

Conservation Officer Service – 2016 Estimates Table of Contents

Tab	Subject
General	
1	<u>Budget Overview</u>
2	<u>Conservation Officer Service Overview</u>
3	<u>COS Capacity</u>
4	<u>Major Investigations</u>
5	<u>COS Deployment</u>
6	<u>COS Enhanced Service Agreements</u>
Sector	
7	<u>COS Role in C&E in Natural Resource Sector</u>
8	<u>Community Environmental Justice Forums and CJ/FN Position</u>
9	<u>Mount Polley</u>
10	s.15
11	
Wildlife	
12	<u>WildSafeBC (Bear Aware) Funding</u>
13	<u>Human-Wildlife Conflicts</u>
14	<u>Controlled Alien Species (CAS) and Aquatic CAS</u>
15	s.22
16	<u>Bears/Bear Cub Management</u>

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Budget Overview
---	---

KEY MESSAGES

Key message #1 – The estimated Conservation Officer Service (COS) budget is \$16,714,000 for Fiscal Year 2016/17.

Key message #2 – Overall, the anticipated COS budget remains the same from fiscal year 2015/16.

CURRENT STATUS:

Key message #1:

- The COS is staffing to 100% of its sworn officer complement (148 full time positions).
- Budget breakdown
 - 75 % allocated to salary and benefits;
 - 13 % allocated to vehicle and equipment amortization and operations;
 - 8 % allocated to travel and materials/supplies;
 - 5 % allocated to training, information systems, PEP Call Center and RCMP Operations Center;
 - -1 % recovered through partnership agreements.

Key message #2:

- A significant portion (75%) of the budget is allocated for salary and benefits. Approximately 21% of the budget is allocated for operational costs to deliver services. Costs that are outside the control of the COS, such as fuel, can potentially negatively impact the COS service delivery.
- Coordination of operational activities between the COS and Compliance and Enforcement partners continues in order to ensure the effective deployment of resources on the landbase.
- Lag times inherent in staffing vacancies will be used to offset significant salary pressures.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Conservation Officer Service Overview
---	---

KEY MESSAGES

Key message #1 – There are 155.3 positions in the Conservation Officer Service (COS), of which 148 are sworn Conservation Officer (CO) positions and 7.3 are civilian positions

CURRENT STATUS:

Key Message # 1:

- 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 compliance and enforcement services. COs have responsibilities to enforce 33 federal and provincial statutes.
- 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 45 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 saw an increase in staff as a result of government's October 2010 realignment of the Natural Resource Sector ministries. Seventeen staff positions from the Ministry of Forests and Range's Special Investigations Unit were transferred to the COS; one of these positions (BL Inspector) has since been discontinued when the incumbent transferred back to FLNRO. The position was reduced in order to provide FTE offset for upgrading of two DSgt positions to SSgt. The remaining 16 positions were amalgamated into the Provincial Investigations Branch. One vacant position was transferred to the Staff Development, Training and Recruiting Section to build capacity to address staff development and training needs.

ADVICE TO MINISTER

Conservation Officer Service Positions (FTEs)

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

*Notes: Positions are reported as of the end of each fiscal year. In October of 2010, seventeen positions (FTEs) were transferred to the COS from the former Ministry of Forests and Range.

- The COS Provincial Investigations Branch conducts large-scale industrial or commercial environmental crime investigations. The very nature of these investigations is complex, labour intensive and is at the criminal standard for prosecution by Provincial Crown Counsel.
- Examples of Recent Major Case Investigations:

Investigation	Nature	Outcome
Testalinden Lake	Dam failure	Case has been completed: decision to not proceed with charges was supported.
Coldstream	Contaminated drinking water	Before the Courts.
Tech Cominco	Intentional Contamination Chemical Pollution	Before the Courts.
Cheakamus Creek	Train derailment, Chemical Pollution	Guilty plea. Fine \$400k plus reparations.
Lillooet	Fatal attack by Black Bear	Bear responsible for fatal attack destroyed.
Kinder Morgan Canada Inc.,	Burnaby Oil Spill	Each party fined \$1,000 and ordered to each pay \$149, 000 to

¹ Positions are reported as of the end of each fiscal year, except for 15/16

ADVICE TO MINISTER

Cusano Contracting Inc, R.F. Binnie and Associates Ltd.		the Habitat Conservation Trust Fund.
---	--	--------------------------------------

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The COS is responsible for ensuring public safety as it relates to human-wildlife conflicts, environmental crimes, e.g. Controlled Alien Species (CAS) and 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 delivers a number of its services through partnerships with other agencies and partners. The COS will continue to establish new partnerships and relationships to work collaboratively to protect the environment and the public. Examples of these partnerships include:
 - In 2011, a partnership MOU was signed with the Regional District of the East Kootenay to provide an additional conservation officer to address environmental issues resulting from recreational use in sensitive habitats. This position was recently staff from within the COS.
 - Staff is involved in negotiations being led by the Ministry of Aboriginal Affairs 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.
 - In 2011/12, COS optimized its service delivery by delivering livestock protection services (education and predator mitigation) in partnership with livestock producers, The number of case files, tickets and warnings has seen a gradual increase 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
Total Case Files	7,139	6,743	8,207	8,937	8706	8171	9745	9996	9819	8839
RTCC	44	49	47	48	42	37	59	41	56	19
Tickets	2,436	1,989	2,096	2,190	1961	2220	2563	2631	2693	2279
% change over previous FY	18%	-18%	5%	4%	-10%	13%	15%	3%	2%	-15%

ADVICE TO MINISTER

Warnings	3,067	2,466	2,441	2,598	2452	2623	3439	3612	3250	2552
% change over previous FY	34%	-20%	-1%	6%	-6%	7%	31%	5%	-10%	-21%

- The Conservation Officer Service is responsible for enforcing 33 federal and provincial Acts and associated regulations. 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.
- 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 and the use of Civil Forfeiture for assets and property used in the commission of environmental and forest crimes through the Civil Forfeiture Office of the Ministry of Justice and Attorney General.
- 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.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: COS Capacity
---	--

KEY MESSAGES

s.19

Key Message #2 – The Conservation Officer Service saw an increase in staff as a result of government’s October 2010 realignment of the natural resource sector ministries.

s.19

Key Message #4 - In an effort to create more efficient and streamlined operations, Coordination for Predator Attack responses is now managed at the Provincial level and continues to be a priority. An additional CO has been added to Williams Lake where livestock predation is very high. The COS is working with Ministry of Agriculture, MFLNRO and the BC Cattlemen’s Association to develop a program to better respond to predators that prey on livestock with a focus on risk mitigation.

CURRENT STATUS:

)

s.19

)

Key message #3:

- In 2015-16 (to date) the COS responded to 284 of the 990 calls received regarding livestock damage by large predators. There have been 128 confirmed verifications of cattle losses and several more for other livestock types. Ranchers have submitted 95 of these verifications. In response to verified attacks, officers have removed 3 wolves, 43 Black bears, 1 Grizzly bear, 31 cougar, and 10 coyotes. COS is participating in Regional Predator Conflict Committees to promote the program and is currently managing the program within its existing resources, which impacts on its service delivery.

Key message #4

- The COS undertakes patrols throughout the Province to provide an enforcement presence to deter offenders who poach fish and wildlife, and take enforcement action when offenders are encountered.
- Through its partnership with the Emergency Management BC, the COS operates a 24 hour RAPP line (Report all Poachers and Polluters) for the public to report suspected violators. The call center receives over 5000 reports of violations a year which are addressed by Conservation Officers.
- The COS has a dedicated Intel Unit and Special Investigations Unit that also gathers information about poaching. The COS uses this information to investigate serious poaching incidents through its uniformed officers, as well as undertaking plainclothes and undercover investigations to address poaching.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The COS has deployed technology such as rugged laptops in vehicles (Spring, 2012) which reduces the amount of time officers spend in the office providing greater presence on the landbase.

- The COS mandate and priority call assessment criteria in order of priority is as follows:
 1. Response to human health and safety issues
 2. Response to reports of environmental and property damage (including predator-livestock conflicts)
 3. Investigations (other than human health and safety)
 4. Proactive patrols.

ADVICE TO MINISTER

- The COS works with partners to reduce human-wildlife conflict by providing public education through a number of community based programs such as WildSafeBC (formerly Bear Aware), Coexisting with Coyotes and Deer Conflict Reduction programs. The Provincial Emergency Program call centre manages calls to the RAPP line (Report All Poachers and Polluters line) and will direct the public to education and information sources when human-wildlife conflict is determined to be low risk.
- Further discussions with partner agencies are underway to identify potential solutions to address capacity concerns. Coordinated planning with FLNRO Compliance and Enforcement is a priority.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Major Investigations
---	--

KEY MESSAGES:

Key message #1 - The Ministry of Environment (MoE) Conservation Officer Service is the lead agency for investigating major violations of natural resource laws. The COS Provincial Investigations Branch Major Investigations Unit is responsible for the majority of major investigations which are often high profile incidents that attract media attention.

Key message #2 – The COS Major Investigations Unit manages large complex files by utilizing a major case management system (MCM) that allows the tracking of a large volume of evidence, staff time and financial resources allocated to these major investigations.

Key Message #3 – The COS utilizes a joint team approach with other agencies to address major investigations and also considers and utilizes alternative resolutions to the criminal courts such as Community Environmental Justice Forums and civil forfeiture.

CURRENT STATUS:

Key message #1:

s.15

Key message #2:

- The COS Provincial Investigations Branch developed a Major Case Management system in conjunction with the RCMP Office of Investigative Standards & Practices and the Combined Forces Special Enforcement Unit that is reviewed and updated annually by the parties.
- The MCM system allows the COS investigative files to provide the same high standard product as RCMP and Police Major Crimes Units for submission to Crown counsel in regards to major files.

ADVICE TO MINISTER

- Major investigations can require investigators to gather, document, review and account for at times many thousands of pages or items of investigative evidence and track the officer effort and costs associated to major investigations. The MCM system results in all of that information being accountable and available for disclosure as required by court standards as well as internal and third party audits in an electronic format.

Key message #3:

- The COS Provincial Investigations Branch approach to major investigations is to where ever possible conduct a joint team investigative approach. The approach leverages the advantage of staff resources, experts and other enforcement options from our partner agencies to address major investigations which often require considerable resources. Our most common partners are the, Environment Canada and the Department of Fisheries and Oceans.
- The COS has worked with the Civil Forfeiture Office to apply the *Civil Forfeiture Act* to natural resource major investigations where appropriate. The result has been the court forfeiture of items used in violation of natural resource law, which has a significant deterrence effect.
- The COS developed and implemented the Community Environmental Justice Forum process which is an alternative measures resolution to the over burdened criminal court system. CEJF is modeled similar to the Restorative Justice system utilized in First Nations communities. The CEJF has been successful and is recognized and endorsed by the Ministry of Attorney General Crown Counsel as an alternative to the criminal justice system. (See CEJF Estimates Note).

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- Major investigations can be conducted proactively; however the majorities are unpredictable reactive responses, making them hard to plan and budget for.
- Major investigations are complex often requiring varying expert opinion on cause and impacts of the events that result in the longer time frames to conclude the investigations.
- The Major Investigation Unit is leading the Mt. Polley Integrated Task Force investigation in partnership with Environment Canada and Department of Fisheries and Oceans.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: COS Deployment
---	--

KEY MESSAGES:

Key message #1 – The COS has established deployment guidelines to ensure that proper scrutiny and deliberation go into determining the placement of valuable resources within the agency.

Key message #2 – The deployment guidelines ensure that the COS operational mission and mandate to provide public safety and environmental enforcement is delivered while mitigating negative impact(s) to staff. COS resources are fluid in response to changing priorities and can be deployed on a permanent or temporary basis depending on the issue.

CURRENT STATUS:

Key message #1:

- Conservation Officers are located in 45 communities in the Province. The COS has adopted the following 6 considerations to be applied for all staff deployments within the COS:
 1. Officer safety and well being
 2. Public safety priorities
 3. Staff deployment, leadership, and supervision
 4. Current and emerging Provincial priorities
 5. Zone Metrics
 6. Workload and Statistics
- **Officer safety and well- being** considers factors such as officer safety working group (OH&S) recommendations, single officer posts, restricting new recruits from isolated posts and single officer posts, lateral transfers from one isolated post to another, work-life balance, attrition, and the number of use of force incidents in a specific area.
- **Public safety priorities** considers factors such as predator attacks and Controlled Alien Species (CAS) investigations, human-wildlife conflict issues, Wildlife Act investigations pertaining to public safety, qualified back-up, and where there is a significant public safety related environmental file and obligation to respond – i.e. Mount Polley.
- **Staff development, leadership, and supervision** consider factors such as the location of supervisors and ratio of employees to supervisors, leadership development, and supervision and mentorship for new recruits to the organization.

ADVICE TO MINISTER

- **Current and emerging provincial priorities** considers factors such as ministry and COS business plan priorities, new initiatives, MOU obligations with partners, resourcing to support large complex files that have a significant public interest, First Nations relationships, and impacts to COS resources.
- **Zone metrics** considers factors such as geography, population density, cities, size of patrol areas, administrative assistance, and various partnerships with stakeholders throughout the Province.
- **Workload & Statistics** considers factors such as enforcement and human wildlife conflict statistics that have an impact on COS resources. For example, reporting that identifies historical themes and high volume workload areas.

Key message #2:

- The COS values its relationships with First Nations and as a result in January, 2016 hired a permanent Provincial Coordinator – Restorative Justice and First Nations. This position provides leadership and expertise for developing relationships and partnerships with First Nations to ensure government to government cooperation.
- The COS created a temporary Mount Polley task force within its Provincial Investigations Branch in order to properly resource and investigate this large complex file that has significant public interest.
- The COS entered into partnership with the Regional District of East Kootenay to create an additional permanent Conservation Officer to address environmental issues resulting from recreational use in sensitive habitats.
- The COS may augment resources from one zone or region to another to address temporary, time limited, public safety or enforcement pressures.
- With all resource deployment decisions, the COS ensures that there is the least amount of impact to staff and the communities they serve and whenever possible tries to limit forced physical moves in order to deliver its mission and mandate.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Enhanced Service Agreements
---	---

KEY MESSAGES:

Key message #1 – In specific circumstances the COS delivers additional compliance and enforcement services through partnerships with other agencies and stakeholders. These partnerships typically “enhance” the level of baseline services historically provided or address new or emerging priorities that fall under the COS mandate.

Key message #2 – The COS continues to explore new partnerships and relationships in order to work collaboratively to protect the environment and the public.

CURRENT STATUS:

Key message #1:

Examples of key partnerships include:

- In 2011 the COS has entered into partnership with the Regional District of East Kootenay (with funding contributed from the RDEK, Columbia Basin Trust, and the municipalities of Fernie, Sparwood, and Elkford) to create an additional permanent Conservation Officer to address environmental issues resulting from recreational use in sensitive habitats.
- In 2013 the COS signed a Letter of Understanding with the Counsel of the Haida Nation (Maa-Nulth) to provide services to enforce Maa-Nulth First Nations treaty laws. The Maa-Nulth First Nations are responsible for providing funding for any enforcement services delivered by the COS.
- In 2015, the COS entered into partnership with the Freshwater Fisheries Society of BC (FFSBC) to provide enhanced compliance and enforcement services to priority waters identified by Provincial fisheries biologists.
- In 2015 the COS entered into partnership with the Environmental Sustainability and Strategic Policy Division of the MOE to provide enhanced compliance and enforcement and training support to the Aquatic Invasive Mussel defense program.
- In addition, the COS has entered into various smaller partnership agreements with other stakeholders to provide enhanced natural resource law enforcement and public safety services beyond its regular level of service. Examples of these include but are

ADVICE TO MINISTER

not limited to the Squamish Valley Music Festival in the District of Squamish to ensure public safety pertaining to human/wildlife conflict at a music festival, Regional District of North Okanagan in support of boater safety initiatives, and with the Northern Rockies Regional Municipality to provide an enhanced level of human/wildlife conflict education, prevention and response services beyond base services provided.

Key message #2:

- These various partnership agreements not only contribute to protecting the environment and the public, they enable citizens to easily recognize the COS and identify with the COS roles and responsibilities as the Provinces primary natural resource law enforcement and public safety agency.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: COS Role in C&E in the Natural Resource Sector
---	--

KEY MESSAGES:

Key message #1 – Compliance and enforcement in the natural resource sector is primarily undertaken by the Ministry of Environment (MoE) Conservation Officer Service and BC Park Rangers and the Ministry of Forest Lands and Natural Resource Operations (MFLNRO) Compliance and Enforcement staff.

Key message #2 – The volume and scope of compliance and enforcement work in the natural resource sector requires a collaborative approach to addressing the pressures in the sector.

Key Message #3 – Further operational efficiencies are being developed between the groups through information sharing, joint business planning and harmonized recruiting and training.

CURRENT STATUS:

Key message #1:

- The key natural resource compliance and enforcement agencies are comprised of full and part time officers, including 148 COS sworn officers. Other enforcement staff includes BC Parks and, FLNRO C&E. Additional support is provided by Ministry of Energy and Mines investigators, and the Oil and Gas Commission investigators.

Key message #2:

- While each C & E agency has a specific mandate, training and legal authorities there are a number of issues where collaboration between the agencies and the various enforcement options available to each group are combined to optimize the groups' ability to address non-compliance that impacts the natural resource sector.
- Collaboration has been occurring for several years to improve effective delivery of inspection, investigation and enforcement services. Generally major investigations or investigations that would be heard in the criminal justice system requiring the legal test of "beyond a reasonable doubt" are led by the COS. FLNRO C&E generally lead compliance work that fits in with the legal test of "balance of probabilities" and is best addressed through administrative actions or hearing under the Forest and Range Protection Act.

ADVICE TO MINISTER

- The Conservation Officer Service and FLNRO C and E have developed a Strategic Alliance Document and accompanying action plan to guide collaboration between the two agencies.
- COS and FLNRO leadership teams are further refining their ability to collaborate within the natural resource sector. Natural resource legislation is being assessed to determine which group is best suited to provide C&E function to aspects of each act.

Key message #3:

- Capital investments in technology will allow better access to inspection and compliance information across the sector to provide a better understanding of approach to those person's or entities in non-compliance with natural resource legislation.
- FLNRO C and E are currently working on a vision document that will determine their primary focus areas for coming years. This document will be useful to COS, who can respond to any proposal for request to take on additional duties which may not fit within the new FLNRO vision.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
250-567-8929

ADVICE TO MINISTER

ESTIMATES NOTE 2016 Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Community Environmental Justice Forums (CEJFs)
---	--

KEY MESSAGES

Key message #1 – The Ministry has developed an innovative approach to respond to environmental contraventions by regulated companies.

Key message #2 – CEJFs are proving to be an enforcement option that delivers considerable benefits to all participants.

Key message #3 – CEJFs offer effective enforcement at a fraction of the cost and time required for court prosecution.

Key message #4 – The COS recently created and filled a permanent Provincial Coordinator, Restorative Justice and First Nations position.

CURRENT STATUS:

Key message #1

- Community Environmental Justice Forums apply the principles of restorative justice in a facilitated forum that brings together the non-compliant company and the affected community to collectively determine how to repair harm to the environment and to community values and relationships.
- The Ministry is a pioneer in the application of restorative justice to environmental contraventions committed by companies. The Conservation Officer Service was awarded a Premier's Award in 2012 for its innovative application of this approach to a mercury spill in Trail BC.
- CEJFs are an enforcement option that is considered only when specific criteria are met: the non-compliance was not intentional, the company admits fault and is remorseful, a community has been harmed, and all parties voluntarily agree to participate.
- The Ministry has policies and procedures in place to ensure that CEJFs are conducted in a fair, consistent and transparent manner. The Ministry reports all CEJFs in the Environmental Violations Database and the Quarterly Environmental Enforcement Summaries.

ADVICE TO MINISTER

Key message #2

- Companies, communities and law enforcement all report a very high satisfaction with the CEJF process and the outcomes.
- CEJFs empower communities to be a partner in the administration of justice. CEJFs provide the community with an opportunity to speak to the harm caused by the offence and to reinforce community values and expectations. The community plays a key role in determining the restitution required by the company to repair the harm, all of which stays in the community.
- CEJFs can result in real behavior change in companies. The company is required to face those directly affected by the offence, to explain their actions, to apologize and to make restitution that will repair the harm. CEJFs offer the company an opportunity to demonstrate accountability and to restore its social licence. Restorative justice statistics show very high compliance with the agreements and low recidivism by offenders.
- Ministry enforcement staff appreciate the timely and cost-effective resolution of cases, and the positive environmental outcomes that result. CEJFs offer the opportunity for learning and building relationships with communities and the regulated parties who operate within them.

Key message #3

- The financial restitution that results from the forum is commensurate with fines that would be awarded in court however the process is concluded at a fraction of the cost and time. A typical forum can be held within 30-45 days of the incident compared with a 1-2 year timeframe to resolve the matter through the courts.

Key message #4

- This position provides Provincial leadership in two key areas:
 - Provides expertise for developing relationships and partnerships with First Nations to ensure government to government cooperation related to environmental enforcement. This includes the development and negotiation of enforcement MOUs which reflect government efforts at reconciliation and a new relationship with First Nations as well as recent developments in the jurisprudence concerning aboriginal rights and title, and;
 - The position provides leadership and expertise in support of the ministry efforts to use restorative justice in response to environmental offences, including the delivery of community environmental justice forums (CEJFs). The position develops relationships and partnerships with a range of stakeholders on restorative justice matters, including other levels of government, First Nations, ENGOs and community-based groups.

ADVICE TO MINISTER

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- Restorative justice is a growing dispute resolution mechanism, based on the principle of repairing harm and mending relationships rather than strictly on punishment.
- The Ministry has conducted 8 major CEJFs to date, resulting in over \$685,500 in restitution to communities affected by environmental offences. All agreements have been complied with.
- Non-compliance occurs when regulatory requirements are not met. Not all contraventions are similar in nature and the circumstances under which they occur vary widely; accordingly the Ministry continues to explore new tools and approaches to ensure it has a range of appropriate enforcement responses.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service,
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Mt. Polley Investigation
---	--

KEY MESSAGES:

Key Message #1 – An independent investigation into the cause of the August 4, 2014, Mount Polley tailings pond breach is underway, being led by British Columbia's Conservation Officer Service (COS), and assisted by Environment Canada and Department of Fisheries and Oceans.

Key Message #2 – MIU officers, trained in specialized investigative techniques, focus on cases that are complex, involve corporations, are international or are multi-jurisdictional in scope. As law enforcement officers, conservation officers in the MIU are highly trained in complex investigations including person interview practices and evidence gathering techniques that can secure criminal prosecution.

Key Message #3 The Conservation Officer Service is an independent law enforcement body, and forwards recommendations for charges when warranted directly to provincial Crown Counsel.

CURRENT STATUS:

Key message #1:

- The COS is the primary natural resource law enforcement agency in B.C. that specializes in commercial environmental and industrial investigations. The Conservation Officer Service enforces over 33 pieces of provincial and federal legislation, including the *Environmental Management Act* and the *Fisheries Act*. They are also Special Provincial Constables under the *Police Act* with a wide suite of powers associated with that designation.

Key message #2:

- 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.

ADVICE TO MINISTER

Key message #3:

- At the conclusion of the investigation, a determination is made by COS to issue a Report to Crown Counsel (RTCC) recommending charges. This RTCC is not made public. It is sent directly to Crown Counsel. A determination is then made by Crown Counsel to pursue charges. At the time the charges are laid in court, the public would be made aware of the charges themselves. Information regarding the evidence that supports any charges would not be made available until the court case is heard.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The Mt. Polley investigation is currently ongoing.

s.15

- Comments on the specifics of the investigation cannot be made as the investigation is ongoing.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
250-567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: s.15
---	---------------------------------

KEY MESSAGES:

s.15

Key Message #2 – Often these types of investigations are multi-jurisdictional due to the nature of the incident and the applicable legislation involved (*Environmental Management Act, Fisheries Act*). In this particular investigation, the Conservation Officer Service is the lead agency and Environment Canada is assisting.

s.15

CURRENT STATUS:

Key message #1:

s.15

Key message #2:

s.15

Key message #3:

s.15

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: s.15
---	---------------------------------

KEY MESSAGES:

Key message #1 - The Ministry of Environment (MoE) Conservation Officer Service is the lead agency for investigating major violations of natural resource laws. The COS Provincial Investigations Branch Major Investigations Unit is responsible for the majority of major investigations which are often high profile incidents that attract media attention.

Key message #2 – Often these types of investigations are multi-jurisdictional due to the nature of the incident and the applicable legislation involved (*Environmental Management Act, Fisheries Act*). In this particular investigation, the Conservation Officer Service is the lead agency and Environment Canada is assisting.

s.15

CURRENT STATUS:

Key message #1

s.15

Key message #2:

As this matter is before the courts, it would be inappropriate to comment further.

Key message #3:

As this matter is before the courts, it would be inappropriate to comment further.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- s.15

ADVICE TO MINISTER

s.15

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: WildSafeBC (Bear Aware) Funding
---	---

KEY MESSAGES

Key message #1 – We were pleased to provide \$275,000 in funding in 2015/16 that supported 25 WildSafeBC coordinators and WildsafeBC programs in over 100 communities in B.C.

Key message #2 – WildSafeBC is an educational program, coordinated by the BC Conservation Foundation (BCCF). It is designed to prevent and reduce conflicts between people and wildlife in our communities.

Key message #3 – WildSafeBC is an expansion of the highly successful Bear Aware program expanding the focus from reducing human-bear conflicts to reducing human-wildlife conflicts.

CURRENT STATUS:

Key message #1:

- For fiscal year 2015/16 COS/MOE contracted \$275,000 to the BC Conservation Foundation to fund the 2015 WildSafeBC program. In partnership with municipalities, regional districts, the Habitat Conservation Trust Fund, Gaming, private trust funds and volunteer support from private individuals, WildSafeBC was able to hire 25 coordinators, in addition to a network of volunteers, to deliver 24 programs and provide another 6 seed grants for a total program value of just over \$640,000 for the 2015/16 season.
- **All of the communities that received funding also committed to the program both through cash and in-kind support. Communities and regions benefitting from the 2015/16 funding are:** Bella Coola, Capital Regional District, Castlegar, Elk Valley, Fernie, Fraser Valley Regional District, Golden, Grand Forks, Columbia Valley including Invermere/Radium/Fairmont, Kamloops, Kaslo, Kimberley/Cranbrook, Maple Ridge, Nelson, New Denver, Pacific Rim, Powell River Regional District, Quesnel, Regional District of Okanagan-Similkameen, Rossland-Trail, Selkirk/Purcells (Creston and area) Squamish, Sunshine Coast, Thompson Nicola Regional District, and Tumbler Ridge.
- For fiscal year 2014/15 COS/MoE contracted \$275,000 to the BC Conservation Foundation to fund Bear Aware and BCCF was able to deliver a program valued at over \$620,000

Key message #2:

- In May 2013, MoE, in partnership with the BC Conservation Foundation, launched WildSafe BC an expansion of the highly successful Bear Aware program. This allowed for the utilization of existing infrastructure and delivery models to help

ADVICE TO MINISTER

communities address their growing problems with deer, coyotes, cougars and other wildlife.

Key Message #3:

- The mission of the WildSafeBC program is to reduce the number of human-wildlife conflicts in communities through education, innovation and cooperation. This reduction is accomplished by providing information about attractant management and providing education, and assistance about the tools available to secure those attractants.
- At present time, No signed commitment has been made for 2016/17 MoE funding s.13
- Due to the success of WildSafeBC the program is approaching MLFNRO and AGRI to fund an additional \$100,000 for 2016/17 to support all of the BC communities that wish to participate.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The WildSafeBC Program provides a consistent educational package to those communities that wish to pursue "Bear Smart" status. This ensures that communities do not have to "re-invent the wheel" when implementing an education program and the content follows government standards. WildSafeBC (Bear Aware) education has proven to be an effective tool to decrease conflicts and an integral component of the Ministry's "Bear Smart" Community Program. The program is administered by the BC Conservation Foundation (BCCF).
- The "Bear Smart" Community program is a voluntary, preventative conservation measure that encourages communities, businesses and individuals to work together. The goal is to address the root causes of human-bear conflicts to reduce the risks to public safety and private property, as well as the number of bears that have to be destroyed each year.
- WildSafeBC (Bear Aware) education is one criterion that must be met for a community to obtain Bear Smart status.
- Over 20 communities in BC are actively pursuing "Bear Smart" and seven communities, Kamloops, Squamish, Lions Bay, Whistler, Port Alberni, Naramata, and the Village of New Denver have successfully attained official "Bear Smart" status. We anticipate additional Bear Smart designations in the upcoming years.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
250-567-8929

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Human-Wildlife Conflict Information
---	---

KEY MESSAGES

Key message #1 – 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.

Key message #2 – The simple message is: If there is no food or shelter available to attract wildlife, there will be little or no reason for wildlife to continue frequenting an area.

Key Message #3 – The COS response to attacks on humans is led by a Predator Attack Team. The Predator Attack Team uses the Incident Command System to oversee control of the response. The system is designed to achieve the coordination necessary for an effective, efficient and provincially consistent response to predator attacks on humans.

CURRENT STATUS:

Key message #1:

- In 2015/16 (to date) the COS has received approximately 27,862 calls regarding human-wildlife conflicts compared to 29,200 in 2014/15, 28,065 in 2013/14, 29,615 in 2012/13 and 30,750 in 2011/12. Of those calls in 2015/16, 18,638 involved human-bear conflict, compared to 17,771 in 2014/15, 16,180 in 2013/14, 18,975 in 2012/13 and 21,250 in 2011/2012.
- Human-bear conflicts in 2015/16 were very low during the spring and early summer due to good spring conditions conducive to the generous growth of grasses and forbs, along with excellent berry growth. The prolonged drought and hot weather of July and August dried up the natural foods and drove bears into town resulting in very high bear conflicts through mid-August to mid-October.
- We also experienced an unusually high number of orphaned black bear sub-adults in the lower mainland and sunshine coast during the late fall. The reason for this is not known but it may have been due to poor natural food availability over the late summer-fall. This may have resulted in cub abandonment by the sows, increased sow mortality (conflict, road kill, poaching, etc.), cubs leaving dens without the sow in the fall because they are underweight, or some orphans actually being underweight yearlings that have suffered from lack of resources.

Key message #2:

- Amendments to the *Wildlife Act* in 2011 give Conservation Officers (COs) 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.

ADVICE TO MINISTER

Key message #3:

- The COS is accountable and responsible for responding to and 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. Total number of PAT responses for the 2015 calendar year was 35 with 27 resulting in human injury and 1 fatality, compared to 13 injuries and 0 fatalities in 2014, 17 injuries and 0 fatalities in 2013 and 15 injuries and 0 fatalities in 2012.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- 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 like 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 is 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).
 - Large or dangerous wildlife are sighted in a confined/urban area which may lead to a human safety incident or injury/death to the animal.
- A review of the provincial procedure, *Preventing and Responding to Conflicts with Large Carnivores*, began in 2015 and is a collaborative effort between the Ministry of Forests, Lands and Natural Resource Operations and the COS. Committee members will update and define roles pertaining to agency mandates, define operational procedures and put forward recommendations for improvements. The timeline for approval is March 2016.
- 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.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
250-567-8929

ADVICE TO MINISTER

Appendix: List of Wildlife Incidents

GRIZZLY BEARS						
Year	# of Calls	Attended	Killed by CO	Relocated	Hazed	Cubs to Rehab
2009-10	301	92	13	7	-	0
2010-11	615	197	30	10	-	6
2011-12	455	158	12	9	7	0
2012-13	514	198	35	12	3	0
2013-14	428	126	12	2	10	0
2014-15	492	130	14	3	9	11
2015-16	496	117	14	4	23	0
Average	472	145	19	7	10	2

BLACK BEARS						
Year	# of Calls	Attended	Killed by CO	Relocated	Hazed	Cubs to Rehab
2009-10	11986	1280	254	68	-	16
2010-11	22625	2630	645	110	-	24
2011-12	20794	2514	506	30	78	34
2012-13	18421	2469	509	59	115	34
2013-14	15752	1691	397	22	119	24
2014-15	17279	2334	563	20	185	53
2015-16	18142	2038	570	16	150	53
Average	17857	2137	492	46	129	34

COUGARS					
Year	# of Calls	Attended	Killed by CO	Relocated	Hazed
2009-10	2242	386	57	0	-
2010-11	1854	214	38	1	-
2011-12	3069	610	57	4	0
2012-13	2930	568	90	2	2
2013-14	3224	564	118	0	2
2014-15	2942	518	97	0	6
2015-16	2821	389	76	1	6
Average	2726	464	76	1	3

ADVICE TO MINISTER

Appendix: List of Wildlife Incidents continued

WOLVES					
Year	# of Calls	Attended	Killed by CO	Relocated	Hazed
2009-10	316	29	4	0	-
2010-11	327	26	2	1	-
2011-12	480	130	79	0	0
2012-13	568	161	70	1	12
2013-14	482	95	145	0	0
2014-15	404	87	46	0	0
2015-16	384	55	6	0	0
Average	423	83	50	0.3	2

COYOTES					
Year	# of Calls	Attended	Killed by CO	Relocated	Hazed
2009-10	741	119	15	1	-
2010-11	1016	62	17	0	-
2011-12	1390	179	66	0	1
2012-13	1150	194	64	0	8
2013-14	1716	152	52	0	9
2014-15	1651	126	46	0	0
2015-16	913	64	18	0	0
Average	1225	128	40	0.1	3.6

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Controlled Alien Species (CAS)
---	--

KEY MESSAGES:

Key message #1 – The Ministry of Environment (MoE) and Ministry of Forest Lands and Natural Resource Operations (MFLNRO) are working to ensure compliance with the Controlled Alien Species (CAS) regulation through the Permit and Authorization Service Bureau (MFLNRO) and by responding to reports of alleged non-compliance made to the Conservation Officer Service.

Key message #2 – Enforcement actions are being managed by the Ministry of Environment's Conservation Officer Service (COS) in response to those situations where there is the highest risk to public safety.

Key Message #3 – In December 2012 an amendment was made to the CAS regulation to include invasive species that could impact BC waters if introduced.

Key Message #4 - In 2015 the COS partnered with the Ministry's Environmental Sustainability and Strategic Policy Division to provide training and leadership of their auxiliary staff for the Invasive Mussel Defense Program and provided enforcement services for non-compliance for the boat inspection season.

CURRENT STATUS:

Key message #1:

- The Ministries are using an Incident Management Team (IMT) approach to respond to CAS non-compliance. The IMTs consist of Conservation Officers, MFLRNO staff and members from the academic and scientific community.

Key message #2:

- The COS employs CAS Specialists who are a core group of 15 officers trained in CAS handling response to CAS non-compliance. The CAS Specialists are based on the coast of Vancouver Island and the BC Interior. Conservation Officers are further supported by approved, licensed veterinarians who specialize in the management and handling of exotic species.
- The CAS Specialists respond in a prioritized manner to CAS non-compliance where public safety is at risk. All Detectives in the COS Major Investigations Unit have received specialized training in CAS investigations.
- Not all reported non-compliance will be 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 are in other jurisdictions.
- The time and resources necessary for compliance and enforcement of the Act must also be balanced against other public safety concerns such as human wildlife conflicts.

ADVICE TO MINISTER

- As of February 4, 2014; MFLNRO had approved 85 permit applications covering approx. 320 CAS animals (includes multiple animals of the same species).

Key message #3:

- 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, bullheads, western mosquitofish, other cyprinids, zebra mussels, quagga mussels, and Conrad's false mussel.
- In 2013, Conservation Officers in key entry areas into the Province were trained in the identification of the invasive mussel species. Training is being delivered to the rest of the COS, FLNRO C&E and Dept. of Fisheries and Oceans staff to increase the ability to intercept and inspect for the new invasive aquatic species.

Key Message #4:

- When aquatic invasive species (ie: zebra and mussels) were added to the Controlled Alien Species Regulations (in 2012) additional resources were not provided.
- In 2015, the COS partnered with Environmental Sustainability Branch and Strategic Policy Division to provide training and leadership for the Invasive Mussel Defense Program. Twelve auxiliary staff provided inspection services to intercept vessels being transported into BC from areas with known infestation. COS provide support to inspection stations when non-compliance is detected.
- Auxiliary staff with the Environmental Sustainability and Strategic Policy Division were granted limited Special Conservation Officer Status to provide legal authority to conduct inspections and stationary inspectors points.
- The impact of the introduction of any of the prohibited mussels to BC waterways would be very high both environmentally and economically.
- The economic impact of invasive mussels to hydropower, agricultural irrigation, municipal water supplies and recreational boating has been estimated to be as high as \$43 million per year (Robinson et al. 2013).

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- CAS has been prioritized as a work activity amongst the Ministry's other mandated activities.
- The CAS regulation controls the possession, breeding, shipping and releasing of animals not native to B.C. that pose a risk to the health or safety of people.
- Effective April 1, 2010, individuals cannot possess, breed, release or transport CAS with the exception of individuals who possessed non-invasive CAS prior to April 1, 2010 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.
- Research, educational institutions and accredited zoos 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 B.C.
- In 2015 there were 6 CAS investigations conducted by the COS.
- Currently, there are four facilities in British Columbia that are permitted to house CAS species.
- The CAS regulation amendment protects BC waters from the introduction of foreign

ADVICE TO MINISTER

invasive species that pose both environmental and economic risks.

- Approximately 1,300 species are currently designated as CAS.
- The COS partnership with the Ministry's Environmental Sustainability and Strategic Policy of the Invasive Mussel Defense Program resulted in over 4,300 watercraft inspected, 33 vessel required decontamination from high risk areas of which 15 vessels contained invasive mussels or standing water. Six were issued a 30-day quarantine order due to risk of live mussels. Outreach education was provided to over 10,000 recreational boaters.

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

Page 35 to/à Page 36

Withheld pursuant to/removed as

s.22

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: COS Bear Cub Management
---	---

KEY MESSAGES:

Key message #1 – The COS has a primary mandate to protect human health and safety with regard to human-bear conflicts. The decision to determine suitability of orphaned bears for rehabilitation is made by professionals, including senior wildlife biologists, the provincial wildlife veterinarian and the COS.

Key message #2 – We experienced an unusually high number of orphaned black bears in the Lower Mainland and Sunshine Coast during the late fall. The reason for this is not known but it may have been due to poor natural food availability over the late summer-fall.

Key Message #3 – The Province focuses on the cause of orphaning, which is too often a result of human-bear conflict. The only effective, long-term solution to human-bear conflicts is to prevent them from occurring in the first place. To more effectively resolve conflict with bears, the Ministry of Environment has developed the Bear Smart Communities and WildSafeBC programs.

CURRENT STATUS:

Key message #1:

- Management options for human-bear conflict response, including incidents of orphaned bears, are determined through the use of a provincial procedure that includes factors like habituation to people and human food conditioning, the overall health of the animal, and possible negative impacts to other wildlife and their habitat.
- If orphaned bears are approved as candidates for rearing and release, they are cared for at a permitted wildlife rehabilitation centre until they can be released as yearlings in a remote location, within the same general area they were captured, determined to be good bear habitat.

s.19

- A review of the *Preventing and Responding to Conflicts with Large Carnivores* provincial procedure began in 2015 and is a collaborative effort between MFLNRO and the COS.

ADVICE TO MINISTER

Committee members will update and define roles pertaining to agency mandates, define operational procedures and put forward recommendations for improvements. The amended *Preventing and Responding to Conflicts with Large Carnivores* procedure removes sections regarding permitting of rehabilitation facilities and orphaned bear cub standards of care. This information will be placed in a separate procedures and standards document. The timeline for approval is March 2016.

Key message #2:

- An unusually high incidence of orphaned bears in the South Coast region may have been a result of poor natural food availability in the late summer-early fall resulting in cub abandonment by the sows, increased sow mortality (conflict, road kill, poaching, etc.), cubs leaving dens without the sow in the fall because they are underweight, or some orphans actually being underweight yearlings that have suffered from lack of food resources.
- Given the high number of orphaned bears, the wildlife rehabilitation facility authorized to take orphans in the South Coast region was full and could not accept more cubs into the rearing and release program. There is only one authorized facility in the region, and the responsibility to authorize and administer wildlife rehabilitation center's falls under the purview of MFLNRO.
- A decision was made by senior wildlife biologists, the provincial wildlife veterinarian and the COS not to transfer bears to rehabilitation facilities outside of the lower mainland based on concerns regarding disease transfer and stress to the animals. Instead, the regional MFLNRO biologist worked with the local rehabilitation facility on options to increase the capacity to accept additional orphaned bears. The COS did not euthanize any orphaned bears because there was a capacity issue at the lower mainland rehabilitation facility.

Key message #3:

- The "Bear Smart" Community program is a voluntary, preventative conservation measure that encourages communities, businesses and individuals to work together. The goal is to address the root causes of human-bear conflicts to reduce the risks to public safety and private property, as well as the number of bears that have to be destroyed each year.
- The WildSafeBC Program provides a consistent educational package to those communities that wish to pursue "Bear Smart" status. This ensures that communities do not have to "re-invent the wheel" when implementing an education program and the content follows government standards. WildSafeBC (Bear Aware) education has proven to be an effective tool to decrease conflicts and an integral component of the Ministry's "Bear Smart" Community Program. The program is administered by the BC Conservation Foundation (BCCF).

