### MINISTRY OF ENVIRONMENT MEETING INFORMATION NOTE

February 3, 2014 File: 280-20

CLIFF/tracking #: 200238

PREPARED FOR: Honourable Mary Polak, Minister of Environment

**DATE AND TIME OF MEETING:** February 6, 2014 – 3:15pm – 3:45pm

**ATTENDEES:** Minister Mary Polak, Jonathan Kassian (BC Coordinator, GreenJobs BC) and GreenJobs BC Steering Committee, Darryl Walker, BCGEU (GreenJobs BC cochair), Lisa Matthaus, Organizing for Change (GreenJobs BC co-chair), Charley Beresford, Columbia Institute, Lynn Bueckert, BCGEU

**ISSUE(S):** To discuss green job growth in British Columbia (BC).

### **BACKGROUND:**

GreenJobs BC was formed as a result of BC's Environmental and Labour Movements 2011 joint conference "Jobs, Justice, Climate." The conference brought the two sectors together to find solutions that address climate change and build green jobs. More background information, including members of the steering committee, can be found in attachment one — "About GreenJobsBC."

During last year's election campaign, GreenJobs BC released an open letter to Premier Clark, John Cummins, Adrian Dix and Jane Sterk calling for a "Bold Green Jobs Plan for BC" (attachment two.) The undersigned include: the BC Government and Service Employees' Union (BCGEU,) the BC Federation of Labour, BC Insulators, David Suzuki Foundation, United Steelworkers, Pembina Institute, Sierra Club BC and Organizing for Change.

The group published a policy brochure in January 2013 entitled *Moving Towards a Bold Green Jobs Plan for BC* (attachment three.) This document includes policy recommendations from the group, and may be referenced in the meeting.

### **DISCUSSION:**

The Climate Action Secretariat recommends that the Minister meet with this group to update them on our green economy strategy as part of the Jobs Plan and find areas of alignment. Tim Lesiuk met with Jonathan Kassian from GreenJobs BC on February 4, 2014 (as Executive Director on the Green Economy file) to learn more about their organization and discuss their potential or planned activities.

### **SUGGESTED RESPONSE:**

The Province is interested in green job growth, and encourages GreenJobs BC to continue in their efforts. The Province welcomes input from stakeholders on how best to grow green jobs in BC. GreenJobs BC should consider contacting the Minister of Jobs, Tourism and Skills Training to see how their work could align with that ministry's programs and initiatives.

### **Attachments:**

Attachment 1 - About GreenJobsBC

Attachment 2 - GreenJobs BC - Open Letter

Attachment 3 – GreenJobs BC Policy Brochure 2013

Attachment 4 - GreenJobs BC Media Backgrounder

Contact:	Alternate Contact:	Prepared by:
James Mack,	Tim Lesiuk,	Patricia Russell
Head	Executive Director	Project Assistant
Climate Action Secretariat	Climate Action Secretariat	Climate Action Secretariat
250-356-6243	250-216-5893	250-387-9229

Reviewed by	Initials	Date
DM	-	-
DMO	VJ	05/02/14
Head	JM	03/02/14
Dir./Mgr.	TL	30/01/14
Author	PR	29/01/14

About Green Jobs BC - Link: http://greenjobsbc.org/about/

Green Jobs BC exists to strengthen communication and cooperation between labour and environmental organizations, in order to advance economic and environmental initiatives that: provide good green jobs; are socially equitable; are ecologically responsible; and, result in the reduction of GHG emissions.

### Specific Goals:

- Advance policy Initiatives that result in greater investment in and public support for green and community sustaining jobs
- Foster learning opportunities or discussion forums between labour and environmental organizations
- Identify and evaluate opportunities to work with other sectors. e.g. First Nations, business, faith, social justice groups

### **Our History:**

On September 11, 2010 BC's Environmental and Labour Movements held a joint Conference called Jobs, Justice, Climate. The conference brought the two sectors together to find solutions that address climate change and build green jobs.

Over 120 key leaders from both movements attended and took part in a series of 18 workshops covering a wide range of subjects such as transportation, retrofitting and manufacturing.

The Keynote speaker was David Foster (Executive Director of the BlueGreen Alliance – a national American partnership of labor unions and environmental organizations) who is dedicated to expanding the number and quality of jobs in the green economy.

Following this successful foundational conference, GreenJobs BC was formed, bringing BC's environmental and labour sectors together to build a BC economy that lowers GHG emissions, creates good green jobs, and helps mitigate the results of climate change.

In the past these two sectors have sometimes seemed to be working at cross purposes. Previous attempts at involving a broad range of sectors on climate issues proved too unwieldy to continue beyond the initial conference. Learning from that experience, from the beginning we focused on establishing a solid footing with two sectors that have a high degree of alignment in values. This strength will be built upon by including multiple sectors (business, First Nations, community, etc.) in the February 2012 Retrofits & Building Forum, and then September 2012 GreenJobs BC Conference.

Over the coming years, GreenJobs BC will facilitate continued dialogue between BC's Environmental and Labour Movements, and other sectors, to find common solutions to building a greener economy in BC.

### The People:

The Green Jobs BC Steering Committee consists of:

- Lisa Matthaus, Organizing for Change (Co-Chair)
- Darryl Walker, BC Government and Services Employee Union (Co-Chair)
- Charley Beresford, Columbia Institute
- Matt Horne, Pembina Institute
- Mara Kerry, David Suzuki Foundation
- Irene Lanzinger, BC Federation of Labour
- Lee Loftus, International Association of Heat and Frost Insulators and Allied Workers Union –
   Local 118
- Bob Matters, United Steel Workers BC
- · Bob Peart, Sierra Club
- Kathy Wutke, Vancity Credit Union

And we are grateful to past steering committee members Morag Carter (David Suzuki Foundation), George Heyman (Sierra Club), Jim Sinclair (BC Federation of Labour), and Caitlyn Vernon (Sierra Club) for their ongoing contributions and guidance.

In addition, the following groups were involved in our September 2010 Foundational Conference:

British Columbia and Yukon Territory Building and Construction Trades Council, Canada Green Building Council, Cascadia Green Building Council, Canadian Auto Workers, Canadian Centre for Policy Alternatives, Communications Energy and Paperworkers Union of Canada, Columbia Institute, Canadian Office & Professional Employees Union 378, Canadian Union of Public Employees, Eco Justice, Federation of Post-Secondary Educators of BC, Hospital Employees Union, Health Sciences Association BC, International Alliance of Theatrical Stage Employees 891, International Brotherhood of Electrical Workers 230, International Association of Heat and Frost Insulators and Allied Workers Union – Local 118, T. Buck Suzuki Foundation, Union of Environment Workers – PSAC, United Steelworkers of Canada, Western Canada Wilderness Committee.



### Open Letter Calling for a Bold Green Jobs Plan for BC

Dear Christy Clark/John Cummins/Adrian Dix/Jane Sterk:

From the mountain pine beetle epidemic to a rise in extreme weather events, evidence of the rapidly increasing impacts of climate change and environmental degradation on our communities and economy have been a wake-up call to British Columbians. Reputable economists agree that the negative economic impacts of climate change and the cost of acting belatedly will be far greater than making change now.

British Columbians, and all Canadians, need a modern economy with plentiful, good, green jobs – a modern economy that will support and sustain our communities and the environment. To facilitate the creation of this economy BC needs a Green Jobs Plan.

Economic development policy must green existing industries, workplaces, infrastructure and public services as well as attract new and explicitly green industry. Today's British Columbians are looking for an approach that integrates environmental care with our economic development needs — rather than positioning the environment and the economy as opposing choices.

A Green Jobs Plan for BC must be:

<u>Sustainable:</u> Focusing on economic development that respects ecosystem health and the ecological values on which we depend;

<u>Low-Carbon:</u> Positioning BC near the front of the curve with respect to emerging economic opportunities in the low carbon economy;

<u>Adaptive:</u> Considering how best to help communities adapt to the impacts of climate change; and

<u>Worker-focused:</u> Incorporating training and skills building that assist with both employment transitions and economic development opportunities for youth and the existing workforce.

The tools required include:

- Supportive policy (training funds, educational support, research and development)
- Investment (use of royalties as legacy funds to kick-start renewable energy development and strategies to green existing industries)



- Taxation instruments (that encourage and incentivize sustainable, low carbon or carbon reduction initiatives), and
- Political will (setting comprehensive policy to achieve strong but measurable targets, with clear time-lines for the short, medium and longer term)

BC needs bold and purposeful policy and action to meet our climate goals. It requires political leadership, social license and economic investment to build an economy with plentiful, good, green jobs that support and sustain human communities and the ecosystems on which we depend and within which we live.

We, the undersigned, look forward to working with government to develop a Green Jobs Plan for BC.









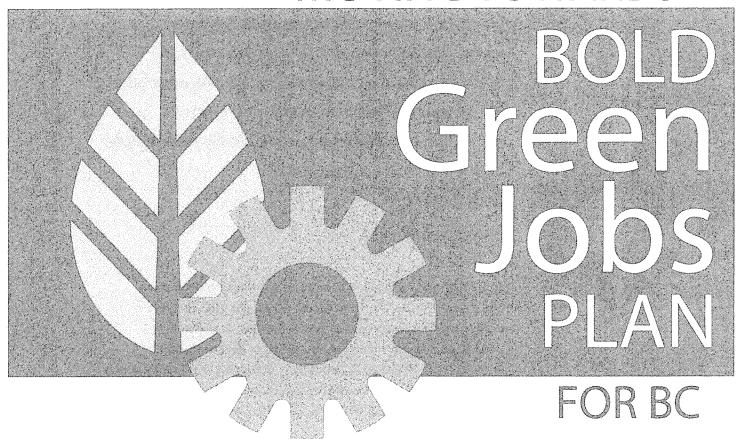






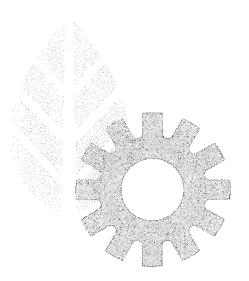


## MOVING TOWARDS A



January 2013





Green Jobs BC exists to strengthen communication and cooperation between labour and environmental organizations, in order to advance economic and environmental initiatives that: provide good green jobs; are socially equitable; are ecologically responsible; and result in the reduction of GHG emissions.

www.greenjobsbc.org

These documents resulted from a series of stakeholder forums, and a two-day conference, hosted by GreenJobs BC. The policy recommendations are a result of the discussions and on-line participation of more than 200 people from environmental organizations, labour unions, business, academia, and First Nations. These documents do not reflect official policy of GreenJobs BC member organizations, but rather indicate a way forward.

To get more involved, contact Kristie Starr: kstarr@greenjobsbc.org



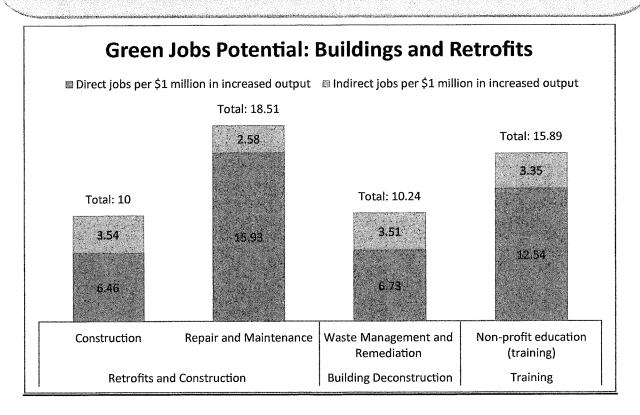
Working together for Green Jobs in BC.



These documents resulted from a series of stakeholder forums, and a two-day conference, hosted by GreenJobs BC. The policy recommendations are a result of the discussions and on-line participation of more than 200 people from environmental organizations, labour unions, business, academia, and First Nations. These documents do not reflect official policy of GreenJobs BC member organizations, but rather indicate a way forward.

### **Key DRAFT Policies:**

- 1. Scale up and/or develop energy efficiency retrofit financing and incentive programs for all types of BC residential and commercial buildings.
- Invest more in greening public sector buildings, including schools, hospitals, office building and community centres.
- 3. Update the BC Building Code to require higher energy efficiency standards for new construction and for renovations of existing buildings.
- 4. Invest in quality training, apprenticeships and education for the green buildings sector that meet CSA Standards and can be integrated with Red Seal trades certification.
- 5. Support research, product development and 'Made in BC' manufacturing of energy efficiency equipment and materials.
- 6. Accelerate the transition from demolition to deconstruction in the construction industry.



Source: Provincial Economic Multipliers (BC Stats, 2008)



### **Overview**

"Buildings offer the largest share of cost-effective opportunities for GHG mitigation...Over the whole building stock the largest portion of carbon savings by 2030 is in retrofitting existing buildings and replacing energy-using equipment."

**-UN IPCC 2007** 

### GHG reductions potential in BC buildings

BC's low emission electricity sector means that buildings account for less GHG emissions in this province than in most other North American jurisdictions. However, energy used to heat and cool buildings and heat water still accounts for about 11% of BC GHG emissions. A significant percentage of these emissions can be cut through building retrofits and other energy efficiency measures. Recent research suggests a 25% reduction in emissions from buildings is a realistic short term goal in North America, and would move BC about 10% of the way towards our provincial GHG reduction targets for 2020.

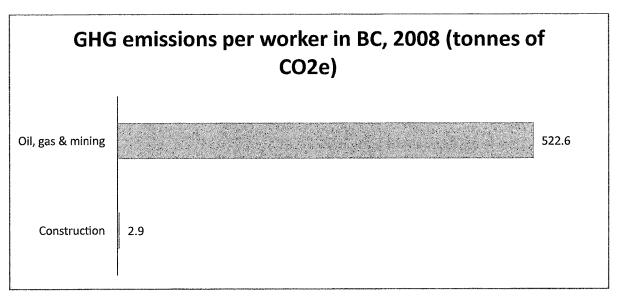
A coordinated, well-supported effort to improve energy efficiency in buildings across the province would also save homeowners, businesses and the public sector hundreds of millions of dollars in energy costs, and create thousands of new jobs. On top of these direct benefits, clean electricity freed up from energy use in residential, commercial and institutional buildings can be redirected to supply the increased use of renewable energy in transportation and other fossil fuel-reliant sectors.

### **Economic Impact of Energy Efficiency and Green Buildings**

### Jobs Intensive and low emissions

Construction, repair and maintenance work involved in energy retrofitting and green building construction is low emissions and labour intensive. BC estimates show that construction and retrofitting create between 10 to 18 direct and indirect jobs for every \$1 million in increased output.<sup>2</sup> This contrasts with oil and natural gas extraction, where it takes about \$4 million in increased output to support a single direct job. From an environmental perspective, each construction job is associated with only 0.5% (or 1/180<sup>th</sup>) the GHG emissions of a job in fossil fuel extraction.<sup>3</sup>





Source: Lee and Carlaw, CCPA, 2010

### Total Jobs potential:

Economic modeling commissioned jointly by the governments of BC, Washington, Oregon and California shows that energy efficiency and green buildings is the sector with the highest potential for green job growth in the region. According to this research, a strong policy focus on energy efficiency and green buildings could create 362,000 new jobs across the west coast of North America by 2020, increasing employment in the sector by 448%.<sup>4</sup>

While no comprehensive estimates are available for retrofits across the entire BC building stock, there are estimates for job creation in retrofitting residential buildings.

- Basic upgrades on 400,000 homes could produce about 8,200-13,200 person years of employment.<sup>5</sup>
- More intensive upgrades at 100,000 home per year would see 14,000 to 30,000 people directly employed <sup>6</sup>

The job creation potential for energy efficiency retrofits in BC public sector buildings can also be roughly estimated. According to the provincial government, the Public Sector Energy Conservation Agreement reduced GHG emissions from BC schools, hospitals and other government buildings by about 5% between 2008 and 2011 and created 500 new jobs. If the ratio of job creation to energy savings stays the same, reaching the provincial target of 33% GHG reductions by 2020 should create around 2,500 new jobs in public sector construction and energy efficiency work.<sup>7</sup>



#### Other economic and environmental benefits:

- Financial savings from reduced commercial, residential and institutional energy bills could free up billions for other job creating economic activity and investments.8
- Electricity saved through energy efficiency would be freed up for other uses (for example increased electrification of transportation), which could help further reduce BC GHG emissions.
- Incentives provided by government for energy retrofits stimulate considerable private spending, significantly leveraging the job-creation potential of public investment.9
- Reduced energy use means less strain on existing energy infrastructure and reduced need to create expensive new infrastructure.
- Well implemented programs can also provide young people and the unemployed with opportunities to acquire high skilled jobs, leading to long term careers in the industry.
- Jobs in energy efficiency retrofits are high-skilled, well-paid, distributed throughout the province and will be in demand for many years.

### **Policy opportunities:**

1. Scale up and/or develop energy efficiency retrofit financing and incentive programs for all types of BC residential and commercial buildings.

### Goals:

- Maximize potential energy efficiency gains and GHG emissions reductions from existing residential and commercial buildings.
- Reduce financial barriers and provide support to encourage energy customers to undertake retrofits and other efficiency measures.

### **Policy Actions:**

- Help create demand by legislating mandatory energy performance audits and labeling for all buildings at time of resale.
- Require landlords to supply energy performance audits to new tenants.
- Phase in minimum energy performance requirements for existing buildings, with support and assistance programs to help owners meet requirements.
- Develop stable, long-term financing programs for residential and commercial energy efficiency retrofits that include:
  - low interest loans
  - targeted grants
  - programs for owners and renters
  - solutions that support residential energy customers on low and fixed incomes



- measures to address financial and other barriers faced by small businesses
- Accelerate the roll out of proposed on-utility bill financing programs (PAYS-BC) across the province, and expand PAYS-BC to include owner occupied multi-unit residential buildings (MURBs), rental and commercial properties.
- Investigate enabling municipalities to provide property tax repayment financing programs for on-site renewable energy measures not covered in on-utility bill financing programs.
- Reallocate a portion of carbon tax revenue to fund energy efficiency grants and low cost financing, especially for renters and lower income British Columbians.
- Use tax credits and other incentives to support high energy efficiency construction and retrofits that exceed mandatory provincial standards.
- Collaborate with community groups, industry, utilities, public sector agencies, NGOs, local governments and others to deliver effective education, marketing and outreach strategies to stimulate demand for energy efficiency retrofits.
- 2. Invest more in greening public sector buildings, including schools, hospitals, office building and community centres.

### Goals:

- Maximize energy savings and GHG emission reductions from public sector buildings.
- Show public sector leadership in energy efficiency and green buildings.
- Stimulate energy efficiency and green buildings sector through public procurement.

### **Policy Actions:**

- Launch a stable, well-funded program to maximize the energy efficiency potential of existing public sector buildings, including schools, offices and recreational facilities.
- Require carbon neutrality and maximum feasible energy efficiency in all new public sector buildings.
- Explore opportunities to include energy efficiency retrofits whenever there are major construction efforts in public buildings, for example at the time of earthquake upgrades at schools.
- 3. Update the BC Building Code to require higher energy efficiency standards for new construction and renovations of existing buildings.

### Goals:

- Develop requirements of 'net zero' GHG emissions for all new buildings.
- Make BC a leader in energy efficient, green building construction.



### **Policy Actions:**

- Accelerate the development and implementation of energy efficiency, smart grid compatibility, renewable energy readiness and other 'green' standards into the BC building code.
- Schedule regular updates to energy efficiency standards in the provincial building code, in synchronization with evolving international standards.
- Provide municipal governments with the resources to ensure that new standards are met.
- Make energy performance ratings mandatory for all new homes and buildings.
- Increase capacity to enforce energy efficiency requirements in building code standards, particularly in smaller communities and rural areas.
- Empower municipalities to implement 'green' standards that go beyond provincial building code requirements.
- Work with industry, energy efficiency experts and building trades to harmonize construction quality standards with best practices in energy efficiency.
- Explore opportunities to include energy efficiency retrofits whenever there are major renovations in residential and commercial buildings, for example during rain screen remediation.
- Legislate a mandatory energy efficiency labeling system applicable to all new buildings constructed in BC.
- Engage and educate construction industry around the benefits and importance of energy efficiency in buildings.
- 4. Invest in quality training, apprenticeships and education for the green buildings sector that meets CSA Standards and can be integrated with Red Seal trades certification.

#### Goals:

 Develop the training capacity and skilled workforce necessary to meet the demands of energy efficiency retrofitting and design, construction and materials manufacturing in the 'green buildings' sector.

### **Policy Actions:**

- Launch a taskforce on the development of green building design and construction training, with representation from provincial ministries, industry, the BC building trades, professional associations, K-12 educators and post-secondary education institutions.
  - Identify gaps in the green jobs sector in BC and meet those gaps with new training, research and education programs.
- Commit to providing targeted 'green jobs' training and employment for First Nations, youth, women and others marginalized in the current economy.



- Consider a special role for the non-profit sector and trades in delivery of training and employment programs.
- Work with all relevant levels of government, trades, professional associations, ENGOs and industry to incorporate 'green standards' into existing training and certification.
- Ensure capacity to deliver energy audits and post-retrofit inspections by providing training for sufficient numbers of certified auditors and inspectors.
- Provide additional funding to BC's public training institutions (BCIT, Community
  Colleges, Universities) to expand apprenticeship and training programs and to fund more
  extensive 'high level' green construction training programs for qualified journeypersons,
  including the development of master's trades qualifications.
- Develop curricula and provide necessary classroom resources to incorporate energy efficiency-related knowledge and skills training into K-12 trades and science education.
- Introduce an industry wide training levy to provide funding to expand apprenticeships
  and related training for construction workers, with the long term objective of providing all
  building workers with a minimum, certified, standard of training as well as raising the
  overall level of training in the construction labour force.
- Take measures to reduce the size and impact of BC's extensive underground construction whose existence undermines efforts both to improve green building standards and the capacity of workers in the industry to develop the skills needed meet green building objectives.
- 5. Support research, product development and 'Made in BC' manufacturing of energy efficiency equipment, technology and materials.

### Goals:

 Foster the growth of leading edge green building materials, technologies and equipment manufacturing in BC.

### **Policy Actions:**

- Provide targeted support for research and development of energy efficient and low emissions building materials and technologies in BC, especially involving value-added BC forestry products.
- Use tax credits and other incentives for manufacturing of energy efficient heating equipment, residential renewable energy systems and related products within BC.
- Leverage public procurement as a tool to stimulate production of 'made in BC' green building materials and technologies.
  - Work with municipal governments to include BC materials, technologies and manufactured goods in their contract tender documents for new public construction projects.



6. Accelerate the transition from demolition to deconstruction in the construction industry.

### Goal:

Divert the majority of BC demolition and construction material from landfills.

### **Policy Actions:**

- Develop and phase in legislated requirements and standards for building deconstruction and recycling to the greatest extent feasible with existing technologies.
- Provide regulatory and financial support for the development of technological, physical and market infrastructure needed for greater recycling and reuse of materials from deconstruction.
- Provide additional training and education for workers and companies involved in the deconstruction of buildings.
- Take measures to ensure that there is a 'level playing field' for deconstruction to address
  market pressures that currently encourage industry participants to adopt the cheapest
  approach to deconstruction.
- Develop updated health and safety standards and practices that address deconstruction and materials recovery.

<sup>&</sup>lt;sup>1</sup> US researchers estimate potential savings of about 27% through basic retrofitting across building sector in that country. See Granade,, H.C., Creyts, J., Derkach, A., Farese, P., Nyquist, S., Ostrowski, K. *Unlocking energy efficiency in the US economy*. McKinsey Global Energy and Materials. July 2009. Web. <a href="http://www.mckinsey.com/clientservice/electricpowernaturalgas/downloads/us energy efficiency full report.pdf">http://www.mckinsey.com/clientservice/electricpowernaturalgas/downloads/us energy efficiency full report.pdf</a>

<sup>&</sup>lt;sup>2</sup> Marc Lee and Kenneth Carlaw. *Climate Justice, Green Jobs and Sustainable Production in BC.* CCPA-BC, September 2010.

www.policyalternatives.ca/sites/default/files/uploads/publications/BC%20Office/2010/09/CCPA\_bc\_climatejustice\_green\_jobs.pdf

<sup>&</sup>lt;sup>3</sup> Lee and Carlaw, 2010

<sup>&</sup>lt;sup>4</sup> GLOBE Advisors & The Center for Climate Strategies .*The West Coast Clean Economy: Opportunities for Investment & Accelerated Job Creation.* The Pacific Coast Collaborative. March 2012: http://globeadvisors.ca/media/3322/wcce\_report\_web\_final.pdf

<sup>&</sup>lt;sup>5</sup> Dave Thompson and Rob Duffy. *Jobs, Justice, Climate: Building a Green Economy for BC.* 

Columbia Institute, November 2010, p.39: <a href="https://www.columbiainstitute.ca/files/uploads/Columbia green\_jobs\_final.pdf">www.columbiainstitute.ca/files/uploads/Columbia green\_jobs\_final.pdf</a>

<sup>&</sup>lt;sup>6</sup> Matt Horne, cited in Dave Thompson and Rob Duffy. Jobs, Justice, Climate: Building a Green Economy for BC. Columbia Institute, November 2010: <a href="https://www.columbiainstitute.ca/files/uploads/Columbia\_green\_jobs\_final.pdf">www.columbiainstitute.ca/files/uploads/Columbia\_green\_jobs\_final.pdf</a>

<sup>&</sup>lt;sup>7</sup> Author's calculations based on figures from BC Government New Release (April 21, 2011): http://www2.news.gov.bc.ca/news\_releases\_2009-2013/2011PREM0037-000432.htm and reported BC public sector GHG emissions, available at <a href="http://www.livesmartbc.ca/government/carbon\_neutral/">http://www.livesmartbc.ca/government/carbon\_neutral/</a>

<sup>&</sup>lt;sup>8</sup> According to statistics collected by Natural Resources Canada, "Canadians spent about \$166 billion in 2007 on energy to heat and cool their homes and offices and to operate their appliances, vehicles and industrial processes. This amount is equivalent to almost 12 percent of the country's gross domestic product (GDP)." See the NRCan/Office of Energy Efficiency report "Improving Energy Performance in Canada – Report to Parliament Under



the *Energy Efficiency Act* For the Fiscal Year 2009-2010," available at: <a href="http://oee.nrcan.gc.ca/publications/statistics/parliament09-10/chapter1.cfm">http://oee.nrcan.gc.ca/publications/statistics/parliament09-10/chapter1.cfm</a>

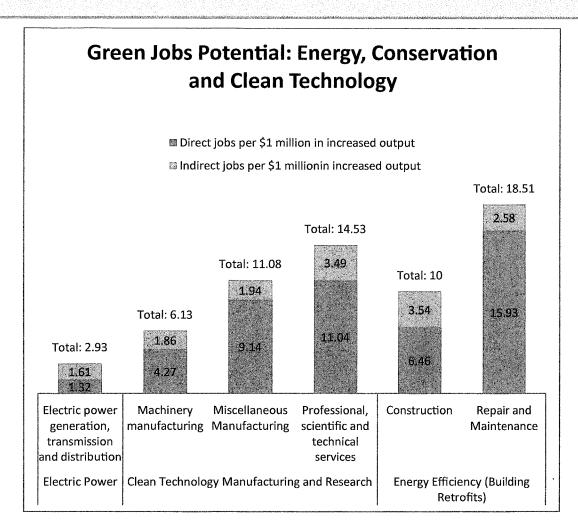
<sup>9</sup> See Natural Resources Canada "ecoENERGY-Retrofit Program Expanded" (Backgrounder, 2009). http://www.nrcan.gc.ca/media-room/news-release/20a/2009-03/1440



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### **Key DRAFT Policies:**

- 1. Prioritize conservation and efficiency as the lead strategy for meeting BC's energy needs.
- 2. Invest in an environmentally and economically sustainable electricity system.
- 3. Accelerate the transition from fossil fuels to renewable energy use in BC.
- Support growth and job creation in BC's low-carbon clean technology and green manufacturing sectors through tax incentives, research and development support, regulatory incentives, supportive financing options and public procurement.



