieutenant Governor in Council. In addition, the Minister is required to submit an annual report to the Legislative Assembly.

Paragraphs 4(2)(d), which is assigned to the Ministry of Forests, Lands and Natural Resource Operations, concerns authority to set standards for, collect, store, retrieve, analyze and make available environmental data.

Ministry of Lands, Parks and Housing Act, R.S.B.C. 1996, c. 307 [ss. 5(b), and 6 and 9 only, insofar as they relate to the portfolio of the minister of Environment.]

Section 5(b) describes one of the functions of the Ministry as being to encourage outdoor recreation, establish parks and conserve the natural scenic and historic features of British Columbia. **Section 6** provides the Minister with the authority, for the purposes of the Act, to enter into agreements (subject to the approval of the Lieutenant Governor in Council) with the government of Canada, the government of another province, or with any other person or a municipality. (This section is shared with the Ministry of Agriculture.) **Section 9** gives authority to the minister to dispose of, acquire and manage land for ministry purposes.

Park Act, R.S.B.C. 1996, c. 344

This key protected areas statute provides for the establishment, classification and management of provincial parks and recreation areas dedicated to preservation of the natural environment for the inspiration, use and enjoyment of the public. Parks are designated by Order in Council or by inclusion in the schedules of the *Protected Areas of British Columbia Act*.

Regulations:

- *Application of Park Legislation to Ecological Reserves Regulation*, B.C. Reg. 364/97
- *BC Parks Recreation User Fees Regulation*, B.C. Reg. 136/2009

- *Class “C” Parks Regulations*, B.C. Reg. 227/67
- *Park, Conservancy and Recreation Area Regulation*, B.C. Reg. 180/90

Protected Areas of British Columbia Act, S.B.C. 2000, c. 17

The *Protected Areas of British Columbia Act* represents a step in improving the legislative framework for the stewardship of the provincial protected areas system. The Act consolidates in its schedules most of the parks and ecological reserves for the purposes of the *Park Act* and the *Ecological Reserve Act*. The Act ensures that the boundaries of these protected areas cannot be altered except by an act of the Legislature, unlike protected areas established by Orders in Council that have not yet been incorporated into the Act (this transfer process is ongoing).

Special Accounts Appropriation and Control Act, R.S.B.C. 1996, c. 436

(Section 9.6 only)

This Act establishes special accounts, which are accounts in the general fund of the consolidated revenue fund where the authorization to expend money from the account is located in an Act other than a *Supply Act*. Section 9.6 concerns the Park Enhancement Fund, a special account into which money may be paid from sources as specified in this section (e.g., from the sale of informational material as authorized by the *Park Act*), and from which amounts may be paid by the minister (specified purposes in respect of protected areas).

Sustainable Environment Fund Act, R.S.B.C. 1996, c. 445

The Act establishes a fund from which the Minister may pay out money to reduce and manage solid, liquid, hazardous and atmospheric waste and for other environmental protection and environmental renewal initiatives.

Wildlife Act, R.S.B.C. 1996, c. 488 [Only the following provisions are assigned to MoE: section 3(b) as that provision relates to the portfolio of the Minister of Environment; sections 6 and 108(2)(a).]

This Act provides a comprehensive scheme for the regulation of hunting, angling and the management of the Province’s wildlife resources. Responsibility for most of the Act is assigned to the Ministry of Forests, Lands and Natural Resource Operations. Authorities concerning endangered and threatened species are assigned to the Minister of Environment. Sections 6 and 108(2)(a) concern the designation of endangered and threatened species under the Act. Section 3(b) gives authority to the minister to, for the purposes of access to or the management or protection of wildlife, enter into and carry out an agreement

with a person, association or other body. A share of authority to administer this provision is assigned to MoE to support the species at risk function of MoE.

Regulations:

- *Designation and Exemption Regulation*, B.C. Reg. 168/90 [Responsibility of MoE insofar as it relates to the designation of endangered and threatened species.)