Contact: Doug Forsdick, Chief Conservation Officer, Conservation Officer Service
(250) 567-8929

BC Parks – 2016 Estimates Table of Contents

TAB	SUBJECT
GENERAL	
1	<u>Budget Overview</u>
2	<u>Park Enhancement Fund</u>
3	<u>Program Overview</u>
4	<u>BC Parks System Facts</u>
5	<u>Economic Contribution of BC Parks</u>
6	<u>BC Parks Staffing levels</u>
BUSINESS DEVELOPMENT	
7	<u>Capital Investment Strategy 2015/16</u>
8	<u>Recreation User Fees</u>
9	<u>Service Delivery Costs</u>
10	<u>Parks Future</u>
11	<u>Attendance and Revenue</u>
12	<u>Discover Camping Program</u>
13	<u>Investigative Use Permits/Research</u>
FIRST NATIONS	
14	<u>First Nations Initiatives</u>
PARKS PLANNING AND MANAGEMENT	
15	<u>South Okanagan – Intentions Paper</u>
16	<u>System Growth and Land Acquisition</u>
17	<u>Protected Area Boundary Adjustments</u>
REGIONAL OPERATIONS	
18	<u>Osoyoos Indian Band</u>
19	<u>Sechelt Longhouses</u>

BCP TOC B

1	<u>Halkett Bay Artificial Reef (complete)</u>
2	<u>Haynes Point</u>
3	<u>Southern Strait of Georgia National Marine Conservation Area Reserve Feasibility Assessment</u>
4	<u>Peace Arch Park – Semiahmoo</u>
5	<u>Projects - Planning</u>

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: BC Parks Budget Overview
---	--

KEY MESSAGES:

Key message #1 – The 2016/17 BC Parks estimated operating budget is \$31.751M, which is the same as 2015/16.

Key Message #2 – While the BC Parks budget remains unchanged, inflationary pressures and growing costs of capital are challenging the budget. In response to these pressures, BC Parks is seeking new revenue streams consistent with the BC Parks Brand.

Key message #3 – Capital investment in BC Parks facilities remain at \$13.98M for 2016/17, same amount as in 2015/16. A 27% increase over the 2011/2012 budget.

Key message #4 – The highest priority business needs have been identified and will be addressed.

CURRENT STATUS:

Key message #1 & #2:

BC Parks estimated operating budget is \$31.751M, the same level as the previous two years.

The growing cost of Park Facility Operator deficiency payments (estimated at \$5.7M for 2016/17) and amortization (estimated at \$8.5M for 2016/17) is having an impact on available operational funding.

In order to maintain service levels, BC Parks has implemented modest fee increases over the last two years. BC Parks is also seeking to implement a number of revenue generating projects consistent with the BC Parks Brand.

Contributions made to BC Parks from donors are held within the Park Enhancement Fund. The Park Enhancement Fund was established in 2008 as a special account under the *Special Accounts Appropriation and Control Act*.

Donations to the Park Enhancement Fund can be used to support enhanced BC Parks programming activities and services (e.g. Encorp Pacific, Mountain Equipment Co-op, and individual donors).

Key message #3:

- The \$13.98M for capital infrastructure will be used to fulfill the following objectives:
 1. Meet regional health authority water safety priorities.
 2. Reduce identified high risks to visitor health and safety and park cultural values.

3. Refurbish central buildings and facilities in day use areas and campgrounds, with particular emphasis on increasing accessibility.
4. Improved accessibility in high attendance parks to central facilities, buildings and attractions.
5. Complete multiyear capital investment plans for those parks with high revenue and attendance (or, in exceptional circumstance, those parks with extremely high cultural values) and poor condition of facilities to:
 - Attract young families;
 - Offer new recreation opportunities;
 - Increase revenue and attendance;
 - Improve accessibility with new park furniture and easier to use facilities;
 - Modernize appearance;
 - Ensure investments are integral to natural and cultural values;
 - Ensure investments highlight the uniqueness of the park; and to
 - Lower operating costs.

Key message #4:

- In 2009/10 BC Parks made service reductions to address budget pressures. These include reduced operating seasons, trail maintenance and site servicing in 43 parks. These service level reductions save an estimated \$700,000 dollars annually. Although there were no new service reductions in the last six years, modest service reductions and/or reductions in seasonal rangers may be necessary in 2016/17.
- Staff are reassigned to priority business functions and seasonal staff are being deployed in work pools (rather than a single park) to respond to priority work.
- The division is continuing to look at ways to improve service delivery mechanisms that will lower administrative costs and eliminate inefficiencies.
 - A LEAN initiative is being implemented to streamline the procurement and contracting process for the BC Parks capital program.
 - The goals are to:
 - Decrease administrative time;
 - Increase number of competitive bids;
 - Improve response time to secure contracted services, and;
 - Enable more time on contracting monitoring and planning.
- High priority program initiatives are being focused to maintain service delivery on key deliverables. Including:
 - Volunteer Strategy
 - Conservation of biodiversity and ecosystems
 - Delivering on Forest Health, Fire Interface and Invasive Plant Management
 - Supporting First Nations Agreement and Treaty processes
 - Management of moderate and high use recreation sites
 - Sponsorship/Partnership development

s.13

Contact: Jim Standen, Assistant Deputy Minister, BC Parks and Conservation Officer Division, (250) 387-1288.

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Park Enhancement Fund
---	---

KEY MESSAGES:

Key message #1 – The Park Enhancement Fund (PEF) supports BC Parks in earning revenues and attracting donations which can be reinvested in the provincial parks system.

CURRENT STATUS:

Key message #1:

From April 1, 2015 to December 31, 2015, the PEF received \$2.1 million. The majority of this was from the Discover Camping Reservation Service (\$1.9 million). The remainder was received from partnerships, donations, interest payments and protected areas stumpage.

From its establishment in 2008 to December 2015, the PEF has received about \$13.2 million for parks and protected areas in BC. Table 1 shows the income and expenditures from 2008 to December 31, 2015 in key categories. (Please note the majority of the revenue generated by the Discover Camping Reservation Service is used to pay for its operation).

Table 1: PEF Income and Expenditures (2008 – Dec. 31, 2015)

Category	Income	Expenditures
Directed partnerships & sponsorships	\$2,166,674	\$2,096,040
Seed money, interest, merchandising & other	\$343,771	\$1,551,123*
Discover Camping Reservation Service	\$10,074,855	\$6,257,625
Stumpage	\$633,192	\$264,841
TOTAL	\$13,218,493	\$10,169,629

**Includes Community Engagement projects.*

- The following are examples of some of the larger projects and financial contributions made possible because of PEF:
 - Approximately \$250,000 was received from an anonymous donor to fund a significant trail upgrade in Garibaldi Provincial Park.
 - Over 120 park benches have been sponsored by individuals, families and companies across the Province, resulting in over \$200,000 of facility upgrades to the provincial park system.
 - Encorp Pacific Ltd. has partnered with BC Parks since 2009 to install approximately 60 bear-proof recycling bins every year in parks across the Province. To date, over 375 bins have been installed, worth an estimated \$500,000.
 - A \$30,000 playground was sponsored in Gwillim Provincial Park by two local mining companies in the Peace region.
 - The Get Outside BC youth leadership project is a partnership with CPAWS-BC, MEC, and Parks Canada to engage youth in B.C.'s parks. Over the past 5 years, BC Parks has contributed over \$200,000 to support the establishment and delivery of the project and has recently committed to an additional \$25,000 per year for the next three years from PEF to leverage a \$60,000 annual project benefiting youth, communities and parks.
 - Donations totalling \$100,000 received by Nyrstar mine to be invested into Strathcona Provincial Park.
 - In 2011, BC Parks celebrated its Centennial Anniversary with over 250 community events hosted and funded primarily out of PEF (through the revenues earned from the Discover Camping Reservation Service) as well as a variety of partnership contributions.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

The majority of the expenditures in PEF are for the operating contract regarding the Discover Camping Reservation Service.

Due to the increasing popularity of the Discover Camping Reservation Service, reservation numbers are increasing on an annual basis. The increase in reservations (transactions) is generating increased income from the Discover Camping Reservation Service but also results in increased expenses as the service provider is paid based on the number of transactions processed.

Service transaction	Charge (<i>plus tax</i>)
Reservation	1 night =\$6.00 2 nights=\$12.00 3 or more nights=\$18.00
Change or Cancellation	\$6.00
Call centre	\$5.00 surcharge

- For more information on the Discover Camping Reservation Service, please refer to BC Parks' Estimates Note #12.

Table 2: PEF Income and Expenditures Estimates 2015/16

Category	Income	Expenditures
Directed partnerships & sponsorships	\$360,000	\$320,000
Seed money, interest, merchandising & other	\$30,000	\$370,000
Discover Camping Reservation Service	\$1,500,000	\$1,100,000
Stumpage	\$10,000	\$10,000
TOTAL	\$1,900,000	\$1,800,000

- The PEF was established in 2008 as a special account under the *Special Accounts Appropriation and Control Act*.
- The special account can include revenue from:
 - The sale of promotional and educational products or services (e.g., BC Parks merchandise, Discover Camping Reservation Service, etc),
 - Individual donations and bequests,
 - Sponsorship and partnership contributions,
 - Protected areas stumpage; and,
 - Interest earned on unspent balances.
- The PEF can be used to support enhanced:
 - Information, education and interpretation programs delivered both within parks and outside,
 - Product/partnership development and merchandising,
 - Volunteer program support,
 - Regional and/or multi-jurisdictional planning projects (such as regional recreation management plans),
 - Capital investments (construction, repair and maintenance); and,
 - Natural and cultural resource assessment, research and restoration.
- As of December 2009, PEF was also responsible for revenue from the Discover Camping Reservation system, and related contract costs for operations and maintenance (previously managed by Tourism BC).

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: BC Parks Program Overview
---	---

KEY MESSAGES:

Key message #1 – British Columbians can be proud of their world-class parks and protected areas system.

Key message #2 – Visitation numbers have been relatively stable around 19 million over the last few years, with some variability due largely to weather patterns.

Key message #3 – British Columbia has one of the largest protected areas systems in North America, and has continued to add to it over the past decade.

Key message #4 – BC Parks operating budget remains steady in 2016/17 at 31.75 million and its capital budget increased since 2011/12 by 27% to \$13.98 million.

Key message #5 – For 2016/17 there will be up to 97 people working in Park Ranger positions in BC Parks. 10 positions are regular and up to 87 are seasonal.

Key message #6 – BC Parks is a significant contributor to local economies around the province.

CURRENT STATUS:

Key message #2

- Other jurisdictions have faced similar attendance trends, with some declines in recent years.
- Ontario Parks – Attendance**

2009	2010	2011	2012	2013	2014	2015*
9,447,413	9,541,366	9,595,051	9,193,538	8,595,154	8,508,339	9,672,878*

Source: Ontario Parks Statistics. **Estimated*

- Parks Canada – Attendance**

2009-10	2010-11	2011-12	2012-13	2013-14	2014-15
12,282,172	12,548,933	12,529,627	12,722,828	12,723,434	13,520,886

Source: Parks Canada Attendance 2011-10 to 2014-15.

- Our staff does a fantastic job of looking after our parks and protected areas for today's users and for future generations.

- The visitor satisfaction rate is 80 per cent and we are always working to raise it even higher.
- We have one of the best camping reservation systems available. In 2011, the reservation system was expanded to include backcountry registration, leading to increased use of the reservation system.

Key message #3:

- Since 2001, more than 2.3 million hectares of land have been added to the province's protected areas system through the establishment of 84 new parks, 156 conservancies, two ecological reserves, 13 protected areas and the expansion of more than 75 parks, 6 ecological reserves and 3 protected areas.
- There are 1029 parks, conservancies, ecological reserves and protected areas across British Columbia managed by BC Parks, covering just over 14 million hectares or 14.4% of the provincial land base.
- British Columbia has one of the largest protected areas systems in North America.
- We are ensuring these very special places are accessible for British Columbians today and preserved for the park users of tomorrow by looking at ways to support the management of these areas, such as enhanced partnerships, greater use of volunteers and stewardship groups, and engaging communities in the long-term protection of these special places.
- British Columbians can also be proud of the fact that many areas are free of facility development – 98 per cent of the land within the system remains predominantly free from human alteration.

Key message #4:

- The BC Parks operating budget remains stable at \$31.751 million. In addition there is a \$13.98 million allocation for land improvement (capital facilities).

Key message #5:

- Park Ranger numbers have remained the same for the past five years.

-

s.19

- Park facility operators employ approximately 700 staff and have compliance responsibilities within their operating areas.

Key message #6:

- Every \$1 invested in the parks system generates \$8.42 in visitor spending on food, entertainment, transportation and other goods and services.

Contact: Jim Standen, Assistant Deputy Minister, BC Parks and COS, (250) 356-1288

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: BC Parks System Facts
---	---

KEY MESSAGES:

Key message #1 – 15% or nearly 14.4 million hectares of B.C.’s land base is dedicated to protected area status (this includes provincial and federal protected areas as well as publicly announced protected areas from land use plans).

Key message #2 – As of February 1, 2016, there are 1,029 parks, conservancies, ecological reserves, recreation areas and protected areas covering approximately 14.4% or about 14 million hectares or about 140,000 km², managed by BC Parks.

Key message #3 – BC Parks has initiated or completed conservation risk assessments in 985 parks and protected areas.

Key message #4 – Since 2001, the Ministry has increased the number of protected area collaborative management agreements with First Nations from 13 to 37 collaborative management agreements. BC Parks is also involved in broader government-to-government agreements including 6 Strategic Engagement Agreements and 6 Reconciliation Protocol Agreements, bringing the number of strategic agreements to 49.

Key message #5 – Over 300 parks offer facilities for recreation.

Key message #6 – Frontcountry park operations are delivered under contract by Park Operators.

Key message #7 – BC Parks’ Discover Camping™ system features reservations for 99 frontcountry parks and registration for 28 backcountry and marine parks.

Key message #8 – BC Parks releases its Annual Report and Statistics Report in February of each year. These documents contain information related to the full breadth of programs and activities, and data related to attendance, revenue and financials.

CURRENT STATUS:

Key message #1:

- Provincially designated protected areas (parks, conservancies, ecological reserves, recreation areas, protected areas) – approximately 14.4%;
- Federally designated protected areas (national parks, national park reserves, 1 national historic park) – approximately 0.6%; and
- A small percentage of provincially announced sites through land use planning processes that have not yet been designated.

Key message #2:

- The 1,029 figure only includes areas managed by BC Parks.
- There are presently:
 - 627 Provincial Parks, covering 10,510,267, ha or 105,102 km²
 - 156 Conservancies, covering 2,998,507 ha or 29,985 km²
 - 2 Recreation Areas covering 5,929 ha or 59 km²
 - 148 Ecological Reserves, encompassing 160,456 ha or 1,604 km²
 - 80 Protected Areas covering 383,828 ha or 3,838 km²

Key message #3:

- Conservation Risk Assessments (CRAs) identify high priority conservation values and risks so that management actions can be targeted to ensure the protection of natural and cultural values. We now have 985 parks and protected areas with completed CRAs.

Key message #4:

- The Ministry values strong relationships with First Nations regarding the management of protected areas. BC Parks is now directly involved with 49 strategic agreements: 37 collaborative management agreements and 12 broader strategic engagement agreements and/or reconciliation protocols.

Key message #5:

- About 13,000 campsites - 10,700 vehicle accessible campsites & approximately 2000 walk in/ backcountry.
- 39 group campgrounds and picnic areas that can be reserved.
- 126 boat launch areas.
- Approximately 6,000 kilometers of hiking trails.

Key message #6:

- Since the mid-1980s, BC Parks' front-country campgrounds have operated under contract. To recognize efficiencies, BC Parks has entered into long-term agreements (10-year or 3-year) with 32 businesses to operate most front-country campgrounds and day use areas (46 bundles containing 225 parks). An additional 40 parks are managed under simple one-year contracts.
- BCP holds 78 long and short-term contracts with private Park Operators;
- Between 2014-16, 43 contracts (55%) were retendered and negotiated under BCP's new PRISM model;
- From 2016-18, 35 contracts (45) will be renegotiated.

Key message #7:

- Over 158,000 reservations were made in the 2015 camping season in 97 provincial parks – a 19% increase from the previous season (over 133,000 reservations).
- There are over 5,800 individual sites available for reservations including: frontcountry campsites, group sites and cabins.
- Reservations can be made by call centre or internet or using mobile devices.
- Permits can be purchased on line through the DC Backcountry registration system for 31 backcountry and marine parks prior to visiting these sites.
- 73% of reservations made through DC, originated from British Columbia.

Key message #8:

- The **BC Parks Annual Report** contains information on the full breadth of BC Parks activities. It informs readers through text, indicators, maps and photos. This document tells BC Parks' success stories, recognizes the work done by staff and our many partners, showcases key projects and facility investments, and discusses challenges and lessons learned.
- The **BC Parks Statistical Report** contains statistical reports on park revenue, attendance, and satisfaction ratings from park users. This report is a key document particularly as it relates to performance measures of attendance and satisfaction.
- The current reports cover the 2014/15 fiscal year and were released in February 2016.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- British Columbia has the highest percentage of its land base dedicated to protected areas of all provincial and territorial Canadian jurisdictions.
- BC Parks manages one of the largest parks and protected areas systems in North America.
- Attendance in BC Parks, in 2013/14, was 21.30 million. In 2014/15, attendance was 21.35 million.
- Almost 91% of British Columbians have used a provincial park at some time.
- About six in ten British Columbians use a provincial park each year.

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Economic Contribution of BC Parks
---	---

KEY MESSAGES:

Key message #1 – In 2011 a national report on the economic value of parks to the economy was released.

Key message #2 – The report determined that in 2009 park agencies spent \$772 million and visitors to parks spent \$4.4 billion.

Key message #3 – For British Columbia, the report showed that \$47 million in 2009/10 operating and capital expenditures (excludes amortization) by BC Parks and Park Operators led to \$394 million in expenditures by visitors. In other words every \$1 invested in the parks system generates \$8.42 in visitor spending on food, entertainment, transportation and other goods and services.

CURRENT STATUS:

Key message #1:

- At the 1992 Earth Summit, participating governments agreed that a new vision for protected areas required an awareness and understanding of the economic values they generated.
- In 1998, the Canadian Parks Council (CPC) proposed the development of a common framework for measuring the economic value of protected areas within Canadian jurisdictions.
- The first national report was developed in 2003/04 by the CPC and was released in 2005. In 2006, the Ministers responsible for parks reviewed the report findings and asked the CPC to prepare periodic reports of this nature.
- In 2011, a new report, based on 2009 data, was released with updated figures demonstrating the economic contribution of parks and protected areas.

Key message #2:

- The 2011 report determined that in 2008/09, park agencies spent \$772 million in capital and operating costs, and visitors to parks spent \$4.4 billion. This \$5.2 billion in combined direct spending by park agencies and visitors resulted in:
 - \$4.6 billion in Gross Domestic Product (\$2.9 billion of this is labour income);
 - over 64,000 full time equivalents of employment; and
 - \$337 million in tax revenue (44% return on total costs).
- The report also notes that spending by visitors is almost six times that of government agencies. Visitor spending is a direct injection into Canada's tourism sector, making parks a major generator of tourism locally, regionally and nationally.

Key message #3:

- In British Columbia, the combined impact of spending by park organizations and visitors resulted in a \$728 million increase to Gross Domestic Product and \$454 million in labour income. Close to 10,000 jobs can be attributed to this spending, as well as \$54 million in sales and production taxes.
- BC Parks spent \$47 million in 2008/09 to operate the provincial park system; visitors spent close to \$394 million in our parks. In other words, every dollar spent by BC Parks resulted in \$8.42 in spending by visitors. British Columbia ranks second amongst the provinces/territories in terms of visitor spending as a ratio to park agency spending. BC Parks' return on investment and value for money is greater than all other provinces and territories with the exception of Quebec.
- BC Parks manages one of the largest parks and protected areas systems in North America. As 2011 report indicates, investment in protecting the province's special natural places makes economic sense, as it provides an important stimulus to local, regional, and national economies.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The Canadian Parks Council (CPC) is comprised of park and protected area jurisdictions nationally, provincially and territorially.
- The CPC has existed since 1962 and works towards cooperatively advancing park and protected area management.
- Key themes that the CPC currently focuses on include economic impacts, youth engagement, climate change, human health benefits, and stewardship.

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: BC Parks Staffing Levels: Park Rangers (FTEs)
---	---

KEY MESSAGES:

Key message #1 – In 2016/17 there will be up to 164 people working who have the formal training and been granted the authority of a Park Ranger – 77 positions are regular and a potential 87 are seasonal.

s.13

CURRENT STATUS:

Key message #1:

- The following table includes the number of BC Parks positions with Park Ranger authority, (seasonal and regular staff) from 1999/00 to 2016/17.

Number of BC Parks Positions with Park Ranger Authority – 1999/00 to 2015/16

Year	99/00	00/01	01/02	02/03	03/04	04/05	05/06	06/07	07/08
Seasonal	168	156	172	117	99	99	124	121	121
Regular	103	103	104	97	94	77	77	77	77
Total Rangers	271	259	276	214	193	176	201	198	198

Year	08/09	09/10	10/11	11/12	12/13	13/14	14/15	15/16
Seasonal	144	87	87	87	87	87	87	87
Regular	77	78	77	77	77	77	77	77
Total Rangers	221	165	164	164	164	164	164	164

Year	16/17
Seasonal	*87
Regular	77
Total Rangers	164

***Estimated maximum number of seasonal rangers for 2016/17**

- The Ministry hires seasonal rangers for the summer operating season. Because much of our park staffing is seasonal, the number of Park Rangers employed at any given time changes. All summer seasonal rangers will be hired by the first week of June.
- The seasonal Park Rangers have employment work terms which vary from three months to 10 months, to deliver core field oriented programs and services within the 1,029 parks and protected areas.

s.13

- Park Ranger authority is performed by a variety of positions in BC Parks, all these staff have the skills, knowledge and experience to fully perform the duties and responsibilities to enforce the *Park Act* and related legislation.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- In addition to BC Parks staff, Park Facility Operators employ approximately 700 staff. Some staff has compliance responsibilities within their park operating areas.
- Park rangers continue to work with Park Facility Operators, local Royal Canadian Mounted Police, Conservation Office Service and enforcement staff in other ministries to deliver on priority compliance and enforcement projects.
- Cross ministry compliance projects initiated in regions through resource management coordination provide further compliance support within parks and protected areas.

Contact:

Bob Austad, Executive Director, Regional Operations Branch, BC Parks and COS (250) 356-9241

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Capital Investment Strategy 2016/17
---	---

KEY MESSAGES:

Key Message #1 – In 2012, BC Parks received an extra \$3 million for the 2012/13 operating year representing a 27 per cent increase over the previous year. Capital remains at this \$13.98 million level for 2015/16. Over the past five years, BC Parks has invested approximately \$68 million in facilities. 2016/17 will see approximately 139 projects in 97 parks.

Key Message #2 – The replacement value of BC Parks buildings and land improvements is approximately \$700 million. The \$13.98 million annual capital investment represents approximately 2 % of asset value. Industry norms recommend this 2% as an annual reinvestment amount to maintain the integrity of the assets/

Key Message #3 – The strategic direction of the capital investment program is to offer park visitors a safe and welcoming environment that reflects the core conservation, recreation and cultural values of BC Parks. The \$13.98 million funds projects that will attract young families, offer new recreation opportunities, improve accessibility, protect visitor health and safety, and increase revenue and attendance.

CURRENT STATUS:

Key message #1:

The \$13.98 million in capital funds will be invested in projects that focus on:

- Renovating facilities in day-use areas and campgrounds, with a major emphasis on improved accessibility;
- Delivering multi-year capital investments in parks with either high revenue and attendance, or significant cultural values;
- Addressing risks to visitor health and safety and cultural values; and
- Continuing to upgrade water systems to meet potable water standards.

The forecast % regional breakdown for funding is as follows:

Region	Capital Budget %	Capital Costs \$
Kootenay/Okanagan (KO)	34	\$4.70 M
Thompson/Cariboo (TC)	17	\$2.38 M
Northern (Skeena, Peace, Omenica) (N)	19	\$2.60 M
West Coast (Vancouver Island, Haida Gwaii) (WC)	14	\$2.00 M
South Coast (Lower Mainland, Sunshine Coast) (SC)	16	\$2.30 M

The following table provides further details for what is forecast for 2016/17. The table's four categories will see a total investment of \$13.98 million. However, given the nature of construction planning and schedules, and in particular visitor health and safety concerns arising from unforeseen natural events, the actual budget percentage invested in any one category may vary from forecast.

Projects' Investment Priority	% of Projects	Capital Budget %	Capital Costs \$
Renovating central facilities	12	10	\$1.40 M
Restoring/upgrading high revenue parks	43	44	\$6.13 M
Addressing risks to visitors and cultural values	33	39	\$5.50M
Drinking water and Sanitary Waste requirements	12	7	\$0.95 M
Totals	100	100	\$13.98 M

Key message #2:

In progress or recently completed projects include:

- **Bowron Lake (TC):** A multi-year \$1,700,000 project that will see the replacement of 4 cabins and upgrade to the trail systems on the Lake Circuit,
- **Kokanee Creek (KO):** A forecast \$260,000 project will see investments to upgrade the viewing platform and trail to improve universal accessibility.
- **Tweedsmuir (TC):** \$500,000 Campground upgrade, Day Use facilities relocated with a new boat launch.
- **Okanagan Lake (KO):** \$460,000 funded the completion of a new toilet shower building as part of the campground expansion. The park has seen substantial improvements for the past three years.
- **McDonald Creek RSH (KO):** \$500,000 campground reconstruction completed as part of a multi-year project investing in upgrading the campgrounds, replacing the toilet shower buildings and furniture for accessibility.
- **Multiple Parks in Omineca and Peace (N):** A \$500,000 forecast multi –year investment in upgrades to accessible furniture, and improvements to sewage and sanitary waste disposal systems
- **Multiple Parks in the Skeena (N):** \$200,000 multi-year project to invest in upgrading boat launches.
- **Goldstream Park (WC):** \$1,500,000 forecast multi-year project funding the reconstruction and upgrade of campgrounds, with accessible furniture, installing a new replacement playground and upgrade to water system.
- **Garibaldi Park (SC):** \$1,000,000 multi-year project to upgrade shelters, campground and trails to accommodate increased use.
- **Golden Ears Park (SC):** \$300,000 funded to replace and upgrade park furniture such as accessible picnic tables.

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch,
BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Recreation User Fees
---	--

KEY MESSAGES:

Key message #1 – For 2016, the Minister has approved fee changes to BC Parks recreation opportunities which will decrease operating expenditures by over \$400,000.

Key message #2 – On March 15, 2016, there will be 10 fee eliminations, 2 mooring buoy fee changes, 5 backcountry fee changes, 39 group camping and picnicking fee changes, 73 frontcountry camping fee changes (including 12 long-stay discount fee changes), and 18 winter frontcountry camping fee changes.

Key message #3 – Recreation user fees pay only about 76% of the costs of direct park operations (Park Operator contracts).

CURRENT STATUS:

Key message #1:

- BC Parks reviews its recreation user fees annually to ensure that services provided, costs, and market prices are reflected accurately.
- Additional revenue from fee increases is used to maintain high levels of visitor services, to decrease operating expenditures funded by vote allocation, and to contribute to the Consolidated Revenue Fund.
- In accordance with BC Parks' agreements with Park Operators, fees are retained by the operators as compensation for their services. Where fees are not sufficient to cover the agreed costs, a deficiency payment is payable to the operator. Fee increases result in a reduction in those deficiency payments, thereby providing a direct benefit to the BC Parks operating budget.
- The additional fee revenue resulting from fee increases is projected to decrease BC Parks operating expenditures by over \$400,000 per annum.

Key message #2:

- The majority of frontcountry camping opportunities were approved for a \$1 - 3 per night increase across all regions in the Province.
- Among the approved frontcountry camping fee changes were 9 new long-stay discounted fees for stays of a minimum of 4 weeks.

Key message #3:

- The annual cost of providing contracted park services across the province was \$24 million in 2014/15. BC Parks earned \$18.5 million in recreation user fee revenues, of which \$18.3 million was retained by Park Operators to help fund visitor services in campgrounds and day use areas. The remaining \$181,000 was paid to the Consolidated Revenue Fund.
- \$5.7 million of BC Parks' vote allocation is assigned towards additional maintenance and contract costs (deficiency payments).

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- In 2007 Treasury Board approved new flexible fee authorities for BC Parks. Fee flexibilities allow the Minister of Environment to set recreation user fees within ranges approved by Treasury Board and to set new prices for merchandise sales (e.g. maps, logo wear, etc.) based on costs and market values.
- Recreation user fee ranges include:
 - Frontcountry camping fees between \$5 – \$35 per party/night
 - Group camping fees between \$20 - \$120 per site/night, plus \$1 - \$5 per person/night
 - Backcountry camping fees between \$5 - \$10 per person/night, and
 - Backcountry cabin fees from \$4 - \$42 per person/night.
- BC Parks reviews the fee schedule on an annual basis to respond to requests submitted by Regional staff, Park Operators and community groups who operate and manage the parks.
- Fee change requests are supported by business cases and are evaluated according to service levels, market demand, public response, system wide consistency, projected attendance and revenue changes, as well as private sector comparables.
- In 2011, long stay fees were added to the fee schedule. Under these fees, visitors can stay at select parks for a minimum four weeks at a discounted rate. The purpose of the long stay program is to increase camping in the off-season and in low occupancy parks.
- BC Parks is committed to preserving the traditional and affordable experience and offering a range of recreation opportunities in all regions of the province. In addition, fee exemptions or discounts are also offered to targeted user groups (e.g. disabled, seniors and youth).
- Some public subsidy of visitor services is necessary to ensure BC Parks continue to be a viable park system.
- Decisions regarding any fee changes are made by the Minister in December of the preceding year to ensure the public is aware of any fee increases in advance of reservations being made in the next camping season.

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: BC Parks Service Delivery Costs
---	---

KEY MESSAGES:

Key message #1 – BC Parks’ visitor services are largely provided under contract by Park Operators (POs).

Key message #2 – The direct cost of providing contracted park services across the province is currently \$24 million annually.

Key message #3 – There has been no reduction in service levels since 2009.

CURRENT STATUS:

Key message #1:

- Since the mid-1980s, BC Parks’ front-country campgrounds have operated under contract. To recognize efficiencies, BC Parks has entered into long-term agreements (10-year or 3-year) with 32 businesses to operate most front-country campgrounds and day use areas (46 bundles containing 225 parks). An additional 40 parks are managed under simple one-year contracts.
- Park Operators (POs) must meet the service standards set by BC Parks. They maintain campgrounds, day use areas and offer additional services to ensure a safe and satisfactory experience for park visitors.

Key message #2:

- The annual cost of providing contracted park services across the province was \$24 million in 2014/15. BC Parks earned \$18.5 million in recreation user fees and \$18.3 million of this revenue was retained by POs to help fund visitor services in campgrounds and day use areas. The remaining \$181,000 was paid into the Consolidated Revenue Fund.
- In addition to recreation user fees BC Parks pays approximately \$5.7 million allocated from vote money to Park Operator contract costs (deficiency payments).

Key message #3:

- In 2009/10 BC Parks implemented service reductions to address budget pressures. Service changes included shorter operating seasons, lower intensity trail maintenance and site servicing in 43 parks. Service level reductions saved an estimated \$700,000 dollars annually. There have been no new service adjustments since 2009.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- BC Parks is committed to preserving the traditional and affordable experience and

offering a range of recreation opportunities in all regions of the province. In addition, fee exemptions or discounts are also offered to targeted user groups (e.g. disabled, seniors and youth).

- Some public subsidy of visitor services is necessary to ensure BC Parks continue to be a viable park system.
- 75% of the park operating contracts expired in 2014. The Parks Recreation Integrated Service Model (PRISM) transformation project publicly tendered and awarded a new set of contracts, drafted using a more efficient and effective recreation service delivery model. Due to new contract requirements and increased labor and fuel prices BC Parks experienced new cost pressures.

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: BC Parks' Future
---	--

KEY MESSAGES:

Key message #1 – BC Parks is a significant provincial asset. Investing in the preservation of that asset will generate social, economic and environmental returns for the province.

Key message #2 – BC Parks has begun implementing strategic plans to address its structural deficit while supporting the evolution and enhancement of the Parks system.

Key message #3 – A key component of the Parks Futures Strategy is a suite of investment concepts designed to preserve, enhance, and evolve the Parks system. In consultation with Parks Executive and the Minister, s.13 concepts have been identified: increasing the number of Park Rangers; connecting people to parks through innovation s.13

s.13

CURRENT STATUS:

Key message #1:

- With more than 21 million visits annually, BC Parks is a significant tourism draw for the Super, Natural British Columbia brand.
- Comprising of 15% of BC's land base, BC Parks represents a significant portion of the province.
- Provincial Parks are an important part of the social and cultural identity of British Columbians

Key message #2:

- The Province protects more land today than ever before. Costs continue to rise due to inflationary pressures, but the parks budgets remains the same. This effectively created a structural deficit.
- BC Parks has eliminated discretionary budgets, implemented service reductions, reduced operational and staffing budgets, and deferred park maintenance to manage the structural deficit.
- BC Parks is taking a strategic approach to addressing this structural deficit through its Financial Sustainability Plan, and supporting the evolution and enhancement of the Parks system through its Parks Futures Strategy.

Key message #3:

- Advancements are occurring in other jurisdictions. However, BC Parks does not have the financial capacity to keep pace.
- BC Parks identified 12 concepts to enhance the parks system as part of the proposed Parks Future Plan. Each concept would require an incremental investment that is not possible within current BC Parks budgets. They could potentially be funded by new system revenues once the BC Parks structural deficit is eliminated.
- The s.13 concepts include:
 - **Boots on the Ground:** Increase the number of on-the-ground Park Rangers. An increased number of Rangers would increase stewardship in parks, expand community engagement, and improve public safety.

s.13

s.13

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The BC Parks Future Strategy is designed to achieve the following goals:
 - Conservation: ensure natural and cultural values are maintained and enhanced
 - Recreation: provide a balanced and financially sustainable suite of recreation services and experiences
 - Community: grow community involvement with BC Parks
 - First Nations: redefine BC Parks' relationship with First Nations

s.13

- The concepts proposed in the Parks Futures Strategy would generate multiple benefits:
 - Help BC Parks achieve financial sustainability through increased usership
 - Leverage the value of BC Parks to the province and its citizens to grow support for government
 - Support broader government initiatives (e.g. Jobs Plan)
- In addition to the s.13 concepts, the Parks Futures Strategy proposed the following additional concepts:

- Parks to be Proud Of: increased capital investment supported by creative solutions to address growing amortization costs
- Beyond the Basics: new outdoor recreation opportunities
- BC Parks' Accessibility Guarantee: guarantee every frontcountry park includes accessible facilities
- Community Connections: establish new staff and committees tasked with fostering strategic partnerships
- Transform First Nations Relationships: through enhanced collaboration and economic opportunities

s.13

- Create a Legacy: establish an independent Foundation that will raise money to support BC Parks

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: BC Parks Attendance and Revenue
---	---

KEY MESSAGES:

Key message #1 – BC Parks’ 2014/15 overall attendance was over 21 million visits – approximately the same number of visits as 2013/14. *2015 attendance has not yet been finalized.

Key message #2 – BC Parks 2014/15 net Recreation User Fee revenues were \$18.5 million, an increase of approximately 8% over 2013/14.

CURRENT STATUS:

Key message #1:

- Day use attendance was 18.6 million visits in 2014/15, a 0.6% decline from 2013/14. Visitor attendance for 2015 has not yet been finalized.
- Camping attendance was 2.6 million visits, a 5.1% percent increase from 2013/14.

Attendance Summary

BC Parks Visits	2013/14	2014/15	% change
Day Use	18,692,209	18,573,802*	-0.6%
Camping	2,448,344	2,572,617	5.1%
Marine	166,513	204,375	22.7%
Total Attendance	21,307,066	21,350,794	0.2%

** Day use has not decreased relative to long-term levels/trends but it has slightly decreased relative to 2013/14. The significant decrease in winter day use attendance in Cypress Park (South Coast) due to poor snow levels for skiing and other winter recreation is largely responsible for the decline in overall day use attendance. In other regions of the province, annual day use attendance increased relative to 2013/14.*

Key message #2:

- BC Parks net recreation user fee revenue is projected to be approximately \$18.5 million, an increase of 8% compared to 2013/14.
- The increase can be attributed to higher camping attendance and fee increases in some high attendance campgrounds.

Revenue Summary

Net Recreation User Fee revenue	2013/14	2014/15	% change
Day Use	\$133,712	\$153,906	15%
Camping	\$16,736,838	\$18,043,891	8%
Marine	\$257,626	\$309,011	20%
Total Net Revenue	\$17,128,176	\$18,506,808	8%

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The new attendance and revenue system (implemented in 2012) has improved reporting practices for attendance and revenue data associated with Recreation Services.
- BC Parks continues to work with partners through Service Plus and other programs to develop and enhance recreational opportunities in the provincial parks system.

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Discover Camping Program™ (DC)
---	--

KEY MESSAGES:

Key message #1 – The BC Parks Discover Camping™ reservation service features reservations for 101 BC Parks, in 122 frontcountry campgrounds and two limited entry backcountry experiences.

Key message #2 – The BC Parks Discover Camping registration system allows for permit registrations in 31 backcountry parks.

Key message #3 – The Discover Camping Program is set up as user-pay system and is not subsidized by taxpayers. Service charges remain at 1996 pricing.

Key message #4 – 73% of reservations made in 2015, originated from B.C.

CURRENT STATUS:

Key message #1:

- In 2015, over 158,000 reservations were made, representing a 19% increase from 2014 (over 133,000 reservations).
- The majority of reservations were made online (96 %); the remaining 4% are made through the call centre.
- There are over 5,800 individual sites available for reservations including: frontcountry campsites, groupsites, and cabins.
- The DC Program received and processed 58% (\$12.3M) of the total User Fees collected by BC Parks (\$21.5 M) in 2015.
- New additions to DC for 2016: Inland Lake, Dry Gulch, and sḥʷəḥʷnitkʷ (Okanagan Falls) Provincial Parks and Ruckle Park frontcountry campground. Also two group campsites, 4 picnic shelters and 2 cabins will be added for reservation in 2016.

Key message #2:

- The DC Backcountry Registration System was introduced in 2011.
- Since 2011, over 16,000 permits have been sold online through the DC Backcountry registration system, collecting over \$454,000 in revenue.
- There were no new additions for 2015 (or for 2016 season) though the program continues to grow each year.

Key message #3:

- Discover Camping offers customers peace of mind that a campsite that will meet their needs, is waiting for them when they arrive in the park.
- Discover Camping transaction service charges pay for maintenance and enhancements to the program so it is not subsidized by taxpayers.
- Transaction (reservation, change and cancellation) charges remain at 1996 pricing.
- Up to 3 reservations can be made in one transaction (shopping cart model).
- Additional revenue from DC is reinvested into BC Parks through the Park Enhancement Fund.
- Approximately 48% of BC Parks campsites are still First-come, First-served customers.

Key message #4:

- 73% of the reservations made in 2015, originated from B.C.
- The second highest DC customer originates from Alberta (14%)
- The remaining reservations are made from: the USA (3.6%), the rest of Canada (2.8%) and the remaining 6.6% are from overseas (top 5: Germany, Switzerland, Netherlands, UK and France/Denmark)

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The DC Program is overseen by BC Parks through a third party contractor (Camis Inc.) from Guelph Ontario which is considered a leader in providing reservation services. Camis were the successful proponent in 2009 and implemented our program in 2010. They oversee reservation systems for many park systems including: Ontario Parks, Washington State Parks, Parks Canada, and Michigan State Parks. Their contract expires in November of 2019.
- The objectives of the **Discover Camping reservation service** are to:
 - provide park visitors with equitable access to specific high demand recreational opportunities and peace of mind;
 - ensure fairness and consistency in the opportunity to make reservations throughout the province; and,
 - improve BC Parks' and Park Operators' business efficiencies, and provide customer service and inventory management.
- The objectives of the **Backcountry Registration system** are to:
 - provide a convenient way to pay for backcountry permits online, prior to arriving in the park and does not guarantee a site (is not a reservation); and,
 - improve BC Park' and Park Operators' business efficiencies, and customer service.

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Investigative Use Permits/Research
---	--

KEY MESSAGES

Key message #1 – In Spring 2014, Bill 4, the *Park Amendment Act 2014*, was passed, amending the *Park Act* to clarify authorities for issuing park use permits.

Key message #2 – Bill 4 introduced a new provision identifying under what circumstances a park use permit may be issued to allow research activities in parks or conservancies.

Key Message # 3- BC Parks' Research Permit Policy was approved in August 2015. The policy sets a threshold of 'no adverse impacts' in order for a research proposal to be considered appropriate.

Key message #4 – The introduction of Bill 4 did not change anything about how proposals to amend park boundaries are considered under the Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines.

CURRENT STATUS

Key message #1:

- Bill 4 was brought into force by Royal Assent on March 24th, 2014. None of the amendments to the *Park Act* changed the manner by which parks, protected areas and conservancies are managed. The provisions brought into force under this bill provide increased clarity and certainty respecting authorizing activities and uses in parks and conservancies, thereby reducing risks associated with being challenged on decisions in these areas.

