

Sunbury Neighbourhood Association

www.sunburyneighbourhood.ca

July 12, 2008

Jack Layton
NDP Canada

Dear Mr. Layton;

The Environmental Assessment for the South Fraser Perimeter Road is being called the worst E.A. in history, and for good reason.

The Information in the E.A. is misleading and incorrect, so the entire public process and working group comments were based on erroneous information. (See attached Misrepresentation Doc.)

This defeats the purpose of the E.A.

We pointed out these inaccuracies as part of the public review process in all three public comment periods, and yet many of these concerns have consistently been ignored.

This circumventing of due process and the misinformation in the E.A. is currently being scrutinized by the office of the Ombudsman.

Despite this and several other areas of concern not yet fully identified or addressed, the Environmental Assessment for the South Fraser Perimeter Road has been forwarded by the Environmental Assessment Office, to the Ministers responsible, for certification.

Thursday, July 10th, as part of the Heritage working group, we were still correcting the 'South Fraser Perimeter Road Heritage Assessment Draft Report', almost two weeks after the Environmental Assessment for the SFPR had already been sent to the RAs!?

The copy of the E.A. that was sent to the Responsible Authorities states that there would be no impact to Delta's Heritage, when in fact there are two heritage buildings that would have to be removed or destroyed, and many more heritage properties that would sustain heavy impacts. Then there is the whole context of the historic Annieville/Gunderson Slough relationship that would be separated and have not been properly considered. The final Draft of the Heritage working group is not yet complete.

There is also the issue of the wildlife corridor along the North Delta Bluffs that connects Burns Bog up the Fraser River to the Fraser Heights Wetlands, River Bend Park and beyond.

These bluffs consist of eight connected ravines, four of which are environmental reserves, and are made up of red- and blue-listed habitat for threatened and endangered species, and yet, are not recognised by the MoT as a wildlife corridor. (See attached Misrepresentation Doc.). With habitat for species at risk becoming scarcer, and scarcer, it is imperative that we protect what little is left, and that the proponent recognizes the importance of these rare and critical areas.

There are also the impacts to Burns Bog itself to consider. The ‘Lungs of the Lower Mainland’ are under threat from the SFPR despite the impacts identified by the Burns Bog Scientific Advisory Panel and a protective covenant that states;

“the Province, Delta, and the GVRD shall not do anything, or allow anything to be done, that does or could reasonably be expected to destroy, impair, diminish, negatively affect, or alter the Bog...”

The Scientific Advisory Panel is clear in its assertion that the SFPR would impair, diminish, negatively affect and alter the Bog, and the United Nations Peatlands report strongly emphasizes the importance of protecting our Bogs over all mitigation measures. (See attached U.N. Peatlands report)

The recent report commissioned for Gateway Minister David Emerson, (APGCI, 2007) points out that further improvements to our Ports and infrastructure in the Lower Mainland is a waste of time and money, considering that Prince Rupert is the inevitable Gateway to Asia, due to its strategic positioning and the ability to get a container from Asia to Chicago faster than through any other Port on the Pacific Coast. These quotes and the projected need for container capacity in BC are shown in an attached document. (See attached letter to Minister Emerson)

Considering these and other concerns forwarded to the Environmental Assessment Office I would like to know how there could possibly be justification for sending an incomplete and erroneous E.A. on to the Ministers for approval and certification.

Don Hunt
Sunbury Neighbourhood Association

The Environmental Application for the South Fraser Perimeter Road is being called the worst E.A. in history for good reason. The amount of environmental damage to residential communities and habitat for species at risk would be severe.

A fundamental problem with the Environmental Application for the SFPR is the fact that the public and the working groups have been making comment on erroneous and misleading information. Many of these inaccuracies were pointed out by the Sunbury Neighbourhood Association, and yet much of the Errata have not been acknowledged or reported on the Gateway website, so the Environmental Assessment is therefore incomplete.

Habitat Misrepresentation:

Part of this misinformation is the failure to properly address the loss of vegetation along the North Delta Bluffs in the Riparian Habitat calculations and the reluctance of the MoT in recognizing the importance of these bluffs as a wildlife corridor.

“The MoT acknowledges the importance of the Delta ravines...but does not accept that there is existing habitat for substantial wildlife movement between the Delta Ravines. The majority of the land between the ravines is currently occupied by residential housing and the railway right-of-way.”

(Third Public Comments Period Issues Response Table, ID 036).

As you can see by the following pictures, there is a wide and heavily vegetated corridor along the North Delta Bluffs, a good part of which is Red- and Blue-listed Habitat for threatened and endangered species. The relationship between this critical habitat, the ravines, and the Red- and Yellow-coded Fraser River foreshore is undeniable.