Source: Provincial Economic Multipliers (BC Stats, 2008)



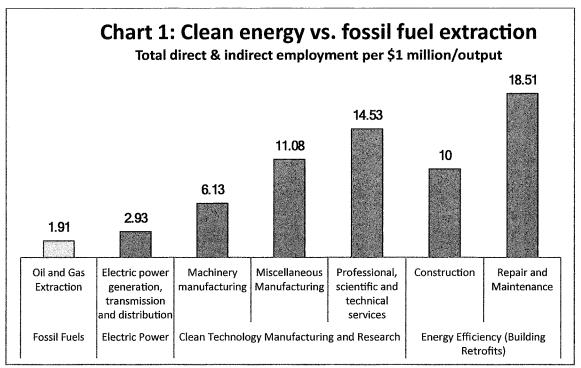
### **Overview**

BC's largely hydroelectric and publically owned electricity system means that the province has one of the cleanest and most affordable electricity systems in North America. Unlike many North American jurisdictions, BC currently burns very little fossil fuel to generate electricity and has very low GHG emissions intensity in electricity production. With the right policy choices, BC can build on this legacy to become a green economy leader, focusing on energy conservation, renewable energy generation and low-carbon 'clean technology' development and manufacturing.

### Increasing employment in BC's energy sector

BC's fossil fuel sector generates significant profits for industry, and natural gas royalties have been a significant provincial revenue source. However, direct employment in fossil fuel extraction is relatively low (about 1% of total employment in BC), and the sector accounts for over 30% of all BC industrial GHG emissions.<sup>1</sup>

As shown in Chart 1 (below), economic activity associated with energy efficiency and low-carbon technologies creates significantly more jobs per \$1 million in increased output than would activity in the fossil fuel sector. From the perspective of job creation, investments targeting growth in energy efficiency and clean technology are likely to be more cost-effective than ones focused on stimulating the fossil fuel sector.



Source: Provincial Economic Multipliers (BC Stats, 2008) and Lee and Carlaw, (CCPA, 2010)



### **Policy Opportunities**

1. Invest in conservation and efficiency as the lead strategy for meeting BC's energy needs.

### Goals:

- Work with BC Hydro to develop aggressive medium and long –term targets for meeting new electricity demand through conservation and efficiency.
- Maximize the job creation potential of energy conservation and demand management.

### **Policy Actions:**

- Enact the most aggressive energy conservation and efficiency measures feasible in BC, including options outlined in BC Hydro's 2010 Resource Options Report.
- Commit to a wide ranging incentive- and regulation-based policy agenda supporting energy efficiency upgrades in BC buildings and higher energy efficiency standards in new construction (as outlined in the Green Jobs BC "Buildings and Retrofits" policy document).
- 2. Invest in an environmentally and economically sustainable electricity system.

#### Goals:

- Ensure that BC has an electricity generation and transmission system capable of meeting current and future demand.
- Maintain or increase the percentage of BC electricity generated through hydroelectric and other renewable energy sources.

### **Policy Actions**

- Support necessary investments to renew existing electricity generation and transmission infrastructure.
- Prioritise renewable sources for any new electricity generation capacity, and ensure that
  the share of BC electricity generated through hydroelectric and other renewable energy
  sources is maintained or increased.
- Incorporate provincial GHG reduction targets and climate objectives as a core component of BC Hydro's planning process.
- Require a provincial review of industrial electricity policy and BC Hydro's industrial tariff to determine alignment with economic development priorities.



Accelerate the transition from fossil fuels to renewable and lower emissions energy sources.

### Goals:

- Set strong targets for reductions in fossil fuel GHG emissions.
- Develop a provincial plan to replace fossil fuel use with renewable energy to the greatest extent practical.
- Look for opportunities to expand electricity to alternate end-uses, such as transportation and industrial processing.
- Eliminate subsidies for fossil fuel production.
- Expand the carbon tax to cover process emissions from the production of fossil fuels.

### **Policy Actions:**

- Develop regulations and incentives to reduce carbon emissions associated with residential and commercial space and hot water heating, through electrification, improved efficiency, and lower emission fuels and technologies.
- Build infrastructure and create incentives for reduced carbon emissions from public transportation, private automobiles and freight transport, including:
  - o Incentives to adopt electric and other low carbon emission vehicles
  - Spending on alternate fuel infrastructure, such as charging stations
  - Standards to incorporate higher biofuel mixes to existing transport fuels
- Encourage low-carbon fuel standards and support the development of environmentally responsible bioenergy sector in BC.
- 4. Support growth and job creation in BC's low-carbon clean technology and green manufacturing sectors through tax incentives, research and development support, regulatory incentives, supportive financing options and public procurement.

### Goals:

- Expand employment and the share of provincial GDP in renewable energy, low-carbon clean tech and 'green manufacturing.'
- Expand BC's share of global clean tech market



### **Policy Actions:**

- Increase support for research, development and marketing of made in BC low-carbon clean technologies ('clean tech'), including energy efficiency products, energy storage technologies, energy infrastructure technologies, renewable energy equipment, emissions control equipment, etc.
- Support the development of financing mechanisms that encourage growth and start-ups in the sector.
- Stimulate domestic demand for the development and production of BC clean technology through provincial environmental and GHG regulations.
- Provide tax credits and other incentives for cleantech start-ups and cleantech companies that create long term jobs in BC.
- Use public procurement as a tool for supporting the growth of BC-based manufacturing of clean tech products.

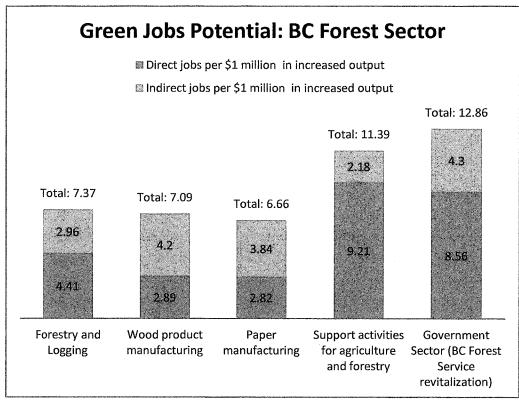
<sup>&</sup>lt;sup>1</sup> See Marc Lee and Kenneth I. Carlaw, *Climate Justice, Green Jobs and Sustainable Production in BC,* CCPA-BC, September 2010.



These documents resulted from a series of stakeholder forums, and a two-day conference, hosted by GreenJobs BC. The policy recommendations are a result of the discussions and on-line participation of more than 200 people from environmental organizations, labour unions, business, academia, and First Nations. These documents do not reflect official policy of GreenJobs BC member organizations, but rather indicate a way forward.

### **Key DRAFT Policies:**

- 1. Make increasing jobs per cubic metre harvested a guiding economic principle of BC forestry policy.
- 2. Provide support and incentives for increasing manufacturing and other value added activities in the forest sector, as well as product diversification.
- 3. Invest in the future of BC forests through expanded reforestation and revitalized public oversight and management.
- 4. Restore the capacity of the BC Forest Service and strengthen the office of the Chief Forester.
- 5. Ensure the recovery, long term health and resiliency of BC forests through improved stewardship and management.



Source: Provincial Economic Multipliers (BC Stats, 2008)





#### Green Job Creation in the Forest Sector: An Estimate

A 2011 report from the Canadian Centre for Policy Alternatives found that with targeted policies, more than 15,000 new full time forestry jobs and thousands more additional seasonal positions could be created while boosting the health of BC's forests. Potential job creation in this scenario would include:

- 2,630 jobs processing logs that are currently exported into solid wood, pulp and paper and bio-energy products in BC
- 10,100 new jobs in higher value forest product manufacturing
- 5,200 seasonal jobs in tree planting and associated tree nursery work
- 2,400 new jobs in processing usable wood waste
- 200 jobs from immediately reinstating 20% of BC Forest Service positions cut since 2001 (or 1,000 jobs if BC Forest Service staffing is restored to pre-2001 levels)

### **Overview:**

Climate change is already impacting BC forests and the people who depend on them. Warmer winters have contributed directly to the mountain pine beetle kill, which has ravaged BC forests and hurt forestry-based communities throughout the province.

But the biggest dangers may be yet to come. Severe storms, forest fires and other climate change related factors are expected to worsen the situation over the coming decades. Analysis by the National Roundtable on the Environment and the Economy estimated that the quantity of timber in BC will fall at least 3% by 2020 and by as much as 14% by 2080. In economic terms, this will cost the BC economy anywhere from \$5 billion to \$32 billion dollars by 2080, depending on the success of global climate change mitigation efforts.

At the same time as BC forests will be impacted  $\underline{by}$  climate change, how we manage our forests will also have an impact  $\underline{on}$  global climate change. Excessive carbon dioxide (CO<sub>2</sub>) in the atmosphere is the primary cause of climate change, and BC forests have historically been a significant 'carbon sink,' absorbing vast amounts of amounts of atmospheric CO<sub>2</sub> and in effect 'storing' it in wood and biomass. However, over the last decade BC's forests have turned from carbon sink to carbon source, and according to the latest data, now release more carbon dioxide than the official emissions of the province. <sup>4</sup> With improved management, BC forests can play a key role in sequestering carbon, while remaining a source of certifiable solid wood products.

A February 2012 audit of the Ministry of Forests, Lands and Natural Resources



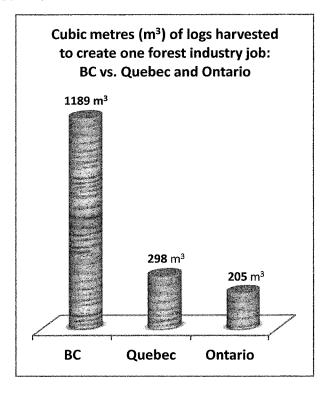


by the BC Auditor General warns that the province has a lot of work to do if we are going to meet these economic and environmental challenges. In the words of the report, "existing management practices are insufficient to offset a trend toward future forests having a lower timber supply and less species diversity." BC needs to start strategizing now to ensure healthy forests and a strong forestry sector over the coming decades.

Better stewardship, improved forest management, increased reforestation efforts and a focus on creating more 'value added' jobs in BC forestry manufacturing and processing can play key roles in helping our forest sector thrive economically in the face of climate change impacts, while at the same time increasing the positive environmental impacts of BC forests and wood products as carbon sinks.

To make this happen, BC needs to make increasing jobs per cubic metre harvested a guiding

economic principle of forestry policy. The raw log export focus of BC's forest sector has meant that the province has in effect been exporting thousands of jobs in wood processing, manufacturing and other value added activity every year. While BC has perhaps the largest pool of forest resources in Canada, the province performs poorly in job creation per cubic metre of logs harvested. By comparison, Ontario's forestry sector creates more than five times as many jobs as BC per cubic metre and Quebec performs about four times better than BC for forest sector jobs intensity. Policies that support increased value added activity in the BC forest sector can create thousands of new jobs based on ingenuity, skills, technology and labour, while at the same time reducing the economic pressures that lead to unsustainable levels of harvesting.



### **Policy Opportunities:**

1. Make increasing jobs per cubic metre harvested a guiding economic principle of BC forestry policy.





### Goals:

- Maximize job creation within a harvesting strategy that supports the health of BC forests, species habitat, environmental services and the long term viability of forest industries.
- Ensure a strong and resilient primary forestry sector.

### **Policy Actions:**

- Investigate policy mechanisms that can increase the availability of wood and fibre for secondary processing and manufacturing in BC, including measures such as:
  - Restricting raw log exports, either directly through quotas or indirectly through higher fees in lieu of manufacturing, tax incentives and other measures
  - Creating regional log markets accessible only to manufacturers/processors active in BC
  - Linking access to wood and fibre to investment in BC 'value added' manufacturing and processing (i.e. appurtenancy)
- 2. Increase support and incentives for product diversification, manufacturing and other value added activities in the forest sector.

### Goals:

- Economic diversification that maximizes jobs per cubic metre cut, including:
  - New jobs in value added processing and manufacturing
  - New jobs in processing usable wood waste
  - New jobs in research, development and marketing of wood and pulp-based products

### **Policy Actions:**

- Provide support for the development of regional value added clusters in wood and pulp and paper products
- Increase funding and tax incentives for research and development that supports product diversification, including
  - Expedited and scaled up research on cross laminated timber and other 'mass timber' products and their use in medium and higher rise construction.<sup>5</sup>
  - New wood pulp technologies and products





- Promote the use of BC wood products in 'green' construction and energy efficiency retrofitting through regulatory reform, new product development, incentives to construction industry and marketing
- Use regulations and incentives to encourage efficient usage and maximum economic benefits from usable wood waste, while leaving sufficient material on the ground to support forest regrowth, recovery and soil health.
- Better address the potential for quality jobs and high value economic activity outside the traditional forestry sector in economic decision making related to BC forests, including:
  - High-value recreation and tourism jobs,
  - o Revenues related to managing forests as carbon offsets
  - Traditional use of forests by First Nations
- 3. Invest in the future of BC forests through expanded reforestation and revitalized public oversight and management.

#### Goals:

- Expand and diversifying BC's silviculture and reforestation efforts
- Create new jobs in reforestation and forest management

### **Policy Actions:**

- Revitalize public sector forest management and oversight, including the immediate hiring of new forest inventory staff and other needed personnel
- Support the expansion and diversification of BC silviculture and reforestation, including:
  - Scaling up reforestation efforts to recover from the Mountain Pine Beetle kill
  - Planting more high value indigenous species
  - Planting trees as part of a carbon sequestration strategy.
- 4. Restore the capacity of the BC Forest Service and expand oversight power of the Chief Forester.

#### Goals:

 Empower an effective forest service with the necessary capacity and resources for research, inventory, compliance, enforcement and stewardship





### **Policy Actions:**

- Restore the capacity of the BC Forest Service by restoring staff and funding cut since
   2001
- Empower a strong, independent Office of the Chief Forester, with jurisdiction over inventory, compliance, enforcement and stewardship
- 5. Ensure the recovery, long term health and resiliency of BC forests through improved stewardship and management.

#### Goals:

- Improve stewardship to ensure the health and resiliency of BC forests and the long term wellbeing of forest reliant communities, with a special focus on climate change impacts and mitigation
- Create new jobs in forest stewardship

### **Policy Actions:**

- Improve stewardship practices to better support forest biodiversity, health and resiliency
- Develop long-term climate change adaptation and mitigation strategies for BC forests
- Commit to effective public stewardship by hiring additional researchers, compliance and enforcement officers, planners and other needed staff.



<sup>&</sup>lt;sup>1</sup> Ben Parfitt. *Making the Case for a Carbon Focus and Green Jobs in BC's Forest Industry*. CCPA-BC. August 2011: http://www.policyalternatives.ca/greenforests

<sup>&</sup>lt;sup>2</sup> Paying the Price: The Economic Impacts of Climate Change for Canada. The National Round Table on the Environment and the Economy. 2011, p.52: <a href="http://nrtee-trnee.ca/wp-content/uploads/2011/09/paying-the-price.pdf">http://nrtee-trnee.ca/wp-content/uploads/2011/09/paying-the-price.pdf</a>

<sup>&</sup>lt;sup>3</sup> Paying the Price: The Economic Impacts of Climate Change for Canada, p.54

<sup>&</sup>lt;sup>4</sup> BC's official emissions were 62 million tonnes carbon dioxide in 2010, while uncounted emissions from provincial forests were 82 million tonnes, a 363 % increase over the last 10 years <a href="http://www.env.gov.bc.ca/cas/mitigation/ghg">http://www.env.gov.bc.ca/cas/mitigation/ghg</a> inventory/pdf/pir-2010-full-report.pdf

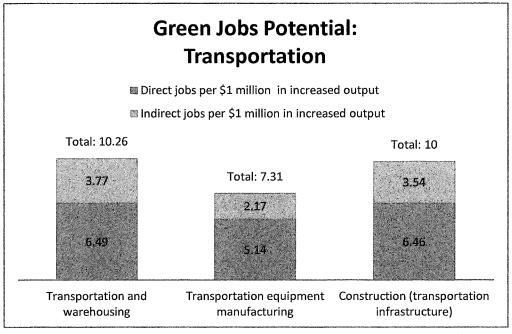
<sup>&</sup>lt;sup>5</sup> Michael C. Green. The Case For Tall Wood Buildings: How Mass Timber Offers a Safe, Economical, and Environmentally Friendly Alternative for Tall Building Structures. mgb ARCHITECTURE + DESIGN; Equilibrium Consulting; LMDG Ltd; BTY Group. FEBRUARY 22, 2012



These documents resulted from a series of stakeholder forums, and a two-day conference, hosted by GreenJobs BC. The policy recommendations are a result of the discussions and on-line participation of more than 200 people from environmental organizations, labour unions, business, academia, and First Nations. These documents do not reflect official policy of GreenJobs BC member organizations, but rather indicate a way forward.

### **Key DRAFT Policies:**

- 1. Expand public transit capacity and infrastructure for all BC communities.
- 2. Support the revitalization and expansion BC's highway bus and passenger rail systems, and ensure fares are affordable and equitable.
- 3. Create incentives and improved infrastructure to move goods by rail and other efficient, low-carbon modes of transportation
- 4. Invest in infrastructure and provide incentives for increased electrification and use of lower emissions technologies in public transit, freight and passenger rail, private automobiles and other vehicles currently running on high GHG emission fuels.
- 5. Balance BC's role as an international import/export gateway with an increased emphasis on regional economic development and transportation links.
- 6. Make public transportation more viable and efficient across the province by helping BC communities implement smart growth principles, including better planned, more compact neighborhoods.
- Improve pedestrian and cycling infrastructure across the province, and introduce cycling education in public schools.



Source: Provincial Economic Multipliers (BC Stats, 2008)

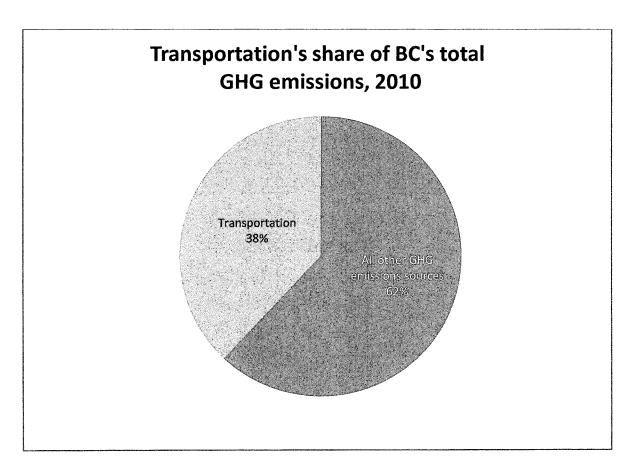


### **Overview**

If BC is going to reduce GHG emissions, we need to get serious about improving the ways people and freight are moved in this province. Moving to a low GHG freight and passenger transportation model can create tens of thousands of jobs in BC, and also reduce the negative economic, health and quality of life impacts associated with traffic congestion and long commutes.

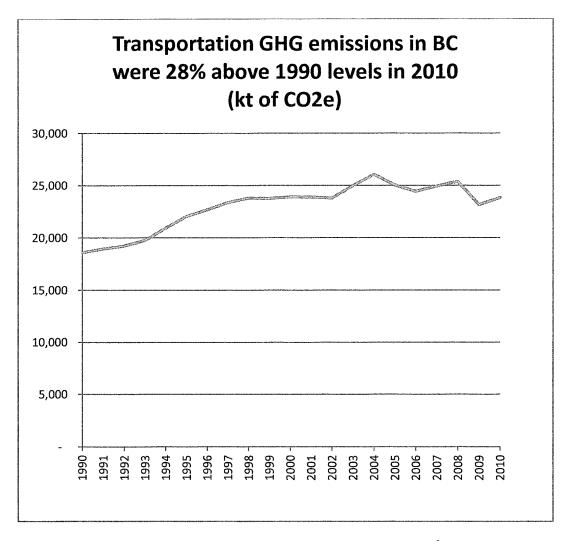
### **Transportation Emissions in BC**

Transportation is the single largest source of GHG emissions in BC, accounting for 38% of all emissions. Emissions from transportation have grown significantly during most of the past two decades, and were 28% above 1990 baseline levels in the most recent BC GHG inventory. <sup>1</sup>



Source: BC Ministry of Environment, 2012

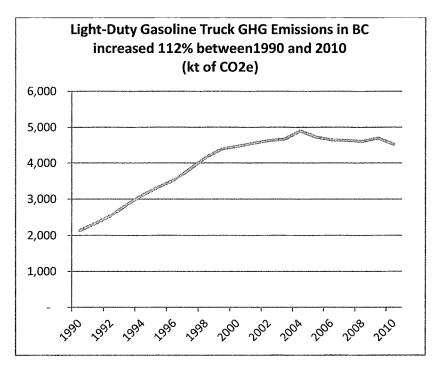




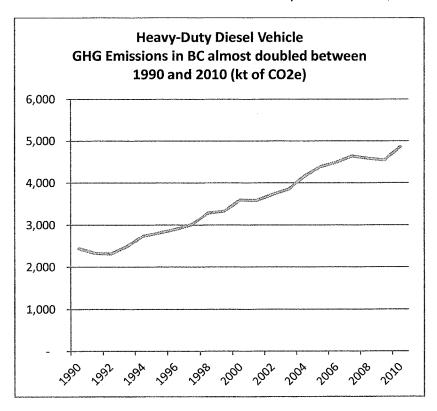
Source: BC Ministry of Environment, 2012

Road transportation accounted for about three quarters of BC emissions growth. Growth was particularly pronounced in emissions from light duty trucks (pickups and SUVs), which have more than doubled since 1990, and from heavy-duty diesel vehicles, which were up almost 100%. Emissions from light duty gasoline vehicles (cars and motorcycles) rose more slowly over the past two decades, but still emitted almost as much carbon as gasoline trucks in 2010.





Source: BC Ministry of Environment, 2012



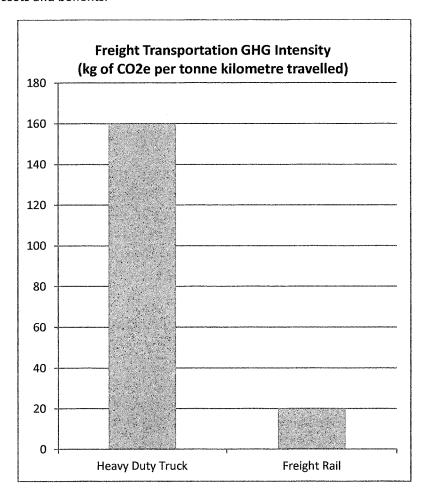
Source: BC Ministry of Environment, 2012



### **Moving Forward on Greener Transportation**

Tackling transportation emissions will require ongoing regulatory changes and significant investments in infrastructure. In terms of moving people, it will be especially important to develop less fossil fuel intensive ways to get to and from work, as well as planning communities in ways that reduce travel distances for everyday activities.

Freight emissions can be reduced by greater use of railways. Moving freight by rail reduces GHG emissions by almost 90% compared to moving the same goods with conventional fossil fuel powered trucks. For areas where moving freight by rail is not feasible, emissions could be reduced significantly through increased use of electric and other low emission vehicles in the trucking industry. Short sea and river corridor shipping also has potentially far fewer associated emissions per unit of freight than conventional trucking, and should be investigated as an alternative, pending a thorough review of environmental costs and benefits.



Source: Statcan 2011



### Balancing international trade links with regional development

International and domestic trade will continue to be important to the BC economy. However, BC is taking big risks by investing so much in infrastructure associated with resource and commodity exports and imports of manufactured goods. Fluctuations in international commodity prices and a lack of value added production in the province leave BC vulnerable to the boom and bust cycles that have long been a problem for the provincial economy. Transportation infrastructure that supports both the export trade and regional linkages needed for value added job creation in BC can help encourage a more balanced pattern of economic development in the province.

#### Job creation and other economic benefits

Greening BC's transportation system offers opportunities to create thousands of good quality jobs. Research has shown that investments in public transit and railways in North America create between 9 and 22 jobs per \$1 million. Economic modeling commissioned jointly by the governments of BC, Washington, Oregon and California found that clean transportation has the second biggest jobs potential of all green economy sectors (after buildings and retrofits), and that the right mix of policies could increase clean transportation jobs 278% by 2020. Another recent estimate found that investments in needed public transit and railway upgrades in BC could create 230,000 to 270,000 person-years of employment, with jobs ranging from bus and train drivers, to warehouse and shipping work, to vehicle manufacturing and maintenance, to employment in trades and construction.

Investments in transportation can also have economic benefits beyond direct job creation. For example, traffic congestion is a significant economic drag in urban areas, causing between \$400 million and \$628 million in lost productive time, wasted fuel and GHG emissions annually in Metro Vancouver alone. Much of this lost productivity could be recovered with the help of better transportation systems and more efficiently planned communities. As an example, transportation and urban planning policies implemented to reduce commuting distances in Portland Oregon are saving that community as much as \$2.6 billion per year.

#### **Economic and Environmental Costs of Traffic**

- Traffic congestion costs Vancouver's economy between \$400 million to \$628 million annually in lost productive time, wasted fuel and increased GHG emissions.
- Public transit use can reduce GHG emissions by 90% or more per person compared to automobiles travelling the same distance.