Key message #2:

- The new provision introduced under Bill 4 provides the minister with the authority to issue park use permits for research in a Class A park or conservancy if, in the minister's opinion, issuing the permit has value to park managers or if the research relates to a specified purpose such as an improvement for public health or safety, an environmental assessment or feasibility study, or to inform a decision on a boundary modification proposal.
- This provision in the *Park Act* is not subject to a "test", but the appropriateness of granting research permits is outlined in public policy related to research.

Key Message #3:

- BC Parks conducted a public review and comment process on a draft research policy during the spring of 2014. A final draft of the policy was approved in August 2015, and is posted online along with a summary of the public comments that were received.

- The policy creates a separation between general research (including academic research) and research for investigative use, which includes research for environmental assessments, feasibility studies, or boundary adjustment proposals. Regardless of the purpose of a research activity, the policy sets a threshold of 'no adverse impacts' in order for a research proposal to be considered appropriate.
- There have been 22 research permits issued since April 1, 2015. Two of these research permits were issued for investigative use related to feasibility studies. One research permit was issued for investigative use related to the Prince Rupert Gas Transmission Line in Nisga'a Memorial Lava Bed Park. Another research permit was issued for investigative use related to the TransMountain Pipeline studies in Coquihalla Summit Recreation Area, Finn Creek Park, Bridal Veil Falls Park, North Thompson River Park, and Lac Du Bois Grasslands Protected Area.
- To increase transparency on permits that are issued under the *Park Act* for all activities, including general and investigative research, BC Parks has been posting information on issued permits online since 2014. A draft policy to formalize how the public will be informed and engaged on all park use permits has been prepared for public consultation.

Key message #4:

- The Cabinet-approved Provincial Protected Areas Boundary Adjustment Policy, Process and Guidelines have been in place since 2004, and were updated in 2010. The Policy, available on the BC Parks website, outlines how a proponent may request a boundary adjustment to a park or protected area. A key component of the Policy is the requirement for consultation with First Nations, other governments and the public when considering a boundary adjustment.
- Bill 4 generated increased awareness about this policy. The BC Parks website has a link to the policy and a record of all boundary adjustments since 2004. While boundary adjustments have occurred in the past and will be considered in the future, it is important to note that just 0.028% of lands (3,889.5 hectares) have been removed from individual parks, conservancies, ecological reserves and protected areas since 2004. Most of these lands have been retained in the provincial protected areas system under another designation (for example, ecological reserve to Class A park or Class A park to protected area).

Contact: David Ranson, Executive Director, Visitor Experience and Business Development Branch, BC Parks and COS (250) 387-6852

<p>ESTIMATES NOTE (2016)</p> <p>Confidential</p> <p>Ministry of Environment</p> <p>Date: February 2016</p>	<p>ISSUE TITLE:</p> <p>BC Parks First Nation's Initiatives</p>
--	--

KEY MESSAGES:

Key message #1 – BC Parks has a long history of working collaboratively with First Nations including Collaborative Management Agreements.

Key message #2 – BC Parks is heavily involved in Government's efforts to build upon Government-to-Government relations using pre-and-post-treaty approaches.

Key message #3 –BC Parks continues to work with First Nations on protection proposals.

CURRENT STATUS:

Key Message #1:

- Currently, BC Parks has 37 Collaborative Management Agreements (CMA) in place with First Nations that establish protocols and approaches to collaborative management of parks and protected areas.
- CMAs provide a process and forum for BC Parks and First Nations to fulfill their respective legal obligations pertaining to consultation. They also provide an opportunity for the parties to work at a strategic level on matters of mutual interest (i.e. the development of compatible economic opportunities).
- Most modern CMAs contain provisions for developing consensus recommendations and dispute resolution process (akin to shared decision making).
- The CMA is usually seen as an opportunity to expand a First Nations influence over non-treaty settlement lands. First Nations and MARR continue to seek commitments from BC Parks to include a treaty commitment for a Parks CMA.
- Although CMAs are viewed as being successful by many First Nations and the Ministry of Aboriginal Relations and Reconciliation, there remain some challenges including the significant time and resources required by both BC Parks and First Nation participants in the process.
- A policy review of CMAs is currently under way in light of the new government-to-government agreements that are available to deal with similar subject matter. Currently there can be duplication of some CMA content with Strategic Engagement Agreements and Reconciliation Agreements.

Key Message #2:

- BC Parks is involved in a number of initiatives involving First Nations across the province including:
 - Wuikinuxv Agreement in Principle: Working with the Ministry of Aboriginal Relations and Reconciliation towards a Final Agreement under the BC-Canada treaty process
 - Tsilhqot'in National Government: Working with the Tsilhqot'in National Government (TNG) towards long-term approach for portions of Ts'il?os (pronounced "sigh-loss"), Nuntsi and Cardiff Mountain protected areas within the TNG declared title area. This includes working under the auspices of a former CMA for Ts'il?os Park (signed and active since 1995).
 - Haida Gwaii: BC Parks is advancing the government to government relationship with the Haida by working on mutual solutions regarding protected areas (e.g. harmonizing marine and terrestrial protected area planning, addressing management direction for seaweed and kelp, and modernizing management direction for parks and ecological reserves). A BC Parks staff person is now assigned to the Haida Gwaii Management Council. The Council has legislative decision making in a number of resource management areas.
 - Coastal First Nations (CFN) Reconciliation Agreement and the Nanwakolas Reconciliation Agreement: BC Parks is committed to working towards the collaborative development of protected area management plans and implementing Enhanced Access to Economic Opportunities (a commitment made under the CFN Reconciliation Agreement) that strives to provide equitable distribution of economic opportunities to assist in closing the socio-economic gaps that exist.

Key Message #3:

- Protection of lands is often of interest to First Nations particularly when other resource development proposals are identified. BC Parks is involved in resolving some of these issues such as:
 - Semiahmoo First Nation: BC Parks has finalized a negotiated resolution to the long standing parking lot land settlement dispute at Peace Arch Park.
 - Okanagan Nation Alliance: BC Parks continues to work with Okanagan Nation Alliance members, particularly Penticton, Osoyoos and Lower Similkameen Indian Bands, on potential new protection measures in the South Okanagan.

- New proposals for protected areas: BC Parks continues to assist broader government initiatives including implementation of Land and Resource Management Plan processes for designating new protected areas (e.g. Twin Sisters, Peace Boudreau and CP212 (Treaty 8 FN's within the Northeastern BC))

Contact: Brian Bawtinheimer, Executive Director, Conservation, Planning and Aboriginal Relations Branch, BC Parks and COS (250) 387-4355

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: South Okanagan – Intentions Paper
---	---

KEY MESSAGES:

s.12

Key message #2 – The Minister has committed to better understand interests in the area from the public, stakeholders and from the Penticton, Lower Similkameen and Osoyoos Indian bands of the Okanagan Nation Alliance.

Key message #3 – In 2015, the Ministry released and Intentions Paper that sought feedback on protection measures for the area as a way of seeking further interests in the area. Results of that feedback will be available in early 2016.

CURRENT STATUS:

Key message #1:

- Between 2003 and 2011, the provincial government engaged collaboratively with the federal government to assess the feasibility of establishing a national park reserve in the South Okanagan. B.C. and Parks Canada signed a Memorandum of Understanding agreeing to assess the feasibility of a national park reserve in the South Okanagan–Lower Similkameen to represent the Dry Interior Plateau natural region.
- The feasibility study, with the exception of First Nations perspectives, was completed in 2011. The feasibility study determined a national park reserve was feasible and there was support for the proposal. However, it recognized there was also continued opposition.
- In December 2011, the provincial government publicly announced that it was not prepared to consider a national park reserve in the South Okanagan at this time.

Key message #2:

- In 2014 and in 2015, the Minister of Environment and the MLA for the area met with stakeholder groups that supported and opposed the proposed national park reserve. The purpose of the meetings were to better understand the interests behind the positions and to create a dialogue on future management that reduced the ongoing polarization resulting from the national park reserve proposal.
- The Minister also met with Chiefs and members from the Penticton Indian Band, the Lower Similkameen Indian Band and the Osoyoos Indian Band to better understand aboriginal interests in the area.
- A wide variety of interests resulted from these meetings including, but not limited to, concerns

over grazing and ranching, hunting and fishing, protection of important conservation values, tourism opportunities, outdoor recreation activities, aboriginal traditional use, protection of cultural values, and collaborative management opportunities.

Key message #3:

- During September and October 2015, the Ministry sought public feedback on an Intentions Paper that outlined 3 units of lands in the South Okanagan:
 - Area 1 from the US border to Highway 3 and proposed as national park reserve
 - Area 2 from Highway 3 to the southern portion of the White Lake Basin proposed as provincial conservancy, and
 - Area 3 the White Lake Basin proposed as national park reserve.
- For each area, the Intentions Paper asked if there were special considerations respondents wished to raise and whether there were other adjacent areas that should be considered for inclusion in the proposal.
- The Ministry received 400 submissions through web-based questions, almost 2200 other emails or letters, and 830 postcards.
- A review of the public feedback received will be undertaken by ministry staff and a consultation report will be posted publicly in early 2016. The results of the consultation will inform recommendations on what, if any, new land protection measures should be undertaken in the South Okanagan.
- An early proposal for an independent panel to review public submissions will not go forward.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- The Interior Dry Plateau natural region is not currently represented in the national parks system.
- In terms of rarity, diversity and species richness, the area contained within the national park reserve proposal is one of the province's most ecologically valuable, encompassing 41 federally-listed species-at-risk.
- Provincial conservation designations, that together total approximately 20% of the land base in the South Okanagan, include Class A parks, protected areas, and wildlife management areas, Section 16 Land Act Reserves for habitat conservation and private land acquisitions and donations. This includes:
 - 79,353 ha of parks and protected areas (45,985 ha established since 2001);
 - 2100 ha of land owned privately for conservation purposes;
 - 1500 ha of land leased for conservation purposes;
 - 100 ha of *Land Act* map reserves;
 - 365 ha of Wildlife Management Area additions; and
 - 1074 ha of federal lands owned by the Canadian Wildlife Service
- The Okanagan Shuswap Land and Resource Management Plan (OSLRMP) recommended the establishment of 22 Goal 1 protected areas or parks and 27 Goal 2 protected areas or parks.
 - All Goal 1 areas were established either as parks or as protected areas under the

Environment and Land Use Act in 2001, totalling 45,986 ha.

- To date, 13 Goal 2 areas recommended from the OSLRMP have not been established and therefore have no protection afforded to them. 10 of these, amounting to 1,749 hectares, are located in the South Okanagan.

Contact: Brian Bawtinheimer, Executive Director, Conservation, Planning and Aboriginal Relations Branch, BC Parks and COS (250) 387-4355

<p>ESTIMATES NOTE Confidential</p> <p>Ministry of Environment</p> <p>Date: February, 2016</p>	<p>ISSUE TITLE:</p> <p>System Growth and Land Acquisition</p>
---	---

KEY MESSAGES

- **Key message #1–British Columbia has one of the largest protected areas systems in North America and has continued to add to it over the past decade.**
- **Key message #2 - The Ministry does not have the funding available in the 2016/17 budget to pursue all private land acquisition initiatives of interest.**
- **Key message #3 – The priority for 2016/17 will be on completing projects where there are legal obligations in place, where operational efficiencies are made, or where donation lands with significant values are being offered to the Ministry.**

CURRENT STATUS

Key message #1:

- Since 2004, over 3.3 million hectares of land have been added to the parks and protected areas system. This includes converting the designation of some existing areas totaling more than 500,000 hectares to Class A parks and conservancies to provide an increased level of protection.
- There are 1029 parks, conservancies, ecological reserves and protected areas across British Columbia managed by BC Parks, covering just over 14 million hectares or 14.4% of the provincial land base.

Key message #2:

- There is no set annual budget for land acquisition. However, there are a number of pre-existing legal obligations related to ongoing files that require funding which is allocated from the BC Parks land improvement (facilities) capital budget.
- The Ministry acquires private lands for protected areas, most commonly on a willing seller/willing buyer basis or by donation, to fill key gaps in the protected area system that:
 - Protect important conservation values;
 - Provide or enhance recreation opportunities;
 - Resolve operational issues and enhance conservation and recreation opportunities within or adjacent to established protected areas; and
 - Take advantage of an ecogift donation or an inholding coming onto the market.

Key message #3:

- Not all lands that are identified as opportunities can be acquired based on capacity and budget. The Ministry ranks and seeks out only the priority lands where there is a willing vendor and when resources are available.
- The Ministry seeks opportunities to partner with others and develops creative solutions to finance land acquisition projects. The Ministry has been able to utilize:
 - land exchanges;
 - partnering with land trusts;
 - providing tax receipts for donations of land;
 - transferring development rights; and
 - financing using forest carbon offsets.
- These approaches allow the Ministry to acquire more lands than through cash only. Valuable community partnerships are also developed by partnering with non-government organizations.
- The Ministry's response to the 2010 Auditor General report on ecological integrity committed that "the Ministry will maintain the land acquisition program..." The Ministry will continue to consider key environmentally sensitive lands through the BC Parks land acquisition program as funding permits.
- At this time, eight projects for 2016/17 have been identified and may close (Table 1). An additional seven high profile projects are currently on hold (see Table 2).

s.13,s.17

Table 2: High profile acquisition projects currently on hold

s.13,s.17

-

Contact: Brian Bawtinheimer, Executive Director, Conservation, Planning and Aboriginal Relations Branch, BC Parks and COS (250) 387-4355

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Protected Area Boundary Adjustments
---	---

KEY MESSAGES:

Key message #1 – There are currently five proposed projects that would require protected area boundary adjustment. Together these projects affect seven of B.C.'s 1,029 parks and protected areas. Six of the seven parks and protected areas would require boundary adjustments while one requires a permit.

Key message #2 – These proposals are reviewed pursuant to the Cabinet-approved *Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines*.

Key message #3 – Government takes requests for boundary adjustments very seriously, and supports boundary adjustment requests only where there is public benefit and alternative locations are not feasible.

CURRENT STATUS:

Key message #1:

- BC Parks is aware of the following projects which, if eventually approved, could affect parks and protected areas:
 - Kinder Morgan's Trans Mountain Pipeline Expansion Project:
 1. This project may affect the boundaries of two parks and protected areas: Finn Creek Park and, Lac Du Bois Grasslands Protected Area.
 2. The project is proposed to go through Coquihalla Summit Recreation Area. A boundary adjustment is not required to authorize construction of a pipeline in a recreation area as the activity could be authorized through a resource use permit.
 3. Kinder Morgan had previously applied to adjust the boundaries of North Thompson River and Bridal Veil Falls parks. Through further route refinement, Kinder Morgan has determined they will no longer require boundary adjustments for these two parks.

- The owner of a private lot adjacent to Kleanza Creek Park has proposed a boundary amendment to provide legal access to the lot to enable it to be subdivided.

Key message #2:

- Information on all these projects, as well as *Protected Area Boundary Adjustment Policy, Procedures and Guidelines* are available on the BC Parks website.
- The process for boundary adjustments includes two key components:
 - A stage 1 proposal that requests government to consider the concept of a boundary adjustment for the intended alternative land use, and if that is supported,
 - A stage 2 application outlining in detail the business case and public benefits that would result if the boundary adjustment and alternate land use was approved.

Key message #3:

- The *Protected Areas Boundary Adjustment Policy, Procedures and Guidelines* sets out a rigorous process that all proponents must follow.
- Key components of the policy include:
 1. Alternatives to avoid the protected area have been considered.
 2. Overall economic benefits to the Province have been documented.
 3. Social and environmental impacts have been documented.
 4. Mitigation and restoration measures have been identified.
 5. First Nations have been adequately consulted.
 6. Local communities (including local governments) have been consulted.
 7. Provincial and Federal Agencies have been consulted.
- There is an increased risk of a proposal being rejected at any time under one or more of the following circumstances:
 - Viable alternatives exist;

s.16

- Significant adverse effects on environmental or social values cannot be avoided, mitigated or compensated for; or
 - There is insufficient overall benefit to the Province.
- Since 2004, just 0.028% of the 14 million hectares in the provincial protected area system has been affected by boundary adjustments. During the same period, over 3.3 million hectares were added. Information on these adjustments is available on the BC Parks website.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

In the Fall, 2014 session of the Legislature, an amendment to the boundary of Nisga'a Memorial Lava Bed Park was approved to enable the construction of the Prince Rupert Gas Transmission Line. This amendment was supported by the Nisga'a Lisims Government.

Contact: Brian Bawtinheimer, Conservation, Planning and Aboriginal Relations Branch, BC Parks and COS (250) 387-4355

ESTIMATES NOTE (2015) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: Osoyoos Indian Band
---	---

KEY MESSAGES:

Key message #1 - MoE/BC Parks is currently negotiating a new management agreement with Osoyoos Indian Band (OIB) for swiws (Haynes Point) and sxwexwnitkw (Okanagan Falls) parks.

Key message #2 – OIB has asserted their aboriginal rights and title at swiws and sxwexwnitkw parks and have requested management and operational control for both parks to ensure protection of cultural heritage values and continued economic opportunity in the area.

Key message #3 - swiws Park contains significant archaeological and cultural values; Protection of cultural and archaeological values will be enhanced by increased involvement of OIB in the park's management and operation.

Key message #4 - BC Parks and OIB have also committed to development of a protocol agreement to guide discussions on OIB interests in other parks in their claimed traditional territory.

CURRENT STATUS:

Key message #1:

- BC Parks is negotiating a longer term government to government collaborative management framework agreement with OIB for the management of swiws and sxwexwnitkw parks.
- BC Parks entered into a no cost one year park operating agreement with OIB for the 2015/16 operating year and both parties have agreed to pursue an extension for 2016/17.
- It is the intention of both parties that the operating agreement continues to align with the BC Parks brand and operational management policies and procedures consistent with other provincial parks. The goal is to continue to offer the existing recreational services and opportunities to the public while ensuring the parks' conservation and cultural values are protected and public understanding and appreciation of the cultural values are enhanced.

• ***Key message #2:***

- In December 2014, OIB asserted their interest in rights and title over swiws and noted the recent Tsilhqot'in decision as guidance for how the Province should approach aboriginal rights and title.

- **Key message #3:**
- Having OIB involved and managing the park in the future, including facility operation and maintenance and public use, will help ensure the archaeological and cultural values are well protected.
- Consistent with the recommendations of the archaeological inventory and impact study at swiws Park, BC Parks and OIB are obtaining a site alteration permit under the Heritage Conservation Act to allow for continued park operation in a manner that protects the values.

Key message # 4:

- A protocol agreement will help guide discussions to identify and protect OIB interests in other parks in their claimed traditional territory including Kettle River Recreation Area.
- For post-fire reconstruction work at Kettle River Campground, BC Parks has involved OIB in the required archaeological assessments and has facilitated employment opportunities for band members with contractors over the course of the project.

Contact: Bob Austad, Executive Director, Regional Operations Branch, BC Parks and COS (250) 356-9241.

<p>ESTIMATES NOTE (2016)</p> <p>Confidential</p> <p>Ministry of Environment</p> <p>Date: February 2016</p>	<p>ISSUE TITLE:</p> <p>Sechelt First Nation - Construction of Longhouses in Provincial Parks</p>
--	--

KEY MESSAGES:

Key message #1 – Sechelt First Nation constructed a longhouse in Garden Bay Marine Park and began construction of a longhouse in Francis Point Park.

Key message #2 – The Province acknowledges that the Sechelt First Nation has a long-standing title claim in the Garden Bay area. The Sechelt First Nation intends to use the longhouses as places to practice their traditional culture.

Key message #3 – BC Parks is working with Sechelt First Nation to authorise and collaboratively manage the longhouse at Garden Bay Marine Park.

Key message #4 – The lands that form Francis Point Park are privately owned and set aside for conservation purposes. BC Parks is working with Sechelt First Nation to address their interest in having a longhouse in the area that does not impact the private lands or conservation values of the park.

CURRENT STATUS:

Key Message #1:

- In September 2014, Sechelt First Nation undertook the construction of a longhouse in the day use area of Garden Bay Marine Park in the Pender Harbour area of the Sunshine Coast. They had not provided advance notice to BC Parks of their intentions.
- In October 2014, Sechelt First Nation initiated construction of a longhouse in Francis Point Park. The First Nation halted the construction when they were informed by the Francis Point Park Society that the lands forming the park are privately owned.

Key Message #2:

- Sechelt First Nation has a long-standing claim to title in the Pender Harbour area. The Province recognizes the importance of the Tsilhqot'in decision, and its implications for the recognition of Aboriginal rights and title.
- The Province is working with the Sechelt First Nation on a number of issues to resolve their interest in the area, including a Reconciliation Agreement.

Key Message #3:

s.16

Contact: Bob Austad, Executive Director, Regional Operations, BC Parks and COS
(250) 356-9241

ESTIMATES NOTE (2015) Confidential Ministry of Environment Date: February 2016	ISSUE TITLE: B1 - Halkett Bay Artificial Reef
---	--

KEY MESSAGES:

Key message #1 - Environment Canada's disposal at sea permit will undergo a judicial review in late February 2015. The Artificial Reef Society of BC (ARSBC) can't move or sink a vessel until the judicial review is completed.

Key message #2 – The ARSBC has obtained formal authorization from Transport Canada, Environment Canada and Department of Fisheries (DFO) to sink the vessel in Halkett Bay Marine Park. Delays as a result of legal challenges presented by the “Save Halkett Bay Marine Park Society”, means the ARSBC will need to request amendments to their federal permits.

Key message #3 – Stakeholder consultation was completed by the ARSBC and BC Parks. Squamish and Tsleil-Waututh First Nations and the diving community strongly support the proposal while some Halkett Bay property owners are opposed to the artificial reef.

Key message #4 – Previous Ministers Terry Lake and Murray Coell and other key stakeholders were committed to the project to sink the vessel in Halkett Bay Park as an artificial reef. As per legal recommendation, the ship was accepted as a gift through a formal gifting agreement and park use permit. This took place once all Federal Government approvals were in place.

CURRENT STATUS:

Key message #1:

- The Federal Court granted an injunction on January 12, 2015, until a judicial review is complete in late February 2015, in regards to Environment Canada's disposal at sea permit. The “Save Halkett Bay Marine Park Society” claim that Environment Canada has no authority to issue the permit given the anti-fouling bottom paint on the vessel contains tributyltin chloride and dichloride (TBTs). The society claims the TBTs are toxic and beyond acceptable limits pertaining to existing Federal regulations.
- Environment Canada presented a written response to the “Save Halkett Bay Marine Park Society” formal petition in regards to the authorization (permit) issued on January 7, 2015. Environment Canada upon reviewing all the evidence, found no rationale to rescind the original authorization. It was upon receiving this decision the “Save Halkett Bay Marine Park Society” petitioned the Federal Court for an injunction to stop the relocation and sinking of the vessel.

- The ARSBC did not have the financial capacity to remove the polychlorinated biphenyls (PCBs) found on the vessel. Environment Canada agreed to remove the PCBs from the ship and this work, which involved the removal of insulation and paint, was completed on July 2, 2014 at a cost of \$865k. The Province of BC contributed \$150k through a cost sharing agreement with the Federal Government.

Key Message #2:

- Transport Canada is the lead agency for vessel navigation and safety, and has granted clearance for the ARSBC to sink the vessel for disposal at sea. The permit is valid until August 2015.
- Environment Canada issued their authorization (permit) which is valid from October 14, 2014 to October 13, 2015. The permit will need to be re-issued if the Federal Court rules the permit is not valid at the end of February.
- DFO is the lead agency responsible for addressing the loss of fish habitat resulting from the vessel's hull placement on the bottom of the sea bed. The ARSBC received formal authorization to sink the vessel, but during a limited window of opportunity from August 15, 2014 to January 31, 2015. ARSBC will require DFO to amend the valid date of authorization prior to sinking the vessel.
- BC Parks issued a park use permit to the ARSBC on November 3, 2014 to sink the vessel in Halkett Bay Provincial Marine Park. A formal gifting agreement was also signed which allows the Province to become the owner of the vessel once it rests on the substrate of Halkett Bay Park.

Key message #3:

- Halkett Bay property owners continue to oppose the artificial reef citing a variety of concerns. Halkett Bay property owners are not satisfied with the consultation process and cite concerns about increased boat traffic, inadequate sinking location, environmental contamination, and ship breakup from wave action.
- The United Church, a property owner in Halkett Bay, was also initially concerned about where the vessel would be placed as an artificial reef. They can exercise a foreshore removal clause, but have reserved their decision when the ARSBC changed the sinking location for the vessel. The sinking location is now beyond the boundary of the United Church's property interest, as defined in a purchase and sale agreement with the Province.
- Squamish and Tsleil-Waututh First Nations are strong and very vocal supporters of the ARSBC Halkett Bay artificial reef proposal. Strong support also comes from the diving industry.

Key message #4:

- The ARSBC's park use permit application was denied on August 25, 2010 based on legal advice provided to the Ministry pertaining to section 9(5) of the Park Act. After reviewing all options, gifting the vessel to the Minister was identified as the

preferred option. However, further legal review in 2012 established that the vessel can be accepted legally as a gift; however the ARSBC would also require a park use permit to sink the vessel.

- Minister Coell, on March 8, 2011 accepted the gift of the HMCS *Annapolis* and the services from the Artificial Reef Society of British Columbia (ARSBC) to sink the vessel in Halkett Bay Marine Park to create an artificial reef.
- The park use permit will ensure the Province is fully compliant with the *Park Act* and is protected from liability when the ARSBC will undertake the sinking of the vessel and the related expenses. The permit will also ensure the ARSBC conducts ongoing maintenance and research on the artificial reef.
- The Honourable Terry Lake, has been to Gambier Island to view the vessel from the water and visited Halkett Bay and the proposed sinking location for the vessel in the park.
- Minister Lake met with the ARSBC, Halkett Bay property owners, and representatives from the United Church and camp Fircom.
- The Honorable Mary Polak, approved the ARSBC artificial reef project upon completion of the ARSBC obtaining full clearance and authorization from Transport Canada, Environment Canada and Department of Fisheries and Oceans.

KEY FACTS/BACKGROUND/OTHER AGENCIES:

- Legal advice indicated the gift of the vessel could be accepted by the Minister, however a park use permit should be issued for the sinking and annual maintenance of the artificial reef and associated dive site facilities.
- Parks' management plan identifies scuba diving as an existing low use activity, and is silent on the creation of an artificial reef. However, the plan supports the development of new marine based recreational opportunities.
- Consultation meetings with key stakeholder have been completed by both ARSBC and BC Parks.
- Artificial reef has the ability to enhance rock fish species which are rare. This is a very important goal of Squamish and Tsleil-Waututh First Nations.
- The sinking and scuba diving activity on the artificial reef will not impact the glass sponge reef south east of Halkett Bay. The distance from the planned artificial reef to the glass sponge reef is 1.3 kilometers.

Contact: Bob Austad, Executive Director of Regional Operations Branch (250) 356-9241

<p>ESTIMATES NOTE (2015)</p> <p>Confidential</p> <p>Ministry of Environment</p> <p>Date: February 2016</p>	<p>ISSUE TITLE:</p> <p>B2 - Haynes Point Park</p>
--	---

KEY MESSAGES:

- **Key message #1 - MoE/BC Parks is currently negotiating a new management agreement with Osoyoos Indian Band (OIB) to directly manage and operate Haynes Point and Okanagan Falls parks.**
- **Key message #2 – OIB has asserted their aboriginal rights and title at Haynes Point and Okanagan Falls parks and have requested management and operational control for both parks to ensure protection of cultural heritage values and continued economic opportunity in the area.**
- **Key message #3 - Haynes Point Park contains significant archaeological and cultural values; Protection of cultural and archaeological values will be enhanced by increased involvement of OIB in the park's management and operation.**

CURRENT STATUS:

Key message #1:

- BC Parks has been given the mandate to direct award of operational park management for Haynes Point and Okanagan Falls parks through an new park operator agreement. This includes proposing legislation to change the names of both parks in the Spring legislative session.
- BC Parks is currently negotiating a new park operator management agreement with OIB to directly manage and operate the park landbase in compliance with BC Parks legislation, policy and procedures.
- The agreement will ensure both Haynes Point and Okanagan Falls parks remain in the BC Parks system as class A provincial parks, ensuring public access, use, and enjoyment while ensuring protection of important cultural and archeological values.
- It is BC Parks' intent that the new OIB park operator management agreement will align with the BC Parks brand and operational management policies and procedures. The goal is to continue to offer the existing recreational services and opportunities to the public while ensuring the park's conservation and cultural values are protected.

• ***Key message #2:***

- In December 2014, OIB asserted their interest in rights and title over Haynes Point Park and noted the recent Tsilhqot'in decision as guidance for how the Province should approach aboriginal rights and title.

- The Osoyoos Indian Band is a part of the Okanagan Nation (Syilx) and is one of eight member communities of the Okanagan Nation Alliance.
- Okanagan Falls Park is of high cultural importance to OIB and the Okanagan Nation, as a cultural fishing site and originally part of Indian Reserve #2 that was later deleted in 1913.

Key message #3:

- In April 2014, FN ancestral remains were uncovered during the excavation phase of a capital facility replacement project at Hayne Point park.
- BC Parks agreed to close the park on October 1, 2014 and worked with OIB to complete an archaeological assessment.
- Based on significant archeological values discovered during the assessment (some dating back over 4000 years) the entire Haynes Point Park is now considered an archaeological site. The assessment also identified that park facility development has significantly impacted and depleted archaeological values.
- Having OIB involved and managing the park in the future, including facility operation and maintenance and public use, will help ensure the archaeological and cultural values are well protected.

Contact: Bob Austad, Executive Director, Regional Operations Branch, BC Parks and Conservation Officer Division, (250) 356-9241.

Page 55 to/à Page 56

Withheld pursuant to/removed as

s.16;s.13

s.13,s.16

<p>ESTIMATES NOTE (2015)</p> <p>Confidential</p> <p>Ministry of Environment</p> <p>Date: February 2016</p>	<p>ISSUE TITLE:</p> <p>B4 - Peace Arch Park Parking Lot Semiahmoo First Nation</p>
--	--

KEY MESSAGES:

- **Key message #1 – Peace Arch Park was established in 1931 to celebrate the peaceful relationship between Canada and the United States.**
- **Key message #2 – The Peace Arch Park parking lot is situated on Semiahmoo First Nation Indian Reserve lands.**
- **Key message #3 – Since February 2013, BC Parks has been in negotiations with Semiahmoo First Nation to compensate for past use of the parking lot, and secure an agreement for the long-term public use of the parking lot.**

CURRENT STATUS:

Key Message #1:

- Peace Arch Park, with its Peace Arch monument, formal gardens, and large gatherings, is unique in the protected area system.
- The park and the Peace Arch are managed in a manner consistent with the adjacent State Park under an international agreement between the Province of BC and Washington State.

Key Message #2:

- The Peace Arch Park parking lot is located on 1.6 acres of land which forms part of the Semiahmoo Indian Reserve adjacent to the park.
- The parking lot is the only parking available for Peace Arch Park on the Canadian side of the border. On average 20,000 vehicles and 820 tour buses use the parking lot each year.
- In 1951, the parking lot was developed on former reserve lands that had been surrendered by Semiahmoo First Nation to the federal government.
- In 1997, the Federal Court of Appeal ordered that the surrendered lands be restored as part of the Semiahmoo reserve. The federal government returned the surrendered lands to the Semiahmoo First Nation as an addition to the reserve. As a result, the parking lot was in trespass on Semiahmoo reserve land.

Key Message #3:

- In 2013, BC Parks entered into a Memorandum of Agreement with Semiahmoo First Nation to work to resolve past trespass and secure future public use of the parking lot. The parties are still in negotiations towards a resolution to the issue.

Contact: Bob Austad, Executive Director, Regional Operations, BC Parks, (250) 356-9241

	Protected Area	Status
1	Beaver Valley Park	Draft Plan was released to the public in the Fall of 2015. The final plan is progress and it expected to be approved and released to the public in the Spring of 2016.
2	Big Creek Park	Draft Plan has been done as a combined plan with South Chilcolt. The first draft was released to the public in February 2014. The region has made revisions and it is expected that the revised draft will be available on the website for a 30 day public review in the Spring of 2016.
3	Bridge Lake Park	This draft plan is the early stages of development. It is expected that an initial draft will be ready for public review in late 2016.
4	Bridge River Delta Park	The first draft was released to the public in February 2014. The region has made revisions and it is expected that the revised draft will be available on the website for a 30 day public review in the Spring of 2016.
5	BROOKS PENINSULA PARK [a.k.a. Muqqiwn Park]	The draft plan was released to the public for review in 2015. The region is working on a final plan and is expected to be approved later in 2016/17.
6	Broughton Archipelago Conservancy	This draft plan is in early drafting in region. There may be a draft plan available for public review sometime later in 2016/17.
7	Broughton Archipelago Marine Park	This draft plan is in early drafting in region. There may be a draft plan available for public review sometime later in 2016/17.
8	Burdwood Group Conservancy	This plan is a final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
9	Carp Lake Park	This plan is a final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
10	Dzawadi/Klinaklini Estuary Conservancy	This plan is a final development stage in the region. The final plan is expected to be relased to the public in the Spring of 2016.
11	Fiordland Conservancy	This plan is a draft stage in region. There may be a draft plan available later in 2016/17
12	Fred Antoine Park	The first draft was released to the public in February 2014. The region has made revisions and it is expected that the revised draft will be available on the website for a 30 day public review in the Spring of 2016.
13	French Bar Creek Park	This plan is in the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
14	Golden Gate/Xáat Yádi Aani Conservancy	This plan is in the draft stage in region. There may be a draft plan available for public review later in 2016/17
15	Gwyneth Lake Park	The first draft was released to the public in February 2014. The region has made revisions and it is expected that the revised draft will be available on the website for a 30 day public review in the Spring of 2016.
16	Hakai Luxvbalis Conservancy	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
17	Hanna-Tintina Conservancy	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
18	Hanlæmdzi Makola/Yorke Island Conservancy	This plan is at the draft stage in region and is not expected to reach a public review stage in 2016/17
19	Hunwadi/Ahnuhati-Bald Conservancy	This plan is at the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
20	Indian Lake - Hitchcock Creek/Át Ch'ni Shà	This plan is a draft stage in region. There may be a draft plan available for public review later in 2016/17
21	Kluskoil Lake Park	This plan is a draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
22	Ksgaxl/Stephens Island Conservancy	This plan is a draft stage in region. There may be a draft plan available later in 2016/17
23	Kt' ii/Racey Conservancy	This plan is a draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
24	Lac du Bois Grasslands Protected Area	This plan is the final development stages. It is expected to go out for a final round of 30 day web-based public review in the Spring of 2016.
25	Long Creek Park	This draft plan is currently open for public review (public review period closes Feb 21). After the review period, region will begin work on the final plan for approval. It is expected to be approved in 2016/17
26	Lucy Islands Conservancy	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
27	Mackinnon Esker Ecological Reserve	This plan is at the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
28	Manzanita Cove Conservancy	This plan is at the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
29	Mara Meadows Park	This plan is at the draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
30	Marble Canyon Park	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17

Continued on next page

	Protected Area	Status
30	Marble Canyon Park	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
31	Monarch Mountain/A Xéegí Deiyi Conservancy	This plan is at the final development stage. It is expected to be approved and the final plan released to the public in the Spring of 2016.
32	Mount Geoffrey Escarpment Park	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
33	Mount Minto/K'iyán Conservancy	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
34	Northern Rocky Mountains Park	This plan is at the draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
35	Northern Rocky Mountains Protected Area	This plan is at the draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
36	Phillips Estuary/?Nacinuxw Conservancy	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
37	Pinecone Burke Park	This plan is at the draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
38	Pooley Conservancy	This plan is at the draft stage in region. There may be a draft plan available for public review later in 2016/17
39	Power River Protected Area Watershed	This plan is being done in conjunction with the Brooks Peninsula Plan. The draft plan was released to the public for review in 2015. The region is working on a final plan and is expected to be approved later in 2016/17.
40	Redfern - Kelly Park	This plan is at the draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
41	Six Mile Hill Protected Area	This plan is in the final development stages. It is expected to go out for a final round of 30 day web-based public review in the Spring of 2016.
42	Skaha Bluffs Park	This plan is at the draft stage in region. It is expected that there will a draft available for public review in the Spring of 2016.
43	Skihst Park	This plan is in the early stages of development. It is expected that an initial draft will be ready for public review in late 2016.
44	South Chilcotin Mountains Park	Draft Plan has been done as a combined plan with Big Creek. The first draft was released to the public in February 2014. The region has made revisions and it is expected that the revised draft will be available on the website for a 30 day public review in the Spring of 2016.
45	Syringa Park	This plan is at the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
46	Thulme Falls Conservancy	This plan is at the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
47	Thunderbird's Nest (T'iitsk'in Paawats) Protected Area	This project is in the early drafting stages in region. A draft plan may be released for public review later in 2016/17.
48	Titetown Park	This project is in the early drafting stages in region. A draft plan may be released for public review later in 2016/17.
49	Trout Creek Ecological Reserve	This plan is in the final approval stages. It is expected that the final plan will be released in the Spring of 2016.
50	Tutshi Lake/T'ooch' Áayi Conservancy	This draft plan went for public review in 2013. It is expected to be finalized and approved later in 2016/17.
51	Upper Gladys River/Watsix Deiyi Conservancy	This project is in the early drafting stages in region. A draft plan may be released for public review later in 2016/17.
52	Wahkash Point Conservancy	This plan is at the final development stage in the region. The final plan is expected to be released in the Spring of 2016.
53	Wakes Cove Park	This plan is in a draft stage in region. The draft management plan was scheduled to be released to the public for a 30 day review mid-February but this has now been delayed. It is expected that there will a draft available for public review on March 1st.
54	Wales Harbour Conservancy	This plan is at the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.
55	Yalakom Park	The first draft was released to the public in February 2014. The region has made revisions and it is expected that the revised draft to be available on the website for a 30 day public review in the Spring of 2016.
56	Zumtela Bay Conservancy	This plan is at the final development stage in the region. It is expected to be approved sometime in 2016/17 pending resolution of some outstanding issues.

Climate Action Secretariat 2016

Tab	Subject
GENERAL	
1.	Climate Action Secretariat 2015/16 Budget
2.	Office of the Auditor General Audit
CLIMATE LEADERSHIP	
3.	BC's Efforts to Promote Climate Action Internationally
4.	Pacific Coast Collaborative – Action Plan on Climate and Energy
5.	Green Economy
6.	LNG and BC's Climate Leadership
7.	COP21 (including costs)
8.	Pan-Canadian Framework
CLIMATE INNOVATION & SOLUTIONS	
9.	Climate Action Legislation and Regulation
10.	Environmental Incentive Programs (Including Cement)
11.	Greenhouse Gas Industrial Reporting and Control Act
12.	Progress Toward BC's Greenhouse Gas Targets
13.	Provincial Greenhouse Gas Inventory and Accounting
14.	Large Industrial Emissions
15.	BC's Revenue Neutral Carbon Tax
16.	Clean Transportation Initiatives
17.	Built Environment Initiatives
18.	BC's Future Climate Action
19.	Local Governments and the BC Climate Action Charter
CLIMATE RISK & INVESTMENT	
20.	Carbon Offset Portfolio
21.	Carbon Neutral Government
22.	Climate Action Outreach and Engagement
23.	Climate Risk and Adaptation
24.	Science on Climate Change

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 19, 2016	ISSUE TITLE: Climate Action Secretariat 2016/17 Budget
---	--

KEY MESSAGES:

Key message #1

- Climate Action Secretariat (CAS) 2016/17 budget is \$17,526M. The net operating budget is estimated to be \$3.326M. CAS also receives \$1.305M funding from the Sustainable Environment Fund and a further \$2M from ministry offset payments, resulting in a total operating budget of \$6.631M.

Key message #2

- In 2016/17 the revised Greenhouse Gas Emissions Offsets Program in Ministry of Environment (MOE) will receive a \$7M budget for retiring offsets and a \$13M annual financing transaction to purchase offsets.

Key message #3

- Starting fiscal 2015/16, CAS will administer a five-year incentive Cement Low Carbon Fuel Program. Program costs in 2015/16 equated to \$9M. Continuing in 2016/17 program costs will equate to \$7.2M.

CURRENT STATUS:

Key message #1

In 2015/16 the budget was \$19.307M and in 2016/17 the budget is \$17,526M, this decrease is a result of:

- \$0.035M increase in salary and benefits from the Economic Stability Mandate and Dividend.
- (\$0.017)M decrease due to reduction of benefit rate from 24.8% to 24.3%.
- (\$1.800)M planned decrease in the Cement Low Carbon Fuel Program.

Key message #2

- Greenhouse Gas Emissions Offsets Program:
 - Starting in 2015/16 MOE received a \$7M budget increase to retire the offsets. Additional budget room will be managed through the contingency process.
 - The revised offsets program will also receive a \$13M annual financing

ADVICE TO MINISTER

- transaction to purchase the offsets.
- Crown corporations, schools, universities, colleges and hospitals will continue to pay \$25/tonne for carbon offsets to MOE and flow to the consolidated revenue fund. The revised offsets program will have a \$2M recovery for ministry payments.