Along these bluffs the highway would be 4 lanes in a split grade that would replace all of the vegetation from the railroad tracks up to and including most of the first row houses at the top of the escarpment.



This picture shows the **Collings Way Environmental Reserve** to the right of center and the corridor connection to the Blue-listed **Norum Creek Ravine, Norum Place Park Reserve and Gunderson Creek Ravine** to the left and the Blue-listed **McAdam Ravine and Unnamed Creek Ravine** on the right. **Clearly visible is the wildlife corridor that traverses the North Delta Bluffs connecting all of the ravines.**

A wildlife corridor that would be entirely removed by the proposed highway, leaving the ravines isolated from one another and separated from the Fraser River. These ravines are home to hundreds of species of birds and animals of which nearly 20 are species at risk.

*"By definition, red-listed habitats are endangered or threatened by extinction, and blue-listed habitats are vulnerable to becoming endangered, threatened or extinct. **Loss of these habitats within the study area through clearing would thus be highly significant given their increasing scarcity in the Lower Mainland.**"* (Technical Volume 12, p. 46, 4.5, para 1)

*"**These designations reflect the habitats' rarity within the Province. Many of the surviving forests in the study area represent red- or blue-listed habitats that are the only remaining habitat in an area...**"* (Technical Volume 12, p. 34 para 2)

"The impacts on upland forest as a result of the SFPR are 14.7 ha, of which 11.3 ha are threatened plant communities...Some of the affected forest...supports the greatest number of species at risk..."

Not only is this habitat home to threatened and endangered species, but it is made up of threatened and endangered plant species.

*"Impacts to species at risk are high, due to potential impacts to Pacific water shrew habitat **resulting from clearing within 100 m** (Craig and Vennesland 2005) **of the creeks in the Delta Ravines**, and losses to western screech-owl habitat in McAdam Creek." (Technical Volume 12, Pg. 123, 6.4.3.7)*

For some reason this paragraph only mentions two of the nearly 20 species at risk that can be associated with the North Delta Ravines. Although 100 meters is recognized as critical habitat, only 30 m was considered.

The Vegetation and Wildlife section of the application states that potential impacts to wildlife are associated with direct habitat loss and the shading of the Delta Ravines by the bridge spans resulting in impacts to the many raptors and other birds that inhabit these ravines including high impacts to species at risk. (Technical Volume 12, Pg. iii, Paragraph 4)

These impacts would have permanent and irreversible consequences to the North Delta Ravines by direct habitat loss, fragmentation and isolation destroying the connection between the ravines and the link between Burns Bog and habitat farther up the Fraser River, thereby severely reducing the genetic fitness of the entire ecosystem and the biodiversity of the already endangered Fraser River and ultimately the human condition.

*"The disturbances introduced by a linear development can also act as a barrier to movement of wildlife. In the SFPR study area there are a number of routes used by wildlife for travel corridors. **These include deer, amphibians, reptiles and small mammals traveling between Burns Bog and other forest areas (Fraser Heights)** and adjacent wetland and/or agricultural areas for foraging. (MoT (10.3.3.2 Wildlife Pattern Changes)*

It is widely recognized that a wildlife corridor exists between Burns Bog and the Fraser Heights wetlands, and Gateway officials acknowledge this. The North Delta Bluffs are the largest and most important section of this corridor, but they don't want to admit that because they would destroy more critical habitat here than in any other section of the route, save Burns Bog itself.

Terrain Misrepresentation:

One of the biggest misrepresentations of the Environmental Application is that the public and the working groups have been told in meetings and in text that the SFPR is a flat, low, down by the train tracks route, and the predicted impacts have been based on a flat alignment.

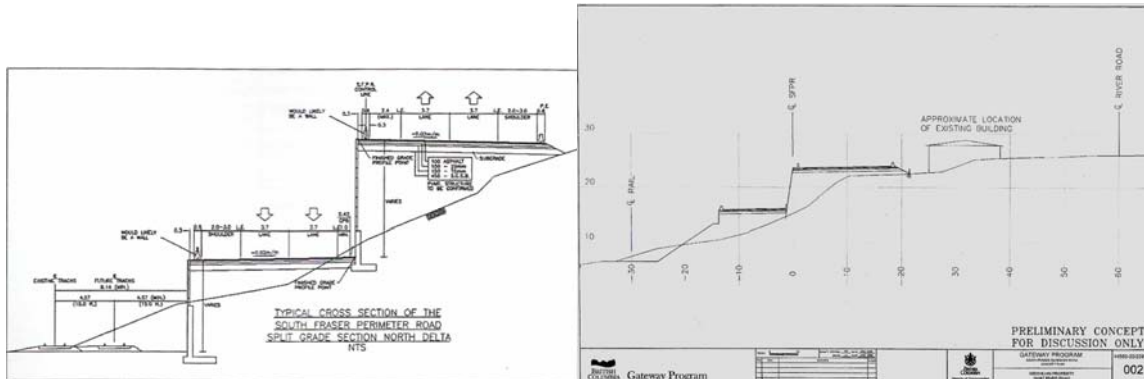
*"...as the terrain for the proposed corridor **is considered flat, for each modeled segment of the corridor.**"* (MoT, page 5, paragraph 5).