Powers under the *Forest and Range Practices Act* and the *Oil and Gas Activities Act*:

In addition to the assignments of statutory authorities listed above, the Minister of Environment has authority given by regulation under the *Constitution Act* (OIC 062/2011) deeming the Minister of Environment as the minister responsible for the *Wildlife Act* for the purposes of administering ss. 149.1(1)(a)(iv) and 154(2)(a)(ii) of the *Forest and Range Practices Act* and section s. 10(2) of the *Oil and Gas Activities Act*, and as minister responsible for the *Water Act* for the purposes of s. 150(1)(a)(ii) of the FRPA. These authorities concern, respectively: the authority to make orders designating categories of wildlife and identifying wildlife habitat features for the purposes of the FRPA Government Activities Regulation; the authority to order independent audits of the performance of the Oil and Gas Commission in exercising its powers in relation to the protection and effective management of the environment; and the authority to set water quality objectives for the purposes of the FRPA Government Activities Regulation.



Legislative Priorities

Issue:

- Overview of the ministry's legislative and regulatory priorities.

Background:

Protected Areas of British Columbia Act:

- Usually each year, the Ministry of Environment brings forth amendments to the *Protected Areas of British Columbia Act* to establish new parks, conservancies and ecological reserves and/or amend boundaries of existing parks, conservancies and ecological reserves.
- New parks, conservancies and ecological reserves, and additions to existing parks, conservancies or ecological reserves are usually made as a result of land use direction or private land acquisitions. Boundary modifications may be required based on Minister and Cabinet approval to introduce legislation or where administrative boundary errors require correction.
- Further detail is included in BC Parks Background Note 3 – Legislation, Planning, and Land Management.

Water Sustainability Act:

- The Water Sustainability Act (WSA) was brought into force on February 29, 2016, replacing the Water Act as the primary water law in BC. It is being implemented in a phased approach; as such, supporting regulation and policy development will continue for several years. The phasing includes:

s.13



- More detail on WSA Implementation in ESSPD Issues Note 1, WSA Implementation, and ESSPD background note 1, Management of Water Resources in BC: Legislation Policy and Management.

Environmental Management Act, and the *Integrated Pest Management Act* and their Regulations:

- As of May 4, 2017, there are 13 regulatory projects in progress.
- Nine are scheduled for completion as early as possible in 2017:
 - amendment of the Municipal Wastewater Regulation
 - two amendments of the Environmental Data Quality Assurance Regulation (air audit fees) (Minister's Regulation)
 - development of a new Code of Practice (Minister's Regulation) to replace the Agricultural Waste Control Regulation
 - development of the Code of Practice for Wood Processing (Minister's Regulation)
 - development of the Spill Preparation and Response regulations (phase 1) (includes suite of Minister's regulations)
 - amendment to the Open Burning Smoke Control Regulation
 - amendment to the Administrative Penalties Regulation (IPMA)
 - amendment to the Contaminated Sites Regulation (Stage 10 (Omnibus) errata)
- Four are scheduled for completion in 2018:
 - amendment of the Organic Matter Recycling Regulation
 - development of the Spill Preparation and Response regulations (phase 2) (includes suite of Minister's Regulations)
 - amendment of the Environmental Data Quality Assurance Regulation (manual stack sampling) (Minister's Regulation)
 - amendment to the Code of Practice for Industrial Non-Hazardous Waste Landfills Incidental to the Wood Processing Industry (Minister's Regulation)
- Further detail on the regulatory work under the *Environmental Management Act* and the *Integrated Pest Management Act* is in the Regulatory Changes Underway Transition Background Note.

Government Communications and Public Engagement Ministry of Environment Overview

Government Communications and Public Engagement (GCPE) Overview

Government Communications and Public Engagement (GCPE) leads and co-ordinates both internal and external communications, ensuring stakeholders, media and the public are informed about government policies and services and that information is communicated in an open and transparent manner. Ministry-based communications teams focus on leadership through proactive strategic planning and by delivering value-added services.

The Deputy Minister, Government Communications Office, advises Cabinet on communications.