Key message #3

- Cement Low Carbon Fuel Program:
 - Starting fiscal 2015/16, the Ministry of Environment will administer a five-year incentive program that will:
 - facilitate the B.C. cement industry to reduce their greenhouse gas emissions;
 - ameliorate the impact of the revenue neutral carbon tax on the cement sector; and
 - assist in the development of a B.C. low-carbon fuel industry that will provide clean fuel for cement, and generate new clean jobs and new export commodities.
 - The temporary incentive program is designed to be phased out over a five-year period at a cost of approximately \$27M. Estimated program costs are: \$9M in 2015/16, \$7.2M in 2016/17, \$5.4M in 2017/18, \$3.6M in 2018/19, \$1.8M in 2019/20 and nil in 2020/21.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat (250-508-4132 cell)

Appendix 1:

Consolidated Revenue Fund Summary (\$000)¹

	Total Operating Expenses 50-90	Total Salaries and Benefits 50-54	Total Operating Costs 55-75	Total Governme nt Transfers 77-80	Total Other Expense s 81-85	Total Internal Recoverie s 86-88	Total External Recoverie s 89-90	Total Capital Expenditure s
Budget 2008/09	15,458	2,204	11,824	1,433	—	(1)	(2)	—
Budget 2009/10 (February)	14,594	2,691	10,610	1,075	221	(1)	(2)	3
Budget 2009/10	7,132	3,439	3,456	—	1,545	(1,306)	(2)	—
Budget 2010/11	6,487	3,583	3,070	931	211	(1,306)	(2)	—
Budget 2011/12 (February)	5,123	3,406	2,814	—	211	(1,306)	(2)	—
Budget 2011/12 Updated	5,123	3,406	2,814	—	211	(1,306)	(2)	—
Budget 2012/13	4,123	3,506	1,714	—	211	(1,306)	(2)	—
Budget 2013/14	3,271	3,506	904	—	169	(1,306)	(2)	—
Budget 2014/15	3,273	4,106	2,306	—	168	(3,503)	(2)	—
Budget 2015/16	19,307	4,133	9,474	9,000	7	(3,503)	(2)	
Budget 2016/17	17,526	4,152	9,555	7,200	7	(3,305)	(83)	

Resource Summary: Operating Expenses (\$000)²

Core Business Area	2015/16 Restated Estimates	2016/17 Plan	2017/18 Plan	2018/19 Plan
Climate Action	19,307	17,526	15,793	15,842

¹ Source: Supplement to the Estimates.

² Source: Ministry of Environment Service Plan 2016/17 – 2018/19

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Office of the Auditor General Audit
--	--

KEY MESSAGES:

Key message #1

- **The Office of the Auditor General of British Columbia is planning an audit of climate change and has indicated that the focus of the audit is adaptation.**

Key message #2

- **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.**

KEY FACTS/BACKGROUND

Key message #1:

- The audit is still in a scoping phase. Based on the current information audit is likely to consider:
 - The Climate Action Secretariat's mandate and current provincial direction for adaptation
 - Roles and responsibilities for adaptation at the federal, provincial and municipal levels
 - How the Climate Action Secretariat works with other provincial departments and what has been done to mainstream adaptation work into BC government ministries
 - Progress implementing the strategies outlined in the provincial Adaptation Strategy
 - How government determines the success of adaptation initiatives
- The audit is coordinated with similar audits federally and in other provinces on various aspects of climate action.
- It is anticipated the audit results will be publicly available early in 2017.

ADVICE TO MINISTER

Key Message #2:

- Background on British Columbia's Adaptation Strategy (2010) is included in the note Climate Risk and Adaptation (#25).
- 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 to provide on-going direction on climate change issues.
- CAS is cooperating fully with the office of the auditor general, as are relevant business areas in other ministries.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: BC's Efforts to Promote Climate Action Internationally
--	---

KEY MESSAGES:

Key message #1

- **BC is an international leader in the fight against climate change. BC encourages other jurisdictions to follow our carbon initiatives to ensure our industries are not placed at a competitive disadvantage for playing their part in addressing 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 is developing a new Climate Leadership Plan to build on our successes and maintain our leadership.**
- **BC is fully engaged with our federal, provincial and territorial partners in developing a pan-Canadian Framework to Address Climate Change.**

Key message #2

- **Climate change is a global issue. By exporting natural gas, BC will supply growing markets with the cleanest-burning fossil fuel.**

CURRENT STATUS:

Key message #1

- BC is an international leader in the fight against climate change.
- BC is developing a new Climate Action Plan to further our leadership position. The CLP will be released in spring 2016.
- BC worked closely with our domestic and international partners to push for an ambitious agreement at COP21, and was fully engaged at the COP itself.
- 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 ZEV Alliance, and the Governor's Climate and Forests Task Force (as an observer, pending full membership); signed the Under2MOU; re-joined The Climate Group's States and Regions Alliance
- BC continues to play a pivotal role in the Pacific Coast Collaborative.

ADVICE TO MINISTER

- BC recently signed MOUs on climate cooperation with Guangdong Province and Shenzhen City, China.
- BC's actions contribute to Canada's actions and the province is fully engaged with the federal government to ensure that our interests and priorities are reflected in development of the pan-Canadian Framework to Address Climate Change.

Key message #2

- Climate change is a global issue. By exporting natural gas, BC will supply growing markets with the cleanest-burning fossil fuel.
- BC's climate leadership guides the development of our LNG industry. The GHG emissions cap we have placed on our LNG facilities will make BC's the cleanest in the world.

KEY FACTS/BACKGROUND

- BC is involved with several key strategic regional and international climate action organizations to continue BC's international leadership and 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. At the state level, both Washington and Oregon are looking to adopt similar systems, and some East Coast states are also interested in exploring BC's carbon tax model. Alberta will introduce a carbon tax in 2016;
 - 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 largely focused on the implementation of cap and trade in California and Quebec. Ontario will join in this trading system, and Manitoba has expressed an interest in doing so.
 - Low Carbon Fuel Standards: BC was the first jurisdiction in North America to introduce a low-carbon fuel standard, with California following soon after, and Washington and Oregon are currently looking to implement their own transportation plans;
 - Tail Pipe Emissions Standards: First adopted in California, US and Canadian federal governments have modeled their vehicle tailpipe standards after this; and
 - The creation of a standardized reporting system for GHG emissions: This is currently running in four States/Provinces. The Environmental Protection Agency has adopted a similar system based on the same principles.
- 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.

ADVICE TO MINISTER

- The amount of emissions China could avoid, through large-scale use of BC LNG, is more than BC's current annual GHG emissions.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Pacific Coast Collaborative – Action Plan on Climate and Energy
--	--

KEY MESSAGES:

Key message #1

- BC has been a signatory to the Pacific Coast Collaborative since 2008, working alongside Washington, Oregon and California to integrate climate change and energy strategies for 53 million people on the West Coast.

Key message #2

- A 2015 West Coast Clean Economy Jobs Update showed that between 2010 and 2014 the number of clean energy jobs in the Pacific Coast Collaborative (PCC) jurisdictions grew more than twice as fast as jobs overall.

Key message #3

- Since signing the most recent Action Plan on Climate and Energy in October 2013, the four governments have been actively demonstrating how subnational governments can work together to promote climate action.

CURRENT STATUS:

Key message #1

- Involvement in the PCC since 2008 has allowed the Province to participate in a framework for cooperative action and sharing of information on best practices on issues facing California, Oregon, Washington, Alaska and BC. The Collaborative has been active on initiatives such as developing the green economy, promoting Clean Energy Vehicles, and investing in adaptation measures. In October 2013, BC signed the *Pacific Coast Action Plan on Climate and Energy* with PCC partners.
- Through the PCC, BC has the opportunity to further develop intergovernmental relationships to promote BC's policies to reduce GHG emissions, as well as develop the green economy.
- The comprehensive action plan and collaborative approach of the four jurisdictions can act as a model for regional action at the national and subnational levels for jurisdictions meeting their new climate commitments following COP21 in Paris in December 2015.

ADVICE TO MINISTER

Key message #2

- 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.

Key message #3

- Among the most significant commitments in the Action Plan **on Climate and Energy** was to develop and maintain carbon pricing and low carbon fuel policies in each jurisdiction. California and BC have moved ahead with implementation and are actively supporting Oregon and Washington as they evaluate options and introduce their own carbon pricing mechanisms.
- Interest from Washington State and Oregon in adopting carbon pricing mechanisms such as BC's Revenue Neutral Carbon Tax continues, and opportunities to promote this policy will exist in the years ahead, helping to reduce perceived competitiveness issues for BC-based businesses.

KEY FACTS/BACKGROUND

- The PCC agreement was signed by the Premier of BC and the Governors of Washington, Oregon and California and Alaska in June 2008. Clean energy, regional transportation, sustainable regional economy, innovation, and emergency management are the named priorities of the collaboration.
- Update on key actions:
 - Carbon Pricing: Oregon and Washington continue to work towards the implementation of programs to set a price on carbon emissions. Washington is actively developing a carbon market program and has released legislature Draft Rule for public consultation this winter.
 - Low carbon fuels: BC is continuing to implement its LCFS legislation to achieve a 10 percent reduction in provincial carbon intensity by 2020. 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: all PCC jurisdictions joined the West Coast Electric Fleets initiative, pledging to increase the percentage of EVs in their public and private fleets.

ADVICE TO MINISTER

- The Intergovernmental Relations Secretariat is responsible for cross-government coordination of BC's participation in the PCC given the leading role of the Premier.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Green Economy
--	--

KEY MESSAGES:

Key message #1

- The BC Jobs Plan states that our province is, and will remain, a climate change leader.
- In January 2016, the Premier announced the #BCTECH Strategy that supports growth of BC's technology sector, including clean tech.
- The technology sector is one of the eight key sectors in the BC Jobs Plan, a crucial job creator that enables productivity across all industries, and a key component of a low carbon economy.

Key message #2

- Climate action, from a Green Economy perspective, is about incenting investment in innovation and technologies that create new economic opportunities for growth. Between 2010 and 2014, clean economy jobs in British Columbia grew at an overall rate of 12.5 percent.

CURRENT STATUS:

Key message #1:

- 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, 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 BC's technology expertise to create new clean tech companies and long term technology jobs.
- Investment in clean technology is a critical component to support an aggressive climate action agenda and compliments the upcoming climate leadership plan.

Key message #2

- Between 2010 and 2014, clean economy jobs in BC 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.

ADVICE TO MINISTER

- The Carbon Neutral Government program continues to be a driver of increasing demand for clean tech solutions. BC's public sector organizations have been actively investing in carbon reduction projects, creating jobs related to energy efficiency products and services.
- The BC public sector's investment in carbon offset projects has helped to stimulate innovation across sectors that include manufacturing and transportation, while also supporting companies that are part of BC's growing clean technology ecosystem.
- In April 2013, BC 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 BC.
- In 2014, British Columbia established a regulatory benchmark for LNG greenhouse gas emissions of 0.16 t CO₂e/tonne LNG that clearly makes these facilities 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.

KEY FACTS/BACKGROUND

- In January 2016 the Province announced \$100M in venture capital for the tech sector, including the clean tech sector.
- Between 2010 and 2014, clean economy jobs in British Columbia grew at an overall rate of 12.5 percent.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

#BCTECH Strategy

KEY MESSAGES

- **The technology sector supports the BC economy at its very foundation and is a key driver of growth for our economy.**
- **To support this growth, starting in December with the announcement of the \$100 million BC Tech Fund, the Ministry has released the #BCTECH Strategy.**
- **The #BCTECH Strategy is the culmination of extensive engagement with BC's technology sector and is a key component of the *BC Jobs Plan*.**
- **The strategy focusses the government's efforts around three economy building strategic pillars to: improve access to venture capital and a competitive tax system; deepen the BC technology talent pool; and, make it easier to access new markets, including selling to government.**

KEY POINTS AND BACKGROUND

- The technology sector supports the BC economy at its very foundation and is a key driver of growth for our economy, with more than 86,000 jobs that pay wages 60% higher than the BC average.
- The strategy was built in partnership with seven ministries and includes fifty actions the government is taking to support growth of BC'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 *BC Technology Strategy* published in 2012
- Actions included in the strategy are accounted for within government's fiscal plan. Costs associated with these actions are provided for through ministries existing budget appropriations and out-year targets.

ADVICE TO MINISTER

- Questions regarding the costs of specific actions in the strategy should be deferred to the ministers responsible. Some of the key costs associated with this investment include (see appendix for additional information):
 - \$100-million for the BC Tech Fund (venture capital)
 - \$33-million in tax credits annually
 - An anticipated \$450-million to ensure post-secondary education grants are used for in demand occupations, including technology
 - \$55-million in recent weeks to ensure leading edge research through the Michael Smith Foundation and BC Cancer Agency
- Key highlights of the strategy include:
 - A \$100 million BC Tech Fund to expand the availability of local venture capital in BC because we want promising companies to have sufficient access to capital in order to realize their growth potential in the province.
 - Talent development needs to start in our schools – so, to that end, children will have 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 – and we are introducing \$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.
 - We want to ensure British Columbians are first in line for jobs but when our talent is tapped, companies need to be able to attract skilled workers from across Canada and around the world. We are working with all levels of government to remove those barriers.
 - We are making it easier to access markets by continuing to simplify government procurement, create opportunities to share ideas, encourage business growth through exports and facilitate 100% Internet connectivity.
 - 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.

ADVICE TO MINISTER

Appendix A: Key #BCTECH Strategy Investments

New/Expanded	Ongoing/Existing
<ul style="list-style-type: none">○ \$100 million for the BC Tech Fund (venture capital)○ An anticipated realignment of \$450 million in post-secondary operating grants for educating in-demand occupations, including technology○ \$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.○ In recent weeks we announced an \$80 million upgrade to the undergraduate teaching laboratories at the University of British Columbia that will allow more growth and opportunity in life sciences that support a range of vibrant sectors that contribute to a diverse economy.	<ul style="list-style-type: none">○ \$55 million in recent weeks to ensure leading edge research through the Michael Smith Foundation and BC Cancer Agency○ \$33 million in tax credits annually through the Small Business Venture Capital tax credit○ Since June 2001, the BC Knowledge Development Fund has awarded over \$524 million for more than 1,000 research infrastructure projects. We remain committed to substantive research at our universities in keeping with provincial job creation and commercialization goals.

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: LNG and BC's Climate Leadership
--	--

KEY MESSAGES:

Key message #1

- The BC government has committed to having the cleanest LNG facilities in the world, while maintaining its leadership in clean energy and climate change.

Key message #2

- The greenhouse gas emissions cap BC have placed on the LNG facilities will make B.C.'s the cleanest in the world. BC remains committed to the 2050 greenhouse gas emissions target.

Key message #3

- Climate change is a global issue. By exporting natural gas, BC will supply growing markets with the cleanest burning fossil fuel.

CURRENT STATUS:

Key message #1

- 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.
- GHG emissions from LNG facilities will also be covered by the 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 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.

ADVICE TO MINISTER

Key message #2

- Extraction, processing, transmission and liquefaction GHG emissions could add up to 42.2 million tonnes (MT) of GHG emissions in BC if the export market opportunity of 80 MT of LNG is achieved.
- The Province is investigating aggressive upstream electrification, fugitive emissions management, and carbon capture and storage policies to reduce GHG emissions from natural gas extraction, processing and transmission.
- 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.

Key message #3

- 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 recent 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.
- 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.

KEY FACTS/BACKGROUND

- By studying the greenhouse gas emissions of leading global LNG facilities, along with independent research, BC has established that no other LNG facility in the world will have GHG emissions intensity as low as 0.16 tonnes CO₂e per tonne of LNG produced (tCO₂e/tLNG).
- BC LNG facilities achieving the 0.16 regulatory benchmark will have a clear claim to be the "world's cleanest LNG facilities".

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: 21st Conference of the Parties – United Nations Climate Negotiations (COP 21)
--	--

KEY MESSAGES:

Key message #1

- The nations of the world came together in Paris in December 2015 to negotiate a new global climate agreement.
- By participating in COP 21, BC made a contribution to global momentum for the agreement, and promoted BC's climate action initiatives internationally.

CURRENT STATUS:

Key message #1

- The 2015 Conference of the Parties to the United Nations Framework Convention on Climate Change (COP 21) in Paris, France, saw all nations of the world agree to a framework for the next stage in the global fight against climate change.
- BC will continue to push for implementation of action following this agreement, and will continue to demonstrate climate leadership as a model for national and subnational jurisdictions around the world.
- BC's climate actions contribute to Canada's emissions reductions goals.
- BC was present at COP21 to ensure that our interests were reflected in Canada's negotiating position and to feature BC's climate leadership on the international stage.

KEY FACTS/BACKGROUND

- Over the course of 2015, BC worked to ensure the Province would make a significant contribution to the agreement reached at COP21 by engaging in key domestic and international events, and supporting a variety of multilateral climate initiatives:
 - Key events include: the negotiations that laid the groundwork for Paris at COP 20 in Lima, Peru; the climate summits in April and July at Quebec City and Toronto; and World Bank / International Monetary Fund meetings in Washington, DC and Lima, Peru.

ADVICE TO MINISTER

- Key partnerships include: the Compact of States and Regions; the States and Regions Alliance; the World Bank Carbon Pricing Leadership Coalition; the Zero-Emission Vehicle Alliance; the Under 2 MOU; and the Regions Adapt Initiative.
- Participating in COP21 enabled BC to be represented at key events and panels, meet with international climate influencers, join multilateral collaborative efforts and organizations, and work together with the new Canadian federal government in an area of shared interest.
- Through Premier Clark, Minister Polak and Deputy Minister Shoemaker's engagement at COP 21, BC was represented on 11 high-level panels and at over 35 important meetings and events.
- In addition to working closely with provincial, territorial and federal counterparts, Minister Polak met with:
 - State leaders such as California Governor Jerry Brown;
 - Key international climate change influencers such as United Nations Secretary General Ban Ki Moon, World Bank Vice President Rachel Kyte and Climate Group CEO Mark Kenber; and
 - National delegation representatives such as Chile's energy Minister, Maximo Pacheco, and the United Kingdom's Special Representative for Climate Change, Sir David King.
- The Head of the Climate Action Secretariat participated in daily Government of Canada briefings and worked with Canadian negotiators to ensure the Province's key interests were represented at the negotiations table.
- Every province and territory in Canada was represented at COP 21 by delegations. Most provinces that were not in elections sent both Ministers of Environment and Premiers to the UN climate negotiations.
- The Paris Agreement will be open for signature and ratification from April 22, 2016 to April 21, 2017. It will enter into force 30 days after at least 55 parties, accounting for at least 55 percent of total global GHGs, have ratified or approved it.
- The aim of the Paris Agreement is to:
 - Hold the increase in global average temperature to "well below" 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C;
 - Increase the ability to adapt to climate change in a manner that does not threaten food production; and
 - Make finance flows consistent with a pathway to low greenhouse gas emissions and climate resilient development.
- Each party must prepare and maintain successive "Nationally Determined Contributions" (NDCs). NDCs are required every five years for developed countries. Successive NDCs must represent progress over previous NDCs.
- Canada's intended NDC commits the nation to reduce emission to 30 percent below 2005 levels by 2030; the federal government is characterizing this commitment as the "floor" to Canada's ambitions.

ADVICE TO MINISTER

Detailed cost breakdown of Ministry of Environment Travel Costs:

PARIS Climate Change Conference	Airfare	Accommodation	Travel Claims	TOTAL
STOB	5714 & 5711	5706	5706	
Minister Polak	4,086	5,509	4,136	13,732
Martina Kapac de Frias	4,063	6,021	3,147	13,232
TOTAL Ministers Office	8,150	11,530	7,283	26,963
Wes Shoemaker	4,086	3,390	2,158	9,635
TOTAL Deputy Ministers Office	4,086	3,390	2,158	9,635
Susanna Laaksonen-Craig	4,063	6,021	2,930	13,014
Caitlin Copage Cancelled	180.00	3,390	-	3,570
TOTAL Climate Action Secretariat	4,243	9,411	2,930	16,584
Initial accommodations 7 rooms - non refundable		6,700		6,700
Partial refund on Initial accommodations		(840)		(840)
TOTAL	16,479	30,191	12,371	59,042

Notes:

**Martina and Susanna stayed an extra day due to flight availability

**Initial hotels prepaid and cancelled are pending a partial reimbursement

**Decision to reduce the number attending - Caitlin flight cancelled however hotel was prepaid

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Pan-Canadian Framework to Address Climate Change
--	---

KEY MESSAGES:

Key message #1

- **BC is engaged with federal, provincial and territorial partners to develop a Pan-Canadian Framework to Address Climate Change.**
- **BC is working to ensure that our priorities are reflected in the Pan-Canadian Framework.**

CURRENT STATUS:

Key message #1

- BC supports the development a Pan-Canadian Framework to Address Climate Change.
- BC is fully engaged in the process and is working hard with our FPT partners to ensure that our priorities are reflected in the Pan-Canadian Framework.
 - The Canadian Council of Ministers of Environment has met in Ottawa in January to develop the agenda for a first ministers meeting in Vancouver on March 3;
 - The Canadian Council of Energy Ministers is working to identify the key aspects of a Canadian Energy Strategy that supports the Pan-Canadian Framework;
 - Transportation, infrastructure, natural resource, industry and other ministers are engaging their provincial counterparts to contribute to a national framework; and,
 - BC is highlighting the leading actions planned and ongoing (in BC) that can be a model for Canada.
- BC is of the view that climate action and economic growth go 'hand in hand', and supports seeing this principle embedded in the Framework.
- BC expects to see the actions and achievements we have taken to be recognized and the pan-Canadian framework to provide flexibility for the provinces and territories in terms of the actions they take given the diversity of economic and other circumstances in these jurisdictions.

KEY FACTS/BACKGROUND

- Consistent with its 2015 election platform, and following the successful conclusion of COP21, the federal government is engaging provinces and

ADVICE TO MINISTER

territories in a process to develop a pan-Canadian Framework to Address Climate Change.

- A First Ministers Meeting will be held in early March to seek agreement on the principles, priorities and process for developing the Pan-Canadian Framework.
- BC supports the development a Pan-Canadian Framework and is committed to the process.
- BC believes that flexibility is required within the Framework to recognize and accommodate the unique circumstances of each jurisdiction and the climate actions they have already taken.
- BC's comprehensive approach to carbon pricing and complimentary policies in every sector, coupled with strong, collaborative relationships with trade and climate leaders, is a model for success for Canada and other Provinces and Territories.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Climate Action Legislation and Regulation
--	--

KEY MESSAGES:

Key message #1

- The Province has a comprehensive suite of climate legislation – amongst the strongest in Canada.

Key message #2

- The *Greenhouse Gas Industrial Reporting and Control Act* is in force as of January 1, 2016. The Act sets an emissions intensity benchmark that provides for the cleanest LNG facilities in the world.

Key message #3

- 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.

CURRENT STATUS:

Key message #1

- 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;
 - Requirements for credible offsets;
 - Framework for a sector-specific limit, including the worlds-cleanest LNG benchmark;
 - Requirements for landfill gas methane capture; and,
 - Authority to set vehicle GHG emission standards and zero emission vehicle mandates.
- See table below for full list of legislation and associated regulations.

ADVICE TO MINISTER

Key message #2

- GGIRCA sets a GHG emissions intensity benchmark for LNG facilities of 0.16 carbon dioxide equivalent (CO₂e) tonnes per tonne of LNG produced. This GHG intensity benchmark will make the LNG facilities the cleanest in the world.
- The Act includes provisions for flexible compliance options (including offsets and funded units (e.g. clean technology investments)) and centralizes emission reporting, reduction and offsetting into a single legislative framework.

Key message #3

- Climate legislation highlights include:
 - BC has achieved Carbon Neutral Government status each year since 2010, in part via purchase of offsets.
 - Progress to targets accounting is based on BC's greenhouse gas inventory. The Provincial Inventory Report is released every two years. BC's 2012 emissions inventory was released in 2014. Summary tables for 2013 were released in 2015.
 - Reporting on progress to legislated and interim targets is required every two years. 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.
 - 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)

KEY FACTS/BACKGROUND

- Regulations under the *Cap and Trade Act*, offset provisions under the *Greenhouse Gas Reduction Targets Act*, and portions of the *Environmental Management Act* setting emissions standards for the electricity sector were repealed, amended and/or moved with the introduction of regulations under GGIRCA.
- The Ministry of Environment is currently implementing the GGIRCA regulatory program through the development of policy and procedures and hosting

ADVICE TO MINISTER

training webinars with stakeholders

- Offset protocols that existed under the *Greenhouse Gas (Cap and Trade) Act* are being transitioned to meet GGIRCA requirements. GGIRCA protocols will be posted on the Ministry's website for 30 days for consultation prior to Director review and approval
- The Vehicle Emissions Standards Regulation under the *Greenhouse Gas Reduction (Vehicle Emissions Standards) Act* was drafted in 2008-2009. The federal government subsequently adopted tailpipe standards for 2010 through 2016 that are equivalent to those for BC and California, and are applied to all of Canada. In these circumstances, BC-specific regulations were deemed unnecessary.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

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 Setts 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 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

ADVICE TO MINISTER

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 tone 	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 	In force (ongoing updates)
	<ul style="list-style-type: none"> Solar Hot Water Ready Requirement regulation (enabling for local governments) 	In force

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Environmental Incentive Programs
--	---

KEY MESSAGES:

Key message #1

- To address potential competitiveness impacts of the liquefied natural gas (LNG) greenhouse gas benchmark on the BC LNG industry, the BC Government is creating an LNG Environmental Incentive Program.
- By incenting investment in advanced technology and rewarding achievement of world-leading performance, the program will help ensure the development of the cleanest LNG facilities in the world.

Key message #2

- A clean electricity incentive for BC's utilities has also been approved by the BC Government to encourage the use of BC's grid electricity for liquefied natural gas ancillary services. This electricity incentive will also contribute to having the cleanest liquefied natural gas operations in the world.

Key Message #3

- The Cement Low Carbon Fuel Program will facilitate BC's cement sector to reduce their greenhouse gas emissions and will create new, green jobs in BC. The program encourages cement producers to invest in new low carbon fuel sources, displacing their use of coal and reducing their carbon emissions to be among the cleanest cement manufacturers in the world.

CURRENT STATUS:

Key message #1

- The LNG Environmental Incentive Program will be a new 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

ADVICE TO MINISTER

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 an 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 delivers on government's commitment to address 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.

Key message #2

- The Clean Electricity Incentive Program will be a government expenditure program open to BC Hydro to cover the cost of ensuring that the electricity they provide for LNG facilities' ancillary needs has zero net GHG emissions.
- LNG facilities must report greenhouse gas emissions resulting from purchased electricity, including ancillary electricity. Ancillary electricity is electricity used for purposed (other than purification), compression or liquefaction of natural gas.
- BC Hydro will purchase greenhouse gas offsets for all GHG emissions attributable to electricity supplied to liquefied natural gas facilities for ancillary purposes.
- To ensure BC Hydro ratepayers are not required to pay these offset costs and reduce liquefied natural gas operations' exposure to future grid electricity greenhouse gas emissions costs, an electricity incentive for BC Hydro has been approved to reimburse all of BC Hydro's offset costs.

Key message #3

- The Cement Low Carbon Fuel Program provides incentive funding over five years (2016-2020) that will encourage the increased use of low carbon fuels to displace coal and reduce GHG emissions from cement manufacturing.
- 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.

ADVICE TO MINISTER

KEY FACTS/BACKGROUND

LNG Incentive Program:

- No payments are anticipated before 2018.

s.12

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 offer up to \$27M in conditional incentives to the cement industry.
- The first year of the program (2015/16) will release \$9M of the incentive program funding; \$7.2M is planned for fiscal year 2016/17, and \$5.4M in 2017/18

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: <i>Greenhouse Gas Industrial Reporting and Control Act</i>
--	---

KEY MESSAGES:

Key message #1

- The ***Greenhouse Gas Industrial Reporting and Control Act (GGIRCA)*** sets an emissions intensity benchmark that provides for the cleanest LNG facilities in the world.

Key message #2

- **GGIRCA and Regulations streamlines several aspects of greenhouse gas legislation into a single system.**

CURRENT STATUS:

Key message #1

- 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 BC based offsets for each tCO₂e emitted over the benchmark, or through payments of \$25 per tCO₂e to the Ministry of Environment for technology investment.

Key message #2

- Industrial operations emission 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)*.
- Transition for existing reporting operations and offset project proponents to GGIRCA is underway.

KEY FACTS/BACKGROUND

- *GGIRCA* and its regulations were brought into force January 1, 2016 by OIC.

ADVICE TO MINISTER

- 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 carbon dioxide equivalent tonnes per year (tCO₂e) emissions report their emissions each year and operations over 25,000 tCO₂e to 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 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 – Provides that the application to transition offset projects under the Emission Offset Regulation 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

ADVICE TO MINISTER

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.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Progress Toward BC's Greenhouse Gas Targets
--	--

KEY MESSAGES:

Key message #1

- BC reached its first greenhouse gas emissions reduction target of 6 percent below 2007 levels in 2012 as set out in the Province's Climate Action Plan.

Key message #2

- BC has implemented an effective Climate Action Plan and subsequent climate policy in order to meet its first interim target.

Key message #3

- The BC Government recognizes it will have to do more to continue reducing emissions, remains committed to achieving its long term 2050 target and is currently working on a new Climate Leadership Plan, due for release in the spring.

CURRENT STATUS:

Key message #1:

- BC's total emissions in 2012 were 63.5 million carbon dioxide equivalent tonnes (CO₂e), and with offsets from forest management projects, the total is 61.6 million tonnes CO₂e, down from 65.9 million tonnes in 2007.
- BC reached its interim greenhouse gas target of a 6 percent reduction below 2007 levels by 2012. 2013 figures indicate a 2012 emission reduction of 6.4 percent with offsets.
- BC's 2013 emissions were 64 million tonnes CO₂e-- without offsets, and 62.4 million tonnes CO₂e with offsets.
- That BC's emissions have remained relatively stable during the economic recovery demonstrating the impact of policy, behaviour change and efficiency.

Key message #2:

- Government's Climate Action Plan (2008) sets out commitments to help the Province in achieving its greenhouse gas reduction targets, a majority of which are either complete or substantially underway. These include:
 - Creating a revenue neutral carbon tax which reduces emissions and

ADVICE TO MINISTER

- stimulates investment;
- Demonstrating leadership through Carbon Neutral Government;
- Partnering with local governments to create the Climate Action Charter, which commits the 182 local government signatories 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.
- Since the 2008 Climate Action Plan, new actions have been implemented, including:
 - The *Clean Energy Act* which set a 93 percent target for clean or renewable electricity generation (excluding electricity generated for LNG export facilities) and a commitment to meet the majority of BC Hydro's incremental demand from conservation by 2020;
 - The Province of British Columbia 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 fuelling infrastructure, outreach, research, training and economic development. British Columbia is a leader in CEVs with the largest public charging infrastructure network in Canada and the second-highest per capita adoption of electric vehicles in Canada.
 - The Forest Carbon Offsets Protocol guides quantification and verification of carbon offsets from forest activities in BC. Accounting for increased carbon storage in forests facilitates forest enhancement projects.
 - The *Greenhouse Gas Industrial Reporting and Control Act* includes a greenhouse gas emissions intensity benchmark of 0.16 tonnes CO₂e per tonne of LNG produced, which is lower than the intensity of any other LNG facility in the world. Companies will have flexible options to reach this world-leading benchmark, including purchasing offsets and contributing to a technology fund.

Key message #3:

- There are challenges to the attainment of future targets, including continued focus on personal transportation, new industrial development such as LNG, forest carbon fluctuations, and diesel transport. More actions are needed to meet the interim 2016 target of an 18 percent reduction of GHG emissions below 2007 levels, as well as the 2020 and 2050 targets.
- The new Climate Leadership Plan will be released in the spring of 2016
- The Plan will be informed by the recommendations of the Climate Leadership Team which were released in November 2015, as well as public, industry and other stakeholder engagement, which is currently being conducted.

ADVICE TO MINISTER

- Climate action creates new opportunities for businesses and families in BC'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 BC, 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. BC 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.

KEY FACTS/BACKGROUND

- BC's total emissions in the updated 2012 inventory add up to 63.5 million tonnes (Mt) CO₂e and, net of offsets from forest management projects, the total is 61.6 Mt CO₂e for a net reduction of 6.4 percent from the 2007 total of 65.9 Mt.
- In the original 2012 emissions inventory, BC's emissions were 61.5 million tonnes of CO₂e, and net of offsets from forest management projects, they were 60.5 million tonnes 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 backcasting 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 caused an increase in 700 Kt of CO₂e of offsets.
- To achieve legislated targets, BC will need to reduce total emissions to 13 million tonnes by 2050.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Provincial Greenhouse Gas Inventory and Accounting
--	---

KEY MESSAGES:

Key message #1

- In even-numbered years, BC publishes the provincial greenhouse gas inventory. Data is published with an 18 month delay, as much of the data is derived from the federal government's inventory prepared on a similar schedule. 2013 emissions (including net deforestation, but not forest offsets) were 64.0 million tonnes.

Key message #2

- For the purposes of accounting for progress to BC's legislated targets, BC includes greenhouse gas offsets generated through improved forest management. BC provincial greenhouse gas emissions net of forest management offsets were estimated to be 62.4 million tonnes in 2013.

Key message #3

- BC's greenhouse gas inventory follows internationally accepted methods and relies significantly on data produced by Environment and Climate Change Canada. Methods used in production of this data are in a process of continuous improvement. New methods are backcast 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 significant revisions from the backcasting process.

CURRENT STATUS:

Key message #1

- Environment Canada 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. Their next release for the 2014 year is expected in April 2016.
- The BC greenhouse gas inventory is based on the data in the NIR. The BC inventory provides the figure for total emissions for BC that is used as part of the assessment of BC's progress towards meeting its GHG reduction targets.

ADVICE TO MINISTER

- BC total inventory emissions (not including forest offsets) have been as follows:
 - 2013: 64.0 million tonnes
 - 2012: 63.5 million tonnes
 - 2011: 62.3 million tonnes
 - 2010: 62.1 million tonnes
 - 2009: 62.6 million tonnes
 - 2008: 66.3 million tonnes
 - 2007: 65.9 million tonnes
 - 1990: 57.2 million tonnes
- Emissions went down between 2007 and 2013 in the electricity, refining, manufacturing, buildings, transport, industrial process, agriculture, waste and deforestation sectors, and went up in the fossil fuel and mining, sectors.
- Forestry and agricultural land use are presented in the *BC Greenhouse Gas Inventory Report* as memo items and are currently not counted towards provincial totals or targets, with the exception of forest management offsets.

Key message #2

- The figure for total emissions given in the NIR is not the figure BC uses in determining whether it has met its GHG targets. BC's practice is to include net deforestation and to adjust for identified discrepancies where there is agreement on the discrepancy. Environment Canada usually makes the correction for discrepancies in subsequent years. For 2013, the NIR reported BC emissions of 62.8 Mt. The provincial inventory showed emissions of 64.0 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 but not included in the inventory. For 2013, this totaled 1.8 million tonnes of forest carbon offsets.
- Based on this methodology, the estimate for BC's 2013 greenhouse gas inventory is 64.0 million tonnes (Mt) while the estimate of emissions for progress to targets is 62.4 million tonnes (Mt).
- BC met its interim 2012 reduction target of 6 percent below 2007 levels by 2012.
 - Including forest offsets, emissions are 6.4 percent below 2007 levels.

Key message #3

- International rules changed with respect to how other greenhouse gases are counted relative to carbon dioxide in emissions inventories in the 2013 data year. The effect of this change was to increase the relative impact of methane and decrease the relative impact of nitrous oxide.

ADVICE TO MINISTER

- 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 previous 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.

KEY FACTS/BACKGROUND

- 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 (increasing it by 19 percent)
 - BC updated the global warming potential of N₂O (decreasing it by about 3 percent)
 - Data underwent additional review to ensure information was as accurate as possible
- The sectors in which there was a change in the 2012 and 2013 inventory were:
 - Stationary combustion emissions (200Kt CO₂e lower after revision)
 - Transport emissions (600Kt CO₂e higher after revision)
 - Fugitive emissions (400Kt CO₂e higher after revision)
 - Industrial process emissions (50Kt CO₂e higher after revision)
 - Agriculture emissions (200Kt CO₂e higher after revision)
 - Waste emissions (1.2 Mt CO₂e higher after revision)
 - Deforestation emissions (300Kt CO₂e lower after revision)

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Large Industrial Emissions
--	---

KEY MESSAGES:

Key message #1

- In February 2016, the Ministry of Environment posted annual greenhouse gas emissions reports for calendar year 2014 for industrial operations in the province.

Key message #2

- 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.

CURRENT STATUS:

Key message #1

- Annual reporting for industrial operating emitting 10,000 tonnes of GHG or higher is a requirement of the *Greenhouse Gas (Cap and Trade) Act* Reporting Regulation.
- Posting of reported emissions provides open and transparent information to industry and the general public and is in keeping with commitments to open government.
- Facilities must report previous year's emissions by March 31.
- 2014 emission report summaries will be publicly posted in February 2016.
- 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.

Key message #2

- There are 108 companies with 214 facilities over 10,000 tonnes reporting.
- The total 2014 GHG emissions from all industrial operations in BC over 10,000 tonnes are 20.3 megatonnes (Mt) of carbon dioxide equivalent, which is 31 percent of total provincial emissions.
- The total emissions in 2014 were 2.1 percent higher than in 2013. Oil and

ADVICE TO MINISTER

gas, and cement sector emissions increased while emissions from mining and smelting and from electricity and heat generation decreased.

- Total electricity import emissions were 2.1 Mt, 60 percent more than in 2013, and are additional to the 20.3 Mt of industrial emissions occurring within BC.
- Companies with the largest emissions in 2014:
 - Spectra Energy Transmission: 4.1 Mt
 - Canadian Natural Resources: 1.2 Mt
 - Progress Energy: 0.9 Mt
- Individual facilities with the largest emissions in 2014:
 - Fort Nelson Gas Plant - Spectra Energy Transmission: 1.3 Mt
 - Transmission Mainline – Spectra Energy Transmission: 0.9 Mt
 - Pine River Gas Plant - Spectra Energy Transmission: 0.7 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.

KEY FACTS/BACKGROUND

- 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.
- As of January 1, 2016, the Reporting Regulation was replaced with the GHG Emission Reporting Regulation under the new *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.
- Consistent with international GHG accounting rules:
 - Electricity import emissions are not included in the provincial inventory as

ADVICE TO MINISTER

they occur outside of BC; however; they are reported to BC as BC can influence reductions in these emissions.

- Carbon dioxide emissions from wood biomass emissions currently do not count to provincial and national greenhouse gas emissions totals. However, these emissions are under consideration to be included as line items in national and international inventories.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: BC's Revenue Neutral Carbon Tax
--	--

KEY MESSAGES:

Key message #1

- 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, in 2015, BC had the highest GDP growth in Canada. Budget 2013 froze carbon tax rates at \$30/tonne and government has committed to maintaining the freeze for five years.

Key message #2

- 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.

Key message #3

- The carbon tax covers the purchase and use of fossil fuels by both individuals and industry and returns these revenues to both groups.

CURRENT STATUS:

Key message #1

- 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.

ADVICE TO MINISTER

- 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/tonne of greenhouse gas emissions in order to give competing jurisdictions time to catch up with BC's carbon pricing leadership.
- There has been good progress on carbon pricing internationally with France, Mexico, California, and Quebec implementing new programs.
- Ontario, Manitoba and Alberta have all announced either plans to implement carbon pricing or an increase in the rate or scope of its carbon pricing.
- The Climate Leadership Team has recommended that the Province start, in 2018, increasing the carbon tax by \$10/year, and, in 2020, to expand the scope of the carbon tax to include more non-combustion emissions.
- The CLT further recommends that B.C establishes a new, innovative fiscal policy that helps mitigate impacts on emission-intensive, trade-exposed sectors while putting a higher price on pollution.
- Government is reviewing the recommendations and would only consider an increase in the carbon tax under a regime where emission-intensive, trade-exposed industries are protected from any carbon tax increase, as well as ensure the affordability of BC families and maintain the competitiveness of BC businesses.

Key Message #2

- 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.
- 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 business and households.
- The carbon tax encourages growth in the clean technology, alternative energy, and other low-carbon sectors.

Key message #3

- Both industry and individuals pay carbon tax on their combustion emissions 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

ADVICE TO MINISTER

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.

KEY FACTS/BACKGROUND

- 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.
- The carbon tax was introduced in 2008 at \$10/tonne, and with annual \$5/tonne increases, reached \$30/tonne on July 1, 2012.
- The carbon tax is estimated to have generated \$1.24 billion in revenues in 2014/15. The same amount will be to British Columbians through tax cuts.
- The carbon tax is expected to generate \$1.26 billion in 2015/16.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Clean Transportation Initiatives
---	---

KEY MESSAGES:

Key message #1

- BC is taking a comprehensive approach to the reduction of greenhouse gas (GHG) emissions from the transportation sector, which accounts for 39 percent of provincial emissions.

Key message #2

- The Province of British Columbia 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 fuelling infrastructure, outreach, research, training and economic development.