### **Policy Opportunities**

1. Expand public transit capacity and infrastructure for BC communities.

#### Goals:

- Increase transit usage significantly, with a special focus on increasing the percentage of workers using public transit to get to work.
- Make transit more attractive by increasing service levels and introducing transit priority measures to reduce the time of the average public transit commute.
- Develop public transportation models that increase ridership in smaller cities and rural communities.

### **Policy Actions:**

- Reallocate a percentage of the provincial capital budget towards investments in public transit, railway infrastructure, electric vehicle infrastructure and other support for low GHG transportation infrastructure.
- Target a portion of carbon tax revenue to fund transit infrastructure investment.
- Increase investment and research in effective rural and small community public transportation solutions, including:
  - o resource sharing between school districts and local transit systems,
  - o deployment of cost-efficient transit vehicles for smaller routes
  - o partnering transit services with local employers and public institutions
- 2. Support the revitalization and expansion BC's highway bus and passenger rail systems, and ensure fares are affordable and equitable.

### Goals:

- Make all BC communities accessible via affordable, efficient and lower carbon passenger transportation options, such as rail and highway buses.
- Launch new domestic and cross border passenger rail services on feasible routes .

### **Policy Actions:**

- Support investments to improve existing passenger rail line capacity and speed.
- Work with operators to restore or expand passenger rail service on viable domestic and cross-border routes.
- Work with the public and private sectors to create a revitalized and expanded highway
  passenger bus system that meets the needs of all BC communities, including small
  towns, rural areas and the north.



3. Create incentives and improved infrastructure to move goods by rail and other efficient, low-carbon modes of transportation

### Goals:

- Set goals and timelines for shifting a significant percentage of freight from trucking to rail.
- Set goals and timelines for significant reductions in trucking and heavy duty vehicle emissions.
- Increase rail capacity through new and reactivated lines, improving existing lines, and advanced safety and control technology
- Investigate other low-carbon freight transportation modes such as short sea and river corridor shipping.

### **Policy Actions:**

- Work with the railway sector to find solutions to increase freight rail capacity and improve railway infrastructure.
- Investigate the feasibility of reactivating unused railway lines in various regions across BC.
- Support the development of new rail lines, either directly through public investment or through the use of incentives to the private sector.
- Investigate the potential environmental and economic benefits of moving more goods via short sea and river corridor shipping in BC and along the Pacific coast.
- 4. Invest in infrastructure and provide incentives for increased electrification and use of lower emissions fuels and technologies for freight and passenger vehicles and heavy equipment.

#### Goals:

- Increase the market share of private electric vehicles
- Make electric charging stations widely available across BC
- Reduce GHG emissions intensity per KM travelled significantly
- Make electric vehicles account for the majority of public transit travel in BC
- Reduce Carbon intensity per service hour in public transit significantly
- Reduce passenger automobile and light truck emissions
- Reduce GHG emissions from freight trucking



# Transportation Policy and Green Jobs in BC

### **Policy Actions:**

- Use tax incentives to encourage purchases of both new and used hybrid and electric vehicles, particularly for heavily used work vehicles such as taxis, delivery vans, and other commercial vehicles.
- Expand the use of electric trolley buses and other forms of electric transit across the Lower Mainland and look for opportunities to transition to electric transit vehicles in other communities across the province.
- Support investments in electric vehicle charging infrastructure across BC.
- Require electric vehicle charging capacity in all new residential construction.
- Provide low cost or grants financing to encourage installations of electric vehicle charging infrastructure in existing buildings.
- Accelerate transition of provincial and school district fleets to electric, hybrid and other low emissions vehicles.
- Develop programs and incentives to support a large scale transition to lower emissions technologies in the trucking sector, with special attention to fairness for owner operators and avoiding downloading of costs to workers in the sector.
- 5. Balance BC's role as an international import/export gateway with an increased emphasis on regional economic development and transportation links

#### Goals:

 Develop and enhance transportation infrastructure and routes that support regional economic development and integration, including manufacturing and value added activity in forest products and agricultural goods.

#### **Policy Actions:**

- Reallocate a percentage of the capital budget currently directed towards resource export infrastructure towards targeted development of regional freight transportation capacity and support for BC based value added manufacturing and processing industries.
- 6. Make public transportation more viable and efficient across the province by helping communities develop better planned, more compact neighborhoods and implement other smart growth principles.

#### Goals:

9



# Transportation Policy and Green Jobs in BC

- Reduce light duty car and truck km travelled per capita.
- Reduce average distance commuted to work.
- Increase proportion of workers telecommuting for part or all of their job.

#### **Policy Actions:**

- Increase provincial government assistance and financial resources available to local governments for planning and new infrastructure that supports smart growth objectives.
- Accelerate the implementation of regulations and incentives that encourage smart growth.
- Ensure all communities have high-speed internet and other telecommunications linkages.
- 7. Improve pedestrian and cycling infrastructure across the province, and introduce cycling education in public schools.

#### Goals:

- Make cycling and walking safer and more viable means of daily transportation for the majority of British Columbians.
- Increase the percentage of British Columbians walking and cycling to work, school and for other daily trips.

#### **Policy Actions:**

- Work with municipalities and the federal government to make significant investments in new and expanded trails, paths, lanes and other infrastructure for cyclists and pedestrians.
- Promote walking and cycling through the K-12 public education system and develop strategies to encourage more walking and cycling by adults.
- Make safe commuter cycling courses affordable and broadly available.
- Ensure vehicle driver training and exams include specific and expanded awareness of road-sharing with bicycles and other human-powered vehicles.



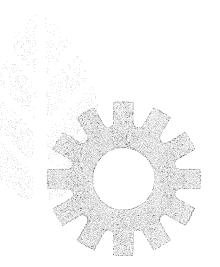
# Transportation Policy and Green Jobs in BC

<sup>2</sup> For estimates of jobs intensity from transit and rail investment in Canada and the USA, see:

- Metropolitan Knowledge International, McCormick Rankin Corporation and Jeff Casello, The
   Economic Impact of Transit Investment: A National Survey. Canadian Urban Transit Association, 2010
   (online at <a href="www.cutaactu.ca/en/publicationsandresearch/resources/Final CUTA%20-%20Economic%20Benefits%20of%20Transit%20-%20Final%20Report%20E%20Sept2010.pdf">www.cutaactu.ca/en/publicationsandresearch/resources/Final CUTA%20-%20Economic%20Benefits%20of%20Transit%20-%20Final%20Report%20E%20Sept2010.pdf</a>
- "Measuring Success: the Economic Impact of Transit Investment in Canada," CUTA Issue Paper 35,
   May 2010. Online at: <a href="https://www.cutaactu.ca/en/publicationsandresearch/resources/Issue Paper 35E.pdf">www.cutaactu.ca/en/publicationsandresearch/resources/Issue Paper 35E.pdf</a>
- Pollin, Robert, James Heintz, and Heidi Garrett-Peltier. The Economic Benefits of Investing in Clean Energy: How the economic stimulus program and new legislation will boost U.S. economic growth and employment. Center for American Progress. 2009. http://www.americanprogress.org/issues/2009/06/clean\_energy.html
- <sup>3</sup> GLOBE Advisors & The Center for Climate Strategies . The West Coast Clean Economy, March 2012.
- <sup>4</sup> Thompson and Duffy, 2010
- <sup>5</sup> The cost of urban congestion in Canada, Transport Canada Environmental Affairs, March 2006 (revised July 2007), p.16
- <sup>6</sup> Joe Cortright. "Portland's Green Dividend." CEOs for Cities, July 2007. <u>www.ceosforcities.org/city-dividends/green/special-reports/portland</u>
- <sup>7</sup> Kennedy (2002), cited Metropolitan Knowledge International, McCormick Rankin Corporation and Jeff Casello, *The Economic Impact of Transit Investment: A National Survey*. Canadian Urban Transit Association, 2010, p.22

11

<sup>&</sup>lt;sup>1</sup> Overall growth in BC transportation emissions has leveled off over the past few years, possibly because of the economic downturn. See Ian Bailey. "Economy plays key role in B.C. meeting greenhouse-gas targets." The Globe and Mail, Jun. 28 2012: <a href="http://www.theglobeandmail.com/news/british-columbia/economy-plays-key-role-in-bc-meeting-greenhouse-gas-targets/article4375930/">http://www.theglobeandmail.com/news/british-columbia/economy-plays-key-role-in-bc-meeting-greenhouse-gas-targets/article4375930/</a>



Green Jobs BC exists to strengthen communication and cooperation between labour and environmental organizations, in order to advance economic and environmental initiatives that: provide good green jobs; are socially equitable; are ecologically responsible; and result in the reduction of GHG emissions.

www.greenjobsbc.org

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To get more involved, contact Kristie Starr: kstarr@greenjobsbc.org



Working together for Green Jobs in BC.









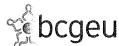


David Suzuki Foundation















# Endorsers of a bold Green Jobs Plan for BC include:

Concert Properties Ltd.

Shift Delivery Co-op

Vancity

Solaris Geothermal Inc.

Net-Zero Structures Ltd.

City Green Solutions

Alpha & Alma Business Solutions Ltd.

**BC Sustainable Energy Association** 

Clean Energy Canada at Tides Canada

**David Suzuki Foundation** 

ForestEthics Solutions

Western Canada Wilderness Committee

Canadian Parks and Wilderness

Society-BC

West Coast Environmental Law

Georgia Strait Alliance

Kids for Climate Action

Greenpeace

Sierra Club of BC

Pembina Institute

Canadian Centre for Policy Alternatives

BC Government and Service

Employees' Union

British Columbia Teachers' Federation

Canadian Autoworkers

Canadian Union of Postal Workers

Communications, Energy and

Paperworkers Union-Western Region

Insulators 118

Public Service Alliance of Canada

**United Steel Workers** 

**CUPE BC** 

and more



# **Summary:**

GreenJobsBC is calling on BC's leaders to adopt a bold Green Jobs Plan focused on four key areas: retrofits, transportation, forestry and clean energy & conservation.

## Why Green Jobs?

Jurisdictions that look at the trends and prepare for the future in order to preserve and create good jobs will have an advantage in the emerging green economy.

BC has an opportunity to deploy green jobs programs that will employ tens or hundreds of thousands of British Columbians in new sectors, as well as in traditional job sectors that have built and sustained BC for generations.

# Why Now?

"The future is low carbon. Economies the world over are making the transition. Canada's actions today on climate, energy, trade, innovation, and skills will shape its economic prosperity for decades to come," reads a recent report from the National Roundtable on the Environment and the Economy (NRTEE).

Perhaps, most importantly, none of the other issues that currently face British Columbians will matter much if climate change continues unabated. As Christine Legarde, the Managing Director of the IMF, and a former finance minister in the conservative government of Nicolas Sarkozy, recently said at the World Economic Forum in Davos: "Unless we take action on climate change, future generations will be roasted, toasted, fried and grilled."

# **Job Numbers: Green Buildings & Retrofits**

Policy Paper: http://greenjobsbc.org/wp-content/uploads/2012/01/GJBC-building-retrofits.pdf

#### **Public Sector Building Retrofits**

\$375 million (\$53.5 million/year for 7 years) = 2,500 direct jobs

#### **Residential Retrofits**

• Basic upgrades: 400,000 homes = 8,200-13,200 person years of direct employment

Intensive upgrades: 100,000 homes per year = 14,000 to 30,000 direct jobs

## **Job Numbers: Transportation**

Policy Paper: http://greenjobsbc.org/wp-content/uploads/2012/01/GJBC-transportation.pdf

#### Estimates from GLOBE Advisors/Pacific Carbon Collaborative (2012):

- 2<sup>nd</sup> biggest jobs potential of all green economy sectors
- 278% increase in clean transportation jobs by 2020 with right mix of policies

#### One Scenario:

• 230,000 to 270,000 person-years of employment from major investments in public transit and railway upgrades (Dave Thompson 2010)

#### Other Economic and Environmental Benefits:

- Economic savings from reduced traffic congestion: Traffic congestion costs Metro Vancouver's economy between \$400 million and \$628 million annually in lost productive time, wasted fuel and increased GHG emissions
- Public transit use can reduce GHG emissions by 90% or more per person

# **Job Numbers: Forestry**

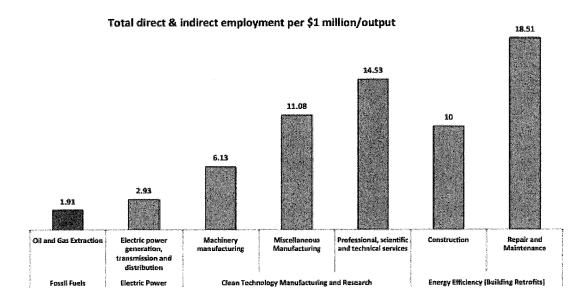
Policy Paper: http://greenjobsbc.org/wp-content/uploads/2012/01/GJBC-forestry.pdf

#### One Scenario:

- 15,000+ new full time 'green' forestry jobs, including:
  - 2,630 new jobs processing logs that are currently exported into solid wood, pulp and paper and bio-energy products in BC
  - 10,100 new jobs in higher value forest product manufacturing
  - 5,200 seasonal jobs in tree planting and associated tree nursery work
  - 2,400 new jobs in processing usable wood waste
  - 200 jobs from immediately reinstating 20% of BC Forest Service positions cut since 2001, or 1,000 jobs if staffing is restored to pre-2001 levels

# Job Intensity: Clean Energy & Conservation vs. Fossil Fuels

Policy Paper: http://greenjobsbc.org/wp-content/uploads/2012/01/GJBC-energy.pdf



Source: BC Stats

http://www.bcstats.gov.bc.ca/Files/78d8508d-f031-40ba-975d-4b3acbbb2360/2004BritishColumbiaProvincialEconomicMultipliersandHowtoUseThem.pdf

# MINISTRY OF ENVIRONMENT MEETING INFORMATION NOTE

Updated: February 5, 2014

File: 280-20

CLIFF/tracking #:198720

PREPARED FOR: Honourable Mary Polak, Minister of Environment

**DATE AND TIME OF MEETING:** February 7, 2014, 11:00am

**ATTENDEES:** Minister Mary Polak, Art Steritt and Garry Wouters, Coastal First Nations (by phone).

**ISSUES:** Liquefied natural gas (LNG), greenhouse Gas (GHG) emissions, and potential benchmark.

#### **BACKGROUND:**

The Coastal First Nations (CFN) is an alliance of First Nations on British Columbia's North and Central Coast and Haida Gwaii. The Coastal First Nations include Wuikinuxv Nation, Heiltsuk, Kitasoo/Xaixais, Nuxalk Nation, Gitga'at, Metlakatla, Old Massett, Skidegate, and Council of the Haida Nation. Several CFN nations are located near the proposed sites of BC LNG facilities.

The CFN and the Province have agreed to a Framework Agreement on Regional Liquefied Natural Gas Development which covers key regional issues related to LNG, including air pollution, greenhouse gas emissions, increased marine vessel shipping carbon offsets, regional renewable energy and regional economic benefits.

The CFN is advocating for greenhouse gas offset purchases as a part of an LNG--GHG emission mitigation strategy and benefit sharing for CFN nations. A term sheet has been exchanged between CFN and the Ministry of Aboriginal Relations and Reconciliation that includes four terms related to Carbon Offsets.

#### **DISCUSSION:**

# **SUGGESTED RESPONSE:**

٤١.2

CAS Contact: CAS Alternate Contact and

Updated by:

James Mack, Head Tim Lesiuk, ED

Climate Action Secretariat Climate Action Secretariat

(250) 415-1762 (250) 216-5893

Reviewed by	Initials	Date
DM	-	-
DMO	VJ	Feb 6/14
ADM – CAS	n/a	cc'd Feb 6/14
ED – CAS	TL	Feb 6/14
Author - CAS	TL	Feb 5/14

Page 46

# MINISTRY OF ENVIRONMENT DECISION NOTE

Date: February 6, 2014

File: 280-20

CLIFF/tracking #: 200314

PREPARED FOR: Honourable Mary Polak, Minister of Environment.

**ISSUE:** Application to modify the boundary of Anhluut'ukwsim La<u>x</u>mihl Angwinga'asanskwhl Nisga'a (Nisga'a Memorial Lava Bed Park) to enable the construction and operation of the Prince Rupert Gas Transmission Line.

#### **BACKGROUND:**

Prince Rupert Gas Transmission Ltd. (PRGT) is a wholly owned subsidiary of TransCanada Pipelines Ltd. PRGT is proposing to construct a natural gas pipeline from near Hudson's Hope, B.C., to the proposed Pacific NorthWest Liquid Natural Gas export facility on Lelu Island near Prince Rupert.

PRGT has not selected a final route for the pipeline at this time, but its currently preferred route would run through Nisga'a Memorial Lava Bed Park for approximately 12.1 kilometres (see Attachment 1 for map of proposed route). If the preferred route is to be used, the boundaries of the park must be modified to remove the impacted lands. Because Nisga'a Memorial Lava Bed Park is listed in Schedule D to the *Protected Areas of British Columbia Act*, an Act of the Legislature is required in order to remove the lands from the park. An amendment to the Nisga'a Final Agreement (The Treaty) is also required.

Nisga'a Memorial Lava Bed Park was established in 1992 as a Class A park and protects 17,781 hectares of old-growth forest, riparian areas, mountain landscapes, and lava flow, and is a memorial to approximately 2,000 Nisga'a buried by the eruption of the Tseax Cone. The Nisga'a consider the park to be a sacred site.

The park is included in the Treaty and is jointly managed by BC Parks and representatives of the Nisga'a Lisims Government. In accordance with the Treaty, (Chapter 3 paragraphs 103 to 113) adjustments to the park boundary require the consent of the Nisga'a Nation as represented by Wilp Si'uyuukhl Nisga'a.

Since Nisga'a Memorial Lava Bed Park was established in 1992 there have been three amendments to the park's boundaries. In 2008, 0.8 hectares were removed from the park and established as a protected area to enable the construction of a secondary access road to the Nisga'a village of Gitlaxt'aamiks (formerly New Aiyansh). In the same year, 100 ha, consisting of the Highway 113 right of way, were removed from the park as an administrative matter to ensure that the Ministry of Transportation was able to carry out regular maintenance work and to allow the installation of a fibre optic cable within the right of way. In 2011, 11 ha were removed from the park and established as a protected area to enable the construction of the Northwest Transmission Line by BC Hydro.

The PRGT project is a reviewable project under the BC *Environmental Assessment Act*. The project is currently in the pre-application phase of the environmental assessment process.

PRGT expects to submit an application for an environmental assessment certificate in March, 2014.

#### **DISCUSSION:**

BC Parks reviews requests to amend the boundaries of provincial protected areas through the procedures set out in the Cabinet-approved *Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines* (The Policy; see Attachment 2). Requests to amend protected area boundaries fall within one of three categories:

- 1. "Administrative housekeeping" adjustments undertaken where there have been errors in the initial legal description of the boundary or an area was captured that clearly was not intended to be captured at the designation stage;
- 2. Adjustments intended to alleviate a human health and safety concern; and
- 3. Adjustments where a proponent (private or public) is interested in a boundary adjustment to allow for a development or activity not allowed by authorization under protected areas legislation.

Only proposals that fit within Category 3 are subject to the Policy. The proposed pipeline is considered to be Category 3.

The Policy provides that the project proponent submit an initial project proposal (Stage 1) to the Minister of Environment. The Minister then determines whether there is sufficient public interest in the proposal to warrant a more detailed (Stage 2) boundary adjustment application. PRGT submitted a Stage 1 proposal for a modification to the boundaries of Nisga'a Memorial Lava Bed Park to BC Parks on January 24, 2014 (Attachment 3).

The Policy states that boundary adjustments are normally only approved where there are significant environmental, social and economic benefits to be realized from the project. A summary of BC Parks staff's evaluation of PRGT's proposal regarding these considerations is set out in Attachment 4.

31.2, £1.2

## **OPTIONS:**

s.13, s.16, s.12

## **RECOMMENDATION:**

s.13, s.16, s.12

**DECISION & SIGNATURE** 

DATE SIGNED

Honourable Mary Polak Minister of Environment

#### **Attachments:**

s.13, s.16

Attachment 2: Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines Attachment 3: Prince Rupert Gas Transmission Ltd. Stage 1 Boundary Adjustment Proposal for Nisga'a Memorial Lava Bed Park.

Attachment 4: BC Parks Staff Summary of Policy Considerations

#### 31.2, £1.2

**Contact:** 

Lori Halls, ADM:

**Alternate Contact:** 

Ken Morrison, Manager

BC Parks and

Conservation Officer Service Planning & Land Admin, Parks Planning & Mgmt Br. Brett Hudson, Parks and Protected Areas Planner Planning & Land Admin, Parks Planning & Mgmt Br.

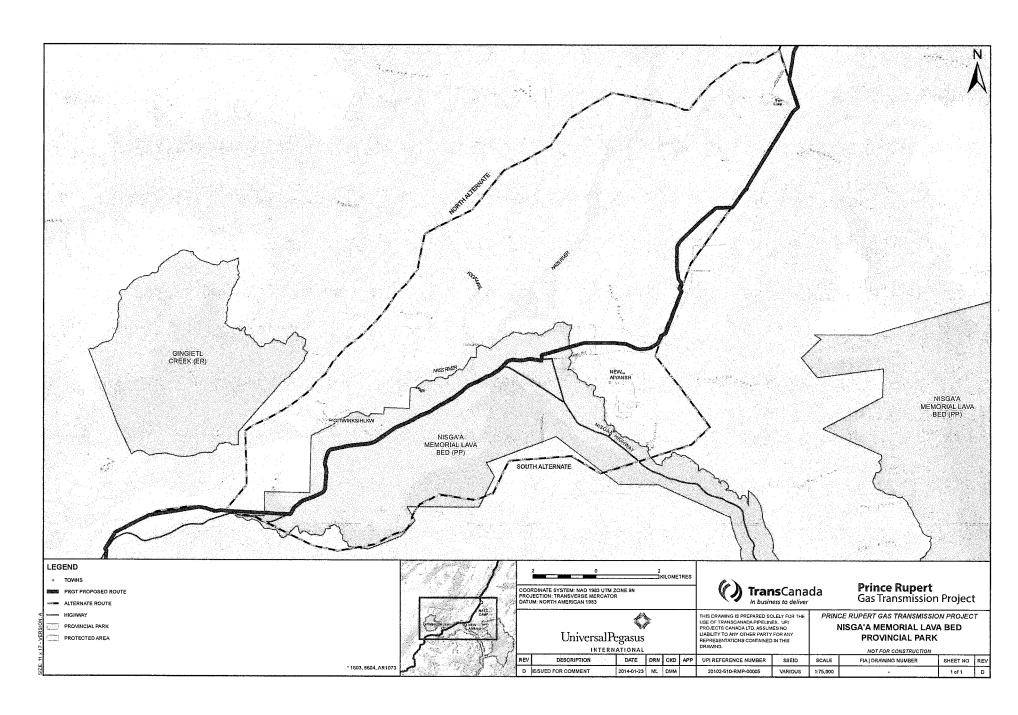
(250) 387-6177

(250) 356-5298

(250) 387-4593

Prepared by:

Reviewed by	Initials	Date	
DM			
DMO			
ADM	LH	Feb. 7, 2014	
Dir. PPM	BB	Feb. 6, 2014	
Mgr. PLA	KM	Feb. 6, 2014	
Author	BH	Feb. 5, 2014	



# PROVINCIAL PROTECTED AREA BOUNDARY ADJUSTMENT POLICY, PROCESS AND GUIDELINES

#### March 2010

#### 1. BACKGROUND:

Provincial protected areas<sup>1</sup> are set aside to provide a wide range of opportunities that support tourism and recreation while maintaining the integrity of the natural environment. Most protected areas have been created through comprehensive land use planning processes that included consultation with the public, First Nations and local governments in providing recommendations to government on land use objectives, including establishing protected areas.

Periodically, there are proposed developments which involve activities which are prohibited within protected areas. The Minister<sup>2</sup> may recommend to Cabinet and the Legislature a boundary adjustment where it meets the principles associated with this Policy. This determination requires policy and guidelines for maintaining the integrity of protected area values as well as a clear process for evaluation and decision making.

Protected area boundary adjustments fall within one of three categories:

- 1. "Administrative housekeeping" adjustments undertaken where there have been errors in the initial legal description of the boundary or an area was captured that clearly was not intended to be captured at the designation stage.
- 2. Adjustments intended to alleviate a human health and safety concern.
- 3. Adjustments where a proponent (private or public) is interested in a boundary adjustment to allow for a development or activity not allowed by authorization under the protected area legislation.

The Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines (the Policy) applies to private or public sector development proposals that conform to Category 3 adjustments referenced above. The Policy does not apply to Category 1 or 2 boundary adjustments<sup>3</sup>.

#### 2. GUIDING PRINCIPLES:

In recognition of the public interest in the establishment and management of protected areas, and the integral role protected areas play in supporting local economies and community-based recreation, government has afforded protected areas a high level of legislative protection.

<sup>&</sup>lt;sup>1</sup> For the purpose of this Policy, protected areas include Class A, B and C parks, recreation areas, conservancies, ecological reserves, and protected areas established under the *Environment and Land Use Act*.

<sup>&</sup>lt;sup>2</sup> Under this Policy, "Minister" refers to the Minister responsible for the Park Act.

<sup>&</sup>lt;sup>3</sup> Category 1 and 2 boundary adjustments will be managed using internal procedures involving case-by-case analysis and decisions forwarded to the Minister.

Consideration of proposals for protected area boundary changes will be guided by the following principles:

- The BC Government is committed to the protection of provincial protected areas and the integrity of their associated ecological, recreational and cultural values.
- Proposals for protected area boundary adjustments will be considered on a case by
  case basis where there are compelling provincial economic, environmental and social
  benefits that collectively exceed maintaining the existing protected area boundary
  and values.
- The review and evaluation process will be timely and transparent.
- The proponent must establish the case to adjust a protected area boundary (including meeting the provisions of this Policy) and bear the associated costs.
- Where feasible, consultation will occur with participants that were involved in a
  public planning process where that process resulted in the establishment of the
  protected area.
- Consultation with First Nations and local governments will be required.
- Suitable public consultation will be required, consistent with the significance of the proposed change.