GCPE's mandate is to:

- communicate Cabinet's goals and promote major initiatives of government
- develop long-term strategic communications plans
- oversee communications associated with government's strategic initiatives
- develop policy and procedures to cover all aspects of government communications
- approve ministries' communications strategies and plans
- coordinate multi-ministry communications
- provide dedicated planning, professional and technical services
- provide issue/crisis communications support to ministries
- measure the effectiveness of government communications
- augment staff development
- maintain a media monitoring and analysis service
- approve all government news releases
- authorize government communications spending (communication product approval/advertising)

Ministry of Environment Communications

The Ministry of Environment Communications Director is the Ministry's representative and most senior communications specialist. As a member of the Ministry's Executive Committee, the Director is responsible for:

- developing, implementing and evaluating all ministry communications;
- Ministry strategic communications planning and evaluation;
- providing communications expertise to the Minister, Deputy Minister and senior Ministry staff;
- ensuring that communications standards are applied consistently throughout the Ministry;
- Ministry communications issue management;
- Ministry media relations;
- special events; and
- statutory requirement coordination.

The Ministry of Environment Communications branch consists of seven people: the Director, Manager and five Communications Officers. While the Manager oversees all administrative and day-to-day work requirements of the branch, Communications Officers are assigned to work primarily with a specific Ministry division or the media and freedom of information requests.

- **Communications Director – Dave Crebo**
- **Communications Manager – Bernadette Murphy**
- **Senior Communications Officer - Brian Cotton:** Environmental Protection Division
- **Senior Communications Officer - David Karn:** Media relations
- **Communications Officer – Lara Hurrell:** Climate Action Secretariat and Environmental Sustainability
- **Communications Officer – Danielle Bell:** BC Parks and the Conservation Officer Service

Staff provide professional services and expertise in:

- **Event planning and announcements.** Communications branch seeks out opportunities to promote new programs and Ministry accomplishments through announcements and events. The branch works with HQ to coordinate announcements with cross government activities and/or days of action. Communications also liaises with Caucus Communications through the Minister's Office to provide factual information about Ministry programs, investments and policies.
- **Issues management.** Communications works with Ministry staff and the Minister's Office to identify emerging and pending issues and develop appropriate messages. Issues Notes provide a very brief summary of the issue and key messages media responses to breaking issues and/or questions raised in the House. Issues Notes are not meant to replace full briefing notes from program staff.

- **Communications Coordination.** Through bi-weekly all-Ministry and natural resources sector Communication director meetings, a coordinated approach is taken to ensure files are shared across government. This includes joint news releases, events, issues notes, co-branding of collateral communications materials, etc.) As a special project, the Ministry of Environment is the provincial communications lead for the joint federal-provincial Tsunami Debris Coordinating Committee. The committee co-ordinates the effort of multiple agencies to address the arrival of tsunami debris on British Columbia's shoreline. The Communications Office maintains the tsunami debris website in addition to producing communications materials and responding to media requests related to the monitoring and clean-up of tsunami debris.
- **Website and Social Media.** Communications is responsible for the content as well as the look and feel of the Ministry's website. The branch also ensures the Minister and Ministry has a presence on the government newsroom page, in social media and on the BC government Flickr site.
- **Media monitoring.** By 7:00 a.m. weekdays during session, (7:30 am when the House is not sitting) the Minister Office, Ministry Executive and key Ministry staff receive a smartphone-friendly email summary of clippings relevant to the Ministry.
- **Minister's media/issues communications call.** Monday through Thursday during session, a media issues/proactive communications call is held with the Minister's Office to go through issues of the day, information required by the Minister's Office and proactive communications products. Participants include the Minister, Ministerial Assistants, Deputy Minister, DMO Manager of Executive Operations, ENV Communications Director, EAO Communications Director and ENV Communications Manager.
- **Daily media wrap.** At the end of each business day, a report is produced outlining media calls received, closed/open status, and responses provided.
- **Media relations.** When the Communications Branch receives a media call, we send an alert to the Minister's Office to flag any requests for an interview with the Minister. Communications staff then assists with developing a response. Opportunities to interest media in positive Ministry stories are also canvassed and pitched as required. Media relations is a 24-hours a day/seven days a week function of the Communications branch which staffs an after-hours media phone number.