Key message #3

- 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.

CURRENT STATUS:

Key message #1

- BC's comprehensive approach addresses each of the contributing factors to transport emissions.
 - ***Vehicle fuel efficiency:***
 - BC contributed to the establishment of more stringent vehicle emission standards. Environment Canada has now adopted these more stringent standards for light duty vehicles from 2017 through 2025. Environment Canada is also developing more stringent standards for new heavy duty vehicles post 2018.
 - BC's Scrap-it program continues to provide incentives for owners to scrap older, high emission vehicles.
 - Other groups, such as Forest Product Innovations are actively working to reduce emissions from heavy duty transport by researching fuel saving devices, conversion of vehicles to LNG and compressed natural gas, and by providing driver training.

ADVICE TO MINISTER

- **Vehicle fuel intensity:**
 - BC's Renewable and Low Carbon Fuel Requirements regulation requires a 10 percent reduction in carbon intensity of transportation fuels by 2020, with an expected associated annual GHG reduction of 2.5 million tonnes by 2020.
 - BC Ferries has taken significant steps to replace marine diesel with natural gas – two spirit class ferries will be retrofitted and three new ferries will be built to run on natural gas, with an estimated 25 percent GHG reduction.
- **Kilometers travelled:**
 - Ongoing investments in transit (such as the Evergreen Line) and cycling infrastructure reduce vehicle kilometers traveled.

Key Message #2: Clean Energy Vehicle (CEV) Program

- Under the CEV Program point-of-sale incentives of up to \$5,000 are available for the purchase or lease of a new battery electric or plug-in hybrid electric vehicle, and up to \$6,000 for a hydrogen fuel cell vehicle.
- British Columbia is a leader in CEVs with the largest public charging infrastructure network in Canada and the second-highest per capita adoption of electric vehicles in Canada.
- Each electric vehicle on the road in B.C. displaces four tonnes of carbon dioxide annually, so stimulating the purchase of clean energy vehicles is one of the most effective ways we can reduce greenhouse gas emissions and ensure British Columbia remains a climate action leader.
- Phase 1 of the Clean Energy Vehicle Program (2011-2014) provided point-of-sale incentives of up to \$5,000 per vehicle for 950 vehicles over the three year period that the program was active.
- In addition, the program funded over 1,000 charging stations (the largest charging network in Canada), one new hydrogen fuelling station, 10 research and training projects with colleges and universities throughout BC, and an outreach and awareness program.
- In 2015, BC joined the International Zero Emission Vehicle Alliance.

Key Message #3: BC's 10 Year Transportation Plan

- Ministry of Transportation and Infrastructure (MOTI) launched the 10-year transportation plan in March 2015.
- The BC on the Move: A 10-Year Transportation Plan notes that transportation contributes to greenhouse gas emissions and that every step to improve efficiency helps to minimize the impact. The plan addresses pedestrian, cycling and transit infrastructure. It also addresses powering trucks, buses and ferries with cleaner alternative fuels such as natural gas instead of diesel.

ADVICE TO MINISTER

KEY FACTS/BACKGROUND

- Transportation emissions account for 25 million tonnes out of BC's total 64 million tonnes of emissions. 16.5 million tonnes are from industrial and commercial transport, and 8.5 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.
- Results from phase 2 of the CEV Program will be provided by the Ministry of Energy and Mines.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Built Environment Initiatives
--	--

KEY MESSAGES:

Key message #1

- **Reducing emissions in BC communities, in new and existing buildings in particular, is a key strategy to achieving our greenhouse gas emission reduction targets.**

Key message #2

- **A number of measures are in place, but further progress on reducing emissions in the built environment will require partnerships with energy utilities, local governments, builders, developers, realtors and community residents.**

CURRENT STATUS:

Key message #1

- Over 80 percent of the buildings that will be standing in 2050 and a significant portion of the transportation infrastructure required for 2050 are already built today.
- Reducing emissions in existing homes and buildings is essential to achieving greenhouse gas emission reduction targets.
- Local governments across BC are making progress in reducing emissions from waste, notably via the ban on organics in landfills in major regions such as Metro Vancouver and the Capital Regional District.
- In 2015, the Province introduced a new *Building Act* to establish more consistent building requirements throughout BC which includes:
 - consistent minimum building requirement across all local governments;
 - mandatory qualifications for local building officials; and,
 - expanded provincial evaluation of innovative building proposals.
- The *Building Act* is not about new or different building codes. It is about streamlining how the existing code is used.
- The Office of Housing and Construction Standards has convened a multi-stakeholder working group to advise on energy efficiency measures beyond

ADVICE TO MINISTER

requirements of the Building Code and within boundaries of the new *Building Act*.

Key message #2

- New BC Building Code standards have increased energy efficiency requirements for new commercial buildings (effective December, 2013) and new residential structures (effective December, 2014).
- BC Hydro and FortisBC have taken over the successful LiveSmart home energy retrofit incentive program and launched the Home Energy Rebate Offer program to provide grants for specified energy efficiency upgrades to eligible customers.
- In January 2016, nearly \$1.5 million was approved from the Innovative Clean Energy (ICE) fund to support a range of Ministry of Energy and Mines programs that increase building energy efficiency.
- 182 local governments have signed the Climate Action Charter, which commits all signatories to measuring and reporting on their community's greenhouse gas emissions profile. Under the Charter, they will also work to create compact, more energy-efficient communities.

KEY FACTS/BACKGROUND

- Residential and commercial buildings and municipal waste emissions made up 19 percent of BC's total GHG emissions in 2013.
- Transportation, another key component of the built environment, made up an additional 39 percent of provincial emissions in 2013.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: BC's Future Climate Action
--	---

KEY MESSAGES:

Key message #1

- **Building on our global climate leadership, BC is developing a new Climate Leadership Plan to move our climate agenda forward.**

Key message #2

- **Our new plan is being assembled with the advice of the Climate Leadership Team and through public consultation.**

Key message #3

- **A strong Climate Leadership Plan will help us take advantage of the low-carbon economy and the thousands of green jobs that goes with it.**

Key message #4

- **BC continues to encourage and work with governments around the world on taking action to combat climate change.**

CURRENT STATUS:

Key message #1

- Since the introduction of our Climate Action Plan in 2008, BC has been recognized as a world leader in the fight against climate change.
- BC was the first jurisdiction in North America to introduce a broad-based, revenue-neutral carbon tax and to have a carbon-neutral public sector.
- BC has reached its first interim greenhouse gas emissions reduction target of 6 percent below 2007 levels by 2012.
- We have shown we can reduce GHG emissions while continuing to grow the economy.
- BC is committed to achieving the 2050 target of 80 percent below 2007 levels and is revitalizing its climate plan to keep on a path towards its goals.
- We have been clear from the outset that more actions would be needed to meet our legislated emission reduction targets.

ADVICE TO MINISTER

- Premier Clark is chairing a new Cabinet working group to develop BC's new Climate Leadership Plan and oversee our strategy and progress over the long term.

Key Message #2:

- Development of our next phase of climate action will be informed through advice of the Climate Leadership Team and public, industry and stakeholder engagement.
- The CLT was made up of diverse leaders from BC businesses, communities, First Nations, academia and the environmental sector.
- The CLT recommendations largely address carbon pricing and taking action to reduce emissions across industry, transport and built environment sectors, while maintaining a strong economy.
- After release of the team's recommendations, BC launched a second round of public consultation in January to invite further input on BC's climate plan.
- Government is also conducting sector-specific consultations and public polling through Ipsos Reid.
- Input from all of these processes will inform development of our Climate Leadership Plan - due for release in Spring 2016.

Key Message #3:

- The world is clearly moving in a new direction, one marked by a lower carbon future - most evident with the historic signing of the Paris agreement last December.
- BC is well positioned to continue to be at the forefront of this movement – with over 200 clean tech companies, abundant clean energy and natural resources, and a new BC Tech strategy to support continued innovation across all sectors.
- The Province has 68,165 clean economy jobs, a 12.5 percent increase since 2010. (**West Coast Clean Economy 2010-2014 Jobs Update – Delphi Group, 2015*)
- Our green economy provides the foundation for a secure tomorrow, through investments and job creation around the province.
- A strong Climate Leadership Plan and comprehensive BC Tech Strategy will help us take advantage of the low carbon economy while keeping us on track to our long term targets for 2050.

Key Message #4:

- BC is working closely with our federal, provincial and territorial partners to develop a Pan-Canadian Framework to address climate change.
- To demonstrate our commitment to climate action and share our solutions – including the carbon tax – with the world, we are working through important partnerships including the Pacific Coast Collaborative (with California,

ADVICE TO MINISTER

Oregon, Washington), the World Bank Carbon Pricing Leadership Coalition, and the Compact of States and Regions.

- We are also a part of the Under 2 MOU, and we recently renewed our membership with the States and Regions Alliance.

KEY FACTS/BACKGROUND

Development of BC's Climate Leadership Plan

May 2015 – Premier Christy Clark appoints the Climate Leadership Team to provide recommendations to government for its new Climate Leadership Plan.

July 2015 – British Columbians are invited to comment on a newly released discussion paper that considers the values and priorities they want to see in a new Climate Leadership Plan. In addition to 5,973 completed surveys, government received over 200 written submissions and 300 template letters.

November 2015 – The Climate Leadership Team submits its report of 32 recommendations to government.

January 2016 – Premier Clark announced she will chair a new Cabinet working group on climate leadership that will oversee government's climate actions and policies, while considering current and future provincial climate action goals.

January 25, 2016 - The Province launched a 60-day public consultation process to engage the public a second time. A new consultation guide presents the current status of government's climate actions, a summary of public feedback from the first engagement, as well as a snapshot of the Climate Leadership Team's recommendations.

Spring 2016 – Government's new Climate Leadership Plan will be released.

Climate Leadership Teams Recommendations

In November, the province released the team's report of 32 recommendations touching several areas including:

- GHG reduction targets, including setting a legislated target for 2030 of 40 percent GHG reduction from 2007 levels, and reaffirming BC's commitment to the 2050 target of an 80 percent GHG reduction from 2007 levels.
- Fiscal policy, including addressing BC's carbon tax to ensure a fiscal policy to mitigate impacts on emission-intensive, trade-exposed sectors must be in place before increasing the carbon tax.
- Industry policy in areas including emerging economic opportunities,

ADVICE TO MINISTER

environmental assessment, electricity, natural gas and LNG, forestry and agriculture.

- Transportation, including low-carbon fuels and zero-emission vehicles.
- Buildings, including various measures to reduce GHG emissions.
- Communities, including reducing GHGs from waste and landfills, as well as adapting to climate change.
- First Nations, including ensuring adequate access to climate solutions.
- Offsets, including a review of the Province's current offset policy.
- Intergovernmental relations, including ideas to ensure alignment and parity with climate actions in different jurisdictions.
- Periodic review, to ensure momentum and commitment to climate action is maintained.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

<p>ESTIMATES NOTE (2016) Confidential</p> <p>Ministry of Environment</p> <p>Date: February 10, 2016</p>	<p>ISSUE TITLE:</p> <p>Local Governments and the BC Climate Action Charter</p>
--	---

KEY MESSAGES:

Key message #1

- 182 of 190 local governments have signed the *BC Climate Action Charter* and receive the Climate Action Revenue Incentive – a 100 percent rebate of carbon tax paid. These communities join the Province in taking steps to reduce energy use, save money and create clean, healthy, sustainable communities.

Key message #2

- The Province and the Union of BC Municipalities established a joint *Green Communities Committee in 2007* under the Climate Action Charter to support local governments in taking action on climate change to ensure that communities have the right tools to reduce emissions on a corporate and community-wide basis.

Key message #3

- 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.

CURRENT STATUS:

Key message #1:

- 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 2014, 173 local governments reported on their corporate and community-wide climate actions. 142 local governments measured their corporate emissions, and 40 local governments achieved carbon neutrality in 2014.
- Of the 133 local governments that did not achieve carbon neutral status, 75

ADVICE TO MINISTER

contributed to their own climate action reserve funds.

- In 2014, local governments offset or balanced their corporate greenhouse gas emissions by over 1145,000 tonnes: about 50 percent of BC local governments' total reported corporate footprint.
- Local governments report on their action through the Climate Action Revenue Incentive Program (CARIP). Since 2008, the Province has paid local governments approximately \$33 million under CARIP.
- Communities have a large influence over community-wide emissions and BC's ability to reach our GHG reduction targets.
- Reflecting on recent years, it is clear that local governments are making advances toward reaching their climate action goals in the corporate and community spheres as the total number of actions reported through have almost doubled since 2010.

Key message #2:

- Established in 2007 after BC local governments, UBCM and the Province signed the BC Climate Action Charter, the **Green Communities Committee** plays an important role in building local government capacity to plan and implement climate change initiatives.
- 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 **"BC Climate Action Toolkit"** website provides BC communities with guidance, resources, practical advice and best practices to help them reduce their GHG emissions and implement their Climate Action Charter commitments;
 - The **Becoming Carbon Neutral Guidebook** provides guidance for local governments on how to become carbon neutral, including step-by-step guidance on how to balance corporate emissions to zero by investing in GHG reduction projects and/or through purchased offsets.; and,
 - **Methodology for Reporting BC Local Government GHG Emissions** for use by local governments who are creating their own emissions inventory.
- The Committee is supported by the Local Government Carbon Neutral Working Group, which includes UBCM and local government representatives.

Key message #3:

- 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.

ADVICE TO MINISTER

Background:

- Community-wide emissions make up roughly 40 percent of provincial GHGs and local government corporate emissions are relatively small.
- Local governments can invest in GHG reduction activities within their corporate boundaries.
- 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. Local governments are setting targets that are meaningful and will lead to real community-wide emission reductions.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 23, 2016	ISSUE TITLE: Carbon Offset Portfolio
--	--

KEY MESSAGES:

Key message #1

- The Province is on schedule to deliver a portfolio of high quality offsets by June 2016 to ensure BC reaches its carbon neutral commitment for the sixth year in a row.

Key message #2

- The Climate Investment Branch is building a strategically diversified portfolio of carbon offset projects to drive BC's green economy, enable BC's leadership on climate action, and uphold our commitment to a carbon neutral public sector.

Key message #3

- By investing in an offsets portfolio, the Province is driving innovation, new jobs, economic opportunities and making clean technology projects a reality. Offsets investments are bridging BC's resource industries to a competitive future with timely investment focused on overcoming key barriers to reducing emissions and growing our green economy

CURRENT STATUS:

Key message #1

- A diverse offsets portfolio is developed annually by the Province to support BC's legislated Carbon Neutral Government commitment. A complete list of offsets purchased and forward contracted by the Province for FY14/15, FY15/16 and FY16/17 is attached to this Estimate Note.
- The Province publishes an Annual Offset Portfolio report that discloses the volumes of offsets purchased and the related offset projects. The Province also discloses the prices paid for each of the offsets.
- This portfolio is managed by the Ministry of Environment (Climate Investment Branch) on behalf of all ministries and public sector organizations in support of the Province's legislated carbon neutral government commitment.

ADVICE TO MINISTER

- The Climate Investment Branch is a small team comprised of one manager and three specialists / advisors. The Branch is responsible for investing the \$10M annual budget in greenhouse gas emissions reduction projects throughout BC to secure offsets for the carbon neutral government commitment. 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.
- To become carbon neutral, all 131 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 optimizing carbon market efficiencies and an increased role of the private sector.
- Every offset project considered for the government's portfolio is audited by third-party accredited professionals to ensure they meet the requirements of the recently enacted 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. Formally registration ensures offsets are not double-counted and allows the public to learn more about specific projects.

Key message #2

- 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 the following key strategies:
 - Targeting lower-cost offsets to manage resources effectively;
 - Addressing key provincial emission reduction challenges;
 - Building capacity for clean community projects; and
 - Achieving key government objectives, such as advancing clean technology and transforming BC to a low-carbon economy.

ADVICE TO MINISTER

Key message #3

- The Province's investments in offsets projects are a proven catalyst for economic development in BC. 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 ([EcoRessources study, 2015](#)).
- 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 fight climate change and advance commercialization of clean technology in business sectors.
- At the same time BC is significantly reducing remissions, 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 which puts a price on carbon, offsets are another price-driven mechanism to encourage behavior 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, and their actions reverberate throughout BC, supporting jobs and generating revenue. As with the carbon tax, putting a price on carbon has proven to change behavior for the benefit of the environment.
- Projects in the offset portfolio support green technology and jobs further advance 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 reintroduces the gas into the Fortis BC commercial pipeline system; and,
 - 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.

KEY FACTS/BACKGROUND

- 16 proposals have been received to date in response to the September 2014 procurement call for offsets projects.
- Climate Investment and Risk Management Branch is updating its procurement call in consideration of new legislative, regulatory and portfolio

ADVICE TO MINISTER

requirements.

- Up to 14 BC-based emissions reduction projects are forecasted to contribute to the Carbon Neutral Government 2015 commitment.
- Ministry of Environment is forecasted to meet financial targets of \$13 million offset purchases and to meet offset demand for Carbon Neutral Government 2015.
- The offset purchase budget was increased from \$10M to \$13M for Financial Years 2015/16 and 2016/17 to build inventory to help risk manage potential competition for offsets from the Liquid Natural Gas industry.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Carbon Neutral Government
--	--

KEY MESSAGES:

Key message #1

- BC's commitment to carbon neutral government operations is a key Provincial strategy for taking leadership on climate action. This commitment – enshrined in legislation – is the first of its kind in any province, territory or state in North America. BC has achieved this milestone for five consecutive years and in the process has taken strides to save energy, reduce costs and greenhouse gas (GHG) emissions, and create clean, healthy communities in BC.

Key message #2

- Carbon Neutral Government has enabled BC's public sector to increase capacity, 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.

Key message #3

- The Province supports the public sector in improving energy efficiency, implementing clean technologies and decreasing emissions by leveraging funding, providing centralized program governance, and promoting acceleration of GHG emissions reductions.

CURRENT STATUS:

Key message #1

- In 2010, BC 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.
- BC's commitment applies to each of its 131 provincial public sector organizations (PSOs) including ministries, school districts, post-secondary institutions, Crown corporations, and health authorities.

ADVICE TO MINISTER

- Carbon neutrality is about achieving net-zero greenhouse gas emissions.
- 2015 year marked a significant milestone for BC; as of June the Province celebrated the fifth successful year of its carbon neutral government commitment.
- 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, healthy communities, and deploying clean energy and new technologies in public buildings across BC.
 - 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 (PSOs) 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-BC carbon offsets; (4) report publicly on progress; and, (5) periodically undergo third party verification.
- Other jurisdictions have publicly committed to following BC's carbon neutral lead, including Washington State, Yukon, Ontario and Manitoba.
- In 2015, BC's 131 provincial public sector organizations generated 46,000 tonnes fewer greenhouse gas emissions compared to the baseline year of 2010; a reduction equivalent to the emissions produced by 9,800 cars in one year.
- The following table summarizes the total carbon dioxide equivalent emissions and weather normalized emissions for PSOs for the first five years of the carbon neutral government program:

Year	Emissions (TCO₂e)	Weather Normalized Emissions (TCO₂e)
2010	813,143	844,869
2011	865,430	820,486
2012	836,498	820,486
2013	800,902	781,929
2014	767,583	782,042

ADVICE TO MINISTER

- For 2014, the public sector paid \$16.5 million to purchase offsets for the 659,138 tonnes of GHG emissions that require offsetting under the legislation, while spending \$430 million on energy and fuel costs.
- Total emissions for 2014 are the lowest level of emissions for the public sector since the CNG program began, representing a 5.6 percent drop since 2010 and 7.4 percent on a weather normalized basis.

Key message #2

- Carbon Neutral Government is a catalyst for change in BC's public sector.
- Achieving carbon neutrality has created the basis for substantial improvements to operating efficiency in the delivery of public services – a recalculation of operating costs, a fundamental shift in the way operating decisions are made, and in some cases, significant short-term investments for long-term benefits.
- 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 range from renewable forms of energy, leading edge equipment and highly skilled professional services to better operations management practices.
- For every 1 percent improvement in energy efficiency, \$4 million in fuel costs are saved annually.
- 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.

Key message #3

- 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.
- 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.
- Under agreements with the Province, BC Hydro and FortisBC have provided BC's public sector organizations with funding to undertake energy efficiency projects.

ADVICE TO MINISTER

- In 2014, the Province announced the extension of the successful Carbon Neutral Capital Program (CNCP) for school districts to the health authorities and post-secondary institutions.
- Total CNCP funding was increased in April 2014 to \$14.5 million for all three sectors. These funds are equal to the amount each sector pays in carbon offsets and used for capital projects that reduce GHG emissions and result in energy conservation.

CNCP Funding Allocations			
Sector	Number of Projects Funded	Amount of CNCP Funding (\$)	Estimated Annual GHG Reductions (tonnes CO ₂ e)
K-12	28	5,000,000	1,293
Health	23	5,700,000	3,603
Advanced Education	19	3,800,000	1,284
Total	70	14,500,000	6,180

- CNCP Projects funded for 2015/16 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 voltaics 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.

KEY FACTS/BACKGROUND

Appendix A: Background on Funding Emissions Reductions in the Public Sector

ADVICE TO MINISTER

Public Sector Energy Conservation Agreement

- The Public Sector Energy Conservation Agreement (PSECA) started in 2007 and ended in 2010. A total of \$75 million was committed to support energy efficiency and GHG emission reduction projects for PSOs. Some projects did not advance and, to date, \$60 million worth of projects announced under PSECA have been realized. These projects are estimated to yield annual energy savings of \$12.6 million and GHG reductions of 35,600 tonnes.
- The Public Sector Energy Conservation program resulted in projects that showcase innovative BC based clean technologies.
- Examples of successful PSECA Projects:
 - UNBC's Biomass Gasification Plant saves the university \$500,000 annually and reduces the university's greenhouse gas emissions by 3,100 tonnes annually. The Association for the Advancement of Sustainability in Higher Education highlighted UNBC's bioenergy project for its ability to connect teaching and research to campus operations, while serving as a model for communities and other campuses.
 - The Penticton Regional Hospital (PRH) and Summerland Health Centre (SHC) have combined the power of the sun and cutting-edge technology by installing 140 solar thermal panels. The two projects achieved significant energy savings, with reductions in natural gas use of 49 per cent at PRH and 71 percent at SHC. Annually Interior Health Authority spends \$13 million on heating and lighting and these projects are a step in the right direction.
- As a continuation of the PSECA Agreement, CAS has worked with Fortis BC, BC Hydro and Natural Resources Canada to deliver targeted training for building operators, to help ensure small public sector organizations – including school districts – have skills and knowledge to support energy conservation.
- The following table outlines funding leveraged via PSECA

Year	PSECA	BC Hydro	Fortis	Federal/Other**	TOTAL
08/09	\$26,107,119	\$6,378,000	\$145,000	\$7,329,000	\$39,959,119
09/10	\$17,074,149	\$2,045,000	None	\$928,000	\$20,047,149
10/11	\$17,376,771	\$1,694,234	\$6,380,162	\$24,713,762	\$50,164,929
TOTAL	\$60,558,039	\$10,117,234	\$6,525,162	\$32,970,762	\$110,171,197

ADVICE TO MINISTER

Carbon Neutral Capital Program for School Districts

- For 2012-13, funding was allocated to 41 school districts that did not benefit proportionally from previous energy efficiency capital funding for school districts (i.e., Public Sector Energy Conservation Agreement and Energy Efficient Mechanical Upgrades Program).
- Carbon Neutral Capital Program funding for 2013-14 was allocated based on a "Call for Projects." This was the option preferred by the CNCP steering committee, comprised of representatives from the BC School Trustees Association, BC Association of School Business Officials, Educational Facility Managers Association of BC, Climate Action Secretariat, and Ministry of Education.
- The 25 successful projects for 2013-14 were announced on March 6, 2013. As well, as part of the \$5 million provincial funding, 43 districts received about \$10,000 each to identify possible energy efficiency projects in the future.
- Examples of 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.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

<p>ESTIMATES NOTE (2016) Confidential</p> <p>Ministry of Environment</p> <p>Date: February 10, 2016</p>	<p>ISSUE TITLE:</p> <p>Climate Action Outreach and Engagement</p>
---	--

KEY MESSAGES:

Key message #1

- **The Government promotes increased awareness and understanding on climate change issues to help British Columbians prepare for climate impacts and to reduce emissions.**

Key message #2

- **The Government is driving climate action by showcasing climate leadership throughout the province.**

Key message #3

- **The Government supports increased climate action and helps build momentum across communities through stakeholder collaboration.**

CURRENT STATUS:

Key message #1

- CAS partnered with the Pacific Climate Impacts Consortium (PCICs) to develop a new suite of climate change indicators that help track conditions and trends over time. The information helps governments, institutions and individuals consider the impacts of climate change in their decisions.
- CAS participated in the launch of a new Climate Leadership website and social media campaigns to build awareness of climate change issues and engage British Columbians in development of the Climate Leadership Plan.
- CAS collaborated with Quality Urban Energy Systems of Tomorrow (QUEST) to engage stakeholders throughout the lower mainland on building BC's new Climate Leadership Plan. Participants included local government staff and key associations representing urban development and buildings sector.
- CAS is actively hosting and participating in a wide selection of webinars and networks related to climate action, including carbon neutral government, local government action, industry regulation, and the carbon market.

Key message #2

- BC achieved its fifth consecutive year of carbon neutral government operations in July 2015, demonstrating effective climate action to every school, hospital, university, college, and government operation across BC and the communities they operate in. CAS held its annual CNG symposium in

ADVICE TO MINISTER

December 2015, expanding its focus beyond mitigation to understanding the impacts of climate change on public infrastructure and health care.

- BC's Carbon Neutral Government Program drives the supply of offsets that are validated through the new CAS Carbon Registry. The resulting increased demand for offsets is driving further action in BC's carbon market and clean tech sector.
- CAS supports a variety of conferences and events in BC to promote climate leadership. At UBCM in 2015, CAS organized a session on the Climate Leadership Plan process and partnered with the Community Energy Association to host the BC Mayors Climate Leadership Council annual breakfast with the provincial sector, including members of the Cabinet, Opposition, Green Party and CLT.
- CAS provides support for community leaders, for example, through the Community Energy Association's local government awards. For 2014 North Cowichan won in the Community Planning & Development category, and Prince George won the Corporate Operations award.

Key message #3

- CAS collaborated with the Pembina Institute and Office of Housing and Construction Standards to host the Thought Leaders Forum on energy efficiency in BC, supporting local government staff and elected officials to reduce energy costs while cutting GHG emissions.
- CAS collaborates with Metro Vancouver Regional Engineers Advisory Committee - Climate Protection Sub-committee, representing 21 local governments in the lower mainland.
- CAS works with organizations such as Quality Urban Energy Systems of Tomorrow and co-hosted their national conference in Vancouver in December, 2015. Senior representative from utilities, developers and local governments were in attendance.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Climate Risk and Adaptation
--	--

KEY MESSAGES:

Key message #1

- 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.

Key message #2

- 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.

CURRENT STATUS:

Key message #1:

- ***Preparing for Climate Change: British Columbia's Adaptation Strategy (2010)*** outlines steps the provincial government is taking 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 BC's resilience to weather and climate.
- CAS has partnered with other ministries and organizations across BC to leverage federal funding for adaptation projects on issues relating to coastal management, economic instruments and the natural resource and healthcare sectors.
- Ministry efforts to modernize the *BC Water Act* will introduce more flexibility and efficiency in the water allocation system, and accommodate variable water flows expected as a result of climate change.

ADVICE TO MINISTER

Key message #2:

- 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 (FLNRO) is developing 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 Health is collaborating with the Climate Action Secretariat and Health Canada to scope a climate risk assessment for the public health sector.

KEY FACTS/BACKGROUND

- Recent reports by the Intergovernmental Panel on Climate Change (IPCC)³, U.S. Global Change Research Program⁴ and Natural Resources Canada⁵ emphasize that climate change is already impacting North America, Canada and BC and additional impacts to our natural environment, economic prosperity and the health of British Columbians are anticipated. Further action on adaptation will be required to address these risks.
- Adaptation is a shared responsibility between all levels of government and the private sector. The province's investments in improving climate science support adaptation planning at multiple levels.
- 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.
- The Government of Canada has spent \$150 million over 5 years (2011-2016) to help Canada adapt to climate change. The Climate Action Secretariat worked closely with relevant Federal Government departments to enhance program delivery in BC.

³ Fifth Assessment Report (AR5)

⁴ 2014 National Climate Assessment

⁵ Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation

ADVICE TO MINISTER

- The Government of Canada announced a \$200 million investment over five years for the National Disaster Mitigation Program. CAS is supporting Emergency Management BC to implement this program and align disaster risk reduction and climate adaptation in BC.

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

ADVICE TO MINISTER

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: February 10, 2016	ISSUE TITLE: Science on Climate Change
--	--

KEY MESSAGES:

Key message #1

- **Warming of the climate system is unequivocal. According to the IPCC, it is “*extremely likely* that human influence has been the dominant cause of the observed warming since the mid-20th century”.**

Key message #2

- **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.**

KEY FACTS/BACKGROUND

Key message #1:

- Recent reports by the Intergovernmental Panel on Climate Change (IPCC)⁶, U.S. Global Change Research Program⁷ and Natural Resources Canada⁸ 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, 2015 was the warmest year on record. The previous record was set in 2014. For the planet, 2015 was more than a full degree Celsius warmer than temperatures in 1880, when consistent record-keeping began. Observed and expected impacts for BC include:

⁶ Fifth Assessment Report (AR5)

⁷ 2014 National Climate Assessment

⁸ Canada in a Changing Climate: Sector Perspectives on Impacts and Adaptation

ADVICE TO MINISTER

- 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.

Key Message #2:

- Limiting climate change will require substantial and sustained reductions of greenhouse gas emissions. BC is taking action across the economy to reduce our emissions. Continued leadership in climate action along with our partners around the world will drive global emissions reductions. (*See note BC's Future Climate Action, and 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*).

Contact: Susanna Laaksonen-Craig, Head, Climate Action Secretariat
(250) 508-4132 cell

Estimates 2016 – ADM material (“B” notes) Environmental Protection

1. Authorizations: number, type and revenues
2. Beverage Container Recycling
3. Brownfields
4. Compliance and Enforcement – **two notes**
5. EMA amendments for ABMPs – **two notes**
6. Extended Producer Responsibility – funding and governance
7. Illegal Dumping
8. LNG – ENV’s role – **two notes**
9. Northeast Air Monitoring
10. Northwest Mines – work with Alaska
11. Overdue environmental court penalties
12. Permits – Appeals and Litigation – **two notes**
13. Revolution Organics
14. Rio Tinto Alcan appeal

Authorization Type	Total
Agricultural Waste Control Regulation	72
Approval	17
Asphalt Plant Regulation	95
Code of Practice for Concrete and Concrete Products	112
Code of Practice for Industrial Non-Hazardous Waste Landfills (Wood Processing)	7
Code of Practice for Slaughter and Poultry Processing	57
Code of Practice for Soil Amendments	49
Hazardous Waste Regulation	276
Land-Based Finfish Waste Control Regulation	63
Municipal Wastewater Regulation	302
Mushroom Composting Regulation	7
Operational Certificate	127
Organic Matter Recycling Regulation	142
Permit	2453
Petroleum Storage and Distribution Facilities Storm Water Regulation	221
Vehicle Dismantling and Recycling Industry Environmental Planning Regulation	256
Wood Residue Burner and Incinerator Regulation	2
Total # of Active Authorizations as of January 2016	4258

Revenues

Waste Permit Discharge Fees	13.3M
Hazardous Waste Fees	1.1M
IPM Fees	700K
Total	15.1M
EPD All Auth Program Costs	24.4M
EPD All Program Cost	30M

Authorization Type	New Registration	Update to Existing Registration	De-registration	New Permit/ Approval/OC	Amendments	Cancel/Abandon	Total Requests Received in 2015
Agricultural Waste Control Regulation	0	0	0				0
Approval				22	5	0	27
Asphalt Plant Regulation	4	0	5				9
Code of Practice for Concrete and Concrete Products	3	1	5				9
Code of Practice for Industrial Non-Hazardous Waste Landfills (Wood Processing)	3	1	0				4
Code of Practice for Slaughter and Poultry Processing	3	1	1				5
Code of Practice for Soil Amendments	58	1	n/a				59
Hazardous Waste Regulation	23	18	9				50
Land-Based Finfish Waste Control Regulation	1	0	0				1
Municipal Wastewater Regulation	12	11	5				28
Mushroom Composting Regulation	1	0	1				2
Operational Certificate				2	12	1	15
Organic Matter Recycling Regulation	14	3	0				17
Permit				31	266	49	346
Petroleum Storage and Distribution Facilities Storm Water Regulation	1	3	0				4
Vehicle Dismantling and Recycling Industry Environmental Planning Regulation	11	12	16				39
Wood Residue Burner and Incinerator Regulation	0	0	0				0
Total	134	51	42	55	283	50	615

Hazardous Waste Licenses & Manifests Sold (2015)

Licenses to Transport Haz Waste	New	38
	Renewal	247
	Exams	74
BCGs	New	991
	Updates	991
Manifests to Transport Haz Waste	# Purchased	82,125

IPM Authorizations (2015)

Licenses	New	666
	Confirmations	23
	Permits	5
	Certificates	2935

ESTIMATES NOTE (2016) Confidential Ministry of Environment Date: January 26, 2016	ISSUE TITLE: Beverage Container Return Programs in BC
--	--

KEY MESSAGES:

- **Key message #1 –BC’s results-based approach to stewardship programs allows industry the flexibility to design and operate its programs in its own manner – as long as it meets the Ministry’s key performance and regulatory requirements.**
- **Key message #2 – Discounting of beverage container refunds has been an infrequent issue that is seen by some consumers as unfair. There are over 1300 container recycling locations in the province, so there is sufficient access for consumers who wish to receive full refunds.**
- **Key message #3 –Residents putting deposit containers in their “Blue Box” typically leads to reduced overall recycling since glass may break and contaminate other recyclables, depots miss handling fees and there are fewer opportunities for consumer education.**
- **Key message #4 –Retailers selling but not taking back refundable containers is not permitted under the Recycling Regulation. The Ministry follows up on all complaints regarding such non-compliance, as retailers providing refunds for up to 24 containers per person per day is mandatory, not discretionary.**

CURRENT STATUS:

Key message #1: (Container Recycling Institute (CRI) Report)

- Encorp is performing well beyond the regulated 75 percent recovery rate, and is currently achieving an 89 percent overall recovery rate. It surpassed 15 billion recycled containers last year, and has included recently improved performance measures in its 2014-2018 approved stewardship plan.
- Overall the conclusions of the CRI review of beverage container return programs in BC is very positive; any areas of concern identified are fairly narrow points that staff continue to actively engage with Encorp to monitor.
- Comparing Encorp’s fee structure with that of Alberta’s is difficult e.g. BC has three times more depots to service across a very challenging geography.
- Encorp is aware of its large reserve fund and after most recently being in deficit in 2009 due to low commodity values, rebuilt the reserve until 2012. It has since been trying to reduce it as part of a five year plan to bring it back to a more sustainable level. Many factors, such as unusually high aluminum prices and

therefore revenue, offset those reductions, so reserves did not decline as much as forecast in 2013 and 2014. The situation is being closely monitored, and a further reduction is expected to be reported for the 2015 reporting year (reported in July 2016). This will be compounded with sharply declining commodity values.

Key message #2: (Discounting refunds)

- The producers (i.e. Molson, Coke, etc.) of beverages sold in BC are responsible for the collection and recycling of their empty beverage containers. To jointly carry out their obligations, the producers have formed two industry product stewardship agencies to provide for the management of empty beverage containers: BDL for most domestic beer and some cider brands and Encorp for all other beverage types including wine, coolers, spirits, import beer and non-alcohol beverages.
- In addition to retail stores that are obligated to provide a full deposit-refund, these stewardship agencies may contract with collection facilities or bottle depots to provide a full refund for their containers. BDL has a more than 93 per cent province-wide beverage container recovery rate, with all sellers of domestic beer paying a full refund amount; however, BDL contracts with only a portion of BC's independently owned and operated depots to provide a full deposit-refund to consumers for empty domestic beer cans and bottles.
- With 1,132 full refund return locations, BDL estimates that 75 percent of BC residents are within a 10 minute drive and 93 percent are within a 15 minute drive of a full refund location.
- While some of the depots that do not contract with BDL will still accept their empty beer containers, they are not paid a handling fee to process these containers. As a result, some such depots discount the deposit-refund to cover their expenses. The depots defend this as a cost of convenience to consumers.

Key message #3: (Residents using “Blue Box” for refundables)

- Some residents choose to use the convenience of the “Blue Box” to dispose refundable beverage containers, and willingly forsake their deposit.
- Unfortunately, many glass beer, wine and spirit bottles are crushed by the compacting collection vehicle and not reused as they could be (and are not refunded by the collectors), and cross-contaminate other materials.
- Beverage containers are considered an “in scope” PPP material that MMBC is responsible for collecting and processing if directed to MMBC's collection system by residents. So although MMBC has to deal with them, and does recover the full deposit (mainly on intact aluminum cans), they are not paid a handling fee by Encorp. MMBC discourages the use of the “Blue Box” by residents for recycling of refundable containers.
- When containers are directed to the “Blue Box”, it results in depot operators no longer recovering a handling fee for managing them. Previously, individual collectors would return such containers to local depots for refund. Now that most collection is done through MMBC collectors, Encorp has allowed MMBC to manage/recycle containers in bulk on Encorp's behalf, thereby bypassing the

depots and saving Encorp the associated depot handling fees. This has financially impacted some depots significantly, but it is a business-to-business arrangement intended to lower Encorp's overall costs, and not an appropriate issue for Ministry involvement.

Key message #4: (Retailers that do not accept containers back)

- Schedule 1 of the Recycling Regulation prescribes minimum deposit-refund fees for various containers. These deposit-refund values are used to encourage recycling; they are in no way a fee collected by government.
- All retailers of ready-to-serve beverages are required to charge a deposit, accept up to 24 containers per person per day for return, and provide a refund. Unless the retailer is a sanctioned Encorp or BDL depot, they must then transport the containers to such a depot to recover the deposit they paid out (retailers initially pay Encorp the deposit when buying beverages for resale, recover it upon sale of the product, pay it out when it is returned by the consumer, and recover it by returning them to depots).
- Some retailers do not comply as they would ultimately have to accept more containers back than they sell and do not have the storage space, or have worker health/safety concerns in mind with 'dumpster' recovered containers, or simply refuse to comply as they receive no compensation for handling (refundable) containers (beyond initial sale revenues).
- Ensuring compliance with provincial regulatory requirements is one of the Ministry of Environment's principal objectives. Persons or retailers contravening the Regulation commit an offence and are liable for enforcement action which can include tickets of \$115 per offence or fines of up to \$200,000 upon conviction.
- As part of their stewardship plan commitments, Encorp is working to increase collections options in downtown core areas and thereby relieve smaller operators of being overburdened. This includes initiatives such as pilot streetscape bins that are accessible to the public, and the recent installation of "express return" automated locations, where consumers can return their containers and receive their refund electronically.

KEY FACTS/BACKGROUND:

- As the Regulator, Ministry is not involved in the business-to-business operations of stewardship programs; Ministry purposely allows industry to set standards and handling fees that allow for efficiently run programs, based on industry knowledge and current commodities markets, along with stakeholder input.
- Any concerns with Ministry oversight, including the current Office of the Auditor General's review, are consistent with the Ministry's current objectives, and reinforce initiatives already underway within Ministry – this includes working closely with stewardship agencies to continuously improve programs and ensure they are meeting their requirements (e.g. proper reporting) under the Recycling Regulation.

- Appropriate checks and balances are inherent in BC's EPR model. EPR programs are industry run with producers wanting to keep fees as low as possible in a competitive industry. Being administered through not-for-profit stewardship agencies in BC, full financial disclosure is also required under the Society Act, and by the Ministry if a visible fee is charged at the point of sale.
- Ensuring compliance with provincial regulatory requirements is one of the Ministry's principal objectives.
- Ministry enforcement responses are guided by the Ministry's Compliance and Enforcement Policy which can be found on the Ministry's website here: [Compliance and Enforcement Policy and Procedure](#).

**Contact: Bob McDonald, Manager PPP Implementation, Waste Prevention
Branch
250 387-3588**

BROWNFIELDS

- The ministry has been an integral partner in the development and implementation of provincial brownfield strategies since 2007.
- These strategies focused to reduce barriers and provide incentives to the investigation, remediation and redevelopment of brownfields in the province.
- Key learnings from provincial brownfield efforts to date include:
 - the positive economic and environmental benefits associated with modest financial support to brownfield redevelopment projects;
 - the critical role of partnerships and collaboration amongst all stakeholders (property owners, developers and other investors, professional service providers, local government and the Province); and,
 - the key role local government can play as champion of community revitalization through brownfield redevelopment.