*"...the SFPR follows the BNSF right of way **along the bottom of the escarpment.**"* (4.2.1.3, Section C-Nordel/Alex Fraser Bridge to Pattullo Bridgeview, Pg. 93)

*"The proposed alignment for **the SFPR is at the bottom of a steep forested slope, close to the river...**"* (8.3.3.6 Visual Environment, Pg. 451, paragraph 4, Alex Fraser Bridge to Elevator Road)

“the proposed route follows the bottom of the slope,” ... “steep treed slopes with large residential lots overlook this alignment.”

These statements are not true.



These cross sections show the SFPR would span the entire face of the North Delta escarpment from the train tracks at the bottom, up to, and including, some of the homes on River Road and along the top of the Bluffs.

Main binder, pg. 95, Table 4.2, Highway and structure design criteria, shows a maximum 4% grade. **This is not true.** There are grades of up to 6% in residential areas which would cause excessive acceleration and deceleration noise. This will add to the additional noise and congestion caused by the three traffic lights that are planned for this 80 km highway.

(Reference Figures P9 & P19, Technical Volume 1)

Noise Misrepresentation:

Noise calculations were based on a flat terrain and still showed high impacts to residential areas. Bridges over ravines would send the sounds up the ravines magnifying the reverberation in the homes that currently enjoy a quiet yard. Raised viaducts would project the noise much farther than the ‘first one or two rows’ of houses estimated in the application. The 6% grades in Fraser Heights and Sunbury neighbourhoods would result in greater engine noise and engine brake use, especially considering the curves in the highway at the bottom of each hill. When these discrepancies are pointed out to Gateway and the EAO they say that “follow-up monitoring” would identify these impacts and “then be considered”. Noise levels are already expected to severely impact sleep patterns and normal conversation, so adding the differences in terrain, and the amount of people affected, the impacts from noise would be much greater than stated in the application.

*“For the SFPR, **despite the application of mitigation** as per the MoT noise policy, noise increases are predicted for 7 sites (each representing a residential enclave). **The impact at these sites was assessed as ‘severe’**, as predicted by the percentage of highly annoyed residents.”*

(Cumulative Environmental Affects, 10.3.3.2 Change in Noise levels, pg. 11)

“Accordingly, if “amphitheatre effects” result in noise levels greater than originally predicted, these changes should be identified by the follow-up monitoring and would then be considered in relation to the MoT Noise Mitigation Policy (1993).”

(From an E-mail from Paul Finkel, EAO to Rob Langford, Fraser Heights Community Association)

“...estimated on the first one or two residential rows on either side of the highway...”

(Technical Volume 13, Pg. 30, % of highly annoyed residents)

Follow-up monitoring would only confirm what any sensible person already knows... replacing a quiet greenspace with a 24/7 highway would harshly impact the residences and severely reduce property values for much further than the first one or two rows of houses. No amount of ‘follow-up’ mitigation will change that.

Residential Misrepresentation:

Fraser Heights in particular is a neighbourhood where Gateway didn't properly acknowledge the number of residents that would be impacted by stating that the area is a treed slope buffering the highway impacts from residences higher up the hill. Gateway bought some of this hillside property from the developer knowing the trees would be replaced with houses, exposing the entire hillside community to the noise, air and light pollution of the highway.

Some of these new homes would be in the shadow of an SFPR viaduct. Neither Gateway officials, (nor the developer), made an effort to inform people purchasing these homes about the highway project. Instead they placed a small sign on a one block long side street, hiding it from public view. When people started asking questions, they received evasive answers and still have not been told how tall the viaduct in front of their homes would be, despite repeatedly asking. It is shameful to allow people to put their lifesavings into a home with a view of the mountains and the river, only to replace that view with a highway viaduct, slashing those property values.

Air Quality Misrepresentation:

Air pollution effects were also based on a flat terrain and the monitoring sites used do not reflect the true impacts.