TOP ISSUES

South Island Aggregates/Cobble Hill Holdings near Shawnigan Lake:

- The company's permit was cancelled by the Minister; however, concerned citizens are demanding removal of all existing toxic material.

Hullcar Aquifer

- Despite the commitment for alternative drinking water sources, concerned citizens continue to watch for improper effluent management practices by area farmers.

Kinder Morgan pipeline

- Construction activity will begin over the summer, raising the spectre of possible protests/civil disobedience.

Coal Shipments/GGIRCA

- In response to the US imposition of softwood lumber duties, new levies on thermal coal shipments through federal ports may provoke controversy.

Discover Camping Reservation System

- Despite adjustments to the system to ensure fairness for all users, the fact remains there is much greater demand for campsites in heavier populated areas than there is supply.

TOP OPPORTUNITIES

New Campsites Opening

A ribbon-cutting ceremony can be held at one of several new campsites constructed as part of the BC Parks Future Strategy

The 350+ new campsites - the first phase - are expected to be completed by June 2017.

New Park Rangers

- Photo-ops of new park rangers at their posts throughout BC
- 28 new rangers will be hired for the 2017 summer camping season
- Ranger posts will be spread across the province, offering many location options

BC Parks Licence Plates

- Marking another milestone with the sale of 50,000 BC Parks licence plates
- Plate sales are expected to hit 50,000 in the fall of 2017

Mussel Stations - Photo op/news release – updates on numbers mid-summer and mid-fall regarding this year's expanded invasive mussel defence program.

- Photo-op either in the Okanagan closer to larger media markets or at one of the new mussel inspection stations in BC this summer.
- New stations are located along the border in Yahk and Midway. The Golden station is also a possibility, which is now open 24 hours.
- Photo-op can also include mussel-sniffing dog Kilo at work.



May 2017

CORRESPONDENCE VOLUMES

The correspondence unit processed over 19,500 pieces of correspondence in 2016, including over 12,000 from write-in campaigns and over 1,750 individual responses. The current top 10 issues by volume are listed below.

Top 10 issues by volume (excluding write-in campaigns)

	Issue	Volume	Jurisdiction
1.	Logging, Old Growth Forests etc.	1488	Forests, Lands and Natural Resource Operations
2.	National Parks (Okanagan-Similkameen National Park)	968	ENV (Parks)
3.	Climate Change, Action, Leadership Plan and Team etc.	918	ENV (Climate Action Secretariat)
4.	Parks Budget, Facilities, Management, Fees, Access, Reservation System etc.	771	ENV (Parks)
5.	Pipelines, LNG, Kinder Morgan (Trans Mountain), Spill Prevention/Response etc.	286	ENV (Environmental Protection Division)
6.	Sewage Treatment (CRD)	207	ENV (Environmental Protection Division)
7.	Mount Polley Tailings Pond and Mine Facility	182	ENV (Environmental Protection Division)
8.	Water Sustainability Act, Water Rates, Water Protection and Management etc.	154	ENV (Environmental Sustainability and Strategic Policy Division) Environmental Assessment Office
9.	Permit to place contaminated soil in the Shawnigan Lake watershed (South Island Aggregates/Cobble Hill Holdings Ltd.)	149	ENV (Environmental Protection Division)
10.	Mining Related (Not Mount Polley)	89	ENV (Environmental Protection Division)

Top 10 issues by volume (including write-in campaigns)

	Issue	Volume	Jurisdiction
1.	Climate Change, Action, Leadership Plan and Team etc.	5705	ENV (Climate Action Secretariat)
2.	Wolf Population Management	3337	Forests, Lands and Natural Resource Operations
3.	Trophy Hunting/Grizzly bears etc.	1913	Forests, Lands and Natural Resource Operations
4.	Pipelines, LNG, Kinder Morgan (Trans Mountain), Spill Prevention/Response etc.	1818	ENV (Environmental Protection Division)
5.	Logging, Old Growth Forests etc.	1788	Forests, Lands and Natural Resource Operations
6.	National Parks (Okanagan-Similkameen National Park etc.)	995	ENV (BC Parks)
7.	Parks Budget, Facilities, Management, Fees, Access, Reservation System etc.	771	ENV (BC Parks)
8.	Marine Planning Partnership (MaPP) and Great Bear Sea Agreement	520	Forests, Lands and Natural Resource Operations
9.	Sewage Treatment (CRD)	207	ENV (Environmental Protection Division)
10.	Mount Polley Tailings Pond and Mine Facility	182	ENV (Environmental Protection Division)