●

Background:

- British Columbia has adopted the national definition for brownfields as follows:
abandoned, vacant, derelict or underutilized commercial and industrial properties where past actions have resulted in actual or perceived contamination and where there is an active potential for redevelopment.
- Brownfields are often located in or near established communities and can include decommissioned service stations and other fuel handling facilities, former railway yards, old industrial waterfronts, and former drycleaner sites.
- Left as they are, brownfields can pose threats to human health and environmental quality, and they have little economic value; however, redeveloped and returned to productive use, brownfield sites can generate significant economic, social and environmental benefits and more sustainable communities overall.
- In 2007, Cabinet directed the development of a provincial brownfield redevelopment strategy which was publicly announced the following year and was led by the Ministry of Forests, Lands, and Natural Resource Operations (FLNRO) until 2014.
- The Ministry of Environment worked closely with FLNRO to both develop and implement a four-pillar brownfield strategy which targeted (i) improved public policy on risk management and liability, (ii) strategic financial incentives, (iii) education and capacity building, and (iv) leading by example on Crown-owned sites.
- The B.C. Brownfield Strategy has been recognized by urban development associations at both provincial and national levels. In 2010, it was awarded the Canadian Urban Institute's "Brownie Award" for Communications and Public Engagement for a series of local government workshops delivered across B.C.
- Overall, provincial brownfield efforts to date have made a difference for many communities in the Province. Approximately \$7 million was spent from 2008-2014 to help defray costs to private land owners of early investigations as strategic financial incentives.
- Three "Brownie Award" winners from B.C. in 2014 attest to these important success factors. The original funding program approved by Cabinet has been completely disbursed and any additional provincial funding would require a new request to government.
- The Province's contaminated sites and brownfield regulatory framework provides a flexible, polluter-pay-based regime that ensures that potentially contaminated properties are investigated and, where necessary, remediated to ensure protection of human health and the environment, prior to redevelopment and reuse.
- The ministry remains committed to ongoing initiatives that provide for greater regulatory process certainty and has increased the use of external-to-government qualified professionals who make direct recommendations to ministry decision makers for issuance of approvals and certificates.
- As part of provincial brownfield strategies, the Ministry is committed to the ongoing review and streamlining of the provincial remediation regulatory framework. The goal of these efforts has been to continue increasing certainty in both (i) business processes, and (ii) environmental protection outcomes.

ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT - GENERAL

- Ensuring compliance with environmental laws and regulations is one of the ministry's primary objectives.
- 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.
 - 2015 had the highest number of tickets issued and the highest ticket fines levied in eight years.
 - 2015 had the third highest number of court convictions in eight years.

Background:

C&E Approach:

- The Ministry conducts inspections of regulatory requirements and where necessary takes enforcement action to address any non-compliance. Investigations are typically conducted where a more stringent response may be required such as court prosecution.
- 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 penalties to address non-compliance.
 - Publicly naming companies and individuals subject to enforcement action, as well as those with outstanding environmental court fines.

Compliance and Enforcement Policy:

- The C&E Policy outlines a risk-based approach to respond to non-compliance.
- The **Non-compliance Decision Matrix** is a tool that guides staff in their selection of an appropriate response to non-compliance, ensuring that they consider certain criteria and factors including the real or potential impact to the environment or human health and safety, and the likelihood of achieving future compliance.
- The policy helps to provide greater consistency, increased clarity and predictability regarding the consequences of non-compliance and help to ensure that ministry resources are directed to the highest priorities.
- The C&E Policy encourages a balanced and principled use of C&E tools and demonstrates the ministry's commitment to building public confidence through accountable and transparent policies.

New Enforcement Tools:

- While Ministry staff have access to a range of enforcement tools to respond to non-compliance, two additional tools have recently been added to the toolkits to provide increased the flexibility:

Administrative Monetary Penalties

- AMPs fill a gap between issuing a violation ticket (used for minor offences) and prosecuting in court (reserved for the most serious offences).
- AMPs are financial penalties imposed on a person or a business for non-compliance with a regulatory requirement.
- AMPs are issued by designated ministry officials under the authority of the Environmental Management Act and the Integrated Pest Management Act.

- In 2015 2 AMPs were served totaling \$15,000 in penalties. Staff are currently preparing to serve more in 2016, anticipating that AMPs will be an effective tool to change behaviour.

Community Environmental Justice Forums

- A CEJF is a venue that uses the principles of Restorative Justice to address environmental offences committed by regulated companies.
- A CEJF recognizes the individuals or community affected by the offence and invites them to participate in a facilitated session with the company to determine appropriate restitution to restore compliance and repair harm caused by the offence.
- CEJFs offer an alternative to an adversarial process, providing opportunity for meaningful dialogue, problem-solving and relationship building for all parties.
- To date, eight CEJF's have been held resulting in a total of \$685,500 in restitution – 100% of which has been paid in full.

Environmental Enforcement Reporting

Quarterly Environmental Enforcement Summary (the Summary)

- The ministry has been publishing the Summary since 2006. Its purpose is to improve transparency and to provide additional deterrence to those businesses and individuals subject to environmental laws.
- The Summary is published on the ministry website, and includes enforcement actions taken to prevent actual or potential impact to the environment and protect human health and safety.
- The enforcement actions reported originate as follows:
 - Orders, administrative sanctions and administrative monetary penalties are provided by program staff in ENV and Ministry of Forests, Lands and Natural Resource Operations; and
 - Tickets, court convictions and Community Environmental Justice Forums are provided by Conservation Officers and Park Rangers in ENV.

Environmental Violations Database

- The database, available on the ministry website, is searchable and contains all entries included in the Summary, dating back to 2006.
- The database contains more than 20,000 entries, demonstrating the range of enforcement actions taken by staff in response to environmental violations – including hunting and fishing, open burning, mud bogging, dam safety, pesticide and pollution offenses.

Overdue Court Penalties Report (Closing the Gap)

- The ministry is committed to publishing annually the collection rate for environmental court penalties for a rolling six year time period.
- Environmental penalties are meant to deter harmful behaviors – especially those most harmful behaviours that are prosecuted through the courts.

- British Columbia is the first jurisdiction in North America to take a tough stance on unpaid environmental penalties by naming names in public reports, aiming to increase the collection of fines from businesses and individuals that break environmental laws.
- Since focusing on the recovery of overdue court penalties, the ministry has improved the collection rate from 40% to 92%.

Stats & Trends on Enforcement Actions

- While the numbers for enforcement actions may fluctuate slightly year over year, they have held steady for many years.
 - 2015 shows strong overall numbers, demonstrating the work of ministry staff on the ground to maintain the environmental health and beauty of the province.
 - 2015 had the highest number of tickets issued and the highest ticket fines levied in eight years.
 - 2015 had the third highest number of court convictions in eight years.

Enforcement Actions	2008	2009	2010	2011	2012	2013	2014	2015*
Orders	26	18	19	13	22	8	8	17
Administrative Sanctions	173	227	208	152	179	276	249	208
Administrative Monetary Penalties (AMP)	0	0	0	0	0	0	0	2
Total AMP Fines	0	0	0	0	0	0	0	\$15,000
Tickets Issued	2099	1955	1708	1441	1941	2261	2216	2295
Total Ticket Fines	\$402,621	\$346,192	\$334,214	\$299,639	\$400,866	\$465,863	\$442,706	\$486,188
Court Convictions	65	64	53	67	87	78	70	72
Total Court Fines	\$297,268	\$803,822	\$166,191	\$684,814	\$497,785	\$411,008	\$399,486	\$200,293
Restorative Justice (RJ)	0	0	2	2	1	0	2	1
Total RJ Fines	\$0	\$0	\$44,500	\$335,000	\$250,000	\$0	\$28,000	\$28,000
Total Fines	\$699,889	\$1,150,014	\$544,905	\$1,319,453	\$1,148,651	\$876,871	\$870,192	\$729,481

* Ticket numbers for 2015 are preliminary and may increase when the 3rd and 4th quarter reports are published.

Highlighted Court Convictions

Progress Energy Canada Ltd. (2015)

- Pled guilty in Provincial Court, and was ordered to pay a total of \$250,000 in penalties for an offence under the federal Migratory Birds Convention Act.
- The Conservation Officer Service (COS) initiated the investigation and worked with Environment Canada staff to establish that migratory birds died as a result of their exposure to a form of petroleum liquid hydrocarbon.
- The company had no deterrence measures in place to limit the bird's access to the open, above-ground, holding tank.

Neucel Specialty Cellulose Ltd. (2014)

- Convicted in court under the Environmental Management Act for exceeding waste discharge levels at its operation in Port Alice on Northern Vancouver Island.
- The Major Investigations Unit of the COS handled the investigation in partnership with Environment Canada.
- The discharges occurred on three separate occasions and resulted in a \$1,000 fine and a \$174,000 court ordered creative sentencing penalty to be paid to the Habitat Conservation Trust Foundation.

Amit Bawa Integrated Pest Management Act (2014)

- The first court conviction under BC's *Integrated Pest Management Act*.
- Bawa was found guilty on two counts of making false statements to the administrator during his role in certifying pesticide applicators and fined over \$13,000.
- Undercover CO's performed an investigation finding that Bawa was putting the public at risk by compromising the integrity of the training and certification program.
- The certification program is a key element in ensuring that pesticide applicators and dispensers are knowledgeable in pesticide safety to protect human health and the environment.

Program Area Contact:	Anthony Danks, Executive Director Strategic Policy Branch, Environmental Sustainability & Strategic Policy Division	(250) 387-8483
-----------------------	---	----------------

**MINISTRY OF ENVIRONMENT
INFORMATION NOTE**

February 3, 2016

File:

CLIFF/tracking #:

PREPARED FOR: Mark Zacharias, ADM, Environmental Protection Division

ISSUE: Summary of files with active compliance issues

BACKGROUND:

During the first three quarters this fiscal, the compliance team has conducted 388 inspections. Approximately 40% of those inspections were found to be in compliance with their associated requirements.

The following files are currently being managed by the ROB Compliance team with notable non-compliance issues.

- South Island Aggregates (SIA) – Interest continues to be high as court proceedings continue. All incoming complaints are being monitored closely. Site is currently in compliance.
- Teck in the Elk Valley – Eight warning letters have been issued for non-compliances that have occurred and four more are pending. The Compliance Operations Manager is working closely with the company to achieve compliance.
-

s.13

- Valley Wide Meats – Registered under the Code of Practice for the Slaughter and Poultry Processing Industries, significant compliance issues with how waste materials are being managed at this site have received attention by an MLA and Ministry of Agriculture is involved. Neighbours have reported that materials are being carried offsite by birds. A meeting with Minister Polak has been scheduled for February 9th and briefing materials have been prepared (Cliff #293998).
- Revolution Organics (formerly Northwest Organics) – Large number of unverified complaints regarding odour continue to come in. 158 reports regarding odour have been made by 23 people since October 23, 2015 when the company was given a notice of compliance with OMRR. Copies of all complaints are

currently being provided to Revolution to assist them with odour management practices. Two advisories regarding non-compliance in early 2015 were rescinded by MOE due to insufficient recorded evidence and procedural content issues with the inspection reports.

- HS Jansen & Sons Farms (Hulcar Aquifer/Spallumcheen) – Concerns being raised by local government over nitrate levels in the aquifer and how it relates to the Compliance Order in place. The Compliance team has scheduled inspections in early spring on all farms above the aquifer in question.

-

s.13

- Red Chris Mine – Pit water spill of 17,000L on December 9, 2015. Compliance and Mining team are working together in post-incident response. The situation has stabilized and impacts are being assessed. A Warning letter has been issued to the company. Efforts on post-response are now beginning to wrap up.

Contact:

Jennifer McGuire
Executive Director, ROB
604-582-5284

Alternate Contact:

Christa Zacharias-
Homer
Deputy Director, ROB

Prepared by:

Cassandra Caunce
Regional Director, Compliance &
IPM
250-371-6225

FOR INTERNAL USE ONLY

QUESTIONS AND ANSWERS

EMA Amendments for Area Based Management Plans (ABMP)

Ministry of Environment

January 2016

s.13,s.16

FOR INTERNAL USE ONLY

QUESTIONS AND ANSWERS

s.13

EMA LEGISLATIVE AMENDMENTS

- Through these amendments we can provide more certainty for those looking to invest in B.C., while continuing to protect the environment and preserve the integrity of statutory decision makers.
- The amendments will remove a redundancy that currently exists under the Environmental Management Act, with respect to area based management plans (ABMPs).
- ABMPs are already based on science, with technical input from experts, including statutory decision makers.
- However, proponents operating within ABMPs are currently faced with uncertainty when it comes to the permitting process under the existing Act, often waiting on statutory decision makers to see if and when a permit may be issued.
- These amendments will allow the Minister to require that a waste discharge permit be issued with specific conditions and within a specified timeframe, when a project is already covered by an approved area based management plan.
- The Minister can only allow permits with conditions that are in accordance with the approved plan, and so have already undergone scientific rigour.
- As well, under the current legislation there is no ability to update an approved area based management plan.

- We want to ensure these plans remain effective which is why we are proposing that when new information becomes available or when improvements are identified, plans can be amended as needed.
- First Nations were consulted on these amendments and no concerns were raised.

Background:

- Proposed amendments to the *Environmental Management Act* will be introduced in Spring 2016 that will provide the Minister with flexibility to update area based management plans (ABMP) and improve permitting certainty within ABMPs.
- These amendments partly stem from a core review recommendation regarding permitting within approved area based management plans.
- The most significant change is to the existing “statutory decision maker” (SDM) framework as the amendments will give the Minister the authority to fetter the discretion of SDMs when it comes to making independent decisions.
- Currently, resource development projects that are otherwise approvable under other applicable natural resource sector legislation can be subject to uncertainty due to the EMA permitting process even when there is an approved ABMP in place.
- This uncertainty arises from the unfettered discretion of SDMs under the Act. While independent decision making by SDMs is an important aspect of science-based decision making, it can also bring uncertainty about whether and when permits will be issued. In cases where an approved, science-based ABMP is in place, there can be cases where emphasis on certainty is warranted, without sacrificing the science-based component.
- The amendments will authorize the Minister to require, by order, the issuance of waste discharge permits with specified conditions, within a specified timeframe, when a project is covered by an approved ABMP. This will provide certainty looking forward for proponents in the process of making investment decisions and developing project plans.
- The amendments also provide flexibility by giving the Minister authority to require amendments to approved ABMPs when appropriate (i.e. amendments based on new and evolving information). There is currently no provision in EMA for amending approved plans and this lack of updating authority can erode the effectiveness of a plan over time.
- For example, Teck is seeking changes to the Elk Valley Water Quality Plan to move a water quality compliance monitoring site to a location that is less prone to seasonal low water flows and reduced dilution rates. The amendments would allow the Minister to, by order, mandate changes like this to approved ABMPs.
- First Nations, including the Ktunaxa Nation which has a direct interest in the Elk Valley Water Quality Plan, were invited to engage in consultations on the proposed amendments. No concerns have been raised by the Ktunaxa or any other First Nation.

<p>ESTIMATES NOTE (2016) Confidential</p> <p>Ministry of Environment</p> <p>Date: February 5, 2015</p>	<p>ISSUE TITLE:</p> <p>Industry Product Stewardship Agency Governance and Financing</p>
--	---

KEY MESSAGES:

- **Key message #1 - BC's results-based Recycling Regulation assigns 100 percent responsibility and cost to industry for the management of their products and packaging at end-of-life. The Regulation defines/prescribes outcomes, but not the means or process to achieve them, providing maximum flexibility for industry to design the most efficient/effective means to meet performance metrics set out on their approved stewardship plan, and requirements of the Recycling Regulation.**
- **Key message #2 - In September 2015, EPR Canada released their report card for 2014 and BC once again earned top marks receiving an A, the highest grade to date, for its implementation of industry (extended producer responsibility) recycling programs.**
- **Key message #3 - The majority of stewardship agencies operating the 21 BC industry recycling programs are not-for-profits and their financials are required to be made available to anyone who requests them.**
- **Key Message #4 - Stewardship agencies and operations are fully transparent. The Ministry requires that the agencies' stewardship plans undergo extensive public consultation prior to approval. Once approved, plans are posted on the Ministry's website as well at the agencies'. Annually, the stewardship agency must submit a report containing third party assurance with respect to their performance metrics. Additionally, if a visible eco/environmental fee is charged, a third party audited financial statement must accompany the annual report, which is publically available.**
- **Key message #5 - Program Fees - Agency program fees (eco/environmental) are established to reflect the cost to collect, transport and responsibly recycle materials collected under the program. Producers view these fees as an impediment to purchasing and therefore have incentive to keep them low; monitoring and review of these fees occurs on a regular basis.**
- **Key message #6 - Operating Reserves - to ensure long-term stability of the program in the event of adverse economic conditions, most agencies aim to accumulate some reserve funds, with target reserve levels determined by their individual boards and committees. Maintaining a reserve/contingency is a sound business strategy and reduces the risk to taxpayers and local**

governments, who would otherwise have to pick up the cost of managing these end-of-life materials if the agency, due to financial hardship or collapse, was unable to.

CURRENT STATUS:

Key message #1 - BC's results-based Recycling Regulation assigns 100 percent responsibility and cost to industry for the management of their products and packaging at end-of-life. The Regulation defines/prescribes outcomes, but not the means or process to achieve them, providing maximum flexibility for industry to design the most efficient/effective means to meet performance metrics set out on their approved stewardship plan, and requirements of the Recycling Regulation.

- The objective of these programs is to remove the costs from the local taxpayer and shift them to the producers and actual consumers of the products. Extended Producer Responsibility (EPR) provides an incentive to manufacturers to redesign products so they are less toxic and more durable, reusable, and recyclable – extending product life spans.
- BC has 21 EPR programs. Current programs exist for beverage containers, tires, used oil, oil filters and containers, antifreeze, pharmaceuticals, solvents, flammable liquids, gasoline, pesticides, paint, electronics, cell phones, IT and telecommunications, audio/visual, household batteries, thermostats, residential fluorescent lamps, car batteries, smoke detectors and small appliances.
- EPR programs in BC are responsible for diverting from BC landfills, among other products:
 - 30 million litres of paint; 950,000 litres of flammable liquids and gasoline; and 176,000 litres of pesticide (collectively referred to as household hazardous waste)
 - 196,000 tonnes of e-waste consisting of consumer and commercial products covering computers, TVs, small and large appliances, thermostats, cell phones, house hold batteries, etc.

Key message #2 - In September 2015, EPR Canada released their report card for 2014 and BC once again earned top marks receiving an A, the highest grade to date, for its implementation of extended producer responsibility programs.

- The EPR Canada Report Card, now released every two years, grades the federal, provincial and territorial governments on their progress in developing and implementing EPR legislation in compliance with the CCME Canada-wide Action Plan on EPR. In their first reports card (2011) BC received an A-; 2012 BC tied with Quebec with a B+ but fell due to lack of compliance and enforcement.
- 2013 EPR Canada released a general review of the jurisdictions progress instead.

Key message #3 - The majority of stewardship agencies operating the 21 BC industry recycling programs are not-for-profits and their financials are required to be made available to anyone who requests them.

- Not-for-profits are registered either federally and/or provincially under the Canada Not-for-profit Corporations Act and/or the BC Society Act. Governance structure, management of program costs, and operational systems of a stewardship agency are determined by members of the agency through their board and committees, as with all not-for-profits.
- Under the current BC Society Act:
 - A society is a not-for-profit organization. Any funds or profits must be used only for purposes of the society itself.
 - Once a society is incorporated, it is up to the director(s) appointed by the members to administer the affairs of the society.
- Each stewardship agency program is based on a detailed stewardship plan that was developed in consultation with BC stakeholders and approved by the provincial Ministry of Environment.
- Most agencies are governed by a board of directors with committees, such as audit and finance that meet regularly to review program performance, financial and otherwise.
- Most of the agencies' board members, such as Multi-Material BC (MMBC), are volunteers and receive no remuneration.

Key Message #4 - Stewardship agencies and operations are fully transparent. The Ministry requires that the agencies' stewardship plans undergo extensive public consultation prior to approval. Once approved, plans are posted on the Ministry's website as well at the agencies'. Annually, the stewardship agency must submit a report containing third party assurance with respect to their performance metrics. Additionally, if a visible eco/environmental fee is charged, a third party audited financial statement must accompany the annual report, which is publically available.

- Stewardship agency operations are fully transparent from their inception.
- The Ministry's role under the Recycling Regulation with respect to ensuring transparency is to:
 - Ensure stewardship plans have undergone extensive stakeholder consultation prior to being submitted to the Ministry for regulatory review. Protracted negotiations between the stewardship agency and the Ministry are common, and, prior to approving, if the Ministry deems the stewardship plan is substantially different from the initial consultation document, the Ministry will require the agency to go out to consultation again. This was the case with the MMBC, the StewardChoice and the Brewers Distributor Limited plans.
 - Approve the stewardship plan once it deems it has successfully addressed all regulatory requirements.
 - Monitor the program's performance (e.g. through review of the stewardship agencies annual report on program performance submitted July 1, for the previous year's operations).

- Ensure all annual reports have undergone third party non-financial assurance. I.e. to ensure non-financial performance measures are accurately stated in their annual report.
- Assure that if a visible eco fee/environmentally handling fee is charged to consumers to fund the agency's program, a third party audited financial statement is included in the annual report.
- Ensure the annual reports are available to stakeholders on the stewardship agencies' and Ministry's website.

Key message #5 - Program Fees - Agency program fees (eco/environmental) are established to reflect the cost to collect, transport and responsibly recycle materials collected under the program. Producers view these fees as an impediment to purchasing and therefore have incentive to keep them low; monitoring and review of these fees occurs on a regular basis.

- Producers determine how to fund their stewardship program, and the majority have chosen to charge a separate fee (termed an eco fee or environmental fee) to the consumer at the point of sale.
- The agencies' boards and committees meet regularly to review financial performance and risk management. As with most societies, employing principles of good governance is standard practice and they strive to achieve compliant, effective and efficient program management to meet the intent of the Regulation and reduce costs where possible.
- These principles, continually applied at The Electronic Products Recycling Association BC (EPRA) (responsible for managing safe and secure end-of-life electronics such as computers, TVs, etc.), have resulted in their program costs being reduced each year since 2012. For example, 2012 total program costs for EPRA was \$26.4 M, whereas 2014 total costs were down to \$22.8M, a reduction of \$3.6M in spending or more than 13% in just 2 years. The cost savings translated into lower eco/environmental fees for the majority of electronics in BC as of May 2015, directly passing on the program management cost savings to the public.
- Stewardship Agencies of BC, a collective of the stewardship agencies operating recycling programs in BC, provides helpful information on their website about program funding models: <http://www.bcrecycles.ca/about-stewardship-how-we-are-funded/>

Key message #6 - Operating Reserves - to ensure long-term stability of the program in the event of adverse economic conditions, most agencies aim to accumulate some reserve funds, with target reserve levels determined by their individual boards and committees. Maintaining a reserve/contingency is a sound business strategy and reduces the risk to taxpayers and local governments, who would otherwise have to pick up the cost of managing these end-of-life materials if the agency, due to financial hardship or collapse, was unable to.

- Stewardship agencies maintain a reserve/contingency in keeping with prudent financial management. Reserves reduce the risk to taxpayers and local

governments, who would otherwise likely have to pick up the cost of managing these end-of-life material if the agency, due to financial hardship, is unable to.

- A reserve/contingency is necessary to ensure the ability of the program to collect and process material in the event of adverse economic situations. In recent times, plummeting commodity prices as a result of economic downturns have resulted in significant drop in value of recovered materials such as metals, the sale of which goes to offset program costs.
- Examples of stewardship agencies that have accessed their contingency due to adverse economic situations:
 - The Electronic Products Recycling Association BC, which is responsible for managing safe and secure end-of-life electronics such as computers, TVs, etc., had a deficit of \$592,000 in 2012 which was covered through a draw on the contingency reserve to maintain program operations.
 - In 2006, Encorp Pacific, one of the two stewardship agency responsible for beverage container collection and recycling, were operating with reserves of over \$15 million. The subsequent recession that began in 2008 rapidly and substantially negatively affected program cash flow (through lower beverage sales, reduced commodity revenue, etc.). Their reserves were fully depleted by 2009, and in fact were negative for a brief period. This put in jeopardy their ability to pay back deposits and pay depots, transporters, and processors for their services. The result was a thorough review by the board of the methodology used to set reasonable reserve levels. Reserves are now within a higher but more appropriate range. In response, Encorp is reducing eco/environmental fees, and in fact the eco/environmental fees for 16 of 19 beverage categories are lower today than in 2012. Last year, 7 eco/environmental fees were reduced, and this year 11 of the 19 eco/environmental fees have been reduced.

KEY FACTS/BACKGROUND:

- As the Regulator, Ministry is not involved in the business-to-business operations of stewardship programs; Ministry purposely allows industry to set standards and fees that allow for efficiently run programs, based on industry knowledge and current commodities markets, along with stakeholder input.
- Appropriate checks and balances are inherent in BC's EPR model. EPR programs are industry run with producers wanting to keep fees as low as possible in a competitive industry. Programs are mainly administered through not-for-profit stewardship agencies in BC, with full financial disclosure required under the Society Act.
- The Ministry provides financial support of approximately \$75,000/year for the Recycling Council of BC's Recycling Hotline (1-800-667-4321) and the Recyclopedia website: www.rcbc.bc.ca

**Contact: Cameron Lewis, Executive Director, Waste Prevention Branch
250 953-3866**

<p>ESTIMATES NOTE (2016) Confidential</p> <p>Ministry of Environment</p> <p>Date: February 19, 2016</p>	<p>ISSUE TITLE:</p> <p>Abandoned/Illegally Dumped Waste</p>
---	---

KEY MESSAGES:

- **Key message #1 – Abandoned solid waste (aka illegal dumping) is a broad issue with a variety of causes and solutions are not straightforward.**
- **Key message #2 – Under the authority of the Environmental Management Act, local governments have the fiduciary responsibility for waste management. They are required to address all waste management practices, including illegal dumping in their solid waste management plans. However, addressing this issue is ultimately a shared responsibility between local governments, the Province, and other stakeholders.**
- **Key message #3 – Industry-funded Extended Producer Responsibility (EPR) programs, provide free recycling options for a wide variety of products, and are one key tool available to combat illegal dumping.**

CURRENT STATUS:

Key message #1:

- Illegal dumping is a social behavior issue that has been going on for many decades despite efforts to address it through a myriad of initiatives by local governments. Social media campaigns and education have helped, but there continues to be a small portion of society that continues to illegally dump waste.
- There is no one driver behind this behavior and it is influenced by many factors, such as: personal economic reasons (access to vehicle to transport items, or inability/willingness to paying tipping fees); restrictions on what can be disposed of; convenient access to recycling options in communities; and the lack of knowledge by individuals that a free recycling program may exist in their community; and simple disregard for authority/rules and regulation.
- Feedback from regional districts and other stakeholders suggests that the relationship between tipping fees and illegal dumping is not straightforward. High tipping fees may result in illegal dumping to avoid disposal costs; however, illegal dumping is still prevalent in areas where no tipping fees are charged.

Key message #2

- As much as the province is doing its part to require free and easy access for residents across the province to recycle the most common residential materials often captured by stewardship programs, other components of the municipal waste stream

still require proper disposal and are most vulnerable to illegal dumping.

- Solving the issue of illegal dumping has to be a shared responsibility between all involved:
 1. Local police/RCMP, provincial conservation officers and by-law enforcement officers – can issue tickets when incidents are brought to their attention
 2. Provincially regulated stewardship programs – are continually evolving with higher awareness and participation rates
 3. Local government policies – can be structured to provide/host free return options for products or materials gathered at community clean-up events, or setting of low tipping fees to encourage best practices for commonly discarded or burned items e.g. yard and garden materials
 4. Private land/forestry owners – can restrict access and report areas and incidents before they grow into established dumping grounds/practices
 5. Community and outdoor groups – can take active roles in organizing clean-up events e.g. ATV clubs, hiking groups, sports associations, etc.
 6. Private citizens – can be the eyes and ears, watching for and reporting suspicious activities or loads of waste heading into forest areas
 7. Media – often profiles illegal dumping incidents and associated community clean-up events, furthering society's awareness and intolerance.

Key Message #3

- The Ministry requires that stewardship plans undergo extensive public consultation prior to approval. As part of the plan approval checklist, plans must demonstrate how the public will be made aware of the free return options available to them and how participation and recovery rates will increase over time.
- BC now has 21 different Product Stewardship programs covering hundreds of items - ranging from curbside materials to electronics to oil, paints, solvents, tires, etc. that are now being collected by industry. Free access to collection and recycling in communities directly helps to reduce the practice of illegal dumping.

KEY FACTS/BACKGROUND:

- Illegal dumping is a shared responsibility and efforts are continuing to raise the awareness of the financial, social and environmental impacts involved. Both the 2015 Coast Waste Management Association conference and the 2016 Recycling Council of BC conference have dedicated full sessions to the topic.
- Local governments believe stewardship programs are helping to reduce illegal dumping, and the Ministry is involved in discussions to provide further support.
- Under the authority of EMA, local governments have the fiduciary responsibility for waste management. They are required to address all waste management practices, including illegal dumping in their solid waste management plans.

**Contact: Cameron Lewis, Executive Director, Waste Prevention Branch
 250 953-3866**

**MINISTRY OF ENVIRONMENT
INFORMATION NOTE**

January 13, 2016

File:

CLIFF/tracking #:

PREPARED FOR: ADM, Mark Zacharias

ISSUE: EPD's role in LNG development and permitting

BACKGROUND:

Environmental Management Act (EMA) permitting for the oil & gas and LNG sector is split between the BC OGC and MOE. While the OGC is the "One Window" for the sector and they have delegation under EMA, there are many areas of the sector that MOE regulates. In addition to the EMA related work, MOE conducts the review of all Environmental Assessments for oil & gas and LNG projects.

Both MOE and the OGC work together closely at the operational level to ensure permitting, land remediation, compliance & enforcement, and spill response are done in a consistent, efficient and effective manner across the oil & gas sector.

DISCUSSION:

MOE has the following roles in the sector:

- Sets policy under EMA for all decision makers to follow;
- Leads airshed level studies such as in Kitimat and Prince Rupert;
- Participates in the Environmental Assessment (EA) review of LNG pipelines and facilities to assess impact to air, water, land and human health;
- Supports the OGC decision maker in the EMA permit review;
- Responsible for authorizing all secure landfills, hazardous waste treatment, storage and processing facilities and camp sewage;
- Decision maker for EMA authorizations for:
 - NEB regulated facilities and pipelines;
 - LNG preconstruction activities;
 - Air discharges at 3rd party/service sector disposal wells;
- Administers high risk land remediation for oil and gas sector; and
- Spill response off lease sites and pipeline right of ways.

OGC has the following roles in the sector:

- Gives full consideration to existing MOE policies when it makes decisions;
- Decision maker for EMA authorizations for:
 - Proponent disposal wells;
 - EA and sub EA facilities and pipelines including LNG facilities;
- Decision maker for *Oil and Gas Activities Act* authorizations for:
 - all disposal wells,
 - drilling permits,
 - site permits,
 - facility permits, and
 - disposal well permits.

- Administers low to medium risk land remediation for oil and gas sector; and
- Spill response on lease sites and pipeline rights of way, and;

The OGC exists on a cost recovery basis from fees collected from the oil and gas industry. The OGC has a commitment to process permits in 60 to 90 days and sets a standard in the sector. MOE's current permitting timeline is around the 180-270 days for the same sector. Because of the standard set by the OGC and the oil and gas sector's short operational planning windows, there is increasing pressure on MOE O&G/LNG Operations to decrease permit processing timelines.

Over the last two years the LNG team has had between four and 6.5 FTEs. During this time, the team has moved eight projects through the EA process. There is ongoing work associated with EA Certificate conditions on the approved projects. After March 31, 2016, it is estimated that eight projects will remain in the EA process dropping to five after December 2016. The EA workload for the team will likely remain similar to the previous two years.

Before 2014, most of the upstream and midstream workload for MOE serviced activities for the Canadian and US markets. Over the past three years, there has been increased emphasis on developing an LNG sector in BC seeing 16 potential facilities and six potential pipelines come forward. s.13

s.13

NEXT STEPS:

s.13

ATTACHMENT: OG_LNG_Resourcing_Oct27

Contact:

*Jennifer McGuire
Executive Director
Regional Operations Branch
604-582-5284*

Prepared by:

*Ed Hoffman
Regional Director
Regional Operations Branch
250-961-9156*

What does one LNG facility mean for our workload?

Contains confidential commercially sensitive information which should not be shared outside of Province of BC agencies.

Overview:

Oil&Gas (O&G) assessment and EMA permitting is split between the BC OGC and MOE. MOE authorizes discharges at 3rd party disposal wells while OGC authorizes primary proponent disposal wells. MOE is responsible for authorizing all secure landfills, hazardous waste treatment, storage and processing facilities, and camp sewage. MOE permits NEB regulated facilities and pipelines while the OGC regulates EA and sub EA facilities and pipelines including LNG facilities. MOE permits LNG preconstruction activities. MOE participates in the Environmental Assessment (EA) review of LNG related facilities and may support the OGC decision maker in the permit review.

While both the MOE and OGC handle EMA permitting, the OGC also does permit processing for the Oil and Gas Activities Act. The other important item to remember about the OGC is they exist on a cost recovery basis from fees collected from the oil and gas industry. As part of this fee structure there is a commitment by the OGC to process permits in 60 to 90 days, and sets a standard in the sector. MOE's current permitting timeline is around 180-270 days for the same sector that OGC is serving. Because of the standard set by the OGC and the oil and gas sectors short operational planning windows there is an increasing amount of pressure on MOE O&G Team to decrease permit processing timelines.

Historically a majority of the O&G workload in MOE has been handled by the Omineca/Peace Region with a smaller number of O&G permits being handled by other regions. In 2014 ROB created the O&G/LNG team to centralize all of the MOE O&G related work to one team. The O&G group focuses mainly on upstream and midstream activities (camps, processing facilities, pipelines, disposal wells, secure landfills, haz waste treatment) with the support of 2.5 EPO's and 1 section head funded from base MOE budget. The LNG group focuses solely on primary and secondary LNG activities (EA reviews, bio/met support of OGC decision maker, broad airshed studies, camps) with 2 bios, 2 EPOs, 1.5 mets, and 1 SH from treasury board funding and base. The TB funding for \$217K (three staff plus travel) expires March 2016.

What does the future look like?

Oil&Gas Workload:

Because of the split of duties between the OGC and MOE all of the predicted disposal streams noted above will not mean proportional permitting workload just for MOE, but it will be shared between OGC and MOE.

The increased rate of drilling production does not necessarily equate into an proportional increase in waste stream permitting due to economies of scale and emerging technology to re-use and recycle solid and liquid wastes from drilling.

s.13

s.13

Page 31 to/à Page 35

Withheld pursuant to/removed as

s.13

NORTHEAST AIR MONITORING PROJECT

- Public demand for local air quality information continues to grow in the northeast due to oil and gas development.
- The Ministry of Environment has collaborated with the CAPP, Spectra Energy, the Oil and Gas Commission, Ministry of Natural Gas Development and other local partners to conduct an air quality assessment and establish an ongoing air monitoring program since 2012.
- This project established an enhanced ambient air monitoring network consisting of three portable stations, a core station, and mobile monitoring.
- A 2015 Northeast BC Air Quality Characterization Report summarizing found air quality is generally good except for occasional exceedances of odour objectives for hydrogen sulfide in Pine River and Taylor. Health risks associated with these measured exceedances are relatively low.
- Over the past year, MOE engaged with northeast stakeholders and helped to create a Public Outreach Group composed of local community representatives to support project implementation.

-

s.13

Background:

- Ministry of Environment has three portable air monitoring stations deployed in small communities near oil and gas development in Northeast BC. These stations were initially deployed for close to two years at Farmington, Tomslake and Doig River measuring compounds released through oil and gas activity (hydrogen sulfide and sulfur dioxide). Only low levels of those compounds were observed during the measurement period.
- After a scientific review by an expert Technical Advisory Group, those three stations are being redeployed to three new communities in the Winter and Spring of 2016 with an expanded set of pollutants being monitored as follows:
 - Taylor: nitrogen oxide, ozone, small particulates, volatile organic compounds¹
 - Blueberry / Buick Creek: nitrogen oxide, ozone, volatile organic compounds
 - Rolla: nitrogen oxide, ozone, volatile organic compounds
- A core air monitoring station, measuring nitrogen oxide, ozone, small particulates and sulfur dioxide, was established in Fort St. John in 2015 to provide a regional picture of air quality for the national Air Quality Management System and to support Air Quality Health Index reporting in that community.
- All air quality data generated by the three portable and the core air monitoring stations are available in near real-time at: <http://www.bcairquality.ca/readings/northeast.html>
- OGC operates two mobile air monitors for compliance and emergency monitoring: the Commission's Air Monitoring Environmental Laboratory trailer unit and a new Roaming Air Monitor van unit for rapid deployment.

Program Area Contact: David Tesch

250-387-5831

¹ Volatile organic compounds (VOCs) are organic chemicals that vapourize easily. Some VOCs are dangerous to human health or cause harm to the environment. Harmful VOCs typically are not acutely toxic, but have compounding long-term health effects (Wikipedia. Accessed July 28 2015).

**MINISTRY OF ENVIRONMENT
INFORMATION NOTE**

January 31, 2016

File:

CLIFF/tracking #:

PREPARED FOR: Mark Zacharias, ADM EPD

ISSUE: Collaboration with Alaska on water quality monitoring and review of mines in transboundary waters

BACKGROUND:

Alaska has actively participated in BC mine projects for many years in both BC EA review and subsequent EMA permitting activities.

Formalization of Alaska's role in these activities has been the recent focus. Concerns have been raised by different levels of government and other interested parties, including: Alaskan Tribes, fishing, commercial and environmental groups about the impacts of mine development along the BC-Alaska border.

Lt. Governor Byron Mallott and Minister Bill Bennett made reciprocal visits in 2015 to discuss the issue. In November 2015, the Alaska Governor and Premier signed an MOU regarding transboundary water quality monitoring and mine review.

DISCUSSION:

Current activities and engagement with Alaska include involvement in active permitting reviews for Red Chris, KSM and Brucejack mines. Concerns about BC mines and transboundary water quality have been addressed through information sharing between agency staff on ongoing water quality monitoring and incident reporting. Some collaborative monitoring has also been undertaken on transboundary waters in the past.

A Statement of Cooperation (SOC) would formalize and improve the cooperative relationship between BC and Alaska, and ensure parties operate with transparency to share information, science and best practices. An SOC will also provide avenues for stakeholders to learn about and provide input into significant projects and improve the availability and transparency of information related to transboundary mines.

NEXT STEPS:

The Ministry will assist with the establishment of an SOC to formalize and enhance existing collaboration between technical staff for environmental assessment and permitting activities. Specific areas of cooperation would include reporting on mine discharges, operations and closure, and compliance activities. The Ministry will also assist with the establishment of a technical water quality monitoring working group, responsible for developing a process for the collection and sharing of baseline water quality data.

Contact:

*Mark Zacharias
Environmental Protection
Division
250-387-9997*

Contact:**Prepared by:**

*Robyn Roome and Douglas Hill
Environmental Protection Division
250- 354-6362 / 250-398-4542*

OVERDUE ENVIRONMENTAL COURT PENALTIES

- B.C. is considered a national leader in its environmental enforcement reporting – both in the breadth of what we report, as well as the fact that we name names of violators.
- MOE expanded its public reporting in 2013 to include the Overdue Environmental Court Penalties report which lists all individuals and businesses with overdue environmental court penalties. This report is the first of its kind in North America.
- The purposes of publishing the Overdue Environmental Court Penalties report is to improve transparency and provide an additional incentive for individuals and businesses to clear these debts.
- This initiative has improved the collection rate of court fines from 40% to 92% in two years. ENV has set a longer-term goal to have a 95% collection rate for all court fines.
 - Efforts will continue to focus on strategies across the B.C. Government to improve the way fines are collected as a result of this project.

Background:

- ENV publishes the annual *Overdue Environmental Court Penalties Report*, which covers a six year timeframe.
- This report names all the businesses and individuals who have overdue environmental court penalties, the amount of the fine and the legislation under which the violation occurred.

Key facts/other agencies:

- The *Overdue Environmental Court Penalties Report* is available on ENV's public internet site.
- The latest report covers six years: 2008 – 2013.
- In the current report there are four business owing a total of \$54,525 and 80 individuals owing a total of \$226,677 in overdue environmental court penalties for a combined total of \$281,202.
- All businesses and individuals who have overdue environmental court fines payable to the Province have been named.
- Authority to publish the names is provided to both the Minister of Environment and the Minister of Forest, Lands and Natural Resource Operations by the *Ministry of Environment Act*, section 6.1.

Program Area Contact: Anthony Danks, Executive Director (250) 387-8483
Strategic Policy Branch, Environmental
Sustainability & Strategic Policy Division

Page 42 to/à Page 47

Withheld pursuant to/removed as

s.14;s.13

REVOLUTION ORGANICS

●

s.16

- MoE staff have made numerous site visits to the composting facility over the past few years in response to complaints about odour.
- The ministry has identified concerns in the past and continues to work with the operator to get the facility back in compliance.
- The most recent ministry inspections in late 2015 found the facility to be in compliance with their odour management plan and all applicable legislation.