Gateway used measurements from 6 GVRD Air Quality-Monitoring sites for their baseline figures, and state that *"all stations are within approximately 5 to 6 km of the proposed SFPR."* (Technical Volume 7, pg. 26)

This is not true.

The fact is that only **one** of these sites is within 6 km and it measures only NO₂ and O₃. Only two of the sites measure for PM 2.5 particulate. Both of these sites are almost 7 km away, and two other sites are more than 8 and 11 km distant. None of the sites measure for all of the more than 21 different types of airborne contaminants. (Technical Volume 7, pg. 30, Table 7)

MoT-pg 5 para5 *"For the SFPR, terrain surface effects were not considered by CALINE3 as the terrain for the proposed corridor is considered flat, for each modeled segment of the corridor."* **This is not true.**

The terrain is not flat but undulates as it moves along the North Delta Bluffs and goes up through Fraser Heights. There are also many raised viaducts along the route that will spread the noise, air and light pollution much farther than admitted in the application. The modeled segments that contain residential neighbourhoods would receive much higher engine noise and air pollution than is projected in the Application.

Therefore the actual outcomes for each of the impacts would be much greater than projected.

"Locally (within 1 km of the SFPR) emissions from traffic on the SFPR are predicted to cause an increase in concentrations of the various contaminants." (Technical Volume 7, Page 63 para 3).

"PARTICULATE MATTER: Human Studies: Epidemiological studies indicate that long-term exposure to particulate matter is associated with increased mortality, respiratory disease, decrease in lung function and possibly with increases in lung cancer." (Technical Volume 16, Pg. 77, Table 26).

These airborne contaminants contain carcinogenic particles that would severely impact the health of our families and cause an added burden to our Health Care system. Gateway states that there is a possible upside to this...

"With increased air pollution there can possibly be increased employment (e.g., in the health sector) because of the economic activity associated with correcting the results of its impacts."
(Technical Volume 16, pg. 39, 4.3.5 Employment)

Health impacts would reach unacceptable levels in dollars and lives.

"An analysis of the highest concentration response factors indicates that the risk may be **20% higher for most morbidity outcomes.**" (Technical Volume 7, Page 115, 6.5.7.3, para 3)

"Human Health is the second largest category impacted by the Gateway program and PM_{2.5} emissions account for 75% of health-related economic impacts." (Technical Volume 16, Pg. 51, para 4)

Health Canada reports a 10% reduction of the airborne contaminants results in \$200 million dollars per year in health savings. So conversely, building a new highway through residential neighbourhoods past 20 schools and 46 parks and playgrounds will elevate cancer deaths and respiratory diseases in neighbourhood adults and children, compromising health and learning, and costing hundreds of millions of dollars yearly.

Geotechnical Misrepresentation:

Questions about highway design and the instability of building a major highway over and through boggy soil conditions has not been properly addressed. Gateway's "full report" used for Geotechnical decisions is missing a considerable amount of data and did not take into account the "eight elevated bridge structures" planned for the west edge of Burns Bog. The Geotechnical review has the following quotes...

"There are, however, considerable data gaps in some segments of the alignment. For preliminary design, and to obtain reliable estimates, additional geotechnical investigation and laboratory tests are required."

*"Please note that AH/CPT04-12, shown on the Schematic Subsurface Stratigraphy Profile in the Gateway program Report, Preliminary Draft: version 2 dated November 18, 2005, **is not in the database**". ...*

*"**Since there are no structures planned up to 72nd street...**"*

*"Eight boreholes [S]BH9803 to [S]BH98010 shown on the plans **are not in the data base.**"*

*"Please note that four test hole records, AH/CPT04-26, AH/CPT04-72, BDH-1, BDH-2 and AH99-C, **are not in the database.**"*

*"Test hole records...indicate that inclinometers were installed in these holes. **There are no inclinometer readings in the database. Obtaining and reviewing the readings from these inclinometers will be needed to assess the lateral compression of the peat and instabilities in the subsoil...**"*

(GEOTECHNICAL REVIEW AND EVALUATION OF THE PROPOSED SOUTH FRASER PERIMETER ROAD CORRIDOR CONDITIONS, Turgut Ersoy, Ph.D., P.Eng. January 23, 2006)

Missing data and an incomplete assessment of the soil conditions where there is known to be very deep peat conditions would result in an unstable highway and bridge structures. All roads that go through peaty conditions are in constant need of repair due to the wavy undulations and the cracks and potholes caused by the excessive movement. Now eight new bridge structures are planned for the Burns Bog section.