Environment - Key Stakeholders

Organization	Contact	Key Issues	Address
Environment & Climate Change Canada	Contact: Name: Stephen Lucas Title: Deputy Minister Phone: 1-819-994-5020 Email: Stephen.Lucas@canada.ca	<ul style="list-style-type: none"> • Water management • Species at Risk Act • All business lines 	200 Sacre-Coeur Blvd, 2nd Floor Gatineau, Quebec K1A 0H3
Canadian Provincial & Territorial Governments	Contact: Michael Goeres Title: Executive Director Phone: 1-204-948-2090 Email: MGoeres@ccme.ca	<ul style="list-style-type: none"> • Water protection and use • Fish, wildlife, and species at risk • National air quality management system • Protected areas, heritage rivers 	123 Main Street, Suite 360, Winnipeg, MB R3C 1A3
Department of Fisheries and Oceans Canada	Contact: Catherine Blewett, Title: Deputy Minister Phone: 613-993-2200 Email: Catherine.Blewett@dfo-mpo.gc.ca	<ul style="list-style-type: none"> • Spill response • Species at Risk 	200 Kent Street Ottawa, Ontario K1A 0E6

Organization	Contact	Key Issues	Address
Metro Vancouver	Contact: Carol Mason, Title: Commissioner/Chief Administrative Officer Phone: 1-604-432-6210 Email: Carol.Mason@metrovancover.org	<ul style="list-style-type: none"> • Air Quality • Waste management 	4330 Kingsway, Burnaby BC, V5H 4G8
State of Alaska	Contact: Byron Mallott Title: Lieutenant Governor Phone: 1-907-465-3520 Email: Byron.Mallott@alaska.gov Chief of Staff: Claire Richardson Email: Claire.Richardson@alaska.gov	<ul style="list-style-type: none"> • Water quality • Statement of cooperation 	PO Box 110001, Juneau AK 99811
State of Washington	Contact: Jay Inslee Title: Governor Phone: 1-360-902-4111 Chief of Staff: David Postman Phone: 1-360-902-4112 Email: David.Postman@gov.wa.gov	<ul style="list-style-type: none"> • Water quality • Trans-boundary monitoring 	PO Box 40002, Olympia WA 98504-0002
Parks Canada	Contact: Daniel Watson Title: Chief Executive Officer Phone: 1-819-420-5146 Email: daniel.watson@pc.gc.ca	<ul style="list-style-type: none"> • National Park establishment • Species at risk 	30 Victoria Street 5 th Floor Gatineau, QC J8X0B3

Organization	Contact	Key Issues	Address
Multi Materials BC	Contact: Allen Langdon Title: Managing Director Phone: 1-778-588-9507 Email: alangon@multimaterialbc.ca	<ul style="list-style-type: none"> Packaging and Printed Paper recycling 	230-171 Esplanade West, North Vancouver BC V7M 3J9

Organization	Contact	Key Issues	Address
Industry Associations	Chemistry Industry Association of Canada Contact: Bob Masterson Title: President & CEO Phone: 1-613-237-6215, Ext 234 Email: bmasterson@canadianchemistry.ca	<ul style="list-style-type: none"> Spill preparedness and response 	350 Sparks St., Suite 805, Ottawa ON K1R 7S8
	Canadian Association of Petroleum Producers Contact: Tim McMillan Title: President Phone: 1-403-267-1129 Email: Tim.McMillan@CAPP.ca		2100, 350 – 7 th Avenue SW, Calgary AB T2P 3N9
	Canadian Energy Pipeline Association Contact: Chris Bloomer Title: President & CEO Phone: 1-403-221-8770 Email: CBloomer@CEPA.com		Suite 1110, 505 – 3 rd St. SW, Calgary AB T2P 3E6
	Canadian Fuels Association Contact: Brian Ahearn Title: Vice President Phone: 1-403-266-7565 Email: BrianAhearn@canadianfuels.ca		2100 – 350 7 th Ave. SW, Calgary AB T2P 3N9
	BC Trucking Association Contact: Louise Yarko Title: President & CEO Phone: 1-604-888-5319 Email: LouiseY@bctrucking.com		90111 – 93A Ave, Langley BC V1M 4A9