Background:

- Lytton First Nations are planning to restrict access through their territory on Botanie Creek Road which would cut off vehicle access to Revolution Organics (formerly Northwest Organics), a local composting facility. The road is currently under Seasonal Load Restrictions which will be lifted on Feb.29. The company has not been hauling during this time but may start up in the near future.
- Lytton FN contends MoE provided the permit to compost without consulting them and has suggested the facility is six times larger than what the MoE permit allows and there is contaminant leaching into the soil and water supply. They are also concerned the farm is drawing water from a creek on FN land without permission and ministry staff are looking into these assertions.
- Currently, FNHA and MoE are trying to arrange a meeting with Lytton FN.
- Revolution Organics has been subject to numerous complaints from residents about odour from the facility. Since 2012, MoE staff have visited the site on 10 separate occasions to verify compliance.
- MoE has responded to complaints, inspected the operation and issued non-compliance orders which the operator has since corrected. The most recent ministry inspection on October 23, 2015 found the company to be in compliance with their odour management plan.

**MINISTRY OF ENVIRONMENT
INFORMATION NOTE**

January 15, 2016

File:

CLIFF/tracking #:

PREPARED FOR: Mark Zacharias, ADM EPD

ISSUE: Rio Tinto's Permit Amendment and Environmental Effects Monitoring Plan appeals.

BACKGROUND:

The Environmental Appeal Board (EAB) held a hearing from two Kitimat residents who appealed the permit amendment granted by MoE in April 2013 allowing increased sulphur dioxide (SO₂) emissions as part of the Rio Tinto (RTA) Smelter modernization project. The hearing phase ended June 30, 2015 and on December 23, 2015 the EAB issued their decision to uphold the permit amendment. The EAB made recommendations to MoE including: requiring RTA to update the human health section of their Environmental Effects Monitoring (EEM) Plan, undertake a provincially-led regional health study, develop a health advisory system for Kitimat and to take into account conclusions from the Prince Rupert Airshed Study.

The EEM Plan was a requirement of the permit and includes impact threshold criteria, that when exceeded, would trigger emission reduction and/or other mitigation such as scrubbing options for the air discharge. A statutory decision maker (SDM) may also require the installation of scrubbers under EMA if mitigation measures are warranted.

The specific criteria for the plan were set out in a Letter of Approval by the SDM in October 2014. Unifor (the union representing workers at RTA's smelter) 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 September 4, 2015, the Court ruled the EAB must reconsider Unifor's appeal. RTA has appealed this decision and it has not yet been heard by the Courts.

On November 16, 2015, the EAB reconsidered its previous decision that the EEM Plan approval was not an appealable decision, and reached the conclusion it was an appealable decision. MoE is currently awaiting direction from the EAB on how and when this appeal will move forward.

DISCUSSION:

The amended permit granted by MoE in April 2013 authorizes the current limit of 42 tonnes of SO₂ per day as compared to the previous limit of 27 tonnes of SO₂ per day. As a result of the smelter upgrades, there will be less total fluoride, total particulate and polycyclic aromatic hydrocarbon (PAH) emissions contributing to an almost 50% overall reduction of emissions and reduce GHG emissions by 500,000 tons/year.

A key argument from the hearings was MOE allowed RTA to pay an MOE employee's salary, from 2007-2013. This MOE employee was tasked by MOE to review a waste

discharge permit amendment application from RTA and make recommendations to a statutory decision maker. In this instance, there was an MOU between MOE and RTA. The MOU references the position as ‘seconded’ to allow an MOE employee to exclusively work on RTA applications for new authorizations or amendment to existing authorizations. However, the employee worked for MOE the entire time; in addition to reviewing applications, the employee conducted compliance inspections and data reviews of the RTA 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 MoE staff to exclusively review and process their application. A contractual MOU is one means of formalizing the company’s contribution for an expedited review.

NEXT STEPS:

Staff continue to review and consider the recommendations from the EAB in the December 23, 2015 ruling on the permit amendment. Once the EAB decides on how and when the appeals of the EEM will happen, the ministry will take appropriate action and involvement in those appeals at that time.

Contact:

*Jennifer McGuire
Executive Director
Regional Operations
Branch*

604-582-5284

Prepared by:

*Brady Nelles
Director – Authorizations
North
Regional Operations
Branch*

250-565-6401

Estimates 2016 – ESSPD ADM and Minister’s material

ADM’S BINDER (MAINTAINED BY PROGRAM STAFF)

Tab	Subject	Contact
1.	<u>Division and Responsibility between MOE & FLNR</u>	Anthony Danks
2.	<u>ESSPD Budget</u>	Anthony Danks
3.	<u>ESSPD Budget by Business Area</u>	Kaaren Lewis
4.	<u>Approach to Environmental Management</u>	Anthony Danks
5.	<u>Mountain Caribou and Predator Management (joint FLNR)</u>	Alec Dale
6.	<u>Species At Risk 5 Year Plan</u>	Alec Dale
7.	<u>SARA Critical Habitat in B.C.</u>	Alec Dale
8.	<u>Boreal Caribou</u>	Alec Dale
9.	<u>Water Sustainability Act - Deep Saline & Deep Groundwater</u>	Lynn Kriwoken
10.	<u>Water Sustainability Act and FN Consultation</u>	Lynn Kriwoken
11.	<u>NE Water Strategy</u>	Lynn Kriwoken
12.	<u>Water Sustainability Act - Resourcing</u>	Lynn Kriwoken
13.	<u>Water Sustainability Act – Changes to B.C.’s Water Regulation</u>	Lynn Kriwoken
14.	<u>Groundwater Resource Management</u>	Lynn Kriwoken
15.	<u>Overdue Environmental Court Penalties</u>	Anthony Danks
16.	<u>Environmental Compliance and Enforcement - General</u>	Anthony Danks
17.	<u>Air Quality Monitoring in Northern B.C.</u>	David Tesch
18.	<u>Climate Related Monitoring Systems</u>	David Tesch

FLNRO Notes		
19.	<u>Wolf Management</u>	Tom Ethier
20.	<u>Deer Management</u>	Tom Ethier
21.	<u>Caribou Recovery Implementation</u>	Tom Ethier
MNGD Notes		
22.	<u>Air Quality and Emissions Management</u>	Brian Hansen

**DIVISION OF RESPONSIBILITIES BETWEEN THE
MINISTRY OF ENVIRONMENT / MINISTRY OF
FORESTS, LANDS AND NATURAL RESOURCE
OPERATIONS (MFLNRO)**

- The Ministry of Environment (Ministry) and the Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) share responsibilities associated with water, habitat, species at risk, fish and wildlife protection and sustainability.
- In general, the Ministry's role in these areas is to develop policy, legislation, standards and guidelines, and to undertake effectiveness monitoring, although this differs for different program areas (e.g. species at risk and ecosystems management versus water). In addition, the Ministry coordinates the provincial ambient monitoring for these business areas; as well as air quality and snow pack levels for use in MFLNRO operational decision making.
- FLNRO is accountable for delivery and implementation of legislation, policies, standards and programs for the activities mandated by the: *Water Act* and regulations (soon to be repealed and replaced with the *Water Sustainability Act*), *Water Protection Act*, *Wildlife Act*, *Fish Protection Act*, *Fisheries Act*, *Forest and Range Practices Act*, and portions of *The Ministry of Environment Act*.

The Ministry has the assigned legal authority to:

- list Endangered and Threatened species under the *Wildlife*

- Act;*
- establish categories of wildlife for the purposes of establishing ungulate winter range areas, wildlife habitat areas, and general wildlife measures under section 149.1 of the *Forest and Range Practices Act*;
 - identify resource features that are wildlife habitat features in accordance with section 154 (2) of the *Forest and Range Practices Act*; and
 - establish water quality objectives in relation to community watersheds in accordance with section 150 (1) of the *Forest and Range Practices Act*.
- The overall accountability for the *Oil and Gas Activities Act* (OGAA) resides with the Ministry of Natural Gas Development (MNGD) but the Minister of Environment has been assigned to act as minister responsible for the *Wildlife Act* for the purposes of administering section 10 (2) of the OGAA. This section authorizes the minister responsible for the *Wildlife Act* to order independent audits of the performance of the Oil and Gas Commission in fulfilling its purposes and performing its functions under the OGAA in relation to the protection and effective management of the environment.
 - The Conservation Officer Service, BC Parks and Environmental Protection legislation, policy and business lines are entirely the responsibility of the Ministry.

Background:

- The Ministry works collaboratively with MFLNRO in these areas: water, habitat, species at

risk, and fish and wildlife protection and sustainability. MFLNRO staff provide advice to the Ministry in the development of policy and legislation. Ministry staff also provide technical support to MFLNRO in the implementation of legislation and programs.

- The Conservation Officer Service (COS) provides government with environmental enforcement services. Compliance and administrative sanctions are still provided by the parent ministry who holds the legislative accountability, an example being administrative sanctions under the *Wildlife Act* which are the responsibility of the Director, Fish and Wildlife Branch in FLNRO. If there are enforcement actions associated with those administrative responses, they fall to the COS. This is status quo with how decisions were made previously.
- With respect to policy development and application: policy work such as the Environmental Mitigation Policy (or developing caribou recovery options) is led by Ministry staff with assistance of MFLNRO field biologists. Once approved, policy work is applied in regions by MFLNRO regional staff with technical support from Ministry policy and science specialists.

Specific accountabilities for different program areas, including legal authorities are as follows:

Business Function	Environment	Forests, Lands and Natural Resource Operations
Ecosystems and Species at Risk Management, including authorities under the <i>Forest and Range Practices Act (FRPA)</i> and the <i>Oil and Gas Activities Act (OGAA)</i>ⁱ		
<i>Policy & Legislation</i>	<ul style="list-style-type: none"> • Lead development and evolution of Environmental Mitigation Policy, environmental values framework, and ecosystem monitoring. • Coordinate development of standards and guidelines for development related to species or ecosystems. • Participate in legislation, regulatory and policy development by other agencies where species and ecosystems may be impacted (e.g. <i>Natural Resource Road Act</i>). • Lead development of provincial policy for species at risk (SAR), including setting provincial policy agenda and carrying over-arching, cross-government 	<ul style="list-style-type: none"> • Lead implementation of Environmental Mitigation Policy. • Lead development of Cumulative Effects Assessment and Resource Objectives policies. • Provide and coordinate input to policy, legislation, regulation, or standards and guideline development. • Interpret and implement provincial policy including development of procedures related to implementation and operations. • Identify policy gaps and emerging issues. • Provide technical and local information / ground-truthing of policy.

Business Function	Environment	Forests, Lands and Natural Resource Operations
	SAR initiatives (e.g., 5 year plan).	
<i>Legal Authorities</i>	<ul style="list-style-type: none"> • Lead updates to Species at Risk (SAR) Lists under FRPA and OGAA. • Establish Wildlife Habitat Features under FRPA and OGAA. • Maintain authority re: OGAA audit. • Maintain SAR legal (FRPA, OGAA, WA) authorities: species at risk lists, ungulate lists, section 7 notices, wildlife habitat features list. • Lead development of new legislation for SAR. 	<ul style="list-style-type: none"> • Prioritize and define operational procedures for implementing species and habitat conservation tools under FRPA and OGAA. • Implement, monitor and track application of legal authorities according to provincial policy, priorities, and procedures, including consultation requirements. • Monitor/track application of legal authorities. • Conduct periodic quality assurance of delivery. • Implement Conservation Land components of SAR recovery and fish and wildlife.
<i>External Relations</i>	<ul style="list-style-type: none"> • Consult on provincial level policy / legislative initiatives where MOE leads. • Establish and maintain communications with provincial stakeholder groups. • Develop and maintain SAR program level agreements with provincial partners and collaborators groups. • Maintain SAR program committees (PSARC, SARCC, SARSC). • Key provincial contact on SAR policy & process, including recovery planning. 	<ul style="list-style-type: none"> • Consult on provincial level policy / legislative initiatives where FLNRO leads. • Consult on regional level issues. • Establish and maintain communications with provincial stakeholder groups and implementation partners. • Develop and maintain agreements related to provincial implementation for GAR and SAR. • Develop and maintain local agreements in support of

Business Function	Environment	Forests, Lands and Natural Resource Operations
	<ul style="list-style-type: none"> • Key provincial contact on federal listing decisions. • Provincial policy contact for local government. 	<p>on-the-ground activities.</p> <ul style="list-style-type: none"> • Participate in GAR program committees. • Participate in SAR program committees (PSARC, SARCC, SARSC). • Key provincial contact on implementation of field activities for SAR, including actions in response to federal recovery plans, implications of proposed critical habitat and federal "effective protection" analysis.
<i>Planning</i>	<ul style="list-style-type: none"> • Scientific review of land and water planning documents. • Lead / co-lead strategic /program plans related to ENV • Coordinates provincial recovery and management planning process, including setting provincial priorities and joint bilateral review of federal and provincial documents. • Provide expertise for development and review of federal and provincial documents. • Lead development of some provincial recovery / management plans (e.g. for plants and invertebrates where ENV has technical capacity, or for multi-regional plans). 	<ul style="list-style-type: none"> • Coordinate management and planning for conservation lands. • Lead / co-lead strategic / program plans related to FLNR business. • Lead or contribute to planning in support of legal designations under GAR and LUO. • Lead Conservation Land planning through the HCTF Wildlife O&M Agreement (e.g., develop/establish WMAs). • Coordinate Ecosystem Restoration (i.e., Habitat) program. • Integrate existing land use objectives into SAR recovery implementation. • Integrate SAR objectives into area-based planning processes. • Lead implementation planning processes (including the process for obtaining government

Business Function	Environment	Forests, Lands and Natural Resource Operations
		<p>decisions and coordinating their delivery).</p> <ul style="list-style-type: none"> • Provide technical / local expertise for development and reviews of federal and provincial recovery and management plans, including implementation and socio-economic implications.
<i>Assessment</i>	<ul style="list-style-type: none"> • Develop monitoring framework and procedures related to values. • Work with other agencies to define roles in biodiversity monitoring. • Develop inventory methods and standards. • Develop provincial monitoring procedures and standards. • Lead on provincial status assessments; develop, test and implement assessment procedures. • Deliver compliance and/or enforcement projects (COS). • Provincial representative in national (COSEWIC, General Status) assessment processes. • Conduct priority inventory to support status assessment. 	<ul style="list-style-type: none"> • Work with other agencies to define roles in biodiversity monitoring. • Lead on FREP (effectiveness monitoring). • Periodically assess effectiveness of GAR implementation tools. • Deliver regional component of provincial inventory programs. • Participate in development of cumulative effects assessments. • Identify priorities, coordinate and assist delivery of compliance and/or enforcement projects. • Conduct species or habitat inventory / monitoring, including coordination of multi-region species or habitat inventory projects. • Provide technical expertise to support status assessments. • Review COSEWIC status reports.
<i>Identifying Resource Values</i>	<ul style="list-style-type: none"> • Lead development of policy for establishing Values Framework. • Lead development of the 	<ul style="list-style-type: none"> • Coordinate and track provincial Old Growth Management Area (OGMA) program.

Business Function	Environment	Forests, Lands and Natural Resource Operations
	<p>Values Framework and co-lead the build-out of provincial values (Values Foundation).</p> <ul style="list-style-type: none"> • Lead the development and maintenance of provincial taxonomic lists and ecological community classifications. • Map occurrences of species and ecosystems at risk. • Spatial information delivery through BCGW and BCSEE. • Lead the maintenance of the Conservation Framework. 	<ul style="list-style-type: none"> • Co-lead the build-out of provincial values (Values Foundation). • Provide inventory /distribution data for mapping.
<i>Research</i>	<ul style="list-style-type: none"> • Develop and lead research projects to address knowledge gaps as identified in recovery and management plans and as prioritized through business planning. • Develop partnerships with academia, industry, First Nations, stakeholder organizations and funding bodies to increase capacity and effectiveness of research activities. 	<ul style="list-style-type: none"> • Lead the implementation of FLNRO's research program through the Research Oversight Committee (ROC). • Identify priorities for research through established ROC and regional business planning process. • Lead or assist in delivery of research projects. • Participate on / lead relevant Intended Outcome Committees and research discipline groups to establish research plans.
<i>Resource Stewardship</i>	<ul style="list-style-type: none"> • Develop process to prioritize, review, and approve standards and guidelines for stewardship of species and ecosystems. • Develop and extend scientific advice for implementation. 	<ul style="list-style-type: none"> • Prioritize and define operational procedures for implementing fine and coarse filter species and habitat protection tools (including FRPA tools and Land Use Orders). • Implement, monitor and track legal authorities under FRPA and OGAA. • Refine GAR tools to meet

Business Function	Environment	Forests, Lands and Natural Resource Operations
		<p>SAR objectives.</p> <ul style="list-style-type: none"> • Implement region-specific recovery/management actions. • Coordinate implementation of Conservation Lands. • Implement stewardship actions for species and ecosystems, including coordination of implementation at a provincial scale where necessary (e.g., caribou, other multi-region SAR). • Provide extension for stewardship on private lands. • Participate in local invasive species committees and Access Management initiatives (i.e., Wildlife Act). • Coordinate/lead wildlife management (e.g. augmentation, breeding), and habitat restoration.
<i>Data Management and Products</i>	<ul style="list-style-type: none"> • Ensure consistent reliable data and information delivery through Ministry portals and web applications and BCGW. • Maintain and implement secure data policy and procedures. 	<ul style="list-style-type: none"> • Ensure that data and information, including locations of protections, new science, inventory, etc. are submitted to provincial repositories using appropriate standards. • Submission and review of data security requests. • Regional liaison for release of secure data. • Maintain and support BCGW layers for GAR.

Business Function	Environment	Forests, Lands and Natural Resource Operations
<i>Decision Support</i>	<ul style="list-style-type: none"> • Provide policy guidance on EMP, environmental values, monitoring, and MOE legal authorities. • Develop provincial-scale decision support processes and decision support tools (e.g., priority setting, policy statements, Conservation Framework, Priority Threat Management). • Gather conservation risk and socio-economic information required to support these decisions. 	<ul style="list-style-type: none"> • Provide advice on decisions related to provincial implementation of programs and tools. • Determine values to be considered and potential effects of decisions. • Provide input to SDMs regarding policy and plan interpretation and impacts of alternative actions. • Land and Water Use referrals (i.e., e-referrals). • Gather conservation risk and socio-economic information required to support these decisions.
Management of Fish and Wildlife including authorities under the <i>Fisheries Act</i> and the <i>Wildlife Act</i>		
<i>Wildlife Management</i>	Provide science advice to support and inform wildlife management.	Apply and administer the <i>Wildlife Act</i> including all statutory decisions pertaining to licensing and administration of Guide Outfitting, recreational hunting trapping and angling.
<i>Wildlife and Fisheries Health</i>	Participate in decision making on fish and wildlife trans-regional/provincial transplants, particularly those involving SAR.	Provincial Veterinarian Policy and decision making on fish and wildlife trans-regional/provincial transplants. Monitor Species Health trends

Business Function	Environment	Forests, Lands and Natural Resource Operations
<i>Invasive Species</i>	Implement the provincial Controlled Alien Species (CAS) Regulation for listed fish (e.g., fish ID guide, website updates) and analyze provincial CAS fish species for potential inclusion in future federal AIS regulations. Develop strategic initiatives, planning and program delivery for terrestrial invasive animal species management. Implement the provincial invasive mussel prevention program. Provide policy and scientific expertise on invasive plants and animals. Represent the province in national and international forums.	Implement policy; deliver invasive species management program.
<i>Riparian Area Regulation</i>		Update regulation as required; policy development; and effectiveness monitoring. Implement and monitor regulation; work with qualified professionals; and authorize exceptions.
<i>Decision Making</i>	Permitting: Environmental Protection legislation, BC Parks legislation.	Permitting and licensing: fish and wildlife programs. Determine hunting and trapping season length and types of opportunities. FRPA tools.

Business Function	Environment	Forests, Lands and Natural Resource Operations
<i>Enforcement</i>	<p>The Conservation Officer Service, based in ENV, is responsible for carrying out enforcement functions under the <i>Wildlife Act</i>, <i>Environmental Management Act</i> and numerous other natural resource sector statutes.</p> <p>Enforce CITES Permits.</p>	<p>Natural Resource Officers under the Natural Resource Compliance Act may carry out the duties of prescribed officials*, including some enforcement functions such as park rangers' functions.</p> <p>(*Not including conservation officers)..</p>
<i>Park Management hunting and fishing</i>	<p>Apply and administer the <i>Park Act</i>, <i>Ecological Reserve Act</i>, <i>Environment and Land Use Act</i> as it applies to provincial protected areas and fish and wildlife harvest.</p> <p>Develop and approve parks and protected areas policy and management plans which guide the management of all activities occurring within protected areas, including hunting as it pertains to other protected area management objectives.</p>	<p>Apply Parks policy as it pertains to game harvest timing and location.</p>

Water Act and Water Management		
<i>Policy and Legislation</i>	<p>Develop legislation, policy and standards related to the sustainable use, protection and governance framework for water, related infrastructure and emergencies (dams, dikes, floods and droughts).</p> <p>Develop operational policy in collaboration with FLNR.</p>	<p>Provide input on strategic policy, legislation and policy development.</p> <p>Develop implementation procedures in alignment with policy and legislation and in collaboration with MOE.</p>

<i>Dams</i>	Lead legislation and policy development and updates related to dams for water and power supply management.	Lead Dam Safety Program design and implementation and provide technical direction to legislation and policy development and updates.
<i>Dikes and Flood Hazard Management</i>	Lead legislation and policy development and updates related to dikes (<i>Dike Maintenance Act</i>). Provide science and data support (see Water Science and Monitoring).	Establish technical standards for dike infrastructure. Lead/coordinate flood management program delivery and flood response.
<i>Water Authorizations Surface and Ground water</i>	Set strategic policy framework for water governance and use. Lead legislation and policy development and updates for surface and groundwater.	Apply and administer the <i>Water Act</i> with respect to all statutory decisions including water use licensing, groundwater protection, and establishing water use committees. Propose and administer legislation and policy regarding the utilization and allocation of water.
<i>Water Science and information</i>	Provide water science expertise on ground and surface water to support water-related decisions.	Identify issues needing further analysis, gather data and monitor inputs and outcomes. Interpret data in support of authorizations and enforcement decisions and local emergency response.
<i>Drought Management</i>	Lead legislation and policy development initiatives related to provincial response to drought. Set strategic policy framework for water conservation.	Lead implementation of regional drought response plans. Work with other levels of government and stakeholders in the development of water use, and drought management plans.

<i>Enforcement</i>	Support the enforcement of the <i>Water Act and Fish Protection Act</i> through the Conservation Officer Service.	Issue orders under the <i>Water Act, Fish Protection Act and Dike Maintenance Act</i> .
<i>Monitoring</i>	Establish water/snow monitoring networks; synthesize data and produce trend reports.	Gather water/snow data and submit. Develop management strategies based on data synthesis and trends.

STATUS OF 2016/17 BUDGET
ENVIRONMENTAL SUSTAINABILITY AND
STRATEGIC POLICY DIVISION

- The Environmental Sustainability and Strategic Policy Division resources include s.15 and 167 full time staff positions.
- The Division's focus is on environmental health, diversity and resilience for air, water, species and ecosystems which support government's objectives for environmental, economic and social sustainability.
- The Division carries out its responsibilities through four branches: the Ecosystems Branch; Water Protection and Sustainability Branch; Knowledge Management Branch; and the Strategic Policy Branch.
- Integrated business planning (across the Ministry and the natural resource sector) is ensuring the highest priorities are identified and resourced in 2016/17, with lower priorities being deferred or scaled back due to resource constraints.

Background:

Key message #1:

- Environmental Sustainability estimates for 2016/17 are up s.17

s.17

s.17

- Changes in operating budget are s.17

Vulnerabilities

- s.17
- s.17

Key message #2

- Activities and operational costs reduced to minimum threshold.
 - Divisional salary targets will constrain hiring opportunities.
 - Staff travel limited to critical program delivery.

Key facts/other agencies:

- The Environmental Sustainability and Strategic Policy Division was created in October 2010, with staff, budget and business functions coming together from across the Ministry of Environment, Ministry of Health Services and from the former Ministry of Forests and Range.

Program Area Contact: Anthony Danks, Executive Director (250) 387-8483
Strategic Policy Branch, Environmental
Sustainability & Strategic Policy Division

STATUS OF 2016/17 BUDGET **ENVIRONMENTAL SUSTAINABILITY AND** **STRATEGIC POLICY DIVISION BY BUSINESS AREA**

- Major categories of spending and expected change over next fiscal:

	Operating		Total (not incl. salaries)		Salaries	
	15/16	16/17	15/16	16/17	15/16	16/17
SAR						
Recoveries SAR						
LBIS						
Recoveries LBIS						
Invasive Species						
Recoveries Invasive Species						
Inv/Monitoring Science						
Recoveries Inv/Monitoring Science						
CDC Recoveries – Nature Serve Canada and CRD						
LBIS (indirect Funding through FLNRO)						

s.17

- No salaries provided for Eric or David

Detailed breakdowns

Lyle Gawalko

- EPS

s.17				
Activity	15/16	16/17	Description/Comments	TOTAL
SAR - MOE base funding				
LBIS – MFLNRO Recovery			s.17	
Species at Risk Recovery - Environment & Climate Change Canada				

Eric Lofroth

- For the CDC (SAR monitoring, assessment and mapping) information provided represents this year's budgets and what we might expect in the subsequent year (16/17) based on best available information (with notes). Base program budgets for salary are not included, just operational costs.

Source	15/16	16/17	
Base Operational			s.17
LBIS			
LBIS			s.17
NatureServe Canada/Env Canada			

NatureServe Canada/Parks Canada	
Nature Conservancy of Canada	
Environment Canada	s.17
Client Mapping	
End of Fiscal year savings carry-over	
Totals	

Ted Down

	FY15/16	FY16/17
	s.17	

- Salaries calculated at \$100K/FTE (including benefits, basic support costs)
- For Inventory / Monitoring Science a broad interpretation was used to include many of the research projects.

David Tesch

- The main recipient of LBIS funding in KMB is our Ecosystem Information Section (EIS).
- ENV receives a direct allocation from LBIS to support its SAR and wildlife work. Of the ENV share, EIS receives:

s.17

-

s.17

- Generally speaking, ENV's LBIS allocation has been going down each year, and our reduced amount in one fiscal becomes the new baseline to start the next fiscal. We have also been told that some of the LBIS recovery sources will not be available in future years (for example Site Productivity)

Program Area Contact: Kaaren Lewis, Assistant Deputy Minister (250) 387-9997
Environmental Sustainability & Strategic Policy
Division

APPROACH TO ENVIRONMENTAL MANAGEMENT

- The Province remains committed to world class environmental management.
- The Ministry of Environment is finding ways to adapt to economic realities, introducing innovative solutions to make environmental management more effective and efficient.
- Ensuring compliance with environmental regulatory requirements is a key priority for the Ministry.

Background:

Key message #1:

- More than ever, there is a strong recognition of the need to find a balance between the social, economic and environmental outcomes that are important to British Columbians.
- While there is growth in many of B.C.'s natural resource sectors, all activities are still expected to meet strict environmental standards.
- Pressures facing the Ministry are not just economic. Greater demands on the land base, changing demographics, increased recreational and resource activity and climate change is why our work is, by nature, about continuous improvement and adaptation.
- The Province has responded to these challenges with an integrated, Natural Resource Sector (NRS) approach that supports effective and timely decision-making, and improves the efficiency of its service delivery.

Key message #2:

- Examples of innovative approaches to promote more efficient and effective natural resource management include:
 - The NR sector is continuing to develop and refine a framework and tools to support integrated decision making, and to consider cumulative effects in natural resource

- decision making. ENV supports these efforts through contributions in policy, and in science and knowledge management.
- Mitigation and Offsetting Policy: supports a consistent approach to mitigating environmental impacts from development projects or activities.
 - Natural Resource Permitting Project (NRPP): The NRPP is the provincial government's multi-year project that will improve the way decisions are made in the natural resource sector. As part of government's commitment to reduce red tape, the NRPP brings together information, data (including maps) legislation, people, processes and systems across the six natural resource ministries, agencies, boards and commissions to provide easier access to better information, data and online services.
- The Ministry leads shared environmental stewardship to leverage resources, capacity and encourage public and stakeholder engagement. Examples include:
 - Our nationally recognized industry-led and funded Product Stewardship Program.
 - In line with a results-based approach, Ministry biologists and environmental protection staff develop guidelines and standards that provide industry with clear, consistent direction on acceptable development practices.

Key message #3

- The ministry takes a targeted, problem-focused approach to compliance. Staff focus resources on areas of highest concern first. Where needed, we coordinate with other agencies, share resources and information (e.g. reducing the number of site visits by separate ministries, sharing helicopter travel, etc).
- The ministry has for several years been making strides in its enforcement reporting:
 - In 2011, the ministry launched a new online environmental violations database. The public can search by violators' names, dates or types of infractions.
 - In 2013, the ministry launched Closing the Gap – a concerted environmental court fines collection strategy.
- The ministry is also working to ensure C&E staff have a range of enforcement tools at their disposal:
 - The Conservation Officer Service has been using Community Environmental Justice Forums to address environmental offences. Fines are consistent with what would be awarded in court, but the process takes a fraction of the cost and time. Fines are directed to environmental projects in the affected community.
 - The ministry has also implemented Administrative Penalties. These are financial penalties that can be imposed on individuals or companies who fail to comply with a provision of a statute or regulation.

Key facts/other agencies:

- Government's NR sector retains a high level of professional expertise with Professional Foresters and Biologists still prominently part of the organization.

- Program Area Contact: Anthony Danks, Executive Director (250) 387-8483
Strategic Policy Branch, Environmental
Sustainability & Strategic Policy Division

SOUTHERN MOUNTAIN CARIBOU AND PREDATOR MANAGEMENT

- In October 2007, government approved the Mountain Caribou Recovery Implementation Plan (MCRIP). The Ministry of Forests, Lands and Natural Resource Operations (MFLNRO) is responsible for the MCRIP's operational delivery with support from Ministry of Environment.
- To implement objectives for herd recovery government collaborated with forestry and recreational sectors to protect areas for mountain caribou across more than 2.2 million hectares of habitat. To further support herd recovery the province is undertaking wolf control efforts in the South Selkirk herd.
- A federal caribou recovery strategy that includes B.C.'s mountain caribou was posted January 2014. The federal strategy fully recognizes the need for predator and alternate prey management in conjunction with habitat management and restoration, as does the BC MCRIP.

Background:

Key message #1:

- Mountain caribou in B.C. are the southernmost remaining population of caribou in the world. They are currently listed as threatened under the federal Species at Risk Act (SARA) and red-listed (Threatened) in B.C.
- Mountain caribou in B.C. have been declining for more than a decade. This decline can be attributed to extensive industrial development (e.g., forestry) in caribou habitat that facilitates increased predation and caribou mortality.
- To address population declines of mountain caribou, government endorsed a provincial implementation plan for mountain caribou in 2007, known as the Mountain Caribou Recovery Implementation Plan (MCRIP).
- The goals of the plan are to halt the decline of mountain caribou within 7 years (2014) and recover the population to more than 2,500 within 21 years. These goals are expected to be achieved through the implementation of a balanced suite of management actions that include habitat protection and management, predator and alternate prey management, and herd augmentations. In 2007 the herd populations were estimated at 1,900 and, despite extensive conservation management activities, they were estimated at 1,545 in 2014.
- The one aspect of the original plan that had not been fully implemented was effective predator and alternate prey management.
- MFLNRO is responsible for the plans operational delivery. MOE will continue to provide policy oversight on species at risk management and coordinate with the federal government on the management status, population outcomes and habitat protections for mountain caribou.

s.17

Key message #2:

- Following the MCRIP, government has protected:
 - 2.2 million hectares of habitat under 9 ungulate winter range orders from logging and road building in collaboration with the forest sector;
 - 1.0 million hectares of habitat through stewardship management agreements in collaboration with BC snowmobilers;
 - 2.0 million hectares of habitat in collaboration with heli-skiing tenure holders through memorandum of understanding and a moratorium on new commercial tenures;
 - Note there is some overlap between these designations.

- Predator management is a controversial component of both the federal and provincial caribou recovery strategies in BC. While habitat alteration and loss is the primary cause of caribou declines, that habitat alteration has also lead to increased predation. Without predator control, some herds will not survive long enough to benefit from long-term habitat restoration and protection efforts. The South Selkirk herd was scientifically assessed as the highest priority for wolf control due to the low herd numbers as well as direct evidence of wolf predation on this herd. As of January 3, 2016 a total of 15 wolves have been removed in the South Selkirks via helicopter. It is still too early in this exercise to know if these removals have been effective at altering caribou mortalities and population growth.
- Aerial shooting is the most effective and humane method to reduce wolf numbers to permit caribou to recover.

Key message #3:

- In January 2014, the federal government posted for public review a recovery strategy for caribou within the federal designated Southern Mountains National Ecological Area, which includes mountain caribou.
- The federal recovery strategy clearly identifies predator management as an urgent priority in coordination with other management approaches (e.g. habitat restoration and management and management of primary prey populations), as does BC's MCRIP. It recommends that "*A population management approach involving management of other wildlife species (i.e., predators and their primary prey) is likely required in the short term to stop southern mountain caribou declines and stabilize some local population units to prevent their extirpation.*"
- The biophysical attributes of Critical Habitat for matrix range is described as "matrix range that provides an overall ecological condition that will allow for low predation risk, defined as wolf population densities less than 3 wolves/1000 km²."
- B.C. is working closely with Canada to achieve outcomes that serve both federal and provincial strategies.

Key facts/other agencies:

- All caribou in B.C. are woodland caribou (*Rangifer tarandus caribou*).
- Approximately 1500 mountain caribou within 15 herds reside in the interior of B.C. from the U.S. border near Creston to north of Prince George.
- The primary threat to mountain caribou is habitat fragmentation and alteration which leads to increased mortality from predators such as wolves and cougars. Habitat fragmentation occurs mainly due to road building and timber harvesting associated with industrial forest practices.

Program Area Contact: Alec Dale, Executive Director (250) 387-9731
Ecosystems Branch
Environmental Sustainability & Strategic Policy
Division

SPECIES AT RISK FIVE-YEAR PLAN: PROGRESS IN IMPLEMENTING

- *"Protecting Vulnerable Species: A Five-Year Plan for Species at Risk in British Columbia"* was released in 2014 as a response to the 2011 report of the BC Task Force on Species at Risk.
- B.C.'s Five-Year Plan for Species at Risk brings together the numerous activities that the Province undertakes for species at risk into a coherent program that establishes provincial leadership on this high profile issue, and helps respond to the February 2013 BC Auditor General's report on biodiversity conservation.

Background:

Key message #1:

- The report of the BC Task Force on Species at Risk was released in 2011.
- In response to the report of the task force, Cabinet directed the Ministry of Environment to make operational improvements where appropriate and within existing budgets that align with task force recommendations, and to draft a five-year plan for species at risk in B.C.
- In March 2013 “Protecting Vulnerable Species: A Draft Five-Year Plan for Species at Risk in British Columbia” was posted to the internet for a six week public review period. Summaries of the top comments received, including “frequently asked questions” related to these comments, were posted weekly on the website.
- A final version of the Five-Year Plan for Species at Risk was posted to the internet in July 2014. The Plan is well aligned with the Task Force recommendations. It addresses, in whole or in some cases in part, 22 of the 27 actions put forward by the Task Force.
- The process of finalizing the plan included engagement with staff who will be involved in carrying out the actions it contains to ensure that they are clear, appropriate, realistic, and achievable within existing Ministry budgets.

Key message #2:

- *"Protecting Vulnerable Species: A Five-Year Plan for Species at Risk in British Columbia"* establishes provincial leadership on a high profile issue and brings together the numerous activities that the Province undertakes for species at risk in a coherent program that will:
 - Improve species conservation through management at the ecosystem and landscape scale;
 - Provide the best available information to support identification, management and recovery of species at risk;
 - Encourage British Columbians to embrace stewardship of species at risk across all lands;
 - Apply protection for species at risk consistently across all sectors; and
 - Measure and report on government's investments in species at risk.
- The Plan also celebrates some of our key successes over the past 30 years in protection and management of species at risk. These include our provincial Conservation Data Center, our application of ecosystem-based management on the north and central coast, and our leadership in producing recovery or management plans for some 200 species at risk.

Key message #3:

- Responsibilities for delivering on actions in the Five-Year Plan rest primarily with the Ministries of Environment and Forests, Lands and Natural Resources Operations, but will also require the engagement of other ministries, particularly within the natural resource sector.
- Implementation of actions in the Five-Year Plan is underway. Examples of projects led by the Ministry of Environment include:
 - Piloting a “Threat-based Management” approach to identify priority actions to address threats to 50 species and ecosystems at risk in the Kootenay-Boundary region. Priorities will be based on cost, benefits and feasibility, and the resulting prospectus for investment will be used to promote shared stewardship in the region.
 - Completion of an Environmental Mitigation Policy and associated Procedures for implementation across the Natural Resource Sector. Extension and development of further supporting policy are underway to support implementation.
 - Analyzing opportunities regarding changes to existing or new policy and legislation to address gaps in protection for species at risk, including exploring new ways to promote voluntary protection.
 - Updating policies and procedures to improve the process for submitting species-at-risk data to the Province (completed 2015).
- A process has been developed to track progress toward implementing the plan. To date, almost all new actions have been initiated, many actions are ongoing or in progress and on-track, with a few actions now completed.

Key facts/other agencies:

- B.C. currently lacks legislation providing for legal listing of the full suite of species at risk (including plants and invertebrates) and subsequent protection of their habitats.
- *The Wildlife Amendment Act* (2004) was intended to broaden provincial powers under the *BC Wildlife Act* and make them consistent with species listing powers in the federal *Species at Risk Act*. However, the *Wildlife Amendment Act* (2004) has never been brought into force. Currently only vertebrate species (e.g., mammals, birds, fish) can be legally listed as Threatened or Endangered under BC’s *Wildlife Act*; not plants or invertebrates (e.g., insects) as under SARA.
- B.C. has limited regulatory tools that protect species at risk on private lands and largely relies on voluntary stewardship of landowners.

Program Area Contact: Alec Dale, Executive Director (250) 387-9731
Ecosystems Branch
Environmental Sustainability & Strategic Policy
Division

SPECIES AT RISK **CRITICAL HABITAT IN B.C.**

- The Government of British Columbia is committed to the recovery and protection of species at risk (SAR), as a signatory of the Accord for the Protection of Species at Risk in Canada and the Canada-British Columbia Agreement on Species at Risk.
- Federal agencies include the legal identification of critical habitat within most federal recovery strategies or action plans, based only on science advice. Critical habitat identified in a final version of a recovery strategy posted on the SAR Public Registry must be legally or effectively protected.
- B.C. supports a transparent, science-based process for describing habitat that is required for a species' survival or recovery that is clearly separated from decisions regarding habitat protection.
- B.C. habitat protection decisions take into consideration socioeconomic implications and include consultation with all "directly affected" parties. This approach differs from the federal approach in that way.

Background:**Key message #1:**

- British Columbia fulfills its commitments to the Accord for the Protection of Species at Risk, and the Canada-B.C. Agreement on Species at Risk (the bilateral agreement) by preparing recovery plans for species under provincial management authority and making these available for federal adoption under SARA. Following the completion of a recovery plan, British Columbia may also prepare an implementation plan that outlines the provincial government's response to managing species or ecosystems at risk, especially in cases where there could be significant socio-economic implications.
- Executive and staff from MOE and Ministry of Forests, Lands and Natural Resource Operations support 'the bilateral' with leadership and participation on the Deputy Minister-level Species at Risk Steering Committee (SARSC) and the Director-level Species at Risk Coordinating Committee (SARCC).

Key message #2:

- Federal SARA-responsible agencies (Fisheries and Oceans, Parks Canada Agency and Environment and Climate Change Canada) have legally identified critical habitat in B.C. in final versions of recovery strategies for 52 of the ~220 SARA listed species in B.C.. It is expected that critical habitat for another 30 species will be finalized within the year.
- Species with legal identification of critical habitat include Boreal Caribou (~4 million ha), Southern Mountain Caribou (6 million ha); Marbled Murrelet (~1.9 million ha); Spotted Owl (~300,000 ha); and many more.
- The total amount of habitat within which critical habitat is found that has been, or is soon to be identified in B.C. for terrestrial species is over 20 million ha.
- Many of these species have all or portions of their critical habitat on lands under provincial jurisdiction (i.e., locations on private or B.C. crown land). There is an expectation that the Province will work to "effectively protect" critical habitat on provincial lands.

Key message #3:

- B.C. accepts recovery documents (including federal recovery strategies that identify critical habitat) as science advice.
- In response to requests to support posting of federal recovery strategies, when portions of the critical habitat remain unprotected, we indicate that "we do not support implementation of additional legal habitat protection measures on non-federal land without evaluation of socio-economic implications and full consultation with directly affected parties."

- B.C. identifies areas to be protected for species at risk through a process involving consultation and evaluation of potential socio-economic implications. Examples of this process include: 2 million ha of habitat being set aside to protect 51 species at risk in Wildlife Habitat Areas under the *Forest & Range Practices Act*; and the Mountain Caribou Recovery Implementation Plan that has had over 2 million ha of key winter habitat protected from forest harvesting and road building in collaboration with the forest sector as well as the restriction of recreational snowmobile use in 1 million ha of winter habitat.
- A number of species at risk are also afforded habitat protection within the Parks and Protected Areas system. Recovery efforts for many other species, especially those found on private land, will need to take a shared stewardship approach to recovery.