Olav Naas, (a noted reference by the Geotechnical report author), co-producer of the Hoover/Naas proposal, (www.thereisanotherway.com), a man with as much experience in building road and rail through these parts as anyone, says that the bedrock is exceptionally deep along this section and the stability of structures would be called into question. Even lamp standards would require very deep stabilization. The price of stabilizing a highway and structures through this area would be cost prohibitive with predictably poor results.

Gateway is proposing an experimental highway design that would have many unknown consequences to the delicate ecology of Burns Bog, however we do know that it would alter the hydrology and water quality of the Bog as well as strip away habitat for species at risk, disrupting the Bogs ecology, and there is a protective covenant of the Bog, signed by all levels of Government, that prevents such impacts.

BNSF Railway Misrepresentation:

In relation to public comments regarding mitigation and impacts by the BNSF railway; Gateway states; *"The MoT does not claim the efforts of BNSF to manage its environmental impacts will reduce the impacts of the SFPR."* (Third Public Comments Period Issues Response Table, ID 036).

This is not true...

In Technical Volume 9 they say;

“There are opportunities to work with BNSF to limit mowing along the riverside of the track to 2 – 2.5 m from the track, allow planting of areas that are currently barren of shrubs and trees, and allowing existing vegetation within the “no-mow” zone to re-establish. This opportunity could provide an estimated increase of ~1.5 m of vegetated riparian area over a distance of 1,300 m, resulting in a total riparian habitat gain of 1,950 m² of additional vegetation along the river bank.” (MoT (Technical Volume 9, 6.3.2, p. 121)

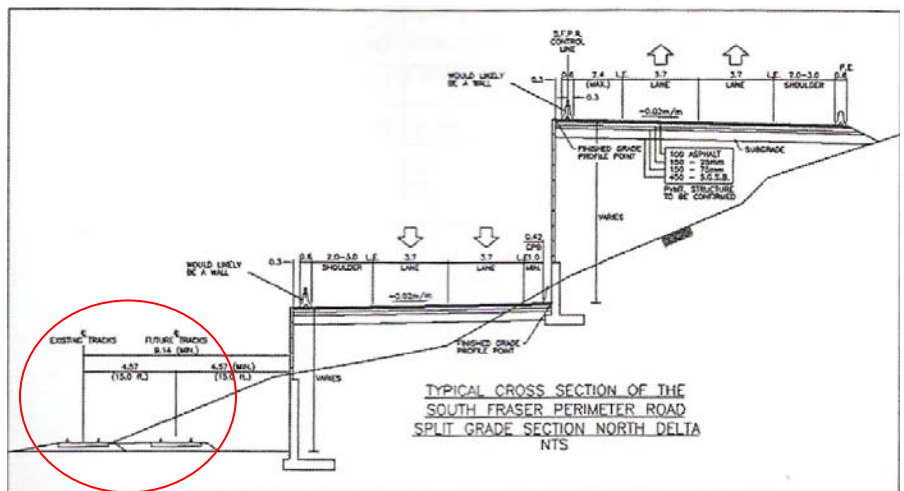
The BNSF is dealing with its own environmental impacts as it upgrades the tracks along this route. The proponent is attempting to piggyback onto these mitigation efforts.

“Doubling of the BNSF railway line has not been identified as an imminent project”

(Third Public Comments Period Issues Response Table, ID 011). **This is not true...**

A 2005 Gateway presentation referred it as a “first priority improvement”. Text in the application refers to it, the figures in the application refer to it, and the doubling of the tracks has already begun along the Delta watershed park. The Ministry of Transportation would be well aware of this.

Note the Double tracks in this Cross section from the Main Binder Pg. 96, Fig. 4.2



Heritage Misrepresentation:

Impacts to residential neighbourhoods are also being hidden and besides severe noise, visual, and air pollution, Sunbury/Annieville would lose most of its heritage quality and be separated from the River of its origin.

*“East of the (Alex Fraser) bridge the grade-supported road will create a substantial barrier between the land and the river, and will be a notable new elevated structure. Although primarily an industrial area, this separation is adjacent to the river.” **This is not true***

East of the Alex Fraser Bridge is **NOT** primarily industrial, but is the residential neighbourhood of Sunbury/Annieville. One of the oldest areas of Delta, it has an historical fishing connection to the Fraser River. This heritage community would be separated visually and physically from the river.