#### 3. REQUESTS FOR BOUNDARY ADJUSTMENTS:

Proponents may be First Nations, other levels of government, private individuals, companies or agencies/ministries. A proponent considering a project within a protected area should contact BC Parks as early as possible in the proposal development stage to determine if the proposed use is compatible with legislation, regulations and protected area management objectives. If the proposal would require an adjustment to protected area boundaries in order to proceed, the proponent will be advised of the following two-stage process:

#### **Stage 1: Initial Proposal:**

The proponent submits an initial proposal to the Director responsible for protected area planning, BC Parks. The initial proposal should include:

- 1. Proponent information and contact details.
- 2. Type and purpose of project (e.g. wind power generation, mining, road, pipeline, etc.).
- 3. Project location.
- 4. Project footprint (inside and outside the protected area) including all project components such as access routes.
- 5. Preliminary description of economic, social and environmental impacts and benefits of the project.
- 6. Preliminary assessment of alternatives that would avoid the use of protected lands and the reasons those alternatives are not considered feasible.
- 7. First Nations and local governments potentially affected by the project, and status of any discussions with these governments.
- 8. Known community groups with an interest in the protected area, and the status of any discussions with these groups.
- 9. Any known environmental issues (e.g. species at risk impacts, fish habitat).
- 10. Anticipated project schedule.
- 11. Maps and illustrations as appropriate.

The initial proposal will be reviewed by Ministry staff and submitted to the Minister for consideration. The Minister will consider the information provided and any other information the Minister considers relevant. The proponent will then be contacted to either:

- 1. Be advised that the Minister declined the application, and be provided with reasons; or
- 2. Be advised that the Minister will consider a detailed Stage 2 proposal as outlined below.

#### **Stage 2: Detailed Proposal:**

If the initial proposal is not declined, the proponent may proceed to stage 2. At this stage a detailed proposal is required. A proponent should maintain contact with BC Parks staff during development of the detailed proposal, which must include the information required by this Policy, along with a covering letter addressed to the Director responsible for protected area planning, BC Parks, requesting a review of the proposal for a boundary adjustment.

#### 4. GUIDELINES FOR DETAILED PROPOSALS:

Implementing a boundary adjustment requires approval of the Minister, Cabinet, and usually the Legislature<sup>4</sup>. Proponents should ensure that the information they submit with their detailed proposal addresses the following considerations to the satisfaction of the Minister:

#### 1. Alternatives to avoid the protected area have been considered.

Proponents must consider and document alternatives that would avoid a protected area boundary adjustment. Clear supporting rationale for supporting or rejecting an alternative must be provided.

#### 2. Overall economic benefits to the Province have been documented.

An overall economic analysis of the economic benefits and costs, if any, associated with the proposed boundary adjustment will inform the assessment process. The economic analysis should include a summary of the short-term and long-term employment benefits, regional infrastructure impacts, and potential revenues to Government.

#### 3. Social and environmental impacts have been documented.

All potential impacts of the proposed development on the social and environmental values of the protected area must be identified. This should include consideration of how the proposal may impact or benefit traditional user activities, visitor enjoyment and safety, identification and impacts to natural values in the area and associated risks to natural values. Broader environmental impacts or benefits, beyond the protected area, should also be identified. The assessment of the social and environmental impacts will assist in identifying potential mitigation, restoration or compensation measures that would preserve the recreation and/or conservation values of the protected area.

#### 4. Mitigation and restoration measures have been identified.

Proponents will identify ways to avoid, minimize or compensate for the impacts the proposed development may have on protected area values. This will inform the assessment process of opportunities to retain or add to protected area values.

<sup>&</sup>lt;sup>4</sup> The final decision on a protected area boundary adjustment rests with either the Cabinet or the Legislature depending on the level at which the protected area boundary is originally established. A protected area boundary established by Order in Council is amended at the Cabinet level and a protected area boundary established by an Act of the Legislature can only be amended by the Legislature. Most boundaries are established by an Act of the Legislature.

#### 5. First Nations have been adequately consulted.

Proponents need to discuss the proposed development and potential impacts on protected area boundaries and values with the appropriate First Nations and include a summary of the discussions with the detailed proposal. This will provide an indication of the degree of First Nations acceptance (or lack thereof) of the proposal. Inclusion of this information in the proposal will assist Ministry staff in meeting the Crown's duties to consult with First Nations, and if necessary, accommodate any infringement on asserted rights or title.

#### 6. Local community (including local governments) have been consulted.

Proponents must assess the level of support or opposition among the key community, local government and public groups that may have an interest in the potential impacts of the proposed development on protected area boundaries. The proponent should identify whether this indication of public response was obtained through direct consultation or through indirect means such as review of media reports, interest group newsletters, or other appropriate means. This information will assist in identifying whether adequate public and/or local government consultation has occurred.

#### 7. Provincial and Federal Agencies have been consulted.

The proponent, with advice from BC Parks, should make contact with appropriate federal and provincial agencies that may have an interest in the proposal and seek input or comment.

If the proposed boundary adjustment is related to a reviewable project under the British Columbia *Environmental Assessment Act*, BC Parks and the Environmental Assessment Office will coordinate their respective information requirements to the greatest extent possible. While the boundary adjustment and environmental assessment processes involve independent decisions by Government, the intent is to identify means for the proponent to collect and report on information required by both processes in an effective and efficient manner.

#### 5. PROCESS FOR REVIEWING DETAILED PROPOSALS:

The ministry will review the completed Stage 2 detailed proposal. The review process will proceed as follows (see also Appendix 1: Boundary Adjustment Process Flow Diagram):

- 1. BC Parks staff contact relevant or interested Ministries to inform them of the proposal and the proposal will be posted on a government web site for public information<sup>5</sup>.
- 2. The economic, social and environmental implications of the proposal, along with the extent of public, First Nations<sup>6</sup>, and local government consultation identified in the proposal, are assessed.
- 3. An assessment and recommendations regarding the proposal are submitted by BC Parks to the Minister.

<sup>&</sup>lt;sup>5</sup> The proponent may be directed to make additional efforts (e.g. newspaper advertising, web-based notification) to ensure the public is aware of the application and able to submit their views on the proposal.

<sup>&</sup>lt;sup>6</sup> First Nations consultation process will be determined between the proponent and the Ministry of Environment (or BC Parks) and outcomes will be assessed.

- 4. The Minister may, at any time during the review process, determine that adequate information has been provided to make a decision not to recommend the boundary adjustment to Cabinet. If the Minister decides not to recommend the proposal, then the proponent will be notified of the reasons for the decision in a timely fashion.
- 5. The Minister may recommend the proposal to adjust the boundaries to Cabinet. Cabinet may decide either to proceed with the boundary adjustment or to reject the proposal. If Cabinet rejects the proposal, the proponent will be notified in a timely fashion.
- 6. If Cabinet decides to support the proposal, a legislative amendment will be introduced and be subject to the normal process for Bills in the Legislature, if a legislative amendment is required to change the boundary. The final decision will then rest with the Legislature. In the event the existing boundary was established by Order in Council, then Cabinet may decide to amend the boundary by Order in Council.

#### Process Notes:

- BC Parks, the Minister or Cabinet may determine at any time during the process that additional consultation or information is required.
- Normally, a proposal that meets all information requirements will be considered within a six month time frame. However, legislative amendments may require considerable preparation and additional time.

#### 6. PROCEDURAL NOTES:

In order to ensure clear understanding and application of these principles and guidelines, proponents should initiate early contact and maintain communications with BC Parks staff.

Decisions to consider a proposal for a protected area boundary adjustment are made by the Minister based on the economic, social and environmental considerations. There is an increased risk of a proposal being rejected at any time under one or more of the following circumstances:

- Viable alternatives exist;
- There is significant First Nations opposition;
- There is significant public or local government opposition;
- Significant adverse effects on environmental or social values cannot be avoided, mitigated or compensated for;
- There is insufficient overall benefit to the Province.

A decision to consider an application to adjust a protected area boundary to allow for a development does not constitute approval of the proposed project. The final decision to adjust a boundary rests with the Legislature (or Cabinet in the case of a protected area established by an Order in Council). As well, all proposed projects are subject to the normal provincial and federal regulatory review processes that apply to such projects. Protected area boundary adjustments, if approved by Cabinet or the Legislature, will only be brought into force if the proposed project has received all other approvals to proceed (e.g. Environmental Assessment Certificate).

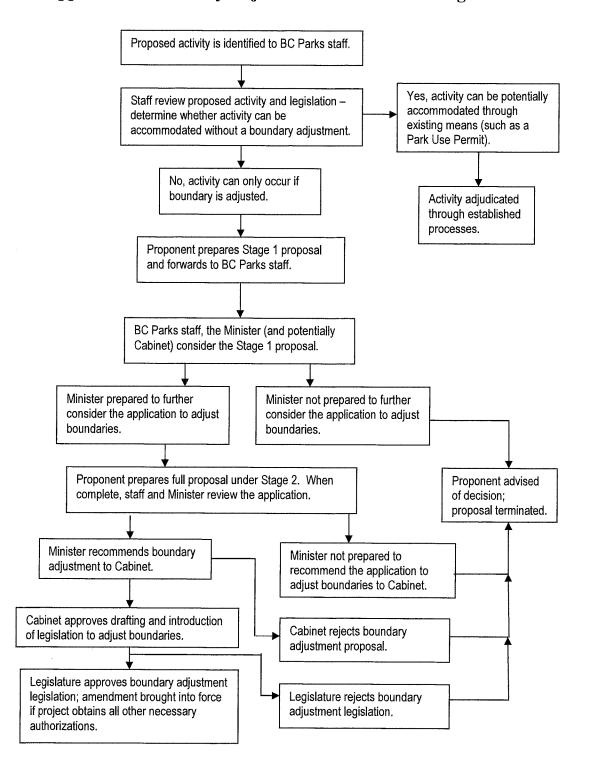
### 7. AVAILABLE RESOURCES:

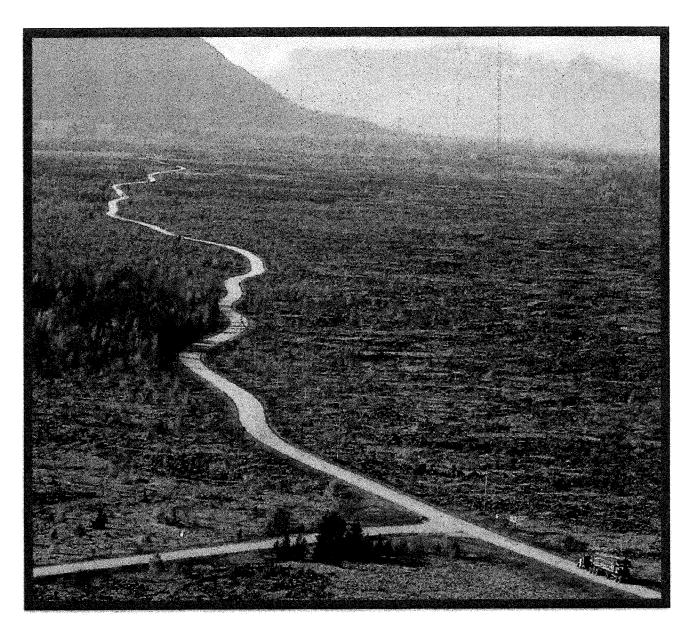
In preparing information to address these guidelines, proponents should consider the following sources of information which may be of assistance:

- The BC Parks *Impact Assessment Process* is used by staff to assess potential impacts of proposed actions in provincial protected areas it offers processes and background information which can be used by proponents. The process is described in detail on the BC Parks website at the following address:

  <a href="http://www.env.gov.bc.ca/bcparks/conserve/impact/impact.html">http://www.env.gov.bc.ca/bcparks/conserve/impact/impact.html</a>.
- B.C.'s environmental assessment (EA) process provides a mechanism for reviewing major projects to assess their potential impacts and to ensure environmental, economic and social considerations are taken into account. This includes assessing issues and concerns raised by the public, First Nations, interested stakeholders and government agencies. More information is available at the Environmental Assessment Office website at: <a href="http://www.eao.gov.bc.ca/index.html">http://www.eao.gov.bc.ca/index.html</a>

# **Appendix 1: Boundary Adjustment Process Flow Diagram**





Stage 1 Park Boundary Amendment Application Nisga'a Memorial Lava Bed Park

PRGT0004776-TC-BCP-RE-VA-0001

January 2014 Rev A

# Stage 1 Park Boundary Amendment Application Nisga'a Memorial Lava Bed Park

Revision A January 2014

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Document title	Stage 1 Park Boundary Amendment Application Nisga'a Memorial Lava Bed Park	
Section number (digits only)	(Not used in this template)	
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Publication date	January 2014	
Document number	PRGT004776-TC-BCP-RE-VA-0001	
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## **TABLE OF CONTENTS**

1.0	APP	LICATION	1		
2.0	PRO	PROJECT OVERVIEW			
3.0	DES	CRIPTION OF THE PARK AND ITS VALUES	<del>(</del>		
4.0	PREI	PRELIMINARY ASSESSMENT OF ALTERNATIVES			
	4.1 4.2	General Route Selection Criteria  Rationale for Routing the Project in the Park  4.2.1 Route Options Review	8 8		
	4.3	4.3 Project Route within the Park			
5.0	NISG	NISGA'A NATION AND LOCAL GOVERNMENTS AFFECTED BY THE PROJECT 11			
	5.1 5.2	Nisga'a Nation  Local Governments			
6.0	THE	THE PROJECT WITHIN THE PARK			
	6.1	Project Footprint 6.1.1 Pipeline ROW 6.1.2 Access 6.1.3 Ancillary Facilities 6.1.4 Cathodic Protection Project Phases and Considerations within the Park 6.2.1 Project Construction within the Park 6.2.2 Reclamation within the Park 6.2.3 Project Operations within the Park 6.2.4 Project Maintenance within the Park 6.2.5 Emergency Preparedness within the Park 6.2.6 Public Awareness and the Park 6.2.7 Decommissioning and Abandonment			
7.0	PREL ENHA	LIMINARY DESCRIPTION OF ECONOMIC, SOCIAL AND ENVIRONMENTAL ANCEMENTS AND POTENTIAL EFFECTS	- 21		
	7.1	Economic Effects 7.1.1 Provincial 7.1.2 Local	21		
	7.2	Social Effects 7.2.1 Land Use 7.2.2 Community Infrastructure and Services 7.2.3 Visual Aesthetics 7.2.4 Cultural and Heritage Resources	23 23 23		

	7.3	Environ	mental Effects	25
		7.3.1	Water Quality	
		7.3.2	Freshwater Aquatic Species, Fish and Fish Habitat	
		7.3.3	Vegetation and Wetlands	
		7.3.4	Wildlife	
		7.3.5	Landforms, Terrain and Soils	
		7.3.6	Atmospheric Environment	
		7.3.7	Acoustic Environment	
8.0	KNOV	VN COMM	UNITY GROUPS WITH INTERESTS IN THE AFFECTED AREAS	29
a n	A NITIC	NDATED E	PPO JECT SCHEDUJ E	20

#### LIST OF TABLES

	LIST OF TABLES
Table 6-1: Ab	ove-Grade Equipment Considered During Project Design
	LIST OF APPENDICES
Appendix B	Project Route Overview Park Route and Alternatives Proposed Project ROW

#### 1.0 **APPLICATION**

Prince Rupert Gas Transmission Ltd. (PRGT) is proposing to construct and operate a sweet natural gas pipeline (Project) from a point near Hudson's Hope, BC, to the proposed Pacific NorthWest LNG export facility near Prince Rupert, at Lelu Island, within the District of Port Edward, BC. Based on its current preferred routing, PRGT expects that the pipeline will traverse the Anhluut'ukwsim La xmihl Angwinga'asanskwhl Nisga'a (Nisga'a Memorial Lava Bed Park) (the Park) for approximately 12.07 km. As a result, PRGT is submitting a Stage 1 application of the provincial park boundary adjustment process for consideration by BC Parks. The Project will be designed, owned and operated by PRGT, a wholly owned subsidiary of TransCanada PipeLines Limited (TransCanada). PRGT is the general partner and acts on behalf of Prince Rupert Gas Transmission Limited Partnership. PRGT would legally own and operate the Project assets for the benefit of the limited partnership.

PRGT has prepared this Stage 1 application based on the guidance provided in the Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines (March 2010).

The Park is jointly managed by Nisga'a Lisims Government (NLG) and BC Parks.

Subject to the approval of the Stage 1 application, PRGT plans to submit a Stage 2 (Detailed Proposal) in February of 2014. Additionally, PRGT plans to submit an application for an Environmental Assessment Certificate (EAC) for the Project in March 2014 to the BC Environmental Assessment Office (EAO). An application for a pipeline and facilities permit to the BC Oil and Gas Commission (OGC) will be submitted March through December 2014.

Page 1

The primary contact for the Project is:

Marilyn Carpenter

Director, Environmental and Regulatory Permitting

Prince Rupert Gas Transmission Ltd.

450 - 1 Street SW

Calgary, AB T2P 5H1

Tel: (403) 920-7385

Fax: (403) 920-2397

Email: marilyn carpenter@transcanada.com

Additional key contacts for the Project include:

Kelly Eaton

Lead, Environmental Field Program & Permitting

Prince Rupert Gas Transmission Ltd.

450-1st Street S.W.

Calgary, AB T2P 5H1

Tel: (403) 920-5690

Fax: (403) 920-2397

Email: kelly eaton@transcanada.com

Joel Forrest

Director, Regulatory Law & Services

Prince Rupert Gas Transmission Ltd.

450 - 1 Street SW

Calgary, AB T2P 5H1

Tel: (403) 920-6156

Fax: (403) 920-2354

Email: joel forrest@transcanada.com

Tony Palmer

President

Prince Rupert Gas Transmission Ltd.

450 - 1 Street SW

Calgary, AB T2P 5H1

Tel: (403) 920-2035

Fax: (403) 920-2318

Email: tony palmer@transcanada.com

#### 2.0 PROJECT OVERVIEW

The Project consists of the construction and operation of a sweet natural gas pipeline that extends from a point near Hudson's Hope, BC, to the proposed Pacific NorthWest LNG export facility near Prince Rupert, at Lelu Island, within the District of Port Edward, BC.

The Project involves the construction and operation of:

- Up to 900 km of pipeline (48 inch (NPS 48) (1,219 mm) outside diameter). This route encompasses a marine component where two parallel 914 mm diameter (NPS 36) submarine pipelines will be constructed.
- Metering facilities at the delivery point.
- Three compressor stations (with provisions for up to six additional compressor station sites for future expansion).

The route overview for the Project is shown in Appendix A.

The Project will also involve constructing temporary infrastructure (e.g., access roads, temporary bridges, stockpile sites, borrow sites, contractor yards and construction camps).

The Project will interconnect with a proposed extension of the NOVA Gas Transmission Ltd. System (NGTL System). Progress Energy Canada Ltd., the owner and operator of the proposed Pacific NorthWest LNG export facility, has entered into a transportation services agreement with PRGT for natural gas transportation service to the LNG export facility.

The Project will give western Canadian gas producers access to new natural gas markets and has the potential to make significant contributions to the overall provincial economy and the economy of local communities.

#### 3.0 DESCRIPTION OF THE PARK AND ITS VALUES

The Nisga'a Memorial Lava Bed Park was established under the *Nisga'a Final Agreement* and the British Columbia *Park Act*. The Park is designated as a Class A provincial park and covers nearly 16,700 ha of land 100 km north of Terrace. The Park is jointly managed by Nisga'a Lisims Government (NLG) and BC Parks through a Joint Park Management Committee, with a goal of combining interpretation of natural features and native culture. A key purpose of the Park is to provide opportunity to study, investigate, and implement traditional Nisga'a sustainable management approaches and techniques.

A range of recreational opportunities are available in the Park, including camping, guided tours of the volcanic cone, swimming, canoeing/kayaking, fishing, biking, snowmobiling (in designated areas), hunting and self-guided tours. The Nisga'a visitor centre offers daily guided walks to the crater in season.

The Park offers visitors a chance to explore features of a volcanic landscape and learn about the culture of the Nisga'a people. The Park also serves as a memorial to over 2,000 Nisga'a who were killed by the volcanic eruption.

The Park plays a significant role in meeting a series of conservation and recreation goals. Conservation is the primary management consideration of the Park. Special effort is made to protect the fragile cone area and other volcanic features located throughout the Park. The Park is also home to a number of protected cultural features including historic Nisga'a villages. Nature interpretation opportunities are offered within the Park. Relatively easy access is available from the Nisga'a Highway which runs through the Park. These opportunities have already attracted regional, national and international interest. Visitors traveling the Nisga'a Highway through the Park witness the interesting features of the lava bed from the road.

Through continued discussions with BC Parks, NLG, Nisga'a communities and other Park users, PRGT will strive to understand the values of the Park and work to avoid or minimize effects on key Park features and culturally or recreationally important areas through appropriate construction practices, mitigation and reclamation. PRGT will work to uphold and enhance the values of the Park once the Project has been constructed and is in operation.

PRGT is currently developing a comprehensive list of enhancements for the Park working in cooperation with the Joint Park Management Committee which will result in a legacy for the Park

#### 4.0 PRELIMINARY ASSESSMENT OF ALTERNATIVES

This section describes PRGT's assessment of route options for the Project in the area of the Park and outlines the proposed Project route through the Park.

#### 4.1 GENERAL ROUTE SELECTION CRITERIA

Route selection criteria for the Project considered TransCanada's knowledge and experiences with routing past projects. Along with technical review and consultation with Aboriginal groups, landowners and other stakeholders, TransCanada's route selection process considers the following criteria in the review and selection of route alternatives:

- Paralleling existing linear disturbances to the extent possible to:
  - Reduce the potential fragmentation of natural habitat.
  - Minimize new disturbance by maximizing the amount of temporary work space located on existing right-of-ways (ROWs) or other existing disturbances.
  - Reduce the amount of new non-contiguous ROW required.
  - Reduce the development of new access into remote areas.
- Reducing the number of watercourse crossings
- Avoiding or reducing effects on identified environmentally sensitive areas (e.g., wetlands)
- Avoiding areas of unstable terrain
- Consulting with regulatory agencies to understand issues that may need to be addressed in the routing process
- Avoiding routing in close proximity to urban development and residences where practical
- Reducing the number of road crossings, particularly highways and paved roads, where practical
- Ensuring construction feasibility of watercourse, rail and road crossings along selected route
- Minimizing the effects on water supply systems and groundwater resources

#### 4.2 RATIONALE FOR ROUTING THE PROJECT IN THE PARK

#### 4.2.1 Route Options Review

PRGT has undertaken detail assessments of route options for all areas of the Project, including those in and around the Park. The proposed Project route evolved through review of constructability, environmental, social and economic issues, and through consultation with NLG, landowners, government and other stakeholders.

A summary of the four route options in the vicinity of the Park follows (Refer to Appendix B).

#### Route Options to Avoid the Park

Alice Arm Option - PRGT considered a route north of Nisga'a Lands to connect to the marine route that would take the line south through Portland Inlet to Prince Rupert. Although this route has not been definitively eliminated from consideration, it poses technical challenges. PRGT's technical engineering team is still undertaking feasibility studies on this route option.

North Route Option - The north route option avoids the Park but may impact, among other Nisga'a interests under the Nisga'a Final Agreement (NFA), areas where Nisga'a citizens harvest mushrooms. Removing the canopy in that area and disturbing the forest floor would potentially destroy an important mushroom habitat for many years and thereby affect an important cultural resource and source of income for Nisga'a residents or the Nisga'a Nation. The north route option also involves two major crossings of the K'alii Aksim Lisims (Nass River) which is also an important cultural resource and source of income for the Nisga'a Nation. In addition, the K'alii Aksim Lisims is the primary source of water for the village of Gitwinksihlkw. The diameter, depth, length and width of those crossings would challenge the capabilities of current HDD equipment.

#### Route Options through the Park

South Route Option – PRGT considered an optional route south of the Park which dips in and out of the Park at four locations (see Appendix B). Potential issues with this route include the route's potential for effects on the Gitlaxt'aamiks (New Aiyansh) community watershed which provides the village's water, disturbance of multiple wetlands and high value fisheries habitat, potential effects to an ancient Nisga'a village impacted by the lava flow, potential for disruption to a cultural site where the Nisga'a believe a spirit (Naxnok) resides, and a technically challenging constriction point at a steep granite face at the west end of the Park and its potential negative effect on project schedule.

Route Adjacent to Nisga'a Highway (Proposed Route) – This route through the Park adjacent to the Nisga'a Highway is PRGT's preferred route because of the more favourable conditions with respect to technical, environmental and cultural considerations as compared to the other options. This route may result in fewer impacts on Nisga'a interests under the NFA based on the information available to date. The proposed route entails the fewest watercourse crossings, avoids the more technically challenging crossings of the K'alii Aksim Lisims and does not potentially affect water sources of Nisga'a communities. High value environmental and cultural resources which are an integral part of Nisga'a culture, tradition and economy are avoided (e.g., key mushroom harvesting areas, key fish spawning habitats). It is primarily located adjacent to an existing infrastructure corridor and therefore limits new disturbance to undisturbed areas. Finally, it presents the fewest construction challenges.

#### 4.3 PROJECT ROUTE WITHIN THE PARK

PRGT has routed the Project, wherever possible, to parallel other linear developments that cross the Park. Most of the proposed route through the Park will parallel to the southerly limit of the Nisga'a Highway ROW.

PRGT's proposed route will enter the east end of the Park approximately 270 m north of Nass Road. It will continue in a south-westerly direction, crossing the Ksi Sii Aks (Tseax River), where it reaches and then crosses under the Nisga'a Highway at a point approximately 1,070 m west of the east Park boundary. From this point, the north limit of the proposed Project ROW will adjoin the south limit of the Nisga'a Highway ROW for approximately 10 km. Approximately 700 m east of the Park's west boundary, the proposed Project ROW crosses under the Nisga'a Highway ROW and continues almost due west in a new corridor.

The divergence from the Nisga'a Highway at the west side of the Park will permit the Project to cross a tributary of the Ksi Ts'oohl Ts'ap at a place where the watercourse is narrower and the adjoining banks are higher and drier than the crossing further south and adjacent to the Nisga'a Highway (i.e., better constructability).

For detailed maps of the proposed Project ROW through the Park, refer to Appendix C.

#### 5.0 NISGA'A NATION AND LOCAL GOVERNMENTS AFFECTED BY THE PROJECT

The Project, as it traverses the Park, will affect the Nisga'a Nation and the Regional District of Kitimat-Stikine (RDKS). This section summarizes engagement with Nisga'a Nation, represented by NLG, and the RDKS.

It should be noted that NLG has not, at this stage, determined whether it is prepared to agree to any adjustment of the boundary of the Park for the Project. NLG does not oppose PRGT's submission of the Stage 1 application.

#### 5.1 NISGA'A NATION

PRGT began engagement with the Nisga'a regarding the Project in April 2013. To facilitate the discussion of routing options, PRGT and Nisga'a formed a Route Selection Working Group. The Nisga'a - PRGT Route Selection Working Group (Working Group) comprises senior representatives, technical consultants and legal counsel for the NLG, as well as senior representatives, technical consultants and legal counsel for PRGT. The Working Group has met a number of times since its establishment in July 2013.