Organization	Contact	Key Issues	Address
Industry Associations (cont'd)	Railway Association of Canada Contact: Michael Bourque Title: President & CEO Phone: 1-604-532-1084 Email: mbourque@RAILCAN.ca	<ul style="list-style-type: none"> • Spill preparedness and response 	19821 – 36 Ave., Langley BC V3A 2R3
US Fish and Wildlife Service	USGS Northern Rocky Mountain Science Centre Contact: Yvette Converse Title: Coordinator, Phone: 1-406-994-7486 Email: Yvette_Converse@fws.gov	<ul style="list-style-type: none"> • Great Northern Landscape Conservation 	2327 University Way, Suite 2, Bozeman, MT 59715
Pacific North West Directors	Contact: Bill Ross, Founder Ross Strategic Phone: Desk: 206-792-4040 Cell: 206-669-8376 Email: bross@rossstrategic.com	<ul style="list-style-type: none"> • Canada / US items • Relationship Building • Information Sharing 	1218 3rd Ave, Suite 1207, Seattle WA 98101
BC Cattlemen's Association	Contact: Kevin Boon, General Manager Phone: 250-573-3611 Email: bccattle@cattlemen.bc.ca	<ul style="list-style-type: none"> • Parkland tenures • Water allocation • Waste management • Species at risk 	

Organization	Contact	Key Issues	Address
BC Agriculture Council	Reg Ens, Executive Director Office: 604-854-4454 TF: 866-522-3447 Fax: 604-854-4485 Mobile: 604-996-0082	<ul style="list-style-type: none"> • Land use planning, marketing • <i>Water Sustainability Act</i> • Species at risk on private land 	
BC Conservation Foundation	Deborah Gibson, Executive Director Office: 604-576-1433 ext.315 Email: dgibson@bccf.com	<ul style="list-style-type: none"> • Delivers conservation programs and projects for BC Parks 	#206- 17564 56A Avenue Surrey, BC V3S 1G3
Okanagan Basin Water Board	Anna Warwick Sears, Executive Director Office: 250.469.6251 Fax: 250-762-7011 Email: Anna.Warwick.Sears@obwb.ca	<ul style="list-style-type: none"> • Invasive Mussel Defence • <i>Water Sustainability Act</i> 	1450 KLO Road Kelowna, BC V1W 3Z4

Organization	Contact	Key Issues	Address
Council of Forest Industries	<p>Susan Yurkovich, President & CEO Office: 604-891-1205 Email: yurkovich@cofi.org</p> <p>Anne Ho, Office Manager/Executive Assistant to President & CEO Office: 604-891-1211 Fax: 604-687-4930</p> <p>Anne Mauch, Director, Regulatory Issues Office: 604-891-1213 Email: mauch@cofi.org</p>	<ul style="list-style-type: none"> • Conservation framework • Wood first, carbon sequestration • Air quality management • Water management • Species at risk • Spill response 	#1501 – 700 West Pender Street Vancouver, BC V6C 1G8
Coast Forest Products Association	<p>Rick Jeffery, President & CEO Office: 604-891-1238 Email: jeffery@coastforest.org</p> <p>Les Kiss, Vice President Office: 604-891-1239 Email: kiss@coastforest.org</p> <p>Alison Dow, Exec. Assistant Office: 604-891-1237 Fax: 604-682-8641 Email: Dow@coastforest.org</p>	<ul style="list-style-type: none"> • Wood first policy/climate change • Proposed air quality management system • <i>Water Sustainability Act</i> • Species at risk (e.g., Northern Goshawk) 	Suite 1200, 1090 West Pender Street Vancouver, BC V6E 2N7
BC Wildlife Federation	<p>Jim Glaicar, President Email: jim.glaicar@gmail.com</p> <p>Michelle Galang, Acting Operations Assistant Office: 604-882-9988 ext. 224 Fax: 604-882-9933 Email: projects@bcwf.bc.ca</p>	<ul style="list-style-type: none"> • Fish, Wildlife, Species at risk • Implementation of conservation framework • Water management • Habitat conservation • Spill response • Trans Mountain 	101-9706 188th Street Surrey, BC V4N 3M2