There are net sheds and boat docks along this section and with the building of the SFPR the owners would no longer be able to watch over, or walk down to their business assets from their homes, instead, in many cases they would have to move their homes and businesses elsewhere, and many others would have to drive around through the municipality of Surrey to get to work,

“The limited access nature of the corridor will make it difficult for residents to use or cross the SFPR to access different parts of their neighbourhood or other neighbourhoods. This will especially be the case in more urban areas, where neighbourhoods depend on ready access to local schools, and similar community areas, or where there is neighbourhood interest in maintaining a connection to special community features, such as the Fraser River waterfront.” (Technical Volume 15, pg. 65, 6.6, Community Cohesion)



From the Alex Fraser Bridge looking east. (Double tracks are also visible in this photo)

"Given the new, elevated road sections and required lighting, it is unlikely that landscape treatment will be effective in having a substantive impact on softening the visual character of this portion of the road."
 (Technical Volume 15, Pg. 68, Paragraph 1)

Despite a high visual impact rating, an increase in respiratory diseases, and a severe noise impact for residential neighbourhoods, as well as a separation of a heritage fishing community from its river and farmers from their fields, the proponent blithely states...

"...the overall impact of the SFPR on existing communities is deemed to be relatively benign."
 (Technical Volume 15, pg. iii, para 6).

Interesting choice of words. Dictionary definition of 'benign': "mild, favourable, gentle"
 (Canadian Oxford Dictionary, 1998)

Burns Bog Misrepresentation:

One of the most disturbing aspects of the application is the downplaying of the known and admitted impacts to Burns Bog. The Bog is protected by a covenant signed by all levels of Government that states...

"the Province, Delta, and the GVRD shall not do anything, or allow anything to be done, that does or could reasonably be expected to destroy, impair, diminish, negatively affect, or alter the Bog or (its) amenities."

And yet the Gateway proposal states...

*"...the SFPR is expected to cause footprint impacts to 28.79 ha of land in zones required for, or supporting, the viability of Burns Bog." "...5.6 ha of the affected land with ecological values is in zone 1 or in the water mound **and required for Burns Bog viability...**"*
 (Cumulative Environmental Effects, 10.3, pg. 19, Burns Bog)

5.6 hectares is 56,000 square meters or a swath equivalent to 9 football fields laid end to end, through habitat that is necessary for Burns Bog to continue to function properly. That would constitute ‘impairing’, ‘diminishing’, ‘negatively affecting’, and ‘altering’ the Bog.
The other 23.3 hectares is 233,000 square meters or the equivalent of over 35 football fields through the Bog’s ‘amenities’, habitat for threatened and endangered species that is ecologically interrelated to the life of the Bog.
Impact to these areas is not allowed by law.

The Ministry of the Environment has had people prosecuted, jailed and fined hundreds of thousands of dollars for impacting the Bog, and must abide by the same law.

Gateway documents also state that the SFPR would not impact the Bog partnership lands.

This is not true

Impacts to one part of the Bog ecosystem will have an affect on the whole. We know from the preloading activities for Highway 91 and Tilbury industrial that the effects are felt well into the protected lands. The periphery of the Bog plays an important role in the life of the Bog, and studies of the Bog have made recommendations to protect a greater amount than the 2042 ha partnership lands to a minimum total of 2450 ha. Of the remaining 408 ha that is “*required to preserve Burns Bog as a viable ecosystem*”, the SFPR would destroy almost 288,000 square meters and isolate a large portion of the balance from the protected lands. This includes land that Delta Municipality already owns that could easily be added to the protected areas.

Gateway documents also say... “*In general, the SFPR alignment skirts around areas that have wildlife and vegetation values (i.e. Burns Bog), thus fragmentation impacts are limited, and/or they are confined to the periphery of those areas.*”

This is not true

“*The route also passes through ecosystems that are directly part of the bog complex and previously identified as required for the Bog’s ecological integrity (Hebda et al, 2000).*”
(Scientific Advisory Panel Opinions to Environment Canada Concerning Potential Environmental Impacts of the Proposed South Fraser Perimeter Road on Burns Bog, Pg. 5)

By Gateway’s own admissions the SFPR would destroy;

- 3,037 m2 of undisturbed sphagnum moss habitat.
- 4,780 m2 of red-listed plant communities.
- 61,958 m2 of red-coded Pacific Water Shrew Habitat

And the recent shift in the alignment by Sherwood Forest would still destroy roosting and foraging habitat for large numbers of threatened bird populations including Trumpeter Swans, Great Blue Herons, Bald eagles, Owls, and the Sandhill Crane.

Gateway’s table of impact to species at risk shows no area of impact to the Southern Red-backed Vole, however this too **is not true.**

The SFPR alignment goes right through prime Vole habitat according to the BC Government’s ‘Burns Bog Terrestrial Ecosystem Mapping.’

Gateway’s most recent comment... “The proposed mitigation around Burns Bog...is supported by environmental agencies and the Scientific Advisory Panel...”