The following is a summary of the Working Group and other meetings regarding route options through or around the Park:

- July 18 2013 The first Working Group meeting was held to discuss the route options PRGT was studying. Preliminary discussions were held regarding the feasibility of routing the Project through the Park.
- July 30, 2013 Senior representatives of PRGT presented to the Nisga'a Executive Assembly (including Elders). The presentation spoke to the Project requirements, schedule, benefits and highlighted PRGT's proposed Project route adjacent to the Nisga'a Highway through the Park.
- September 9 to 24, 2013 Open House meetings were held in each of the four Nisga'a Villages Gitwinksihlkw (September 9), Gitlaxt'aamiks (September 11), Laxgalt'sap (September 12) and Gingolx (September 24). Community members expressed interest in the routing options and indicated a range of concerns with the various routes, including risks with the Nass River crossings, potential effects to mushroom grounds, potential effects to the ancient Nisga'a Village site, potential effects to wildlife, potential effects to the Park (particularly given its cultural and spiritual values), concern over pipeline stability, and impacts to groundwater and fisheries in the Park. PRGT indicated to community members that studies and field work are continuing so that the potential social, cultural, and environmental effects of each of the routes could be identified and better understood.

- September 13, 2013 PRGT Senior Aboriginal Relations Lead sent a letter and map to NLG to inform them that PRGT had applied for a Letter of Authorization to carry out non-invasive field studies in the Park.
- September 24, 2013 The Working Group, as an ongoing commitment, meet regularly to discuss route options.
- October 16, 2014 NLG Director of Fisheries and Wildlife, and NLG Lands Manager attended a helicopter flyover to view the route options with senior representatives from BC Parks and PRGT's Aboriginal Relations, Environment and Regulatory and Routing departments.

The NLG-PRGT Route Selection Working Group will continue to meet for the duration of the pre-application and during application review to ensure refinements to the route are made to address NLG and Project engineering concerns. A routing meeting is scheduled for January 29, 2014. Continued engagement is planned with NLG through specific Project consultation meetings and the Nisga'a citizens through Open Houses.

#### 5.2 LOCAL GOVERNMENTS

The Park falls within the boundary of the RDKS.

Since January 2013, PRGT has had multiple routing-related discussions across the Project corridor with local governments, landowners and other stakeholders. A summary of engagement discussions particularly with the RDKS include the following:

- February 2013 PRGT held a routing discussion with the RDKS Chair, who is also the Area Director for the part of the RDKS that includes the Park, and the NLG Director of Fish and Wildlife. The meeting covered routing options in the Nass Valley as well as potential project effects on the local communities. The utilization of existing roads, ROWs and existing disturbances was emphasized. The RDKS Chair indicated that Project investment in resource road upgrading would be viewed as a win for this region.
- August 2013 PRGT received comments from the Manager of Planning and Economic Development that were similar to what was shared by the Chair and Area Director a few months prior. There was acknowledgement that development already existed through the Park and that PRGT's proposed route through the Park should be well received, particularly if it was built alongside the shoulder of an existing road, which may gain from an upgrading. Although they would be supportive of the route option, he commented that the RDKS would defer to the NLG's position with respect to the route going through the Park.
- September 2013 A letter and map was sent to the RDKS stating that PRGT had applied for permission to carry out field studies in the Park. There have been no comments or issues expressed at this time.

Engagement with the RDKS will continue throughout the Project. Should any issues arise, PRGT is committed to working with the RDKS to address and resolve their concerns.

### 6.0 THE PROJECT WITHIN THE PARK

This section outlines the Project as it relates to the Park and describes the Project footprint as well as Project phases and considerations within the Park.

### 6.1 PROJECT FOOTPRINT

The Project footprint describes the scope of the Project within the Park, including:

- ROW
- Access
- Ancillary facilities
- Cathodic protection

### 6.1.1 Pipeline ROW

### **Proposed Project ROW**

The proposed Project ROW is adjacent to the Nisga'a Highway for approximately 85% (10.1 km) of the total proposed length (12.07 km) within the Park. The ROW required for construction would be approximately 50 m wide and would be comprised of 32 m of permanent ROW and 18 m of temporary work space (TWS). In certain areas, the Project would require additional TWS for special construction situations (such as highway or watercourse crossings). There are five crossing locations where PRGT would require additional TWS (typically blocks of 10 m to 40 m wide and from 20 m to 200 m in length) to stage equipment and manage materials within a dedicated footprint. PRGT will define the TWS areas in the Stage 2 (Detailed Proposal), pending acceptance of this Stage 1 application, and once detailed investigations have been completed. As a rough estimate, however, approximately 0.6 square km or 0.3 % of land within the Park would be affected by construction. Once the pipeline has been constructed, the permanent land rights could be reduced to 32 m for the operating life of the pipeline.

The minimum depth of cover pursuant to CSA Z662-11 is 0.6 m; however, for the Project the depth of cover is generally expected to be 0.9 m.

There are no above-grade facilities planned for the Park, except for small caution and marker signs and possibly some small control appurtenances such as test leads (typically mounted on existing sign posts or similar) and possibly, although unlikely, corrosion control equipment.

### **ROW** and the Nisga'a Highway

PRGT, in consultation with the BC Ministry of Transportation, BC Parks and NLG, proposes a Project ROW that is adjacent to the existing Nisga'a Highway ROW, thereby minimizing the area of land disturbed by the combined infrastructure footprints. PRGT will continue these discussions in early 2014 until an acceptable alignment is reached.

#### 6.1.2 Access

Wherever possible, the Project will use the Project ROW for construction access so as to minimize off-ROW disturbance within the Park. PRGT will obtain permits from MOTI that will allow the Project to construct and use ramps for access from the Nisga'a Highway roadbed to the Project ROW.

Although none are presently planned, it is possible that, after completion of field studies and a constructability assessment, PRGT may determine that it requires some additional access to connect the ROW to public roads inside the Park in the areas where the ROW will not be adjacent to a road.

### 6.1.3 Ancillary Facilities

PRGT does not plan to have any camps, stockpile sites or other infrastructure, other than access to the pipeline, inside the Park. During operations, the only facilities, other than the pipeline itself, required are warning and marker signs at appropriate intervals. Other facilities that may be required include:

- Test lead stations (attached to existing posts or installed in grade level boxes) at appropriate intervals
- Cathodic protection facilities (see Section 6.1.4)

The determination of whether test lead stations or cathodic protection facilities are required will be based on further engineering assessments.

#### 6.1.4 Cathodic Protection

Cathodic protection is a technology used to protect a pipeline from electrochemical corrosion. A cathodic protection system comprising buried anode beds, rectifiers and associated facilities such as power pole lines, will be designed and installed for the Project. Although very unlikely, it is possible that PRGT may require some of those components to be located inside the Park if certain soil characteristics are found to exist. The decision on whether cathodic protection equipment will be required will be based upon geotechnical information gathered from future field surveys and related engineering designs.

Cathodic protection facilities (if required) will be situated within the PRGT footprint described herein wherever possible. Park lands would not be affected.

### 6.2 PROJECT PHASES AND CONSIDERATIONS WITHIN THE PARK

The phases and considerations of the Project describe the scope of the Project within the Park, including

- Construction
- Reclamation
- Operations
- Maintenance
- Emergency preparedness
- Public awareness
- Decommissioning and abandonment

### 6.2.1 Project Construction within the Park

The preferred pipeline construction window within the Park is planned currently for summer/fall 2017 and is projected to be completed in less than four months. PRGT will work with BC Parks and NLG to develop a mutually acceptable construction schedule for the portion of the Project within the Park.

### **Construction Activities**

PRGT's routing and construction planning will be supported by investigations undertaken in the fall of 2013 (non-invasive biophysical, cultural and geotechnical/geophysical studies) and further subsurface studies (archeological, geotechnical/geophysical studies) following the Park Boundary Amendment, if successful.

Pipeline construction involves several activities that occur sequentially at any one location. These include development of new access where necessary, surveying, clearing, soil conservation and grading, drainage and sediment control, pipe stringing, bending and welding, trenching, lowering-in, backfilling, hydrostatic testing, clean-up and post-construction reclamation. The pipeline ROW would be divided into several construction spreads, meaning that there would be multiple construction crews carrying out construction activities in parallel at multiple locations along the construction ROW.

Users of the Park will experience some visual and noise impacts when near construction activities. Users of the Nisga'a Highway through the Park will experience a temporary increase in road traffic associated with transport of materials, equipment and personnel to and from the work areas.

It is anticipated that the lava rock can be excavated mechanically. However, it is possible that harder materials or shallow bedrock could be encountered and therefore, controlled blasting to grade the work area and create the trench could be required. Once it is acquired, field survey data (geotechnical and geophysical) will be used to assess how much controlled blasting, if any, will be necessary. Any controlled blasting would require temporary interruptions of traffic flows during the actual blasting to keep the public at safe distances from any blasting, ground vibrations and noise.

The construction strategy for crossing Ksi Sii Aks (Tseax River) at the east end of the Park requires more data before it can be finalized. It is possible that crossing may proceed on a different timeline to meet regulatory and environmental considerations and any construction resource constraints, i.e., the availability of specialized river crossing construction equipment.

#### 6.2.2 Reclamation within the Park

Reclamation planning within the Park with be undertaken in consultation with BC Parks and NLG, and outlined in detail in PRGT's Environmental Management Plan. Upon completion of construction, PRGT will work to reclaim all areas disturbed by construction (including access trails) to these standards, as well as to commitments made to NLG, BC Parks, the OGC and EAO, and conditions and directives set out in applicable permits.

### 6.2.3 Project Operations within the Park

Operations activities will be confined to the ROW and approved access during the operating life of the Project. PRGT's operations activities can be integrated with NLG and BC Park requirements and expectations.

Once operational, the pipeline will be buried and therefore not visible. As required by legislation, there will be pipeline markers indicating the presence of the buried facility at every water, trail and road crossing with PRGT contact information for those considering excavations nearby. PRGT will not be installing compressors, valves or above-grade piping within the Park.

During the Project design, PRGT will consider the need for installing above-grade equipment (see Table 6-1) that may be necessary or useful to the safe operation of the pipeline. The decision to install these objects will be based on regulatory compliance, public safety and pipeline integrity, in consultation with BC Parks and NLG.

	• •	• •
Above-Grade Feature	Purpose	Visual mitigation
Cathodic protection equipment, including rectifier and pole line	To neutralize or minimize naturally occurring corrosion activity	Design to situate facilities outside of Park. If necessary, keep rectifiers on ROW and minimize length of power pole line from tie-in to rectifier
Test leads	Cables connected to the pipe so that the pipe can be electronically located or assessed for integrity.	Design to situate facilities outside of Park. If necessary, incorporate with caution signs or install at grade or on unobtrusive posts.
Aerial power line marker balls over	Provide safety cue for helicopter	Work with BC Hydro and the Park to install a mutually acceptable

on aerial inspections

Table 6-1: Above-Grade Equipment Considered During Project Design

The Project will be monitored and controlled from the TransCanada Operations Control Centre (OCC) in Calgary. The OCC is staffed 24 hours per day, every day of the year, and uses a computer-based supervisory control and data acquisition (SCADA) system to continuously monitor and control pipeline operations (pipeline flows, pressures, temperatures and equipment status). The SCADA system is designed to alert the OCC operator of significant operational changes in the pipeline system.

marker.

### 6.2.4 Project Maintenance within the Park

Maintenance activities will be confined to the ROW and approved access during the operating life of the Project. PRGT's maintenance activities can be integrated with NLG and BC Park requirements and expectations.

To ensure on-going pipeline integrity and safety, regular preventative maintenance programs will include:

- Regular aerial patrols to monitor conditions on the ROW (e.g., checking for leaks, changes in land use, topographic changes and potential interference from others (primarily excavation activities)). The frequency of these patrols is established in accordance with CSA Z662, Oil and gas pipeline systems (CSA Z662), and is based on considerations of operating pressure, pipeline size, population density, terrain, weather and land use.
- Tree management over the centreline; weed control as necessary.
- Regular pipeline integrity assessments done with inline inspection tools that will not be perceptible to those standing above the pipeline (the inspection tool could be briefly audible on the surface when it passes by)
- Cathodic protection monitoring to control corrosion
- Periodic (typically annual) line walks for closer inspections (e.g., corrosion surveys and damage detection)

- Maintenance of pipeline signage and markers along the Project route through the Park
- Development of mutually acceptable protocols for operations and maintenance activities (PRGT will work with BC Parks and NLG, if requested)

### 6.2.5 Emergency Preparedness within the Park

PRGT and its contractors will create Emergency Response Plans (meeting or exceeding regulatory requirements) during construction of the Project. Once in operation, the Project will be integrated into TransCanada's corporate emergency preparedness and response system. Site-specific Emergency Response Plans will also be developed and routinely tested so that PRGT can respond effectively in the event of an emergency. PRGT will work with local emergency response agencies to foster appropriate communications and integrate PRGT's Emergency Response Plans with those of the communities where it operates.

### 6.2.6 Public Awareness and the Park

PRGT will implement TransCanada's Public Awareness Program. This program is designed to inform the public of facility locations and operational activities to:

- Protect the public from injury
- Prevent or minimize effects on the environment
- Protect the facilities from damage by the public
- Provide a foundation for ongoing public awareness

### 6.2.7 Decommissioning and Abandonment

PRGT would apply TransCanada's policies and practices for the future decommissioning or abandonment of all, or portions of, the Project. TransCanada has extensive experience in pipeline abandonment and decommissioning. Pipeline activities are generally anticipated to continue for at least 40 years before decommissioning or abandonment may be considered. PRGT would comply with all applicable laws when abandoning or decommissioning its pipeline or related facilities.

### 7.0 PRELIMINARY DESCRIPTION OF ECONOMIC, SOCIAL AND ENVIRONMENTAL ENHANCEMENTS AND POTENTIAL EFFECTS

This section describes the economic, social and environmental effects (both impacts and benefits) of the Project. PRGT has identified potential benefits and impacts of the Project specifically as they relate to the Park PRGT also intends to identify enhancements to mitigate effects of the proposed Project within the Park and, generally, improve the Park for the enjoyment of all individuals visiting the Park.

PRGT intends to meet or exceed the guidance set out in the "Procedures for Mitigation Impacts on Environmental Values (Environmental Mitigation Procedures), June 11, 2012 developed by the Province of British Columbia.

Further detail on all effects, as well as mitigations measures will be provided in Stage 2 (Detailed Proposal), pending acceptance of this Stage 1 application.

### 7.1 ECONOMIC EFFECTS

The Project is an important part of the emerging liquefied natural gas (LNG) sector in BC. LNG is a growing sector in BC, and has the potential to make significant contributions to the overall provincial economy and the sustainability of local communities.

It is anticipated that a wide range of economic benefits will result from the Project. These benefits include direct and indirect employment, increased government royalties and new tax revenue to the Province and local governments.

### 7.1.1 Provincial

BC and other areas in the Western Canada Sedimentary Basin have an abundance of natural gas resources. If new global markets were found, this could provide new economic opportunities for BC and its northern communities.

Prince Rupert provides a suitable coastal port for the export of LNG to global markets, but accessing that port requires the construction of a new pipeline to transport the natural gas from northeast BC.

New natural gas pipelines, such as the Project, would provide the transportation capacity needed to support continued natural gas development activities in northeast BC. This development would create jobs in the upstream exploration and production sector and has the potential to generate significant royalty revenue for the provincial government, which helps to pay for public services like health care, education and infrastructure.

The Project will provide significant economic benefits for British Columbians, local and provincial governments, and Aboriginal communities as it supports the export of surplus natural gas to global markets, including:

- An estimated \$5 billion in private sector investment for BC and Canada
- Thousands of short-term jobs in BC (7,575 person-years during a two and a half year construction period)
- Opportunities for local and Aboriginal businesses
- Approximately \$25 Million dollars in annual taxes to help support a wide variety
  of local services such as schools, policing, fire protection, and waste management
- Millions of dollars in contract employment opportunities, financial support for education, training and community investments to Aboriginal communities through Project Agreements
- Approximately 70 jobs during the operation phase (direct, indirect and induced)
- Pacific NorthWest LNG export facility is estimating an additional 200 to 300 long-term jobs
- Progress Energy anticipates that upstream production will create another 200 to 300 jobs in northeast BC

The capital expenditures of the proposed Project and the associated Pacific NorthWest LNG export facility are expected to be in the range of \$14 to \$16 billion. The construction of the Project and the LNG export facility will require the equivalent of 16,450 person-years of work over four years.

PRGT is actively engaging with communities along the Project route to learn more about their priorities. During Project construction, temporary construction jobs will be available along the Project route. PRGT aims to contract qualified Aboriginal and local businesses and procure local goods and support services where available and practical.

### 7.1.2 Local

Project construction will generate a demand for local goods, services and workers. There will be direct and indirect business and employment opportunities as well as direct and indirect income and employment benefits for Nisga'a citizens and businesses.

Where capacity exists, PRGT will strive to hire locally, including Nisga'a citizens. PRGT has begun discussions with NLG regarding specific Nisga'a training and employment commitments that will be made by PRGT related to the Project.

PRGT anticipates that field employees will be hired locally and reside in communities close to the Project. This is expected to generate local spending from these individuals. PRGT will also make contributions to communities along the pipeline to support health and wellness, education and the environment, and initiatives that support healthy communities for PRGT employees.

### 7.2 SOCIAL EFFECTS

### 7.2.1 Land Use

The Park is divided into four management zones based on resource values, existing activity, and environmentally or culturally important areas:

- Wilderness Recreation the objective of this zone is to protect remote, undisturbed natural landscapes and to provide backcountry recreational opportunities which are dependent on a pristine environment.
- Cone Special Feature the objective of this zone is to protect and present the rare, fragile, and nationally significant natural features found in the volcanic cone area.
- Natural Environment the objective of this zone is to protect natural and cultural heritage values, to provide a management buffer and access between the Nisga'a Highway corridor and the Wilderness Recreation and Cone Special Feature zones, and to provide for seasonal snowmobile use along an alpine ridge on the border of the park.
- Intensive Recreation the objective of this zone is to provide for a variety of readily accessible, facility-oriented recreation opportunities.

The PRGT proposed route through the Park was chosen to avoid management zones of special consideration and to stay within an area with existing infrastructure development. The Project is contained within the Natural Environment Zone, paralleling the Nisga'a Highway for most of its route through the Park, minimizing the overall impact on the Park.

### 7.2.2 Community Infrastructure and Services

Park infrastructure that may be affected directly or indirectly by the Project include the Nisga'a Highway, campgrounds and associated facilities, hiking trails, and the Nisga'a visitor centre.

During construction, access to Park facilities and outdoor recreational areas will be maintained through open/controlled access on existing Park roads. Traffic delays or short-term road closures related to the Project may be experienced along the Nisga'a Highway, where Project construction will be directly adjacent to the Nisga'a Highway. Effects on access, however, would be short-term, and could possibly be staged to avoid periods of peak Park use.

PRGT is proposing Park enhancements that will be developed with input from BC Parks, NLG and other stakeholders. Further details will be provided in the Stage 2, pending acceptance of this Stage 1 application.

#### 7.2.3 Visual Aesthetics

The Project will cross a variety of landscapes that have visual aesthetic values. Presently, visitors traveling on the Nisga'a Highway through the Park can observe various features of the lava bed directly from their vehicles.

The Park features several high quality visual amenities including K'alii Aksim Lisims (Nass River) and surrounding mountains, sections of the Ksi Sii Aks (Tseax River), and the upper Crater Creek Valley. Maintaining views within and looking outside the Park boundaries is an important objective of the Nisga'a Memorial Lava Bed Park *Master Plan* (Joint Nisga'a/BC Parks Committee 1997).

Key viewing areas identified through consultation will be considered during a visual impact assessment. Project development will necessitate the presence and operation of equipment and construction activity within the Park. The proposed Project construction area will be visible to Park users travelling the Nisga'a Highway.

During operation, there will be limited maintenance activities along the Project route and vegetation regrowth will be limited to shrubs and small trees. There will be visual impacts related to construction and operation of the Project; however, PRGT is proposing to align the Project ROW adjacent to existing linear features to concentrate visual impacts within a common corridor. The effects will be primarily during construction. Specific mitigation measures will be discussed with NLG and BC Parks.

### 7.2.4 Cultural and Heritage Resources

As described in the *Master Plan*, the Park serves as a memorial for over 2,000 Nisga'a who lost their lives during a volcanic eruption. The Park is of cultural and spiritual importance to the Nisga'a Nation, rich with cultural and heritage features including many provincially recorded archaeological sites. These include subsurface lithic sites, historical buildings, human burial sites, culturally modified trees and non-*Heritage Conservation Act* protected sites such as the Zolzap Pits.

The Project route through the Park will take into account the location of these known archaeological and heritage features to minimize the potential effects on these features. Where impacts cannot be avoided, appropriate mitigation measures will be developed in consultation with NLG, BC Parks and the Archaeology Branch of the Ministry of Forests, Lands and Natural Resource Operations. Appropriate permits would be obtained, if disturbance of archaeological sites is required. PRGT recognizes that encountering archaeological sites may result in a re-route or detour to avoid disturbances, as per the *BC Heritage Conservation Act*. PRGT will employ

"chance-find" procedures with all field personnel and Nisga'a cultural monitors to observe the construction activities within the Park.

### 7.3 ENVIRONMENTAL EFFECTS

### 7.3.1 Water Quality

The Park lies within the Ksi Sii Aks (Tseax River) watershed and within the Nass River floodplain southwest of Ksi Sii Aks. Protection of water quality during construction will be a key priority as the Tseax River watershed is important to the local drinking water supply and a core value identified in the *Master Plan*.

Water resources have been carefully considered by PRGT in consultation with NLG during Project routing discussions. The proposed route through the Park was selected as it avoids the need for multiple crossings of the Nass River to the north of the park, and also avoids multiple watercourses within the community watershed of Gitxyon Creek and water supply to the south.

Water quality in watercourses crossed by the proposed route will be maintained throughout construction through various techniques, including stream crossing techniques and erosion and sedimentation control measures that are well known and well documented to address these environmental concerns.

The mitigation measures applied to protect fish and fish habitat (see Section 7.3.2) will also serve to protect water quality.

### 7.3.2 Freshwater Aquatic Species, Fish and Fish Habitat

Fish and fish habitat are found in Ksi Sii Aks, Ksi Sii Aks overflow, Vetter Creek, Ksi Ts'oohl Ts'ap and the Ts'oohl Ts'ap Slough. These watersheds provide suitable habitat for salmon, steelhead, and trout. Ksi Sii Aks provides habitat for all five species of Pacific salmon as well as Steelhead. Ksi Ts'oohl Ts'ap also provides habitat for Coho, Pink and Sockeye salmon, as well as Steelhead.

The proposed route crosses two watercourses within the 12.07 km of the Park: Ksi Sii Aks, and a first order tributary to Ksi Ts'oohl Ts'ap.

The potential effects of Project construction on aquatic species and habitat are well known and understood. These potential effects may arise during construction of watercourse crossings or through erosion on the ROW, and include the deposition of sediment into watercourses, temporary disturbance of species present at crossings and potential disturbance to fish habitat. Mitigation of these effects will be addressed through various techniques, including stream crossing techniques and, erosion and sedimentation control measures that are well known and well documented to address these environmental concerns. These mitigation measures will be tailored to specific locations, approved by regulatory authorities where required, and described in the

environmental assessment and environmental protection plans. If the potential effects cannot be fully mitigated a compensation plan would be implemented to offset those effects. The compensation plan would be developed in consultation with NLG, BC Parks and Fisheries and Oceans Canada.

### 7.3.3 Vegetation and Wetlands

Vegetation is an important feature of the Park and contributes to its overall visual and recreational attraction. The Park contains four biogeoclimatic zones (Mountain Hemlock, Interior Cedar, Coastal Western Hemlock and Alpine Tundra). There are many examples of old tree species (e.g., hemlock, Sitka spruce, and western red cedar) and rare associations of moss and lichen communities have colonized the lava beds.

PRGT will undertake vegetation surveys to identify any species of special conservation status or communities of special concern, and mitigation measures and plans will be formulated to minimize disturbance to vegetation communities.

The Park also has a limited number of wetlands that support wetland vegetation communities and a diverse bird population. The proposed route has been selected to avoid these areas.

### 7.3.4 Wildlife

Wildlife species known to exist in the Park include mountain goats, moose, American martens, blacktail deer, grey wolf, grizzly bear, black bear, fisher, waterfowl, forest birds, raptors, and western toads. Wildlife viewing is a popular recreational opportunity that often enhances the experience of park visitors. One of the Park objectives with respect to wildlife is to maintain and protect the natural diversity of wildlife species and populations, as well as to protect and reverse the deterioration of critical habitats.

While most species will alter their movement patterns to avoid construction areas, some may be attracted to the site. PRGT will implement specific management practices on handling of potential wildlife attractants (i.e., garbage) to minimize the effects of the Project. Potential changes to wildlife movement patterns during construction activities will be short-term and reversible.

Operation of the Project may affect wildlife and wildlife habitat through an increase in linear features and periodic maintenance activities. However, the alignment of the proposed Project ROW is adjacent to existing linear features to concentrate potential effects within a common corridor.

To eliminate or reduce potential adverse effects on wildlife and wildlife habitat, mitigation measures will be proposed in consideration of the Management Plan,

consultation with NLG and BC Parks (and other government agencies as needed), and the use of best management practices.

### 7.3.5 Landforms, Terrain and Soils

The Nisga'a alkali basalt flow is one of the youngest and most accessible volcanic features in BC. Natural geologic features of the Park that warrant special management consideration includes hornitos, tree moulds, fissure caves and vents, and volcanic cones. The natural geological features of the Park that have been identified as significant have been avoided by the proposed route. Additional landforms identified through field surveys will be considered during detailed routing and consultation with NLG and BC Parks.

### 7.3.6 Atmospheric Environment

During Project construction, air emissions will primarily be associated with ground transportation, vehicular traffic, and operation of heavy machinery. Also, land clearing or stripping could result in an increase in dust which may affect local air quality for the short term. Potential receptors to nuisance air emissions include Park visitors and staff, local residents and communities.

Construction activities are expected to be short-term and transient in nature, and environmental effects will be minimized through the use of best management practices and environmental protection measures known to effectively mitigate potential effects on the receiving environment (e.g., well-maintained equipment and reducing idling).

During Project operation, emission sources would be limited to ROW maintenance activities.