Organization	Contact	Key Issues	Address
Habitat Conservation Trust Foundation	Contact: Brian Springinotic Title: Chief Executive Officer Phone: 250-940-9788 Email: brian.springinotic@hctf.ca	<ul style="list-style-type: none"> Habitat conservation Species at risk 	107 – 19 Dallas Road Victoria BC V8V 5A6
Guide Outfitters Association of British Columbia	Contact: Michael Schneider Title: President Phone: 1-604-641-5332 Email: info@goabc.org	<ul style="list-style-type: none"> Species at risk 	103 – 19140 – 28 th Ave., Surrey BC V3Z 6M3
Invasive Species Council of BC	Contact: Gail Wallin Title: Executive Director Phone: 1-250-305-1003 Email: gwallin@bcinvasives.ca	<ul style="list-style-type: none"> Invasive Species 	197 – 2 Ave N, #100, Williams Lake BC V2G 1Z5
Nature Conservancy of Canada	Contact: Linda Hannah Title: Regional Vice President Phone: 250-479-3191 Email: Linda.H@natureconservancy.ca	<ul style="list-style-type: none"> Habitat conservation 	200 – 825 Broughton St, Victoria BC V8W 1E5

Organization	Contact	Key Issues	Address
Ducks Unlimited	Contact: Les Bogdan Title: Director, Regional Operations Phone: 1-604-592-0957 Email: l_bogdan@ducks.ca	<ul style="list-style-type: none"> Habitat conservation Watershed management 	Unit 511 – 13370 – 78 Ave., Surrey BC V3W 0H6
Pacific Salmon Foundation	Contact: Brian Riddell Title: President and CEO Phone: 1-604-664-7664 Email: Briddell@psf.ca	<ul style="list-style-type: none"> Water management 	300 – 1682 West 7 th Ave, Vancouver BC V6J 4S6
BC Parks Foundation	Contact: Karla Rockwell Title: Chair Phone: (604) 970-996 Email: Karla@gitxsanbusiness.com Contact: Ric Careless Title: Phone: 1-604-886-1383 Email: Stockfordric@gmail.com	<ul style="list-style-type: none"> Parks visitor experience Parks funding 	1505 – 53A St, Delta BC V4M 3G1

Organization	Contact	Key Issues	Address
Mining Association of BC	Bryan Cox, President & CEO Office: 604-681-4321 Ext 120 Mobile: 778-828-5064 Email: bcox@mining.bc.ca	<ul style="list-style-type: none"> • Climate Change • Environmental Assessment process • <i>Environmental Management Act</i> • <i>Water Sustainability Act</i> • Cumulative effects / environmental mitigation • Species at risk (e.g., Peace northern caribou and coal) • Spill response 	
Association for Mineral Exploration BC	Gavin Dirom, President and CEO Direct: 604-630-3920 Cell: 778-233-6459 Email: gdirom@amebc.ca Rick Conte, Executive Vice President Direct: 604-630-3926 Email: rconte@amebc.ca	<ul style="list-style-type: none"> • Environmental Assessment process • Regulatory requirements under the <i>Environmental Management Act</i> • <i>Water Sustainability Act</i> • Protected area establishment 	800-889 W Pender Street Vancouver, BC V6C 3B2
BC Environmental Industries Association	John Hibbard, President Email: jhibbard@tervita.com Brian S. White, 1st VP Best Committee & Government Relations Chair Office: 250.370.9221 bwhite@mcelhanney.com	<ul style="list-style-type: none"> • Hazardous waste; Brownfield • Land remediation • Spill response regime 	