(Third Public Comments Period Issues Response Table, ID 051)

This is not true

The Scientific Advisory Panel is collectively against a highway being built through bog supporting lands. They state in a recent submission that...

“If the highway is placed through the western edge of the Bog, the ability to apply the guidelines for Bog protection and restoration recommended by the SAP will be compromised.” “It is clear that wherever the SFPR is put, it will have major consequences to wildlife. A route within or immediately adjacent to the mixed conifer forest on the Bog’s western edge will have the greatest impacts on ecological integrity, through ecosystem conversion and negative edge effects.”

(Scientific Advisory Panel Opinions to Environment Canada Concerning Potential Environmental Impacts of the Proposed South Fraser Perimeter Road on Burns Bog, Pg. 11)

Gateway documents state; *“Based on modeled ambient concentrations of road dust from SFPR adjacent to Burns Bog, there is little potential for deposition of mineral particulate matter from the SFPR in Burns Bog.”* (Cumulative Environmental Effects, 10.3, pg. 27, Particulate Matter in Burns Bog)

However the Scientific Advisory Panel concludes that there will be an increase in air-borne drift of particulates and aerosols onto the Bog during the construction period and subsequent use of the SFPR. *“The distance of significant levels of particulate drift may be about 200 to 300 m.”*

This is supported by Environment Canada data that shows PM₁₀ particulate can stay aloft for hours to days and PM_{2.5} particulate will remain airborne for days to weeks and that exhaust from major roadways reduces farm crops and vegetation by 15%, and leaves heavy metals in the soil, so the effects on a sensitive environment like Burns Bog would be significant and cumulative.

The S.A.P. also say that the impacts of the proposed SFPR alignment along the Bog can only be **partially mitigated** with a berm/double-ditch (BDD) system as described in the report.

Clearly they are concerned about the potential impacts to the Bog and recognize that mitigation measures would be only partially successful. Since the Bog and it’s rare plant and animal communities are highly susceptible to changes, and no one is allowed to ‘impair’, ‘diminish’, or ‘negatively affect’ the Bog, ‘partial mitigation’ is unacceptable.

“Bogs are particularly sensitive to physical, hydrological, and chemical disturbance. In order to maintain essential ecological functions such as peat production and accumulation, vegetation and ground surface must remain intact...”

(Technical Volume 12, p. 46, 4.5.1 Burns Bog)

“Bogs are complex ecosystems requiring a particular set of biophysical conditions...Due to interactions between vegetation, peat accumulation, chemical conditions, and water movement and storage, impacts to one ecosystem component will affect others.” (Main Binder, p. 350, Potential Impacts to Burns Bog)

Burns Bog, the lungs and kidneys of the Lower Mainland, and the largest urban carbon-sink in the world would be diminished, and cut off from its co-dependant ecological partner, the threatened and endangered Fraser River, contrary to the protective covenant signed by all levels of Government.

We understand that there is a tremendous amount of pressure to build an economic Gateway to Asia, but there are alternative methods that would achieve the movement of goods and people without an unacceptable burden on our environment and our livability.

It is our duty to protect and enhance our environment and the building of the SFPR would run counter to these ideals.

If this SFPR E.A. is passed, then there is no accountability of the process or the Environmental Assessment Office, and the Provincial and Federal Governments will be knowingly depleting our endangered species, polluting our residential neighbourhoods and breaking a legal covenant that is in place to protect Burns Bog in perpetuity.



Peatlands are Quick and Cost-Effective Measure to reduce 10% of greenhouse emissions

International community calls for urgent action to protect and restore peatlands- the world's most important carbon store.

Bali, 11 December 2007- Clearing, draining and setting fire to peatlands emits more than 3 billion tonnes of carbon dioxide every year - equivalent to 10% of global emissions from fossil fuels, according to Assessment on Peatlands, Biodiversity and Climate Change, the first comprehensive global assessment of the link between peatland degradation and climate change.

"Just like a global phase out of old, energy guzzling light bulbs or a switch to hybrid cars, protecting and restoring peatlands is perhaps another key "low hanging fruit" and among the most cost- effective options for climate change mitigation," said Achim Steiner, UN Under-Secretary General and Executive Director UN Environment Programme (UNEP).

Peatlands are wetland ecosystems that accumulate plant material under saturated conditions to form layers of peat soil up to 20m thick - storing on average 10 times more carbon per hectare than other ecosystems. Peatlands occur in 180 countries and cover 400 million hectares or 3% of the world's surface.

Steiner said, "the new Assessment, funded by the Global Environment Facility (GEF), shows that peatlands are a critical part of the global climate regulation system, storing twice as much carbon as the biomass of the world's forests - a fact that has escaped the attention of many of the world's negotiators. Peatlands worldwide," he added, "are under severe threat from human activities and climate change especially permafrost, mountain and coastal peatlands".