#### 7.3.7 Acoustic Environment

Noise emissions during the Project construction will be largely associated with construction equipment, machinery, trucks and other site traffic. There is also a limited possibility that some controlled blasting might be required. Noise will be short-term, isolated, and localised. Potential receptors to increases in noise include Park visitors, staff, local residents and wildlife. Where appropriate, best management practices and environmental protection measures known to effectively mitigate potential effects of noise will be implemented to reduce or avoid effects to the acoustic environment.

During Project operation, access to the pipeline via the Nisga'a Highway will occur and periodic maintenance work will result in noise levels similar to those associated with typical highway traffic.

### 8.0 KNOWN COMMUNITY GROUPS WITH INTERESTS IN THE AFFECTED AREAS

The Park is located within the Nass Area and the Nass Wildlife Area. PRGT, to date, has been consulting primarily with the Nisga'a Nation. In addition, based on preliminary research and discussion with BC Parks, PRGT has identified the following list of suggested groups for consultation with respect to the proposed boundary adjustments:

### Permit holders within the Park:

- BC Hydro Power Authority
- Coast T'simshan Resources Ltd.
- NW Escapes Ltd.
- Peter Haghan
- Gunter Zweifler
- Skeena Valley Snowmobile
- Environment Canada
- Milligan Outfitting Ltd.

### Others groups for consultation potentially include:

- Canadian Parks and Wilderness Association (CPAWS)
- Nass Valley Tours
- Nisga'a Commercial Group of Companies (includes Nisga'a Fisheries Ltd., Lisims Forest Resources LLP, enTel Communications Inc.)
- Nass Area Enterprises Ltd.
- Nass Area Properties Ltd.
- Vetter Falls Lodge
- Terrace Chamber of Commerce
- Terrace Information Centre

PRGT is committed to identifying and consulting with any other groups, businesses or individuals recognised as having an interest in the Park, through public consultation events and advertising, before submitting a Stage 2 (Detailed Proposal), including recreational guides, outfitters and tenure holders.

### 9.0 ANTICIPATED PROJECT SCHEDULE

The anticipated schedule for the Project is as follows:

- Project announced by TransCanada January 9, 2013
- Project Description filing to initiate provincial environmental assessment process
   May 2013
- Submission of Application for Environmental Assessment Certificate to BC Environmental Assessment Office - March 2014
- BC OGC application March December 2014
- Receipt of key regulatory approvals Late 2014
- Project Construction and Commissioning:
  - Commence Construction Early 2015
    - Pre-Construction (including camps, storage yards, clearing, access and ROW preparation) - Early 2015 to mid-2017
    - Mainline Construction (including pipeline, compressor stations and meter station) - Late 2015 to 2018
  - Commissioning Late 2018
- In-Service Late 2018

The timing of these activities is critical to allow the province and country to take advantage of the opportunity presented by the LNG industry. The Project schedule reflects the need to meet this opportunity promptly.

### **Appendices Contents**

APPENDIX A	PROJECT ROUTE OVERVIEW
APPENDIX B	PARK ROUTE AND ALTERNATIVES
APPENDIX C	PROPOSED PROJECT ROW

Appendix A Project Route Overview

Appendix B
Park Route and Alternatives

Appendix C Proposed Project ROW

# Attachment 3: Staff Summary of Prince Rupert Gas Transmission's Stage 1 Proposal for a Boundary Adjustment at Anhuluut'ukwsim Laxmihl Angwinga'Asanskwhl Nisga'a (a.k.a. Nisga'a Memorial Lava Bed Park)

### Introduction:

Prince Rupert Gas Transmission Ltd. (PRGT) has submitted a Stage 1 boundary adjustment proposal to remove a right of way for a natural gas pipeline through approximately 12.1 kilometres of Nisga'a Memorial Lava Bed Park.

Nisga'a Memorial Lava Bed Park protects approximately 17,781 hectares of old-growth forest, riparian areas, mountain landscapes, and one of the youngest road-accessible lava flows in BC, and is a memorial to approximately 2,000 Nisga'a buried by the eruption of the Tseax Cone. The park is considered a sacred site by the Nisga'a. The park is jointly managed with the Nisga'a and any amendment to the boundaries of the park requires the consent of the Nisga'a Lisims Government.

### **Purpose of Project:**

The purpose of the project is to construct and operate a natural gas pipeline that would run approximately 900 kilometres across BC, from a point near Hudson's Hope, to supply natural gas to the proposed Pacific Northwest Liquid Natural Gas export facility near Prince Rupert. The project, in combination with the proposed Pacific Northwest Liquid Natural Gas facility, is intended to give western Canadian gas producers access to new natural gas markets.

### Project footprint and components:

PRGT has not conclusively determined the final right of way requirements for the project. At this time it is estimated that approximately 60 hectares of park land would be required for the project, consisting of a 50 metre right of way traversing 12.07 kilometres of the park. Of the 50 metre right of way, approximately 32 metres is required for permanent right of way. The remaining 18 metres of right of way is for temporary construction work space and would be rehabilitated following project construction. Some additional workspace may be required at specific sites such as highway crossings.

The proposed right of way would follow the Highway 113 right of way for approximately 10 km of its length. It would diverge from the highway at both the western and eastern ends of the park, where the pipeline would require approximately 2 kilometres of new right of way. Access to the pipeline right of way will be off Highway 113, although some new access trails to the pipeline may be required in specific areas.

Pipeline construction will entail the use of heavy equipment for mechanical trenching (some blasting may be required), assembling the pipeline, placing it in the trench, and backfilling the trench over the pipeline. The pipeline may, although PRGT considers it to be unlikely, require the installation of above-ground power lines to supply electricity for the cathodic protection system during pipeline operation.

The proposed route is confined to the Natural Environment Zone of the park as identified by the Park Master Plan. Objectives of this zone are to protect natural and cultural heritage values, to provide a management buffer and access between the highway corridor and the Wilderness Recreation and Special Feature Zones.

### Preliminary description of economic, social and environmental impacts and benefits:

### **Economic**

PRGT reports that the project will support the development of the upstream natural gas industry in B.C. Total expenditures on the project are estimated by PRGT at \$5 billion, which is estimated to create approximately 7,575 person years of employment during construction. An estimated 70 permanent jobs will be created during project operations.

### **Environmental**

The project as proposed does not appear to have any environmental benefits for the park. PRGT reports that impacts that may be associated with this project include: loss or alteration of vegetation communities from clearing of right of way, reduction in wildlife habitat for some species and disturbance to wildlife during construction, modification of natural hydrological regimes, loss or alteration of fish habitat and modification of a portion of the lava beds in the park.

During the operations phase, vegetation on the permanent right of way will be managed to prevent the re-establishment of mature timber. In forested areas of the park, this will result in a permanently altered vegetation community on the right of way.

In addition, the proposed right of way passes through the lava fields that are a major feature of the park for approximately 11 km of its length. The Park Master Plan references rare associations of moss and lichen communities growing on the lava fields. An objective of the Park Master Plan is to preserve special sensitive and rare native plant communities and species, including the sensitive lichens, mosses and liverwort communities associated with the lava bed.

### Social

Park users will experience increased traffic and noise during the construction period due to the presence of a large number of workers and heavy machinery. Access to important visitor use areas such as the campground and the visitor center will be maintained during construction.

There are two significant trails (one along the Tseax River that is maintained by BC Parks staff, and one crossing the lava bed to access the Nass backchannel) that are used by recreational fishermen, hikers, and commercial angling guides that would have the quality of their experience impacted by the proposed pipeline route and associated construction. These trails are used by approximately 1600 park visitors per year during the period of July-November (the recreational fishing season).

Post construction, the visual landscape for the park visitor will be permanently altered by the presence of the pipeline right of way.

PRGT has committed to develop a package of project mitigations and park benefits in consultation with BC Parks and the Nisga'a Lisims Government. This would be specified in the Stage 2 boundary adjustment application.

### Preliminary assessment of alternatives that would avoid the use of protected lands

PRGT identified two route alternatives that avoid Nisga'a Memorial Lava Bed Park. The first of these routes passes to the north of Nisga'a lands to Alice Arm. This option has not been eliminated from consideration by PRGT.

The second alternative route identified by PRGT passes to the north of Nisga'a Memorial Lava Bed Park along the north side of the Nass River. PRGT does not prefer this alternative because it requires two crossings of the Nass River, which PRGT reports is a drinking water source for the Nisga'a community of Gitwinksihlkw. PRGT also advises that the size of the required crossings of the river is considered to be at the limits of current horizontal directional drilling technology.

PRGT reports that Nisga'a citizens raised concerns with this alternative route because it passes through areas important to the Nisga'a for harvesting mushrooms. Removing the tree canopy in some areas along the right of way could have adverse effects on mushroom production, which is culturally and economically important in the area.

BC Parks staff review notes that PRGT's preferred route through the park crosses 4 tributaries to the Nass River upstream of Gitnwinksihlkw, and that negative impacts to the water quality of these tributaries would also affect the Nass River and Gitwinksihlkw just downstream. BC Parks staff and the Joint Management Board feel that the route north of the Nass River warrants further consideration, and that if directional drilling is not feasible, the proponent could consider alternative construction techniques, such as an aerial crossing of the Nass River, although it is recognized that there may be social and cultural reasons that this option may not be preferred.

PRGT also considered an alternative route to the south of the preferred route, which also would require the use of lands in Nisga'a Memorial Lava Bed Park, but which would traverse less of the lava fields. This route is not preferred by PRGT because it could impact sensitive wetlands and high value fish habitat, and has the potential to disrupt an important cultural site. There is also a steep rock face on this route that PRGT believes would be technically difficult to construct a pipeline across. BC Parks staff agree that this route would not be preferred.

# Status of discussions with First Nations and local governments potentially affected by the project

PRGT has had discussions with the Nisga'a Nation about the proposed amendment to the boundary of the park. The Nisga'a Lisms Government wrote to BC Parks on January 27<sup>th</sup>, indicating that they have not determined at this time whether to support a boundary amendment, but that they do not oppose PRGT submitting the Stage 1 boundary adjustment proposal.

The Joint Management Board has recommended that PRGT be requested to submit a Stage 2 boundary adjustment application. The Board notes that the park, including the proposed pipeline right of way, is of extremely high cultural significance. The Board has identified a number of matters that should be addressed further in a Stage 2 application, including further detail on alternatives that would avoid the park, information on how the importance of the park for recreation and tourism may be affected, proposals for mitigation for the effects of the project and the potential for the project to contribute benefits to the park.

PRGT has also had discussions with the Regional District of Kitimat Stikine (RDKS), whose boundary includes the park. RDKS elected officials have not taken a formal position on the park boundary amendment. Staff with the RDKS have indicated they will likely defer to the Nisga'a Lisims Government on this issue.

### Status of discussions with community groups with an interest in the protected area

PRGT has not initiated broader public or community consultation on the proposed boundary adjustment, but has identified a list of stakeholders who would be contacted if a Stage 2 proposal is invited.

### Known environmental issues (e.g. species at risk impacts, fish habitat)

BC Parks staff report that the park is home to a wide range of wildlife, which includes, among others, Mountain Goat, Moose, Grey Wolf, Grizzly Bear (blue-listed<sup>1</sup>), Black Bear, Fisher (blue-listed), Wolverine (blue-listed), Western Toad (blue-listed), Northern Goshawk (blue-listed), American Marten and Black Tailed Deer.

The Tseax River is a major wildlife travel corridor and habitat for grizzly and black bears, as well as migratory birds and raptors. These species are sensitive to disturbance. Disturbance from industrial activities can displace bears and other species from prime habitats and change feeding and travel routines.

PRGT's preferred route through the park crosses four watercourses: the T'seax River, two branches of Vetter Creek (with potential for subterranean flow and fish passage to the Nass River) and Zolzap Creek. The Tseax River, Zolzap Creek and Vetter Creek have known significant fisheries values. All six species of Pacific salmon (including steelhead) as well as coastal cutthroat trout and Bull trout (blue-listed) are found within these systems. Zolzap Creek has significant rearing habitat for Coho salmon. Zolzap Creek Coho salmon are of concern due to low marine survival rates in recent years. Tseax River sockeye and chum salmon stocks are depressed and the proposed pipeline may have potential impacts on these species.

Invasive plants such as Yellow hawkweed and spotted knapweed occur within the highway right of way and on the lava – disturbance to soils can act as a vector for the spread of invasive plants.

<sup>&</sup>lt;sup>1</sup> Blue-listed species are species of special concern for management

The BC Conservation Data Center does not contain records of any endangered species or ecological communities along the proposed pipeline right of way. However, it is important to note that this may reflect a lack of inventory data, rather than the absence of these species.

### Anticipated project schedule.

TransCanada hopes to obtain all key regulatory approvals by late 2014. PRGT's project is being reviewed through the BC environmental assessment process. PRGT expects to file an application for an environmental assessment certificate in spring 2014. Construction of the pipeline would begin in early 2015 and continue through to late 2018.

Pages 98 through 99 redacted for the following reasons: s.16

### MINISTRY OF ENVIRONMENT MEETING INFORMATION NOTE

February 7, 2014 File: 280-20/BN

CLIFF/tracking #: 200391

PREPARED FOR: Honourable Mary Polak, Minister of Environment

**DATE AND TIME OF MEETING: TBD** 

**ATTENDEES:** Minister Polak, Doug Caul, Wes Shoemaker and Stephen Brown, President of Chamber of Shipping of British Columbia

ISSUE: Domestic Shipping in Western Canada/Marine Spill Response

### **BACKGROUND:**

The BC Chamber of Shipping is a not-for-profit trade association representing ship owners, operators and agencies conducting business in Western Canada, including international and domestic ship owners, BC Ferries, cruise lines, among others. There are two membership categories and subscribers. The voting membership is comprised of the principal membership owners, operators and agencies. The associate members are non-voting and include ports, lawyers, insurers, classification societies, surveyors and other industry service providers.

The Chamber of Shipping is one of several maritime industry associations (including the BC Council of Marine Carriers and the BC Coast Pilots Association) who anticipate potential new employment opportunities for their members as a result of natural resource development proposals. This includes mining and pipeline proposals and the associated port developments on the north coast.

These organizations are concerned that the current state of spill preparedness and, in particular, the marine spill regime in Canada, may put some of the proposed developments at risk and thus limit job growth in their sector. The organizations previously expressed a desire to work with the provincial government to lobby the federal government to enhance the marine spill regime in Canada and the Chamber of Shipping has supported the Province's efforts to make changes to federal requirements.

Jurisdiction for marine spills and their impacts is complicated by the division of constitutional powers in Canada and the various levels and agencies of government that have enacted specific legislation that governs shipping, environment, wildlife, etc. The federal government has constitutional authority for navigation and shipping, whereas both the province and the federal government have shared authority over the environment. The province has authority for the management of provincial lands and natural resources.

### **DISCUSSION:**

The Environmental Emergencies and Land Remediation Branch has been working for over a year to develop a world class land based spill preparedness and response regime for BC. For the marine environment, the Province has received and published the results of its eight-month, three-volume *West Coast Spill Study* by Nuka Research to assess the current regime and suggest how it can become world class. The Province will employ this study to advocate for changes to federal requirements, building on the Province's submission to the federal government's Tanker Safety Expert Panel, which presented its first report on Canada's ship-source oil spill preparedness and response regime to the federal government in November 2013.

### **SUMMARY:**

The government of British Columbia has a significant opportunity to strengthen its current jobs and development agenda by demonstrating to the public, through the passage of new spill legislation, that the province is mitigating the increasing spill risk by ensuring both the province and industry are adequately prepared and a true polluter pay system is in place.

S1.2

Contact:
Jim Standen, ADM
Environmental Protection
Division
250-387-1288

Alternate Contact: Jim Hofweber, ED Environmental Protection Division 250-387-9971 Prepared by: Graham Knox, Director Environmental Emergency Program 250-356-8383

Reviewed by	Initials	Date
DM	WS	Feb 18/14
DMO	VJ	Feb 14/14
EPD ADM	JS	Feb 11/14
Director, EMB		
Mgr, EEP		

# MINISTRY OF ENVIRONMENT INFORMATION NOTE

February 7, 2014 File: CLIFF #: 200396

PREPARED FOR: Honourable Mary Polak, Minister of Environment

**ISSUE:** Changes have been made to the sections of the *Water Sustainability Act* draft bill that were reviewed by Legislative Review Committee on January 28, 2014.

**BACKGROUND:** 

s.12, s.13

**DISCUSSION:** 

s.12, s.13

51.2, S.13

### **NEXT STEPS:**

51.2, S.13

**Alternate Contact:** 

Contact: Mark Zacharias Environmental Sustainability and Strategic Policy Division (ESSPD)

Lynn Kriwoken ESSPD Water Protection and Sustainability Branch 250-356-0121 250-387-9446

Prepared by: Tina Neale Water Protection and Sustainability Branch

250-356-8878

Reviewed by	Initials	Date
DM	WS	02/11/14
DMO	VJ	02/11/14
ADM	MZ	02/07/14
Dir./Mgr.	LK	02/07/14

Page 103

# MINISTRY OF ENVIRONMENT INFORMATION NOTE

Date: February 13, 2014

File: 280-20

Reference: 200415

PREPARED FOR: Honourable Mary Polak, Ministry of Environment

ISSUE: Revisions to, and finalization of, Wolf Management Plan

### **BACKGROUND:**

The Ministry of Forests, Lands and Natural Resource Operations (MoFLNRO) and the Ministry of Environment (MoE) jointly released a Draft Wolf Management Plan for British Columbia for public consultation in November 2012. The wolf plan is considered a key policy document for addressing outstanding issues with respect to reducing wolf predation on livestock and wildlife threatened by wolf predation. Wolves are listed in Appendix II of CITES and British Columbia needs to justify a "non-detriment finding" in the management plan to ensure continued commercial trade in this species. This non-detriment finding is a crucial aspect of the Management Plan and is prepared by the Ministry of Environment.

### **DISCUSSION:**

Contact:

Ted Down

Conservation Science

Section

250 387 9715

**Alternate Contact:** 

Dave Fraser

Conservation Science

Section

250 387 9756

Prepared by:

Rich Weir

Conservation Science

Section

250 356 8186

Reviewed by	Initials	Date	
DM	WS	Feb 18/14	
DMO	VJ	Feb 18/14	
ADM	MZ	Feb 17/14	
Dir./Mgr.	TD	Feb 14/14	
Author	RW	Feb 13/14	

# MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS INFORMATION NOTE

Date: February 14, 2013 File: 280/20 – BN

CLIFF/tracking #: 195301

**PREPARED FOR:** Honourable Steve Thomson, Minister of Forests, Lands and Natural Resource Operations.

**ISSUE:** A review of the public comment period for the Draft Management Plan for Grey Wolf (*Canis lupus*) in British Columbia.

### **BACKGROUND**

The Ministry of Forests, Lands and Natural Resource Operations and Ministry of Environment has a mandate to develop species management plans for species listed in the Convention on International Trade in Endangered Species (CITES) which includes the Grey Wolf. A species management plan summarizes the best available science-based information on biology and threats to inform the development of a management framework. Management plans set goals and objectives, and recommend approaches appropriate for species or ecosystem conservation.

The Draft Management Plan for Grey Wolf (*Canis lupus*) in British Columbia was developed between 2011-2012. Environmental Land Use Committee direction was that the plan be posted for public comment prior to finalization. The management plan was posted on the Ministry's website on November 14, 2012 and was available for review and comment for a three week period, until December 5, 2012. The Government Communications and Public Engagement section released an Information Bulletin on November 14, 2012 (Appendix I) regarding the issue.

### DISCUSSION

The Ministry of Forests, Lands and Natural Resource Operations received over 3000 comments, emails and pieces of correspondence regarding the plan during the comment period. The Ministry is continuing to receive correspondence about this issue and other related wolf issues in British Columbia. Below is a summary of the correspondence received during the comment period. Please note that these are approximate numbers.

Correspondence Unit	541	
Fish & Wildlife Section	2580	
	<ul> <li>Support</li> </ul>	556
	Plan:	
	<ul><li>Do not</li></ul>	957 direct comments
	Support	665 <sup>+</sup> public campaign/auto-generated
	Plan:	
	• Uncertain:	110
	• Other:	292

Total 3121

Those comments that obviously supported or did not support the plan went into those appropriate categories. A number of comments made specific reference to parts of the plan that they supported and did not support, and those were placed in the uncertain category. Approximately thirty of the comments were received that were extremely abusive and these were placed in the other category. The remainder of comments in the other category (approx. 260) were messages that were, according to a website consultant, sent via a computer hack/virus program. These messages were all received over a couple of hours before the comment period ended and had the same messages repeated multiple times.

### Public Comments Against the Draft Plan

Most of the comments against the plan did not agree with the culling of wolves for any reason. A small number of individuals agreed that culling may be necessary to protect endangered species, but not for agricultural/ranching predator control. In regards to endangered species management, there were many comments about the need to reduce habitat loss and human encroachment before the problem gets to the point where culling of predators should be considered.

Over 665 public comments were generated through either a public campaign or an autogenerated petition site. A number of organizations initiated a public campaign requesting that correspondents include the following in their comments on the plan:

- 1. Extend the deadline for public input to January 30, 2013.
- 2. Set aside large areas of the province where wolves are protected from any killing, so that wolves can develop natural packs and behaviour, which will provide benchmarks for scientific research and as areas where people can watch wolves.
- 3. No helicopter killing of wolves.
- 4. No leg hold traps or snares.
- 5. By the draft Plan's own admissions, 11 years of killing wolves to save caribou have not increased caribou populations. These programs have failed and should be stopped.
- 6. The government has acknowledged that the chief reason for Mountain Caribou decline is loss of habitat. A secondary reason is snowmobiling and heli-skiing in winter habitat. To save caribou the government should 1) stop logging old-growth forest in mountain Caribou range, 2) ban snowmobiles from winter range (current bans are inadequate and not enforced), and 3) obliterate roads built in caribou range to prevent easy access by predators.
- 7. Return to former species license, quotas, bag limits, restricted seasons, and mandatory reporting of kills for hunting wolves.
- 8. Continue government programs for compensating ranchers for losses to wild predators.
- 9. Fund an adequate Conservation Officer Service. The Conservation Officer Service should not partner with vested interest groups such as ranchers.
- 10. Practice prevention by providing education and incentives to improve protection with fences, guard dogs, shepherds, etc.

Many of these comments were also stated in various forms by others, including individuals, organizations and stakeholders. With respect to the request for extending the public input deadline, Government Communications and Public Engagement has responded to the media requests that it is "confident the consultation period was sufficient to allow all interested parties an opportunity to provide feedback, and will not be extending the consultation".

### Public Comments Supporting the Draft Plan

Many of the comments supporting the plan were from residents that have seen an increase in wolf numbers and predation throughout parts of B.C. over the past decade. Comments were received from a wide range of people including hunters, trappers, ranchers, farmers and land owners. Concern about predation included comments about the reduced number of ungulates available for hunting opportunities, as well as concerns about predation on domestic livestock.

There were a number of comments from trappers that were in favour of the plan. However, they wished there was more emphasis on utilizing trappers to control wolf populations by offering financial incentives to trap wolves.

### Stakeholder Comments

The Ministry also received correspondence from a number of stakeholders and organizations, including:

Guide Outfitters Association of BC BC Cattlemen's Association Nisga'a Lisims Government BC Environmental Network Raincoast Conservation Foundation BC Trappers Association Skeena Stockman's Association BC Wildlife Federation Canadian Parks and Wilderness Society Ulkatcho Band United Sportsmen's Association David Suzuki Foundation Valhalla Wilderness Society Fraser River Coalition WildCanada Conservation Alliance Grasslands Conservation Council of BC

While staff is not responding directly to individual emails and electronic comments (as stated on the public comment webpage), the letters and emails from these organizations may be responded to directly.

A common theme throughout these letters was that stakeholders and organizations wished to be consulted on the process of creating wildlife management plans in BC, prior to their release to the public. Beyond that, the comments were polarized and generally consisted of those organizations that agreed with the plan and those that didn't.

There were a number of responses from the public and from organizations that expressed concern about the supporting science for the plan. A number of comments were made about the lack of data, the use of out-dated analysis methodologies and a bias towards management for species control and not for conservation. Some that agreed with the plan felt that the population numbers were too conservative and that more government resources should be used to collect better data. Some that did not agree with the plan

shared concerns about the lack of data, lack of conservation initiatives and lack of accountability with no bag limits, species tags or reporting.

### NEXT STEPS

£1.2

Attachments: Appendix I: Information Bulletin

Contact Tom Ethier, ADM Resource Stewardship Division 250.356.0972 Alternate Contact Gerad Hales, Unit Head Fish, Wildlife & Habitat Management Branch 250.371.4457 Prepared by
Kate Craig, Sr. Policy Analyst
Fish, Wildlife & Habitat
Management Branch
250.387.9789

Reviewed by	Initials	Date
DM	DK	Feb 25/13
DMO	JG	Feb 22/13
ADM	TE	Feb 20/13
Exec. Dir.	DN	Feb 18/13
Director	AW	Feb 14/13
Manager	GH	Jan 25/13
Author	KC	Jan 25/13



# INFORMATION BULLETIN

Ministry of Forests, Lands and Natural Resource Operations 2012FOR0210-001774 Nov. 14, 2012

# Wolf management plan released for public comment

VICTORIA – The Ministry of Forests, Lands and Natural Resource Operations today released the province's draft wolf management plan, inviting public comment on its contents until Wednesday, Dec. 5, 2012.

The plan proposes a balanced approach to wolf management in B.C., which ensures a self-sustaining population where wolves can fulfil their ecological role, and meet the cultural, recreational, and economic needs of society.

The B.C. government is committed to ensuring sustainable wildlife populations and healthy predator-prey relationships throughout the province. The government is also committed to helping stakeholders, ranchers and First Nations manage the impacts of wolves on livestock and protecting endangered species.

The plan indicates wolf populations are likely stable or increasing across the province and are not considered an 'at-risk' species. The current wolf population estimate is approximately 8,500 which is similar to an earlier estimate of 8,100 in 1991.

The draft plan will be open to public comment until Dec. 5 at <a href="http://www.env.gov.bc.ca/fw/public-consultation/grey-wolf/">http://www.env.gov.bc.ca/fw/public-consultation/grey-wolf/</a>. After public comment has been reviewed, the wolf management plan will be finalized.

Species management plans, such as the wolf management plan, summarize the best available science-based information on the biology and threats to the species and inform the development of a management framework. They set goals and objectives, and recommend approaches appropriate for species or ecosystem conservation.

#### **Quick Facts:**

- The wolf is a highly adaptive, intelligent carnivore that inhabits most of British Columbia. Most
  wolves weigh between 30 and 50 kg with coloration varying from nearly pure white to a mixture
  of grey, brown, black and white.
- Wolves feed primarily on large ungulates, supplementing their diet with smaller prey.
- Wolf populations in the Thompson, Kootenay and Okanagan regions appear to be increasing.
   Populations in the Cariboo, Skeena, Omineca and Peace appear to be stable.