Key facts/other agencies:

Key message #1:

- The Canada-B.C. Agreement on Species at Risk was signed in 2005 to create an administrative framework, within which B.C. and Canada can ensure a coordinated and focused approach to the delivery of species at risk protection and recovery through legislation, policies and operational procedures in B.C..
- In October 1996, federal, provincial and territorial Ministers responsible for wildlife supported the creation of the Accord for the Protection of Species at Risk, which recognizes that complementary legislation and programs and intergovernmental cooperation are essential to provide effective protection for species at risk and their habitats across Canada.

Key message #2:

- Under the federal Species at Risk Act (SARA), the federal Minister must develop recovery strategies for species listed as extirpated, endangered or threatened within legislated timelines. The federal Minister may adopt recovery documents prepared by provinces to meet this requirement.
- SARA requires the federal Minister to identify critical habitat in a recovery strategy “to the extent possible, based on the best available information.” Critical habitat identified in a final recovery strategy posted on the SAR public registry must be ‘legally’ (aquatic species, nests of migratory birds, and federal lands) or ‘effectively’ protected (all other species and lands).
- If portions of the SARA-identified critical habitat remain unprotected six months after posting, the federal Minister must report on steps taken to protect those portions of the critical habitat. If, after consultation with the provincial Minister, the federal Minister is of the opinion that critical habitat on provincial lands is not “effectively protected”, they must recommend to Governor in Council that an order be made applying the SARA prohibitions against destruction of critical habitat to provincial lands (a “safety net” order).

- Environment and Climate Change Canada has shared with B.C. its proposed process for assessing whether critical habitat is effectively protected; however, it is still not known if this will be the process used. The term “effective protection” has yet to be defined, but thus far we have been given no indication that any of our provincial designations will meet this requirement.

Key message #3:

- Current interpretation of SARA (resulting from legal challenges) is that if information is available to support identification of critical habitat, it must be included in the recovery strategy, and evaluation of socio-economic implications of identification (and subsequent protection) of critical habitat cannot be considered at this stage.
- At the posting stage, federal agencies are informing ‘affected parties’ of the identification and initiating consultation on mechanisms for the legal or effective protection of the identified habitats.

Program Area Contact: Alec Dale, Executive Director (250) 387-9731
Ecosystems Branch
Environmental Sustainability & Strategic Policy
Division

Boreal Caribou

- The province currently has a plan for the management of Boreal Caribou.
- Populations of Boreal Caribou have continued to decline in BC.
- Research and monitoring activities have resulted in the identification of potential improvements to the existing provincial plan for the management of Boreal Caribou.
- The province is engaging First Nations, Industry and key stakeholders on potential improvements to the plan.
- The potential improvements are in closer alignment with the federal recovery strategy, and are designed to improve Boreal Caribou habitat and population trends.

Background:

- Boreal Caribou are on the BC provincial Red List (threatened to endangered). They are also listed as a threatened species under the Federal Species at Risk Act.
- Boreal caribou range throughout Canada's boreal forest. About 750 Boreal Caribou currently reside in northeast British Columbia (BC). Boreal Caribou populations in BC are steadily declining from about 1300 animals in 2011. Depredation is the prime cause of Boreal Caribou population decline.
- In 2011, the Province developed the "Implementation Plan for the Ongoing Management of Boreal Caribou (*Rangifer tarandus caribou* pop. 14)", to maximize conservation efforts to benefit Boreal Caribou and support future recovery efforts while providing resource development opportunities.
- In 2012, Environment Canada published the "Recovery Strategy for Woodland Caribou (*Rangifer tarandus caribou*), Boreal population, in Canada". The federal plan identifies and provides strategies for the protection of critical habitat.
- The provincial plan was developed based on the best knowledge available at that time. The plan was implemented and significant funds were made available by the oil and gas industry to assist the province in conducting Boreal Caribou monitoring and research.
- Boreal Caribou monitoring and research projects have resulted in the identification of a number of potential improvements that could be made to the existing plan. Depredation has been confirmed as the prime cause of Boreal Caribou population decline. The potential improvements include new methods and requirements for managing industrial activities to improve the retention and restoration of caribou habitat. Research and professional opinion is that these habitat improvements along with other caribou management activities currently in use will affect the amount and distribution of predators and their prime prey (moose), resulting in a significant decrease in Boreal Caribou depredation.
-

s.16

- In July of 2015, the province developed a proposal to revise Boreal Caribou Management based on the most recent monitoring and research. The proposal is more aligned with

- Engagement of First Nations, Industry, and stakeholders on the development of a revised and detailed implementation plan has commenced.

- 37 -

37 of 73

WATER SUSTAINABILITY ACT - DEEP SALINE & DEEP GROUNDWATER

- Deep groundwater, also known as deep saline groundwater, is used in the Oil and Gas industry as an alternate to surface water or shallow groundwater.
- Government engaged the public and industry on thresholds for how to define deep groundwater. Many different perspectives were voiced on how to exempt deep groundwater from licensing.
- A depth and salinity threshold was initially proposed, however a number of issues were identified. In consideration of the input received the exemption of deep groundwater is limited to water found below a specified geologic formation referred to as the Base of Fish Scales, or deeper than 600m in Northeast B.C..

Background:**Key message #1:**

- Deep groundwater is generally has a salinity that is higher than what can be used for other purposes without treatment. It will often have hydrocarbons mixed with it.
- It is located at depths generally not accessible by most groundwater drilling equipment. Specialized equipment is required to safely access and manage this resource.

Key message #2:

- A threshold of 600 m and 4000 mg/l total dissolved solids was initially proposed. This threshold caused concern in many sectors as it was not clear if this would separate the shallow groundwater from the deep groundwater. Additionally, due the depth and salinity threshold there was no certainty at the outset of drilling whether the use of water from the well would need to be licensed.

Key message #3:

- An alternate approach was adopted that is based on geologic formations and depth. The formation termed Base of Fish Scales was chosen as it provides a barrier of shale between shallow and deep groundwater. As well, it is a well-documented formation that can be identified. The exclusion below 600 m was also included as there are areas in the Northeast where the Base of Fish Scales is deeper (100m +) and there is a shale barrier.
- The licensing exemption is limited to an area of Northeast B.C. where the shale formations are located. The western boundary of the regulation area was set east of the area where the shale formations become disrupted by the Rocky Mountains.

Key facts/other agencies:

- The use of deep groundwater is important to the development of natural gas in Northeast B.C.. This regulation allows industry to access the water under conditions of the regulation.
- Concern has been expressed that due to limited knowledge we do not know the extent to which shallow and deep groundwater are connected. The approach adopted ensures there is a shale barrier between the deep and shallow aquifers. As well, the regulation provides the authority to regulate and cut-off the use of deep groundwater if connection to shallow groundwater is demonstrated.
- The approach adopted is based on the presence of geologic formations that separate the deep and shallow groundwater. The Base of Fish Scales marker is well documented and known throughout the industry.

Program Area Contact: Lynn Kriwoken, Executive Director (250) 387-9481
Water Protection and Sustainability Branch
Environmental Sustainability & Strategic Policy
Division

WATER SUSTAINABILITY ACT & FIRST NATIONS

- First Nations in B.C. bring a unique perspective due to their strong cultural and economic interests in water, as well as the legal framework associated with aboriginal treaty and constitutional rights.
- Government acknowledges that First Nations have a strong interest in water and provided multiple engagement opportunities during the first phase of regulation development. The Province will continue to engage with First Nations as develop further regulations.
- As we implement the *Water Sustainability Act*, Government is committed to meeting its duty to consult on decisions associated with authorizations under the new legislation including those involving existing groundwater use.

Background:

s.16

Key message #2:

- MOE with advice from MARR and FLNR developed a strategy to engage First Nations on the development of regulations.
- Resources over the past six months focused on engaging with First Nations that have entered into treaties or strategic agreements but also included G2G discussions with several First Nations without agreements.
- Engagement opportunities during the first phase of regulation development included six regional workshops, four policy intention papers, multiple government-to-government meetings, and correspondence and invitations to all First Nation bands.
- Government has also committed to engage with First Nations during subsequent phases of regulation development.
- Government signed a MOU with the First Nations Leadership Council (FNLC) and will continue to meet periodically to share information on policy and regulatory topics.

Key message #3:

- FLNR is developing a consultation strategy to manage the consultation process for future groundwater licence applications—including those associated with approximately 20,000 existing non-domestic wells—to ensure the Province’s legal obligations are met. Elements of the strategy include an Aboriginal Interest Impact analysis tool and a provincial consultation business process.
- To manage the additional workload, 80 new staff have been hired into FLNR, of which approximately 50 will be dedicated to First Nations consultation on licensing new and existing non-domestic groundwater users over the next three years. Training of new First Nations consultation staff is also well underway.

Key facts/other agencies:

- During development of the first phase of regulations, Ministers Polak and Thomson circulated a letter all 203+ First Nations outlining government's intention to develop priority regulations and its commitment to engage with First Nations.
- Opportunities specifically for First Nations to participate and comment on the policies that informed the regulations included:
 - Written correspondence to all 203+ First Nations including copies of four Policy Intention papers on groundwater licensing, well protection, dam safety, and compliance and enforcement.
 - Delivery of six regional information workshops in July 2015 involving First Nations from about 75 communities and provincial First Nations organizations.
 - Government-to-government (G2G) discussions with approximately 18 First Nations organizations
 - Access to information on government's *Water Sustainability Act* website: <https://engage.gov.bc.ca/watersustainabilityact/>
 - A presentation on the first phase of regulations to the Union of BC Indian Chiefs.
 - Meetings and correspondence with the First Nations Leadership Council and/or its staff to conclude a Memorandum of Understanding (MOU) with the Province. Discussion included the Province's plans to bring the WSA and initial set of regulations into force in 2016.

Program Area Contact: Lynn Kriwoken, Executive Director (250) 387-9481
Water Protection and Sustainability Branch
Environmental Sustainability & Strategic Policy
Division

NORTHEAST WATER STRATEGY – CURRENT STATUS

- The Northeast Water Strategy is a proactive, long-term approach for the sustainable use and management of water resources in Northeast BC. The strategy was released March 20, 2015.
- The Treaty 8 Tribal Association and its member First Nations (Doig River, Halfway River, Prophet River, Saulneau River and West Moberly) approved the public release of the strategy.
- Government is implementing the strategy using existing budgets. A number of collaborative projects are underway as part of this strategy.

Background:**Key message #1:**

- The Northeast Water Strategy is a proactive, long-term approach for the sustainable use and management of water resources in Northeast B.C.
- Many partners were involved in the development of this strategy. They include the provincial and local governments, First Nations, and industry.
- The Strategy was publically released on March 20, 2015 and applies to the Northeast region of B.C.

Key message #2:

- Many partners were involved in the development of the strategy. They include the provincial and local governments, First Nations and industry.
- The T8TA and the Chiefs of its member First Nations formally approved and have signed off on the public release of the strategy. s.16

s.16

- Industry and local governments in the Northeast have been engaged in the development of the strategy and are supportive of the strategy and its release.

Key message #3:

- Government is working on the implementation of the strategy and continues to work in collaboration with partners on key monitoring and research projects to further our knowledge to support decision making.
- The *Water Sustainability Act* and associated regulations and policies include actions and tools that will help fulfill a number of the strategy's commitments.

Key facts/other agencies:

- The goal of the Northeast Water Strategy is the responsible use and care of water resources through conservation and sustainable practices to ensure human and ecosystem needs are met now and into the future.
- Five action areas have been identified as part of the strategy that touch on the enhancement of information (including monitoring and reporting) to support decision-making, strengthening the regulatory regime, and coordinating decision-making.

- To date, the strategy has generated partnerships to implement its key actions including:
 - **Geoscience BC Peace Project** -a collaborative effort that will generate new information about the distribution of shallow aquifers in Northeast B.C.'s Peace Region and their groundwater quantity and quality. Peace Project partners include the Provincial Government, BC Oil and Gas Commission (OGC), Canadian Association of Petroleum Producers through the Science and Community Environmental Knowledge fund, ConocoPhillips Canada, Progress Energy Canada Ltd., and the Northern Development Initiative Trust. The BC Government has contributed staff time and data from an aquifer characterization project in NE BC to this project.
 - **Murray River Water Quality Cumulative Effects Assessment** - a multiple stakeholder working group to address water quality concerns stemming from industry practices in the watershed. Working group membership includes the Provincial Government, Canadian Water Network, coal mining, energy and forestry companies operating within the watershed and four First Nations. Approximately \$160-200K will be allocated to this project over the next two years, with the ministries of Environment and Forests, Lands and Natural Operations (FLNR) committing \$40K in the first year.
 - **Private Well Sampling Program** – a multi-partner effort to characterize aquifers and groundwater chemistry in the Groundbirch /Dawson Creek Area. Partners include the Provincial Government, Simon Fraser University and Peace River Regional District.

s.17

s.17

Program Area Contact: Lynn Kriwoken, Executive Director (250) 387-9481
Water Protection and Sustainability Branch
Environmental Sustainability & Strategic Policy
Division

RESOURCES FOR WSA IMPLEMENTATION

- New resources are required to implement the *Water Sustainability Act* (WSA) which is new work for government. \$25M over three years was identified in Budget 2015 for this purpose.
- Implementation of the WSA will be undertaken by the Ministries of Environment and Forests Lands and Natural Resource Operations. 86 new FTEs have been hired in both ministries, with the majority in FLRNO (80 FTEs).
- After a comprehensive review, government announced new water fees and rentals on February 5, 2015 with a key goal of recovering the costs to implement the WSA.

Background:

Key message #1:

- The WSA will result in new work for government requiring increased operating budgets and new FTEs to perform the work.
- s.17
- The highest cost of implementation will be associated with the groundwater program (e.g. First Nations consultation, licensing existing groundwater users, knowledge management). Additional support will also be needed in developing operational policies and ongoing regulation development.
- This is the first time Government will formally manage groundwater. It will take at least five years to move existing users under the licensing regime and improve Government's knowledge of groundwater use in the province,.
- The comments during public and stakeholders engagement were that the WSA needs to be properly resourced if it is to be effective. This budget reflects that perspective and responds to what the financial needs are to begin the implementation of the new Act.
- Effective implementation of the WSA is good for both the environment and the economy. The Act will help better manage water and the environment. This in turn will provide more certainty and security for the businesses and industries that rely on it.

Key message #2

- Responsibility for the provincial water program is shared between MOE and FLNRO. While the budgets are separate, staff across both ministries are working closely together to transition British Columbia to the new Act.
- s.17
- New FTEs (86 FTEs) in both ministries have been hired primarily to support the new business associated with groundwater authorization and management. FTEs are needed to process authorizations for 20,000 existing groundwater users and build knowledge about the groundwater resource.

Key message #3:

- Initiated in March 2014, the pricing review was guided by seven water pricing principles and

informed by extensive public comment on government's Pricing B.C.'s Water discussion paper.

- There was strong public support to sufficiently resource the new WSA to enable its full implementation.
- Existing fees and rentals do not generate sufficient revenue to offset the cost of regulating groundwater or other new water management program costs.
- Announced in February 2015, the new fees and rentals are intended to recover the costs of implementing the new WSA, including groundwater regulation.
- In response to continued public interest in water pricing, Premier Clark announced last year that government would be reviewing the fees and rentals charged for water bottlers.
- As the WSA is implemented, the Province will also be monitoring the actual costs of delivery and will be further reviewing the rates it charges for all water uses at that time.

Key facts/other agencies:

- Implementation of the WSA beginning in 2016 will include new work for government which will result in a need for new staff to process applications for new and existing non-domestic groundwater users and support this work.
- It is expected that at least 20,000 existing groundwater users will be transitioned into the licensing system once the new Act comes into force. A five-year transition period to license these users is expected.
- The phased approach to hire and deploy staff to implement the WSA is detailed in Table 2 below. MOE and FLNR will have hired 86 staff in 2015/16 (6 in MOE and 80 in FLNRO).
- New staff hired in MOE will support WSA implementation, in particular hydrogeologist support is needed for the groundwater program, policy analyst support is needed as regulation work and operational policies and procedures will continue throughout WSA implementation. As well, program operations require continuing support (e.g. Information Management, Information Technology).
- The majority of staff hired in FLNR will be processing authorizations for new and existing non-domestic groundwater users.
- The new fees and rentals are designed to generate sufficient revenue to recover the costs necessary to fully implement the WSA and associated programs as well as;
 - Improve fairness and equity by charging fees and rentals for most groundwater uses and assigning the same rates for similar water uses;
 - Minimize increases to agriculture and aquaculture to help protect food security;

- Accommodate lower increases for conservation and storage purposes in recognition of their positive ecological and recreational values;
- Limit impacts to B.C.'s business competitiveness.

Program Area Contact: Lynn Kriwoken, Executive Director (250) 387-9481
Water Protection and Sustainability Branch
Environmental Sustainability & Strategic Policy
Division

Table 1. Breakdown of WSA Operational Costs – 2015/16

Ministry of Forests Lands and Natural Resource Operations	Operating Costs	Description
Groundwater Licensing		
Vehicles		
Office space & phones		
Human Resources		
Data and Information Management		
Stakeholder Consultation and Engagement		
Total		
Ministry of Environment		s.17
Groundwater Licensing		
Acquisition of Science Research		
Data Collection, Monitoring, and Reporting		
Stakeholder Consultation and Engagement		
Setting Environmental Requirements		
Total		
Grand Total		

Table 2. Water Sustainability Act Implementation – FTE Count by Ministry/Program/Function – 2015/16

			PHASE (FTE Count)					FUNDING	
			I	II	III	IV	Total		
Ministry/Program/Function	Position Title	Classification	Apr-June	July-Sept	Oct-Dec	Dec-Jan	Total	Transition	Permanent
ENV									
Groundwater Licensing									
Groundwater Information and Modelling									
Area based Management Tools									
Policy Analyst									
Water Program Operations									
IM/IT Systems									
ENV Total FTE									
FLNR									
Groundwater Licensing									
Groundwater Licensing and Modelling									
Authorizing - transition existing groundwater use									
Authorizing - transition existing groundwater use									
Authorizing - transition existing groundwater use									
Authorizing - new groundwater use									
Billing and amendments									
FN consultation on water licensing decisions									
Human Resources - Section Heads									
Environmental Flow Needs									
Area Based Management Tools									
Water Program Operations									
IM/IT Systems Class:									
Groundwater observation well networks									
Verification and Enforcement									
FLNR Total FTE									

* FTE split between authorizations and FCBC not determined

WATER SUSTAINABILITY ACT – CHANGES TO B.C.’s WATER REGULATION

- B.C.’s Water Regulation is being replaced with the Water Sustainability Regulation. This is the primary regulation used to facilitate the administration of water authorizations in B.C..
- The regulation sets out the requirements for applications for all types of water authorizations and for changes in and about a stream.
- This regulation works in conjunction with the Groundwater Protection Regulation and the Dam Safety Regulation to provide an efficient framework for administration of water rights in B.C..

Background:

Key message #1:

- The Water Sustainability Regulation replaces the Water Regulation.
- It brings forward parts 1, 2, 5, 6, 7 and 8 and Schedules C and D of the Water Regulation. As well, it includes parts of the Sensitive Stream Regulation from the *Fish Protection Act*.
- The water districts and fees and rentals have now been separated into their own regulations.

Key message #2:

- The regulation includes requirements for all types of water-related applications (e.g., water licence, use approval, change approval, drilling authorization and applications to amend/change these).
- It also identifies exemptions from the mandatory requirement to consider environmental flow needs for certain types of applications.
- The regulation contains considerations and requirements related to authorizations on sensitive streams.
- With the inclusion of groundwater in the licensing scheme it is important to provide exemptions from authorization for:
 - Certain types of drainage features/structures that divert groundwater. (e.g., ditches and perimeter drains);
 - Lower risk changes in and about a stream that can be undertaken without a change approval;
 - Use of water for well drilling; and
 - Deep groundwater without an authorization.
- The regulation also includes offences that are not covered by the WSA. The list of offences is much longer than under the *Water Act* and its regulations due to the new drafting style.

Key message #3:

- The Water Sustainability Regulation is one of seven being brought into force with the *Water Sustainability Act*. Together they provide an efficient framework for the management of water in B.C..
- The Water Sustainability Regulation provides direction on the administration of water rights in B.C.. The Groundwater Protection Regulation will improve the management and protection of our groundwater by ensuring good well building, maintenance and closure practices. The Dam Safety Regulation will add structures storing groundwater and enhance reporting requirements.

Key facts/other agencies:

- The Water Regulation under the *Water Act* (WA) and the Sensitive Stream Designation and Licensing Regulation has been repealed and replaced by the Water Sustainability Regulation.
- This regulation replaces Parts 1, 2, 5, 6, 7 and 8 and Schedules C and D of the Water Regulation.
- The Water Sustainability Regulation provides for:
 - Application requirements for all types of water-related applications (e.g., water licence, use approval, change approval, drilling authorization and applications to amend/change these)
 - Exemptions from the mandatory requirement to consider environmental flow needs for certain types of applications
 - Considerations and requirements related to authorizations on sensitive streams
 - Exemptions from authorization for certain types of drainage features/structures that divert groundwater
 - Requirements for water use and activities under the regulation
 - Changes in and about a stream without a change approval
 - Use of water for well drilling without an authorization
 - Use of deep groundwater without an authorization
 - Offences not covered by the WSA
 - Definitions for industrial water use purpose categories
- Quick licensing provisions of the *Water Sustainability Act* will not be brought into effect at this time. Consultation is required on the list of streams where quick licensing will apply. As a result of the lack of consultation on the existing list of streams, Quick licensing under the *Water Act* is not used frequently due to concerns that First Nations consultation requirements would not adequately be met.
- This regulation along with the Water Fees, Rentals and Charges Tariff, Groundwater Protection, Dam Safety, Water District, Violation Ticket and Fines regulations, provide the regulatory framework for efficient implementation of the *Water Sustainability Act*.

Program Area Contact: Lynn Kriwoken, Executive Director (250) 387-9481
Water Protection and Sustainability Branch
Environmental Sustainability & Strategic Policy
Division

GROUNDWATER RESOURCE MANAGEMENT IN BRITISH COLUMBIA

- The ministries of Environment (MOE) and Forests, Lands and Natural Resource Operations (FLNR) have taken key actions to address the seven recommendations from the 2010 Auditor General's report on groundwater resource management in British Columbia (BC), to significantly improve the management of this resource.
- Government funding for groundwater science and monitoring is allowing groundwater availability to be understood to facilitate more effective decision making under the *Water Sustainability Act* (WSA).
- Continued mapping and classification of aquifers allow groundwater quantity and quality issues to be identified and addressed.

Background:

Key message #1:

- MOE/FLNR have made significant progress in following up on the Auditor General's recommendations:
 - Additional groundwater science studies and monitoring were undertaken
 - Accessibility to study results and monitoring data has been improved
 - The *Water Sustainability Act* will be brought into force by regulations in early 2016. This will allow BC to manage the diversion and use of groundwater to ensure groundwater supplies are sustainably managed, and aquatic environments are better protected.

Key message #2

- As part of the Groundwater Science Program s.17 characterization studies that look at groundwater availability are under way for priority areas including southern Vancouver Island (Cobble Hill), Lower Mainland (Langley) and Okanagan-Similkameen. Water availability studies were recently completed for Abbotsford, Cache Creek, Mayne Island, Westwold (near Salmon Arm), and Grand Forks. These studies will support decision making under the WSA.
- Studies are also underway, in partnership with the University of Victoria, Simon Fraser University, and University of Northern BC, to better understand impacts on groundwater. These studies will look at how groundwater pumping could impact stream flow and measure surface water and groundwater interactions along streams.
- MOE/FLNR continue to monitor groundwater levels in over 180 active observation wells. This information is used to assess availability and impact from use, and will help support allocation decisions under the WSA.

Key message #3:

- To date, MOE has mapped and classified over 1,100 aquifers on a priority basis that consider levels of development, groundwater use and risk to the resource. This inventory allows vulnerable aquifers to be identified and prioritized for management actions, such as water quality monitoring.
- MOE/FLNR monitor water quality in priority aquifers on an on-going basis; monitoring has shown higher levels of nitrate in a few of the vulnerable aquifers that are heavily used (e.g., aquifers in Abbotsford, Osoyoos, and Grand Forks). Follow-up actions for aquifers with water quality impacts have included working with the responsible ministries to develop best practices guides for the various industry sectors, water suppliers and private well owners to help mitigate effects on aquifers.

Key facts/other agencies:

- The total number of aquifers in the province is unknown, but it is estimated to be in the thousands. Those aquifers that have been mapped and classified are located mainly in highly settled areas where groundwater is used as a water supply. Mapping and classification of aquifers will continue in a systematic way using a priority approach that considers levels of development, groundwater use and risk to the resource.
- Long-term groundwater level trends from the Provincial Observation Well Network are available at <http://www.env.gov.bc.ca/soe/indicators/water/wells/>.
- Water supply systems throughout BC (systems that supply drinking water to the public) are required under the Drinking Water Protection Act to regularly monitor and report on their drinking water quality to protect public health.
- Groundwater quality monitoring is conducted for provincial observation wells and, in some locations, private water supply wells. Provincial observation well data are publicly available at <http://www.env.gov.bc.ca/emswr/>. Results from private well monitoring are shared with the well owner and local health officials.

Program Area Contact: Lynn Kriwoken, Executive Director (250) 387-9481
Water Protection and Sustainability Branch
Environmental Sustainability & Strategic Policy
Division

Table 1. Breakdown of WSA Operational Costs – 2015/16

Ministry of Forests Lands and Natural Resource Operations	Operating Costs	Description
Groundwater Licensing		
Vehicles		
Office space & phones		
Human Resources		
Data and Information Management		
Stakeholder Consultation and Engagement		
Total		
Ministry of Environment		s.17
Groundwater Licensing		
Acquisition of Science Research		
Data Collection, Monitoring, and Reporting		
Stakeholder Consultation and Engagement		
Setting Environmental Requirements		
Total		
Grand Total		

Table 2. Water Sustainability Act Implementation – FTE Count by Ministry/Program/Function – 2015/16

			PHASE (FTE Count)					FUNDING	
			I	II	III	IV	Total		
Ministry/Program/Function	Position Title	Classification	Apr-June	July-Sept	Oct-Dec	Dec-Jan	Total	Transition	Permanent
ENV									
Groundwater Licensing									
Groundwater Information and Modelling									
Area based Management Tools									
Policy Analyst									
Water Program Operations									
IM/IT Systems									
ENV Total FTE									
FLNR									
Groundwater Licensing									
Groundwater Licensing and Modelling									
Authorizing - transition existing groundwater use									
Authorizing - transition existing groundwater use									
Authorizing - transition existing groundwater use									
Authorizing - new groundwater use									
Billing and amendments									
FN consultation on water licensing decisions									
Human Resources - Section Heads									
Environmental Flow Needs									
Area Based Management Tools									
Water Program Operations									
IM/IT Systems Class:									
Groundwater observation well networks									
Verification and Enforcement									
FLNR Total FTE									

* FTE split between authorizations and FCBC not determined

OVERDUE ENVIRONMENTAL COURT PENALTIES

- B.C. is considered a national leader in its environmental enforcement reporting – both in the breadth of what we report, as well as the fact that it names violators publicly.
- MOE expanded its public reporting in 2013 to include the Overdue Environmental Court Penalties report which lists all individuals and businesses with overdue environmental court penalties. This report is the first of its kind in North America.
- The purposes of publishing the Overdue Environmental Court Penalties report is to improve transparency and provide an additional incentive for individuals and businesses to clear these debts.
- This initiative has improved the collection rate of court fines from 40% to 92% in two years. MOE has set a longer-term goal of 95% collection rate for all court fines.
 - Efforts will continue to focus on strategies across the B.C. Government to improve the way fines are collected as a result of this project.

Background:

- MOE publishes the annual *Overdue Environmental Court Penalties Report*, which covers a six year timeframe.
- This report names all the businesses and individuals who have overdue environmental court penalties, the amount of the fine and the legislation under which the violation occurred.

Key facts/other agencies:

- The *Overdue Environmental Court Penalties Report* is available on MOE's public internet site.
- The latest report covers six years: 2008 – 2013.
- In the current report there are four business owing a total of \$54,525 and 80 individuals owing a total of \$226,677 in overdue environmental court penalties for a combined total of \$281,202.
- All businesses and individuals who have overdue environmental court fines payable to the Province have been named.
- Authority to publish the names is provided by the *Ministry of Environment Act*, section 6.1 to both the Minister of Environment and the Minister of Forest, Lands and Natural Resource Operations.

Program Area Contact: Anthony Danks, Executive Director (250)387-8483
Strategic Policy Branch, Environmental
Sustainability & Strategic Policy Division

ENVIRONMENTAL COMPLIANCE AND ENFORCEMENT - GENERAL

- Ensuring compliance with environmental laws and regulations is one of the ministry's primary objectives.
- 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.
 - 2015 had the highest number of tickets issued and the highest ticket fines levied in eight years.
 - 2015 had the third highest number of court convictions in eight years.

Background:

C&E Approach:

- The Ministry conducts inspections of regulatory requirements and where necessary takes enforcement action to address any non-compliance. Investigations are typically conducted where a more stringent response may be required such as court prosecution.
- 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 penalties to address non-compliance.
 - Publicly naming companies and individuals subject to enforcement action, as well as those with outstanding environmental court fines.

Compliance and Enforcement Policy:

- The C&E Policy outlines a risk-based approach to respond to non-compliance.
- The **Non-compliance Decision Matrix** is a tool that guides staff in their selection of an appropriate response to non-compliance, ensuring that they consider certain criteria and factors including the real or potential impact to the environment or human health and safety, and the likelihood of achieving future compliance.
- The policy helps to provide greater consistency, increased clarity and predictability regarding the consequences of non-compliance and help to ensure that ministry resources are directed to the highest priorities.
- The C&E Policy encourages a balanced and principled use of C&E tools and demonstrates the ministry's commitment to building public confidence through accountable and transparent policies.

New Enforcement Tools:

- While Ministry staff have access to a range of enforcement tools to respond to non-compliance, two additional tools have recently been added to the toolkits to provide increased the flexibility:

Administrative Penalties (APs)

- APs fill a gap between issuing a violation ticket (used for minor offences) and prosecuting in court (reserved for the most serious offences).
- APs are financial penalties imposed on a person or a business for non-compliance with a regulatory requirement.
- APs are issued by designated ministry officials under the authority of the Environmental Management Act and the Integrated Pest Management Act.

- In 2015 2 APs were served totaling \$15,000 in penalties. Staff is currently preparing to serve more in 2016, anticipating that APs will be an effective tool to change behavior.

Community Environmental Justice Forums (CEJF)

- A CEJF is a venue that uses the principles of Restorative Justice to address environmental offences committed by regulated companies.
- A CEJF recognizes the individuals or community affected by the offence and invites them to participate in a facilitated session with the company to determine appropriate restitution to restore compliance and repair harm caused by the offence.
- CEJFs offer an alternative to an adversarial process, providing opportunity for meaningful dialogue, problem-solving and relationship building for all parties.
- To date, eight CEJF's have been held resulting in a total of \$685,500 in restitution – 100% of which has been paid in full.

Environmental Enforcement Reporting

Quarterly Environmental Enforcement Summary (the Summary)

- The ministry has been publishing the Summary since 2006. Its purpose is to improve transparency and to provide additional deterrence to those businesses and individuals subject to environmental laws.
- The Summary is published on the ministry website, and includes enforcement actions taken to prevent actual or potential impact to the environment, human health or safety.
- The enforcement actions reported originate as follows:
 - Orders, administrative sanctions and administrative penalties are provided by program staff in MOE and Ministry of Forests, Lands and Natural Resource Operations (MFLNRO); and
 - Tickets, court convictions and Community Environmental Justice Forums (CEJFs) are provided by Conservation Officers and Park Rangers in MoE.

Environmental Violations Database (EVD)

- The EVD, available on the ministry website, is a searchable database containing all entries included in the Summary, dating back to 2006.
- The EVD contains more than 20,000 entries, demonstrating the range of enforcement actions taken by staff in response to environmental violations – including hunting and fishing, open burning, mud bogging, dam safety, pesticide and pollution.

Overdue Court Penalties Report (Closing the Gap)

- The ministry is committed to publishing annually the collection rate for environmental court penalties for a rolling six year time period.

- Environmental penalties are meant to deter harmful behaviors – especially those most harmful behaviours that are prosecuted through the courts.
- British Columbia is the first jurisdiction in North America to take a tough stance on unpaid environmental penalties by naming names in public reports, aiming to increase the collection of fines from businesses and individuals that break environmental laws.
- Since focusing on the recovery of overdue court penalties, the ministry has improved the collection rate from 40% to 92%.

Stats & Treads on Enforcement Actions

- While the numbers for enforcement actions may fluctuate slightly year over year, they have held steady for many years.
 - 2015 shows strong overall numbers, demonstrating the work of ministry staff on the ground to maintain the environmental health and beauty of the province.
 - 2015 had the highest number of tickets issued and the highest ticket fines levied in eight years.
 - 2015 had the third highest number of court convictions in eight years.

Enforcement Actions	2008	2009	2010	2011	2012	2013	2014	2015*
Orders	26	18	19	13	22	8	8	17
Administrative Sanctions	173	227	208	152	179	276	249	208
Administrative Penalties (AP)	0	0	0	0	0	0	0	2
Total AP Fines	0	0	0	0	0	0	0	\$15,000
Tickets Issued	2099	1955	1708	1441	1941	2261	2216	2295
Total Ticket Fines	\$402,621	\$346,192	\$334,214	\$299,639	\$400,866	\$465,863	\$442,706	\$486,188
Court Convictions	65	64	53	67	87	78	70	72
Total Court Fines	\$297,268	\$803,822	\$166,191	\$684,814	\$497,785	\$411,008	\$399,486	\$200,293
Restorative Justice (RJ)	0	0	2	2	1	0	2	1
Total RJ Fines	\$0	\$0	\$44,500	\$335,000	\$250,000	\$0	\$28,000	\$28,000
Total Fines	\$699,889	\$1,150,014	\$544,905	\$1,319,453	\$1,148,651	\$876,871	\$870,192	\$729,481

* Ticket numbers for 2015 are preliminary and may increase when the 3rd and 4th quarter reports are published.

Highlighted Court Convictions

Progress Energy Canada Ltd. (2015)

- Pled guilty in Provincial Court, and was ordered to pay a total of \$250,000 in penalties for an offence under the federal Migratory Birds Convention Act.
- The COS initiated the investigation and worked with Environment Canada staff to establish that migratory birds died as a result of their exposure to a form of petroleum liquid hydrocarbon.

- The company had no deterrence measures in place to limit the bird's access to the open, above-ground, holding tank.

Neucel Specialty Cellulose Ltd. (2014)

- Convicted in court under the Environmental Management Act for exceeding waste discharge levels at its operation in Port Alice on Northern Vancouver Island.
- The Major Investigations Unit of the COS handled the investigation in partnership with Environment Canada.
- The discharges occurred on three separate occasions and resulted in a \$1,000 fine and a \$174,000 court ordered creative sentencing penalty to be paid to the Habitat Conservation Trust Foundation.

Amit Bawa *Integrated Pest Management Act* (2014)

- The first court conviction under BC's *Integrated Pest Management Act*.
- Bawa was found guilty on two counts of making false statements to the administrator during his role in certifying pesticide applicators and fined over \$13,000.
- Undercover CO's performed an investigation finding that Bawa was putting the public at risk by compromising the integrity of the training and certification program.
- The certification program is a key element in ensuring that pesticide applicators and dispensers are knowledgeable in pesticide safety, while protecting human health and the environment.

Program Area Contact:	Anthony Danks, Executive Director Strategic Policy Branch, Environmental Sustainability & Strategic Policy Division	(250)387-8483
-----------------------	---	---------------

NORTHEAST AIR MONITORING PROJECT

- Public demand for local air quality information continues to grow in the northeast due to oil and gas development.
- The Ministry of Environment has collaborated with the CAPP, Spectra Energy, the Oil and Gas Commission, Ministry of Natural Gas Development and other local partners to conduct an air quality assessment and establish an ongoing air monitoring program since 2012.
- This project established an enhanced ambient air monitoring network consisting of three portable stations, a core station, and mobile monitoring.
- A 2015 Northeast BC Air Quality Characterization Report summarizing found air quality is generally good except for occasional exceedances of odour objectives for hydrogen sulfide in Pine River and Taylor. Health risks associated with these measured exceedances are relatively low.
- Over the past year, MOE engaged with northeast stakeholders and helped to create a Public Outreach Group composed of local community representatives to support project implementation.
- Next steps are to continue to optimize the air monitoring network and for project partners to agree on a long-term funding and management model.

Background:

- Ministry of Environment has three portable air monitoring stations deployed in small communities near oil and gas development in Northeast B.C.. These stations were initially deployed for close to two years at Farmington, Tomslake and Doig River measuring compounds released through oil and gas activity (total reduced sulfur and sulfur dioxide). Only low levels of those compounds were observed during the measurement period.
- After a scientific review by an expert Technical Advisory Group, those three stations are being redeployed to three new communities in the Winter and Spring of 2016 with an expanded set of pollutants being monitored as follows:
 - **Taylor: nitrogen oxide (NO_x), ozone (O₃), PM_{2.5}**
 - **Blueberry / Buick Creek: NO_x, O₃**
 - **Rolla: NO_x, O₃**
- A core air monitoring station, measuring **NO_x, O₃, PM_{2.5} and sulfur dioxide**, was established in Fort St. John in 2015 to provide a regional picture of air quality for the national Air Quality Management System (AQMS), and to support Air Quality Health Index (AQHI) reporting in that community.
- All air quality data generated by the three portable and the core air monitoring station are available in near real-time at: <http://www.bcairquality.ca/readings/northeast.html>.
- OGC operates two mobile air monitors for compliance and emergency monitoring: Commission Air Monitoring Environmental Laboratory (CAMEL) trailer unit and new Roaming Air Monitor (RAM) van unit (for rapid deployment).

Program Area Contact:	David Tesch, Executive Director Knowledge Management Branch Environmental Sustainability & Strategic Policy Division	250-387-5831
-----------------------	---	--------------

CLIMATE RELATED MONITORING NETWORKS

- The Province operates a variety of stations and networks that collect climate, weather, snowpack, water quantity and water quality information.
- Monitoring networks help Government manage flood and drought events but also provide information required to predict the impacts of climate change and develop adaptation or mitigation strategies.
- Past budget pressures resulted in network reductions. Static budgets have also prevented the growth or adaptation of existing networks as well as years of deferred upgrades and maintenance, especially of the hydrometric stations.

-

s.13

- Government (provincial and local), industry and First Nations stakeholders requested reinvestment in MOE monitoring capabilities to improve forecasting of emergent conditions and climate change.

Background:

- B.C. is geographically complex and juxtaposed between continental and maritime climates resulting in highly variable climatology. This fosters a range of biologically and ecologically diverse environments.
- The Province operates a variety of stations and networks that collect climate, weather and water data. These include:
 - Meteorological stations (595);
 - Automated snow/weather stations (70);
 - Manual snow survey stations (154);
 - Hydrometric stations (449);
 - Observation wells (186); and,
 - Long-term water quality monitoring stations (40)
- Long-term climate-related data provides the basis for monitoring future changes in climate. Climate change predictions come from observed values and application of models. B.C.-wide climate, snow, hydrometric and ground water information is required to forecast emergent conditions (e.g., flooding, fires and drought) and better informs critical decisions. Sufficient quality observed data provide forecasters with better information to issue warnings of imminent danger, leading to better societal outcomes with avoided catastrophes.
- Adequate climate and hydrometric information informs infrastructure design, effective natural resource management, and land use planning.

-

s.13

-

-

s.13,s.17

-

s.13

- A 2003 Business Review initiated by the BC Ministry of Sustainable Resources Management reported a 19:1 economic benefit to monitoring cost ratio for just the hydrometric network.

Program Area Contact: David Tesch, Executive Director 250-387-5831
Knowledge Management Branch
Environmental Sustainability and Strategic Policy
Division

ⁱ **Business function definitions (for Ecosystems and SAR Management)**

Policy & Legislation: Development and providing advice for new and existing; Includes standards and guidelines.

Legal Authorities: Exercising legal authorities such as establishing conservation land designations, developing legal lists, OGAA audits etc. but not including management activities

External Relations: Building and maintaining partnerships; IGR committee work; Developing agreements with clients.

Planning: Species and ecosystems recovery and management plans; Land and water use planning; Strategic and program planning.

Assessment: Includes inventory, status assessment; compliance and effectiveness monitoring.

Identifying Resource Values: Mapping resource values; Maintaining taxonomic lists; Technical foundation for Values Framework.

Research: Using formal scientific methods (e.g., hypothesis testing) to fill knowledge gaps.

Resource Stewardship: Includes implementation activities from recovery and management plans (excluding inventory, monitoring and research); Implementation of management actions enabled by legal authorities; Supporting habitat protection activities; Invasive species management; Extension (includes working with private landowners; other ministries; NGOs).

Data Management and Products: Acquiring, housing and providing data and information in usable forms; database development and management; supporting Environmental Reporting BC.

Decision Support: Advice for EA and other resource development processes; advice on CE/EMP implementation; decision support tools and model development (e.g., TBM); supporting regulatory decisions (e.g., Wildlife Act).