#### Contact:

Brennan Clarke Public Affairs Officer Ministry of Forests, Lands and Natural Resource Operations 250 356-5261

Connect with the Province of B.C. at www.gov.bc.ca/connect

# MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS INFORMATION NOTE

Date: November 12, 2013

File: 280/20 BN

CLIFF/tracking #: 202139

**PREPARED FOR:** Honourable Steve Thomson, Minister of Forests, Lands and Natural Resource Operations

ISSUE: Finalization of wolf management plan

**BACKGROUND** 

# DISCUSSION

£1.2, \$1.2

# **NEXT STEPS**

s.12, s.13

Contact

Tom Either, Assistant Deputy Minister Resource Stewardship Division 250.356.0972 **Alternate Contact** 

Andrew Wilson, Director Fish, Wildlife & Habitat Management Branch 250.387.5657 Prepared by

Ian Hatter, Wildlife Manager Fish, Wildlife & Habitat Management Branch 250.387.9792

Reviewed by	Initials	Date
DM		
DMO		
ADM		
Director	AW	Nov 13/13
Manager	IH	Nov 13/13
Author	IH	Nov 13/13

# MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS INFORMATION NOTE

Date: December 10, 2013

File: 280/20 BN

CLIFF/tracking #: 202611 xr: 195301, 202139

**PREPARED FOR:** Honourable Steve Thomson, Minister of Forests, Lands and Natural Resource Operations

**ISSUE:** Potential management tools to reduce wolf predation within agriculture and caribou recovery areas.

## **BACKGROUND**

s.13

## **DEFINITIONS:**

Regulated Harvest – refers to licensed hunting and trapping in accordance with Ministry regulations.

Predator Control – refers to government-sanctioned activities to limit or reduce a wolf population through means other than regulated harvest.

"Wildlife Threatened by Wolf Predation"—refers to any wildlife population that is at risk of becoming extirpated, either now or in the near future due to wolf predation.

#### DISCUSSION:

Pages 115 through 118 redacted for the following reasons: s.13

## **NEXT STEPS**

£1.2

Contact Tom Either, Assistant

Deputy Minister Resource Stewardship

Division

250.356.0972

**Alternate Contact** 

Andrew Wilson,

Director

Fish, Wildlife & Habitat Management Branch

250.387.5657

Prepared by

Ian Hatter, Wildlife Manager

Fish, Wildlife & Habitat Management Branch

250.387.9792

Reviewed by	Initials	Date
DM		
DMO		
ADM		
Director	AW	December 10, 2013
Manager	IH	December 10, 2013
Author	IH	December 10, 2013

# MINISTRY OF ENVIRONMENT INFORMATION NOTE

February 17, 2014 File: 280-30 CLIFF/tracking #: 200516

Previous CLIFF: 195751

PREPARED FOR: Honourable Mary Polak, Minister of Environment

DATE AND TIME OF MEETING: February 19, 2014, 4:30pm

#### **ATTENDEES:**

- 1) Angela Waterman, Vice President Environment and Technical Affairs, Mining Association of BC
- 2) Peter Baird, Senior Public Affairs Advisor, Avanti Mining Inc.
- 3) Harold Bent, Director, Environment, AuRico Gold Inc.
- 4) Chris Brodie, Manager, Environmental Services, Knight Piesold.

**ISSUE(S):** Mining Day at the Legislature.

#### **BACKGROUND:**

The Mining Association of BC represents the collective needs and interests of coal, metal, industrial mineral companies and smelters in British Columbia.

#### **DISCUSSION:**

The mining industry wants to have greater understanding of how the Ministry of Environment will incorporate new water quality guidelines into waste discharge permits, and whether the application of policies and guidelines will be consistent across the province. They also are interested in BC's Climate Action program.

#### Water Quality

A water quality guideline (WQG) is a benchmark which indicates the concentration at which a substance can be expected to produce detrimental environmental effects, and is taken into consideration by the statutory decision-makers under the provincial *Environmental Management Act* in determining whether to issue a waste discharge permit.

Emerging science is pointing to significant environmental challenges facing some existing and proposed mining projects with respect to water quality parameters. Nitrates, sulphate, selenium and cadmium are substances of concern, as well as the consideration of water hardness at the potential effluent discharge site

The Ministry of Environment has been discussing technical aspects of WQG development and consideration of WQG in the mine effluent discharge process with the MABC through a joint industry/Province committee referred to as the Communication Forum. This committee last met on Monday, February 17, 2014. The mining industry remains concerned about the business risks and uncertainties for existing and future mining operations.

#### **Climate Action**

The Mining and Smelting Sector in 2011 reported emitting 2,766,000 tons of CO<sub>2</sub>. The

Mining Climate Action Working Group (MCAWG) includes all of the major companies and operations in this sector in BC. The MCAWG was established in 2008 and has been the main point of consultation for the mining sector on climate and energy policy.

The Mining Association of British Columbia has provided comments and collaborated on the design of the province's climate action program to make certain that BC maintains a competitive environment for mining with a strong economy.

# Linkages with government

B.C.'s mining strategy – called *Seizing Global Demand: British Columbia's mineral exploration and mining strategy* – supports six overarching goals to strengthen our province's mining sector:

- 1. Enhancing B.C.'s competitive edge;
- 2. Streamlining regulatory processes;
- 3. Ensuring the health and safety of B.C.'s workers;
- 4. Protecting the environment;
- 5. Building partnerships with First Nations; and
- 6. Developing a skilled workforce.

The BC Jobs Plan stated that the Government of BC will create eight new mines and expand nine existing mines by 2015.

The B.C. government supports the implementation of updated water quality guidelines in a manner that protects the environment, while maintaining and fostering a thriving, globally competitive mining industry.

The Ministry of Environment is currently working on updating and developing documents that will outline the permitting process and the use of scientific information (including WQGs) in permitting decisions. MABC believes that government should find a balance between environmental protection and economic development.

The Regional Operations Branch, Environmental Protection Division is currently transitioning to a new organization structure. The new structure supports a group of 24 staff who are transitioning into a 'Mining Team' that is focused on processing mine authorizations. The new organization structure was communicated to MABC on February 17 and MABC responded positively to the announcement.

## **SUGGESTED RESPONSE**

S.13

Contact:	Alternate Contact:	Prepared by:
Jim Standen	Jennifer McGuire	Christa Zacharias-Homer
Environmental Protection	Regional Operations Branch	Regional Operations Branch
Div		
<i>250-387-1288</i>	250-356-6027	250-356-8174

Reviewed by	Initials	Date
DM		
DMO		
ADM	JH	Feb 18/14
Dir./Mgr.	JM	Feb 18/14
Author	CZH	Feb 18/14



# **Bullets**

Our Reference: 200513

Dept: EPD

Date: February 19th, 11:15am

To: Honourable Mary Polak

Re: Meeting with MLA Maurine Karagianis re: Sewage Treatment in Victoria

# **McLoughlin Point Wastewater Treatment Plant**

- The McLoughlin Point Wastewater Treatment Plant is the keystone facility for the Seaterra Program and a key component of the approved Liquid Waste Management Plan.
- In order to meet project timelines, construction of the treatment plant is planned to commence in spring 2014; however, since submitting a zoning application to the Township of Esquimalt in January 2013, the Capital Regional District continues to await rezoning of the property at McLoughlin Point.
- On July 22, 2013, the Township of Esquimalt and Capital Regional District each met separately with the Minister of Environment, the Deputy Minister of Environment, and the Minister of Community, Sport and Cultural Development. The Ministers indicated that they expected both local governments to negotiate in good faith and achieve agreement on zoning the site so that the plan may advance.
- Staff from the Capital Regional District and Township of Esquimalt have worked together to develop a revised zoning bylaw. In addition, staff from both local governments have negotiated two additional amenity and mitigation agreements to address concerns expressed by the Township of Esquimalt Council, and by the public at a public hearing in July 2013, in relation to the previous zoning application.
- A follow up public hearing of the revised zoning application has been scheduled by the Township of Esquimalt for February 18, 2014.
- In the event that zoning of the property at McLoughlin Point does not proceed as required for the approved plan to advance, the Minister of Environment may be asked to intervene.

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- On February 11, 2014, the CRD submitted a minor LWMP amendment to address changes related to:
  - o Biosolids processing;
  - o Saanich flow attenuation tank evaluation;
  - o Clover and Macaulay screening facilities; and
  - Seaterra project schedule update to reflect completion by 2018 instead of 2016, to align with funding agreements

# MINISTRY OF ENVIRONMENT INFORMATION NOTE

February 21, 2014 CLIFF # 200511

**PREPARED FOR:** The Honourable Mary Polak, Minister of Environment;

**ISSUE:** Lost business opportunities due to the Agricultural Land Commission's (ALC) restrictions for non-farm use in the Agricultural Land Reserve (ALR).

#### **BACKGROUND:**

The primary concern related to Transform Compost System's letter is non-farm use within the ALR. Ministry environmental legislation (i.e. Agricultural Waste Control Regulation (AWCR) or the Organic Matter Recycling Regulation (OMRR) is a minor secondary concern.

The AWCR allows farms to compost agricultural wastes produced on that farm and then distribute/use the finished compost on other land without restriction. The AWCR also allows farms to receive agricultural wastes from other farms but limits the application of the finished compost to the receiving farm.

If the farmer registers and follows the requirements under OMRR, the finished compost can be distributed off-site without limitation. However, if a farm is within the ALR, the Agricultural Land Reserve Use, Subdivision and Procedure Regulation (ALRUSPR) applies and further restricts that a minimum of 50% of the compost must be used on-site under an ALC permitted use application. Therefore, only a maximum of 50% of the finished compost can be distributed off the farm, which Transform Compost Systems' is stating limits the viability of its business model.

If the OMRR facility is in the ALR and does not meet permitted use requirements under the ALRUSPR, then a non-farm use application must be submitted to the ALC for consideration. The ALC has not typically granted non-farm use for such operations.

#### **DISCUSSION:**

Mushroom farms, greenhouses and poultry operations referenced in Transform Compost's letter are all typically intensive agricultural activities. These farms generally operate on small parcels with no crops to apply the waste as fertilizer or operate a compost facility, therefore the waste must be shipped off-site.

Transform Compost believes that the current MOE environmental legislation and lack of enforcement have caused lost opportunities for their business. To address the mismanagement of agricultural waste, Transform would like to operate an OMRR authorized facility to compost agricultural waste (and possibly MSW) in the ALR under a non-farm use designation that the ALC historically is reluctant to issue.

Several applications have been made to the ALC by Transform and their clients with only 1 non-farm use approved. For the one approval, Transform was in the process of constructing a facility, but was removed by the farm owner. Another composting company now operates a facility. Transform suffered significant financial loss and is currently involved in civil litigation over this issue.

s.13

The AWCR is in the consultation phase of a Regulation amendment.

OMRR has completed the consultation and is in drafting process. .

## **CONCLUSION:**

Transform's main issue is with the ALC and their ALRUSPR restrictions with land use.

As long as the facility registers under OMRR there is no limitation for receiving farm waste or distributing the finished compost. The limitation is the ALC legislation. If the facility does not register under OMRR the AWCR applies and only agricultural waste can be received and the compost must be applied on the receiving farm. Amending the AWCR would not be appropriate, as it only covers agricultural operations.

Attachment: Letter from Transform Compost Systems – January 28, 2014

Contact:Alternate Contact:Prepared by:Jim StandenMargaret Crowley,Trevor HamelinAssistant Deputy MinisterAgriculture Waste SpecialistEnv Protection OfficerEnvironmental ProtectionVictoriaSouth Coast Region250-387-1288250-387-6018604-582-5275

Reviewed by	Initials	Date
DM	-	-
DMO	VJ	Feb 26/14
ADM	JS	Feb 25/14
Dir./Mgr.	JLM	Feb 25/14
Author	TH	Feb 25/14



# **Transform Compost Systems**

turning waste into an opportunity

January 28, 2014

Simon Gibson, MLA 33058 First Ave., Mission, BC V2V 1G3

Dear Simon,

RE: meeting with Honorable Mary Polak, BC Minister for the Environment

Thank you for taking the time to meet with me yesterday regarding concerns about our environmental regulations. I am requesting a meeting with Honorable Mary Polak to discuss our environmental regulations and lack of enforcement of existing regulations that result in:

- 1. Lost opportunities for producing energy and organic fertilizer from agricultural wastes a lost economic and environmental benefit
- 2. Lost opportunities for a locally produced, environmentally friendly organic fertilizer that supports our communities initiatives for local healthy food production and reduced pesticides a lost environmental and social benefit
- 3. increased environmental degradation from unauthorized and unregulated dump sites for the agricultural waste an economic, social and environmental cost

#### I will describe a scenario using the mushroom compost industry as an example:

There is a very successful mushroom industry in the Lower Mainland of British Columbia that produces more than 150,000 tonnes of spent mushroom compost annually. Most of this spent compost either remains on the mushroom production farms or is shipped to unauthorized waste sites on other agricultural properties.

There are at least two economically beneficial opportunities for spent mushroom compost:

- 1. Energy recovery through heat extraction during further composting (energy recovery via anaerobic digestion has been proven to be impractical). Potential energy value at \$ 3.27 per GJ of natural gas is approximately \$ 500,000 per year.
- 2. A natural lawn and garden fertilizer having a wholesale value of approximately \$ 6 million annually.



Figure 1. Demonstrated benefits from an organic fertilizer produced from spent mushroom compost.

Transform Compost Systems Ltd. 3911 Mt. Lehman Rd. Abbotsford, BC V4X 2N1 Phone (604) 856-2722 Fax: (604) 856-8444 Email: info@transformcompost.com Website: www.transformcompost.com

# There are no reasonable options for realizing this opportunity at the present time:

Existing options are as follows:

- 1. Construct a processing facility on the farm this is contrary to Ministry of Agriculture recommendations for disease risk is not recommended.
- 2. Construct a processing facility on another parcel owned or leased by the farm this is not consistent with the Classification of Land as a Farm Regulation, which triggers a contravention of the Agricultural Waste Control Regulation, and the Agricultural Land Reserve Use, Subdivision and Procedure Regulation.
- 3. Apply for a non-farm use on another agricultural property based on recent history, a non-farm use exclusion is not likely to be granted, and properties gaining non-farm use are being used for municipal composting.
- 4. Construct a processing facility on industrial land. Most industrial properties will not allow waste management activities, and the price of land is too high for this to be economically viable.
- 5. Construct a processing facility on First Nations land not a recommended option if activity cannot be legally done on non reserve land.
- 6. Export spent mushroom compost to the US process in Whatcom County lost business opportunity for British Columbia and Canada.

In summary, there are no viable or legal options for the value-added processing of spent mushroom compost. As a result, much of this waste is being exported to unauthorized sites. This concern is not only for the mushroom industry, it also exists for the poultry and greenhouse industries as well.

#### Recommendations

We should focus on our assets and potential opportunities to be gained by developing regulations that work for the farmer and that allow the value of the agricultural waste to be realized. This also requires that:

- 1. All agencies identify and communicate the concern about waste management on unauthorized sites.
- 2. Regulations allow for a legal and viable alternative allow the farms that produce the waste to own, rent or lease another site for agricultural waste processing. There are many abandoned farm sites available, where existing farm yard sites can be used that will not remove additional land from our agricultural land reserve.
- 3. Ensure that regulations are enforced so that no company or farm gains an unfair advantage.

#### **Outcomes**

The best outcome is an agricultural industry that can grow and that we all can be proud of, and an environment that is not being degraded.

I look forward to further discussion on this topic.

ppl

Sincerely,

John Paul, PhD PAg

# MINISTRY OF ENVIRONMENT DECISION NOTE

February 24, 2014 File: CLIFF/tracking #: 200512

PREPARED FOR: Honourable Mary Polak, Minister of Environment

**ISSUE:** Proposed Memorandum of Understanding between Ministry of Environment and the First Nations Leadership Council.

#### **BACKGROUND:**

In June 2013 the First Nations Leadership Council (FNLC) wrote to Minister Polak to congratulate her on her new appointment as Minister of Environment and to express the Council's ongoing water-related concerns, including its desire to enter into a *Memorandum of Understanding* (MOU) with the Ministry of Environment (Attachment 1). The letter reflects similar concerns communicated in letters to former Ministers Terry Lake and Murray Coell.

Further to its letter, the FNLC shared a revised draft of the MOU and met with Minister Polak on November 12, 2014. In a November 19 follow-up letter to the Minister, the FNLC acknowledged and confirmed the Minister's "...commitment to to formalizing a political engagement process with the First Nations Leadership Council through a MOU" and indicated that a formalized process will help "...build an effective working relationship and advance a mutual agenda of issues of common concern".

Following the November 12 meeting MOE, MFLNRO and MARR staff reviewed the draft MOU and provided suggested edits to FNLC staff on December 16, 2014. Staff also met with FNLC staff on February 12 to review MOE's comments and discuss next steps. FNLC provided a further draft to MOE on February 20.

#### **DISCUSSION:**

s.13, s.16

<b>OPTIONS:</b>	
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31.2, £1.2

**RECOMMENDATION:** 

81.2, £1.2

DECISION & SIGNATURE
Wes Shoemaker, Deputy Minister
Ministry of Environment

DATE SIGNED

# **Attachments:**

Attachment 1: November 18, 2013 letter from First Nations Leadership Council to Minister Polak and February 7, 2014 response.

Attachment 2: Current draft of the MOU dated February 20, 2014.

Contact:
Mark Zacharias
Environmental Sustainability &
Strategic Policy Division
250 356-0121

Alternate Contact: Lynn Kriwoken Water Protection and Sustainability Branch 250 387-9446 Prepared by: Ian Graeme Water Protection and Sustainability Branch, MOE 250 356-6663

Reviewed by	Initials	Date
DM	WS	
DMO	VJ	
ADM	MZ	February 25, 2014
Dir./Mgr.	LK/IG	February 25, 2014
Author	IG	February 24, 2014

# MINISTRY OF ENVIRONMENT MEETING INFORMATION NOTE

Date: February 25, 2014

File: 280-20/BN

CLIFF/tracking #: 200577

PREPARED FOR: Honourable Mary Polak, Minister of Environment

DATE AND TIME OF MEETING: Tuesday March 4, 2014 at 2:00pm

#### ATTENDEES:

- CropLife Canada represented by Ted Menzies, President, CropLife Canada
- Honourable Mary Polak, Minister of Environment

ISSUE: Proposed changes to the Integrated Pest Management Regulations (IPMR)

#### **BACKGROUND:**

The Ministry recently completed consultation on the following proposed changes to the IPMR:

- People require a licence to use most pesticides on the landscaped areas of private land. This means that, should a person wish to use a pesticide in their backyard, they will need to hire a licenced person to apply those pesticides.
- People may use certain pesticides without a licence. These will be listed in the regulation as a list prescribed by the Minister (Schedule 5 pesticides).
- Vendors must restrict consumer access to pesticides to ensure customers speak with a certified dispenser before purchasing a pesticide.
- Vendors must provide customers with information about laws or bylaws that may govern the use of those pesticides.

CropLife Canada is a trade association representing manufacturers, developers and distributors of pest control products and plant biotechnology for use in agriculture, urban and public health settings. CropLife members represent approximately 98% of the pest control products sold in Canada.

CleanFARMS is a CropLife Canada initiative responsible for recycling empty agricultural pesticide containers. BC Ministry of Agriculture and the Ministry of Environment supports CleanFarms activities in BC .

## **DISCUSSION:**

Key concerns identified by the consultation the about proposed changes to the IPMR are:

- The changes impose additional costs to homeowners.
- Those not willing to incur the costs may obtain and use pesticides illegally.
- Pests may spread from unmanaged gardens to adjacent agricultural operations.
- Invasive plant/invasive weed management will be more costly and less effective.
- Providing an exemption for municipalities will exacerbate the existing patchwork of pesticide bylaws in the province.

- These changes will impact individuals' ability to grow their own food.
- Enforcing the changes will be problematic.
- The changes do not address the desire for a ban.
- Implementing the changes in 2014 is too soon for the following reasons:
  - homeowners will not know about the new licence requirements;
  - vendors will not be able to train their staff in time;
  - there will not be enough licensed service companies to meet homeowner's demand.

CropLife raised the following concerns in a submission to the consultation:

- Dozens of domestic class pesticides will be effectively banned for homeowners.
- The proposal imposes significant costs on business and consumers.
- BC is unfairly targeting a small segment of domestic category while exempting other product categories with more stringent hazard and safety precautions (e.g., wood preservatives and pool chemicals).
- The Government is not using science-based evidence to restrict access to products that are approved for safe use in Canada.

CropLife recommends raising public awareness about the importance of following product label instructions and the importance of integrated pest management techniques instead of licensing. They recommend achieving this through online training courses.

#### **SUGGESTED RESPONSE:**

s.13

Attachment: CropLife's Response to the Intentions Paper

# Contact

Jim Standen Assistant Deputy Minister Environmental Protection Division

Phone: 250 387-1288

# **Alternate/Prepared by Contact:**

Daphne Dolhaine Integrated Pest Management Environmental Standards Branch

Phone: 250 356-0475

Reviewed by	Initials	Date
DM	_	-
DMO	VJ	Feb 27/14
ADM	JS	Feb 26/14
Ex Director	DR	Feb 26/14
Mgr.	DD	Feb 25/14



December 6, 2013

Ms. Cindy Bertram C. Rankin & Associates PO Box 28159 Westshore RPO Victoria, BC V9B 6K8

Dear Ms. Bertram,

Re: CropLife Canada comments on BC's Proposed Revisions to the Integrated Pest Management Regulation

On behalf of Canada's plant science industry, CropLife Canada appreciates the opportunity to provide input into British Columbia's proposed revisions to the Integrated Pest Management Regulation.

CropLife Canada is the trade association representing the manufacturers, developers and distributors of plant science innovations – pest control products and plant biotechnology - for use in agriculture, urban and public health settings. Our member companies have significant business interests in British Columbia and provide valuable tools that are a critical part of the value chain for BC's agricultural, forestry, industrial vegetation and other sectors.

Our industry has a number of issues with the proposed regulatory changes. In addition to being cumbersome and complicated, the proposed approach creates unfair business environments while imposing significant costs on homeowners.

As part of this process, we hope the BC government will anticipate the importance of maintaining a regulatory environment that will foster innovations that provide significant economic, health and environmental benefits to Canadians.

If you have any questions regarding our submission, please contact me at <a href="mailto:petellep@croplife.ca">petellep@croplife.ca</a> or 613-230-9881.

Sincerely,

Pierre Petelle

Vice President, Chemistry



1) Dozens of Domestic class pesticides (minimum of between 60 – 100 products) will effectively be banned for homeowner use.

BC's proposed revisions to the IPMR states:

 Schedule 5 pesticides will be pesticides that the Ministry considers safe for use in outdoor landscaped areas by untrained people.

On the subject of Domestic class products, in response to specific questions from the BC Special Committee on Cosmetic Pesticides, Health Canada's Pest Management Regulatory Agency (PMRA) states:

- Generally, PMRA assumes that homeowners use domestic class products for their intended purpose. Recommendations for personal protective equipment (PPE) and good hygiene practices are provided on the label as guidance to the user in order to further reduce potential exposure. However, the PMRA risk assessments do not assume that homeowners have the same level of training as professional applications. Therefore, products are registered for domestic use (i.e., in and around the home) only if risk is acceptable when no PPE are wom (i.e. while wearing shorts, short sleeved shirts and no gloves). In addition, the PMRA conducts child-specific risk assessments for pesticides that are applied in a residential setting. These risk assessments take into consideration incidental oral exposure to children (toddlers) due to their specific behaviours (hand-to-mouth exposure). (response to Question #8 from BC special committee)
- In addition, as noted in response #8, products are only registered for domestic use (i.e., in and around the home) if risk is acceptable when no PPE are worn (i.e. while wearing shorts, short sleeved shirts and no gloves). In addition, the PMRA conducts child-specific risk assessments for pesticides that are applied in a residential setting. These risk assessments take into consideration incidental oral exposure to children (toddlers) due to their specific behaviours (hand-to-mouth exposure). Therefore, products which are destined for the domestic marketplace are often subject to an increasingly conservative risk assessment methodology. (emphasis added)

### **CropLife Canada comment:**

If the goal of Schedule 5 is to specify pesticides that are considered safe for use in outdoor landscaped areas by untrained people, we would submit that this criterion has already been satisfied by PMRA's Domestic class. Given the fact that all Domestic class products have been assessed specifically for use by untrained homeowners and are considered safe when used according to directions, on what basis is the BC government proposing to segregate Schedule 5 Domestic products from non-Schedule 5? By what criteria is the government proposing to restrict market access to some products and not others, creating an unfair business environment? A quick analysis of affected products shows that several of our member companies would have their products placed at a competitive disadvantage.

Numerous products containing the active ingredient 2,4-D would be affected by this proposed change. Health Canada recently reviewed all the available data for 2,4-D, the most widely used lawn care herbicide. The Pest Management Regulatory Agency concluded that "risks to homeowners and their children from contact with [2,4-D] treated lawns and turf are not of concern. " There are more than 40,000 studies and scientific papers pertaining to 2,4-D. Most importantly, not one regulatory agency mandated with protecting public health identifies 2,4-D as a human carcinogen.



In addition, the timeline proposed to implement any regulatory change is unrealistic given that the supply chain process commences approximately 12 months before product appears on shelves. Sufficient time needs to be provided to allow brandowners, retailers, and consumers to accommodate any regulatory change.

# 2) The proposal makes it clear that is not a safety issue, yet it would impose significant costs on business and consumers

BC's proposed revisions to the IPMR also states:

Some municipalities may decide that they do not want their residents to have to hire licensees
to manage pests that cannot be controlled by pesticides listed on Schedule 5 and may choose
to opt out of the licensing requirement (e.g., by enacting a bylaw).

#### **CropLife Canada comment:**

If the province were truly concerned about the safety of non-Schedule 5 products, on what basis would it allow certain regions to opt-out? Clearly, there are no legitimate safety concerns otherwise the province would not contemplate such an exemption.

Without legitimate health or environmental concerns, the province is merely imposing an unnecessary cost to homeowners who would now be forced to hire services that they had previously done themselves. This will also impose unnecessary cost on retailers to comply and create confusion in the marketplace with different rules for different regions.

Homeowners with backyard fruit or vegetable gardens will be especially disadvantaged by this proposed change. A homeowner with a backyard fruit tree near commercial orchards, for example, is required to control pests on that tree yet will now be forced to engage a service provider at considerable expense. It is highly unlikely that backyard gardeners will resort to these service providers and the reality is one of several things will occur:

- Homeowners will source products through other means (online or from the US), thereby depriving local businesses of the sale. Ontario polling data show an increase in cross-border pesticide purchases after imposition of a ban;
- Homeowners may attempt homemade pesticide solutions (easily found on the internet), with the inherent risks that these untested solutions bring. See Health Canada's warning about homemade pesticides at <a href="http://healthycanadians.gc.ca/environment-">http://healthycanadians.gc.ca/environment-</a> environnement/pesticides/homemade-maison-eng.php;
- Homeowners will abandon their attempts at urban agriculture due to cost and pest problems clearly not a direction that is in anyone's best interests;
- Pests from untreated fruit trees and vegetable gardens will increase and create negative consequences for commercial growers in the area.

This issue is particularly important in B.C. since agriculture and urban landscapes often closely coexist. The legacy of the Agricultural Land Reserve means that in the Lower Mainland, for example, BC has productive farmland coexisting in an urban environment. Many farmers are concerned that a lack of effective weed and pest control on adjacent properties could impact the productivity of farmland. This will be a significant issue well beyond the Lower Mainland with additional interfacing areas in the Peace River Region, Thompson Okanagan and Cariboo.



### 3) BC is unfairly targeting a small segment of Domestic category.

#### **CropLife comment:**

Schedule 2 of the proposed revisions specifically exempts a number of pesticides including wood preservatives and pool chemicals. According to PMRA's 2010 sales summary, of the top 10 active ingredients sold in the Domestic sector, 8 are used for swimming pools and spas and accounted for 91% of the amount sold. It is curious that the BC government would be targeting the much smaller Domestic landscape category, especially when a number of wood preservatives and pool chemicals require much more stringent hazard labelling and safety precautions. It would seem that the BC government is saying that homeowners are able to use these products safely, but not products to help with pest issues on the lawn, their prized roses and shrubs, or to help them grow food in their own backyards.

In addition, removing positive or negative lists from regulation should be a priority in order to allow the government to be more responsive to innovations in the industry. To ensure the best possible outcomes for consumers, environmental protection and economic efficiency, providing ongoing incentive for producers to continue to innovate improved products is of the utmost importance. This is an incentive that is hindered when new or improved products require 'listing' through formal regulatory processes.

# 4) The BC government should follow the recommendations set out by the Special Committee on Cosmetic Pesticides

The BC government appointed a legislative committee called the "Special Committee on Cosmetic Pesticides" to make recommendations regarding the use of pesticides in the province. The Committee report, published in May 2012, made the following conclusions and recommendations:

"Over the course of its inquiry the Committee studied the existing federal-provincial regulatory framework, heard varied opinions from over 8,600 e-consultation participants, and examined bans in other jurisdictions. The Committee concluded that despite the intensity of arguments in favour of a ban on the cosmetic use of pesticides and a general misunderstanding of the risks associated with chemicals, there is insufficient scientific evidence to support a province-wide ban on pesticides for cosmetic use. The majority of the Committee supports using science-based evidence and will not restrict access to products that are approved for safe use in Canada."

CropLife Canada believes that the BC government should follow the clear recommendations of this Committee and not institute the proposed restrictions on products that are approved by Health Canada for use in Canada.



## 5) Solutions - Additional options should be considered.

If the BC government has evidence of consistent homeowner misuse of Domestic pesticides warranting such action, we would welcome you sharing it with us. If this is about raising awareness with homeowners about following label directions and better understanding the principles of IPM, we can help.

#### CropLife Canada recommendation - awareness raising, education:

- Increase public awareness about the importance of Integrated Pest Management techniques where a pesticide is one of many tools that can be used to maintain healthy green spaces.
- Increase public awareness of the importance of following label directions in particular for those products requiring additional handling or mixing instructions – to ensure that end-users will be less likely to use more product than is required, which could not only be harmful, but could also result in unnecessary costs.
- The plant sciences industry would be willing and able to play an active role and provide expertise, materials, etc. to achieve a successful public awareness campaign, in collaboration with government and other stakeholders.
- An online training program might be one effective, measurable way of achieving this. Many
  consumer training requirements are satisfied through the use of online tools, one example
  being the Boater Safety Course and exam. Our industry would be willing to collaborate with
  government and other stakeholders to explore and develop such a tool.



#### Further Background:

Nobody disputes that urban green spaces offer both physical and mental public health benefits, enhance the environment, and contribute to a strong and vibrant economy.

What is often overlooked, however, is that because urban green spaces are living ecosystems, they are subject to insect, weed and disease pressures which sometimes require intervention if the ecosystem is to survive.

Our products are valuable tools that contribute to improved human health and a better environment. Users of our products:

- Offer healthy foods to Canadians and the world's growing population
- Ensure secure energy transmission and safe rights-of-way
- Protect the environment and human health
- Enhance urban spaces which in turn increase levels of physical activity and community pride

CropLife Canada believes integrated pest management is the best approach. In instances where a pesticide is the best option, only thoroughly assessed; highly regulated Health Canada approved products should be used. There is no scientific merit for safety distinguishing between "natural" and synthetic pesticides and calls for bans based on the precautionary principle overlook the fact that Health Canada already employs the precautionary principle before approving our products. To this end, our member companies invest significantly in developing pest control products that are safe and effective tools for keeping pest pressures at a non-threatening level.

We support a strong, science-based regulatory system for all pesticides and our industry ensures proper lifecycle stewardship through world-leading programs.

Canada's plant science industry supports the use of pesticides to address real pest problems. This applies in any setting whether it be forestry, structural, golf, agriculture or lawns and gardens. The use of a pesticide to solve a pest problem in a lawn or garden is certainly not "cosmetic" or "unnecessary", therefore we are concerned about the ongoing characterization of these uses as such.

Pesticides are regulated by Health Canada's Pest Management Regulatory Agency (PMRA). As a branch of Health Canada, the Pest Management Regulatory Agency's primary mandate is protection of human health and the environment.

We are very concerned by suggestions that evidence exists to call into question the safety of pest control products that are judiciously reviewed by Health Canada. If there are groups with information about the unacceptable risks to the environment or human health, then these should be brought to the immediate attention of Health Canada officials for assessment so that all Canadians can be protected.

In response to increasing public concern and some municipal actions, the federal government did - with the support of its provincial counterparts - re-evaluate the eight most widely used lawn and garden products as a priority group beginning in 1999 to determine if further regulation regarding their use and sale was required. As a result, some uses were changed or restricted to further reduce any risk to the user, neighbours or the environment. They also published, again in conjunction with the provinces, a brochure on IPM practices for lawn and garden use.



In 2006 a new *Pest Control Products Act* was brought into force. Canada is highly respected around the world for its rigorous science-based framework and this Act, which is up-to-date on every aspect of scientific risk assessment and evaluation and which takes into account the precautionary principle, is perhaps the most modern pesticide legislation in the world. The new Act has provisions for initiating special reviews, extra safety factors for vulnerable populations and a fully transparent process for reviewing data and evaluation reports upon demand. The modern legislation and related regulations at the federal level are robust and offer many provisions that anyone can avail themselves of if they have concerns about the safety of any product.

Pesticides undergo over 200 separate tests addressing a range of health and environment issues, including cancer risk before a product can be registered. In the end, there is virtually no other product purchased by consumers that has gone through the level of scientific scrutiny and regulatory oversight as pesticides.

In determining which of the products our industry develops should be approved, PMRA bases all assessments on science and the inherent properties of both natural and synthetic chemicals are examined as part of risk assessment.

The reality is that Canada has the most transparent process in the world. All of the data used by the PMRA is open to anyone who wishes to access it. PMRA's Reading Room, located in Ottawa, provides access to all of the research submitted as a part of the assessment process. There you can inspect test data and evaluation reports used to register or amend a pesticide.

Bans that ignore the scientific evidence that existing federal regulations are based on actually jeopardize the health and safety of the very communities governments say they are trying to protect because stigmatization of pesticides will jeopardize all uses and lack of science and predictability will have a major negative impact on innovation.

BC took a leadership position among Canadian provinces when it drafted the current Integrated Pest Management Act in 2003. This forward thinking legislation, when combined with the federal legislation, ensures the proper use of pesticides where they are required while preventing over reliance. There is no evidence that the combination of the federal and provincial acts are failing in their tasks to protect the health of British Columbians.

The usefulness of integrated approaches makes sense in B.C. since agriculture and urban landscapes often closely coexist. The legacy of the Agricultural Land Reserve means that in the Lower Mainland, for example, BC has productive farmland coexisting in an urban environment. Many farmers are concerned that a lack of effective weed and pest control on adjacent properties could impact the productivity of farmland. Their concerns are validated by farmers in the Ontario township of Guelph-Elmira, where city council recently agreed to reinstate roadside herbicide applications in rural areas of the township after learning how the lack of control affected local farmers - in some cases triggering increased herbicide applications or increased tillage.

In a resource rich province like BC, pesticides are used by a wide range of economic sectors including forestry, agriculture, power transmission and rail. Banning pesticides deemed safe by Health Canada sends a mixed message. There is no supportable rationale for selectively restricting access to certain sectors while allowing their use by others.

# MINISTRY OF ENVIRONMENT MEETING INFORMATION NOTE

February 25, 2014 File: 280-20 CLIFF #: 200575 Previous CLIFF #: 195685

PREPARED FOR: Honourable Mary Polak, Minister of Environment.

# DATE AND TIME OF MEETING:

February 27<sup>th</sup>, 2014 1:30pm - 2:00pm

## **ATTENDEES:**

Laurie Throness, MLA, Chilliwack-Hope Martina Kapac de Frias, Executive Assistant to Minister Polak. Lori Halls, Assistant Deputy Minister, BC Parks and Conservation Officer Service Jennie Aikman, Regional Director, South Coast Region, BC Parks (by phone)

**ISSUE(S):** Briefing with MLA Throness regarding Seabird Island First Nation's boundary amendment proposal for Sasquatch Provincial Park.

#### **BACKGROUND:**

Sasquatch Park is 1,217 hectares and was established as a Class A provincial park in 1968. It is located seven kilometres north of the Village of Harrison Hot Springs in the Fraser Valley Regional District. The park contains three large campgrounds and warmwater lakes that make it a popular regional destination for camping, swimming and fishing with over 260,000 visitors on average per year.

The Seabird Island First Nation ("Seabird Island") is in a revenue-sharing partnership with a local forestry operator, Dorman Timber. Seabird Island is seeking access through the park to the Moss Lake area, situated southeast of the park, for timber harvesting. The roads in the park are designated as part of the park and industrial use such as trucking of logs is not permissible under the *Park Act*. Therefore Seabird Island is requesting an amendment to the boundary of Sasquatch Park to remove existing roads, and lands for proposed roads, from the park.

Proposals to remove lands from provincial protected areas are reviewed pursuant to the Cabinet-approved *Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines*. As per the Policy, the proponent submits an initial project proposal (Stage 1) to the Minister. The Minister then determines whether there is sufficient public interest in the proposal to warrant a more detailed (Stage 2) boundary adjustment application.

On May 10, 2013 Seabird Island submitted a Stage 1 boundary adjustment proposal requesting removal of roads from the park.

s.16

## **DISCUSSION:**

For Stage 2 boundary adjustment applications, the policy details the requirements of proponents which include: investigation of the alternatives to avoid the protected area, documentation outlining the socio-economic benefits of the proposal, social and environmental impacts, mitigation and restorations measures, and consultation with First Nations, government interests, and stakeholders, including local communities.

31.2, 51.2, 51.2

#### **SUGGESTED RESPONSE:**

BC Parks is working closely with the proponent to ensure that they are gathering the appropriate information required for the Minister to make a decision on the Stage 2 application. Once consultation is complete, the proponent will be submitting a detailed application to BC Parks for review.

91'S 'E1'S 'Z1'S

81.2, £1.2

Attachments:

31.2, 51.3, 51.8

Attachment #2: CLIFF #: 195685

Contact:

Lori Halls, ADM BC Parks and

Conservation Officer

*Service Division* (250) 387-9997

**Alternate Contact:** 

Brett Hudson A/Manager, Planning and Land Administration Section, BC Parks

(250) 387-4593

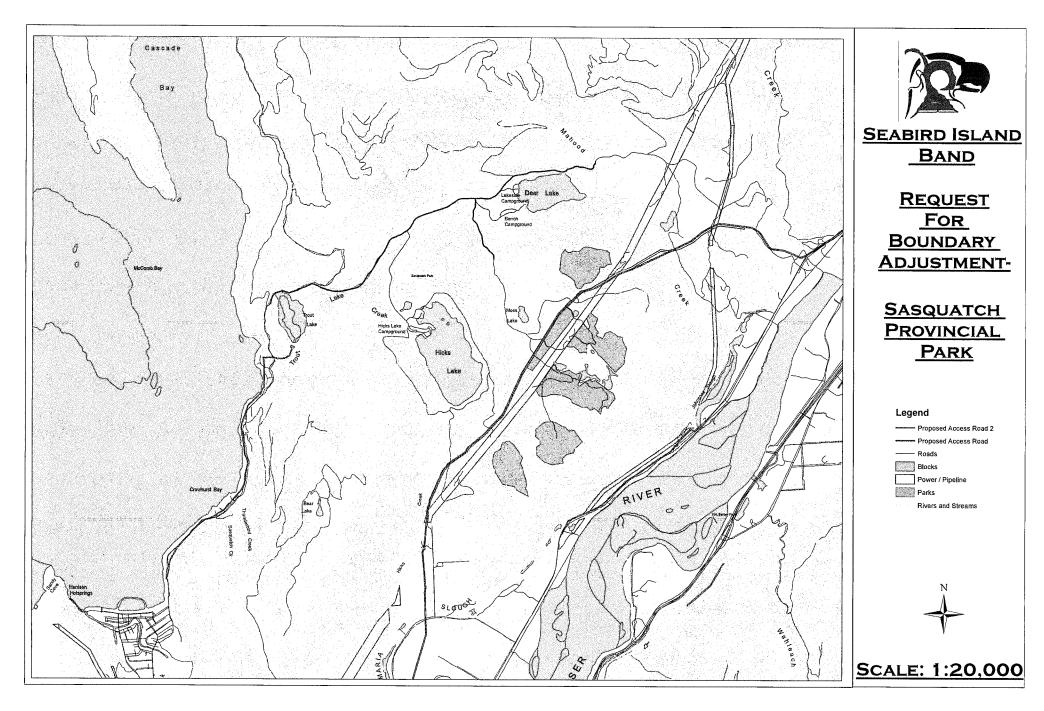
Prepared by:

Jennie Aikman South Coast Region

BC Parks

(604) 824-2316

Reviewed by	Initials	Date
DM	-	-
DMO	VJ	26-02-2014
ADM	LH	25-02-2014
Dir./Mgr.	BH	25-02-2014
Author	JA	25-02-2014



# MINISTRY OF ENVIRONMENT DECISION NOTE

Date: August 23, 2013

File: 280-20 CLIFF # 195685

PREPARED FOR: Honourable Mary Polak, Minister of Environment.

ISSUE: Stage 1 boundary adjustment proposal to modify the boundary of Sasquatch Park to remove park roads to access adjacent lands for forestry purposes.

#### **BACKGROUND:**

Sasquatch Park is 1,217 hectares and was established as a Class A provincial park in 1968. It is located seven kilometres north of the Village of Harrison Hot Springs in the Fraser Valley Regional District. The park contains three large campgrounds and warmwater lakes that make it a popular regional destination for camping, swimming and fishing with over 260,000 visitors on average per year.

The Seabird Island First Nation ("Seabird Island") is in a revenue-sharing partnership with a local forestry operator, Dorman Timber. Seabird Island is seeking access through the park to the Moss Lake area, situated southeast of the park, for timber harvesting. The roads in the park are designated as part of the park and industrial use such as trucking of logs is not permissible under the *Park Act*. Therefore Seabird Island is requesting an amendment to the boundary of Sasquatch Park to remove existing roads, and lands for proposed roads, from the park.

Seabird Island has indicated that harvesting activities would take place over a period of six years, but they have not indicated when this would start. Securing access is a first step before proceeding with harvest planning; their timelines will be influenced by the outcomes of the boundary adjustment application.

#### **DISCUSSION:**

Sasquatch Park is named and described in Schedule C of the *Protected Areas of British Columbia Act*. Lands can only be removed from a park named and described in a schedule to the act by an Act of the legislature.

Proposals to remove lands from provincial protected areas are reviewed pursuant to the Cabinet-approved *Provincial Protected Area Boundary Adjustment Policy, Process and Guidelines* (the Policy). Requests to amend protected area boundaries fall within one of three categories:

- 1. "Administrative housekeeping" adjustments undertaken where there have been errors in the initial legal description of the boundary or an area was captured that clearly was not intended to be captured at the designation stage;
- 2. Adjustments intended to alleviate a human health and safety concern; and
- 3. Adjustments where a proponent (private or public) is interested in a boundary adjustment to allow for a development or activity not allowed by authorization under protected areas legislation.

Normally, only proposals that fit within Category 3 are subject to the Policy. The proposed boundary amendment to Sasquatch Park is considered to be Category 3. As per the Policy, the proponent submits an initial project proposal (Stage 1) to the Minister. The Minister then determines whether there is sufficient public interest in the proposal to warrant a more detailed (Stage 2) boundary adjustment application.

Seabird Island submitted their Stage 1 proposal requesting removal of roads from the park on May 10, 2013 (Attachment #2). Seabird Island is proposing two boundary amendment alternatives, both of which involve removal of roads from the park. Option #1 involves the removal of 5.7 kilometres of road (5.7 hectares assuming a 10 metre road allowance) and option #2 involves the removal of 3.6 kilometres of park road (3.6 hectares assuming a 10 metre road allowance). See Attachment #1 for a map of the affected roads.

In past discussions, Seabird Island has asserted that they have access rights through the park for forestry purposes. First Nations have the ability to access provincial park lands for the purpose of exercising their traditional rights. Seabird Island's proposal for access through the park for forestry purposes is not associated with a traditional right of access, as commercial forestry activities are not ancillary to a traditional practice or use.

The Ministry of Forests, Lands and Natural Resource Operations (FLNRO) has indicated that they are supportive of providing access to the Moss Lake area, and the issue has been raised by Minister Steve Thomson in the past. In discussions with BC Parks, the Chilliwack Forest District has suggested that the primary access road was intended to be excluded from the park; BC Parks has confirmed this is not the case and has received legal advice confirming that the road is legally part of the park.

Currently, BC Hydro is using park roads to access their transmission line corridor as part of their works associated with the Interior-to-Lower Mainland Transmission Line (ILM) upgrade. This includes hauling logs and other materials to and from their right-of-way, which travels through the Moss Lake area. BC Hydro's use of the park roads is occurring under the auspices of the *Hydro and Power Authority Act*, which provides BC Hydro with broad powers of access to their transmission lines. The roads being used by BC Hydro are the same roads proposed for use by Seabird Island under option #1. BC Hydro has improved the road to the Moss Lake area to a condition suitable for timber hauling.

Option #2 (north of Deer Lake), as identified by Seabird Island, would minimize the log haul and recreational vehicle conflict. This option is less preferable from a cost perspective, as it would cost approximately \$250,000 for a new bridge and road upgrades. This option is also currently not developed as a road. It is currently a narrow, single track hiking and cycling trail, and would require significant vegetation clearing and grading to make it functional as a forestry road.

The current volume of traffic associated with BC Hydro's operations is approximately 8 trucks per day, although this is anticipated to increase after Labour Day to 10 trucks per day. Seabird Island's proposed logging operation would involve a traffic volume of approximately 4 to 6 trucks per day when in operation – the number of operating days per year and season of operation will vary and is not known at this time. BC Hydro's use of the roads in the park will be short term, ending when work on the ILM is complete. If the roads are removed from the park to access forest harvest areas, forestry-related activity will extend over at least the 6 year period indicated by Seabird Island. FLNRO

Recreation Sites and Trails is also interested in permanent access for a proposed recreation site at Moss Lake. FLNRO has further indicated that the area of Moss Lake would be viable for a second pass of timber harvest from the currently proposed leave strips in 10 to 15 years, and would therefore prefer that permanent access be retained

The prospect of using Sasquatch Park roads for logging creates a number of concerns, including: risks to safety of park visitors resulting from logging trucks on park roads; impacts from the industrial use of roads on camping and day-use visitor experience; and potential loss of trail and hiking opportunities if new roads are established.

Seabird Island's Stage 1 boundary adjustment proposal does not identify alternatives that avoid Sasquatch Park; both proposed options involve the use of park roads. Regional staff identified a potentially feasible alternative that would wholly avoid the park. BC Parks staff conducted a preliminary assessment of this alternative with staff of BC Timber Sales. Preliminary review suggests that this alternative may be feasible to construct. However, the alternative route would traverse very steep terrain and would be more costly to build. Preliminary estimates suggest that the alternative route could cost between \$500,000 and \$750,000 to construct. These costs would be borne by the Crown through a reduced price on the sale of the timber rights in the Moss Lake area. Increased road building costs may also reduce the stumpage revenue the Crown would receive from the planned timber harvest. Construction of a new road through steep terrain may also have additional environmental, safety and aesthetic impacts.

Sasquatch Park is within the traditional territory of ten First Nations, including the Sto:lo Tribal Council, of which Seabird Island is a member. Seabird Island has indicated that discussions with other First Nations are ongoing and that they will be seeking letters of support. The proponent has not provided documentation in its Stage 1 proposal on the results of stakeholder, local government, or First Nations consultation; it is believed that consultation to date has been limited.

A staff summary of the Stage 1 boundary modification proposal is found in Attachment 3.

#### **OPTIONS:**

s.12, s.13, s.16

21.2, 31.2, £1.2

## **RECOMMENDATION:**

21.2,81.2,E1.2

DECISION & SIGNATURE

DATE SIGNED

Mary Polak

Minister of Environment

# Attachments:

**Attachment** 1: Map showing two options for boundary amendment proposed by Seabird Island.

Attachment #2: Seabird Island First Nation's Stage 1 Boundary Adjustment Proposal.

31.2, 51.2, 5.16

Contact: Lori Halls, ADM BC Parks and Conservation Officer Service 250 387-9997 Alternate Contact: Brian Bawtinheimer Executive Director Parks Planning and Management Branch 250 387-4355

Prepared by: Jennie Aikman A/Regional Director South Coast Region

604 824-2316

Reviewed by	Initials	Date
DM	WS	Sept 3, 2013
DMO	VJ	Aug 26, 2013
ADM	LH	Aug 23, 2013
Ex Dir Regions	TB	Aug 21, 2013
A/Ex Dir PPM	KM	Aug 23, 2013
Ex Dir PPM	BB	July 23, 2013
Mgr. PLA	KEM	July 19, 2013
Reg Dir.	A/VH	June 26, 2013
	BS	June 7, 2013
Author	JA	June 7, 2013

# MINISTRY OF ENVIRONMENT INFORMATION NOTE

February 27, 2014 File: MR-7577 & OC-107051 CLIFF/Tracking: 200659

# PREPARED FOR: Honourable Mary Polak, Minister of Environment

**ISSUE:** The independent fly ash review in relation to Metro Vancouver's Waste-to-Energy Facility and Wastech's Cache Creek Landfill is complete. Staff are proposing to release the report to project stakeholders and the public.

#### **BACKGROUND:**

The Metro Vancouver Burnaby Waste-To-Energy Facility (WTEF), operated under contract by Covanta Renewable Energy (Covanta), generates approximately 12,000 tonnes of fly ash annually. The fly ash, prior to removal from the Burnaby WTEF, is stabilized to prevent leaching of metals using the proprietary "Wes-PHix" process. In 2012, laboratory results from July and August monthly composite fly ash samples exceeded the HWR requirements for leachable cadmium, and failed to meet standards for disposal within a monofill at the Cache Creek Landfill (CCLF) owned by Wastech. As a result, a legal investigation into the July and August fly ash shipments was initiated in October 2012 by the Conservation Officer Service (COS).

The CCLF fly ash monofill is specifically designed to encapsulate the material using a composite liner and a dedicated leachate collection system. Although hazardous waste is prohibited by the CCLF operational certificate, the engineering controls of the monofill isolate and enable safe management of the ash. To date, leachate has not been generated from the monofill, and leachate is not expected given the arid climate at the site and the dry nature of the fly ash. The equipment used by workers is designed to protect workers from exposure to contaminants and from respiration of the fly ash. The equipment is required regardless of the classification of the material (hazardous vs non-hazardous). Risks to the environment, worker and public health related to the deposition of fly ash in the landfill is considered negligible.

Wastech conducted a site investigation and assessment of fly ash deposited during July and August 2012. Approximately 6% of over 700 laboratory analyses exceeded the Hazardous Waste Regulation (HWR) limit for leachable cadmium. The qualified professional (QP) concluded that, because the exceedances could not be isolated to a specific segment of the material deposited from July and August 2012, the 1,800 tonnes (representing the ash received in July and August 2012) should be managed as hazardous waste. The QP also recommended further investigation of older fly ash material deposited in the monofill since 2010, and codisposed within the MSW landfill since 2000.

Metro Vancouver presented a hypothesis that the lab (Maxxam Analytics) analysis procedure was erroneous for both the July and August 2012 samples and the samples submitted by Wastech during their assessment. Both Metro Vancouver and Covanta retained QP's to review the data and provided arguments in support of this theory.

As a result of differening QP opinions, Metro Vancouver offered funding for the Ministry to conduct an independent expert assessment. Consensus was reached with the Village of Cache Creek, Wastech, Metro Vancouver and Covanta for the selection of a project manager who would over see the assessment. In consultation with the stakeholders and Cache Creek area First Nations, a terms of reference was developed and work commenced in the summer of 2013 to hire additional technical expertise to act under the direction of the project manager. The scope of work for the independent review included assessment of the operational, quality control and monitoring procedures in place at the WTEF and the landfill, the requirements of other jurisdictions, the methodology and accuracy of the laboratory analysis, and recommendations for future actions.

The COS, having carried out interviews and gathered information in the fall of 2012, had indicated that they would await the results of this independent assessment to inform the investigation.

## **DISCUSSION:**

# **NEXT STEPS:**

s.13

Contact:

Jennifer McGuire

Executive Director

250-356-6027

Alternate Contact:

Avtar S. Sundher

Section Head, Surrey

604-582-5272

Prepared by: Carol Danyluk EPO, Kamloops 250-371-6229

Attachment: Burnaby WTE Facility Fly Ash Review: Review of Existing Fly Ash Treatment.

Reviewed by	Initials	Date
DM	MZ for WS	Mar 4/14
DMO	VJ	Mar 4/14
ADM	JStanden	Mar 3/14
Exec Director	JMcGuire	
Author		