UNEP and the Convention on Biological Diversity (CBD) together with the GEF, the Global Environment Centre (GEC) and Wetlands International today called for the international community to take urgent action on to protect and restore peatlands through integration into climate adaptation and mitigation strategies.

Continued burning, degradation, drainage and exploitation of peatlands all over the globe particularly, in Southeast Asia due to forest fires, constitute a "time bomb" of massive amounts of below-ground stored carbon ready to be released in the atmosphere - which can undo much of the mitigation efforts already underway. The assessment identifies several other major areas in Northern Europe and Russia and North America with serious peatland degradation.

"The Assessment, compiled by an multidisciplinary expert team and, represents for the first time key information on the relationship between peatlands, biodiversity and climate change has been analysed on a global level."according to Faizal Parish - Director of Malaysia-based Global Environment Centre which coordinated the preparation together with Wetlands International.

Marcel Silvius of Wetlands International, which has been undertaking pilot projects for peatland restoration in China and Indonesia linked to the Assessment said, "Fortunately despite the high emissions from degraded peatlands, it is possible to drastically reduce emissions through very cost-effective water management, restoration and fire prevention measures"

"An Expert meeting organized by the Ramsar Convention on Wetlands and the Convention on Biological Diversity (CBD) earlier this year concluded that investments in conservation and restoration of peatlands can be up to 100 times more cost effective as other carbon sequestration measures" said Ahmed Djoghla, Executive Secretary of the CBD. "In addition to their climate functions - peatlands are also critical for biodiversity conservation with key species such as Orang Utan and crane species being found mainly in peatland areas."

He further added that peatlands also provide major ecosystem services and that in July of this year CBD Parties welcomed the assessment and have requested rapid follow up in partnership with the UNFCCC and other organizations. He concluded, "We now need to raise the profile of these ecosystems in the debate on linkages between wetlands, biodiversity and climate change as the conclusions of the assessment demonstrate one of the clearest opportunities for win-win outcomes. "and that, "the most important need is for this progress to be reflected in real changes to the policies, management and use of peatlands on the ground."

In South East Asia Governments have taken action by endorsing the ASEAN Peatland Management Strategy 2006-2020 (APMS) which outlines 25 objectives in 13 focal areas to prevent peatland degradation and fires in the region.

According to Faizal Parish, "Peatland fires in SE Asia have burnt 3 million ha of peatland in the last 10 years generating average emissions of 1.4 billion tonnes per year and regularly blanketing the region in smoke with major impacts on the health and livelihood of millions of people. Addressing these problems will solve key local issues as well as addressing global concerns. Similarly the destruction of mountain peatlands in Africa, Asia and Latin America threatens the water and food supply for large rural and urban populations."

"Permafrost and steppe peatlands are already being impacted by climate change," added Steiner. "Melting permafrost may increase methane emissions in some areas and enhance fires in others. Increasing temperatures and declining rainfall will reduce the area of peatland and enhance emissions. With proper management peatlands can be more resilient to climate change - but this needs to be adequately incorporated into climate adaptation strategies,"he said.

Marcel Silvius cautions "We need to avoid ill-advised climate mitigation measures on peatlands." "Cultivation of biofuel crops such as soy, oil palm or sugar cane on peatlands generates much more CO2 emissions than saved through fossil fuel substitution. Construction of windfarms and hydropower reservoirs on peatlands also generates significant emissions and large-scale development of biofuel feedstocks on peatlands is stimulating massive increases in emissions."

For more information please contact (in Bali)

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Resources available on www.gecnet.info

Executive Summary of Assessment on Peatlands Biodiversity and Climate change photo gallery CD with executive summary and full assessment available in BICC

Note

The Assessment on Peatlands, Biodiversity and Climate Change was initiated by the project on Integrated Management of Peatlands for Biodiversity and Climate Change implemented by Wetlands International and the Global Environment Centre with the support of UNEP-GEF, the governments of the participating pilot countries (China, Indonesia and the Russian Federation) and regions (ASEAN); as well as the Dutch and Canadian governments and a range of other organisations including APN).

Annex Key Findings from the Assessment on Peatlands, Biodiversity and Climate Change

Major overall findings

Some of the major overall findings of the assessment are:

- Peatlands are the most efficient terrestrial ecosystems in storing carbon. While covering only 3% of the World's land area, their peat contains as much carbon as all terrestrial biomass, twice as much as all global forest biomass, and about the same as in the atmosphere.
- Peatlands are the most important long-term carbon store in the terrestrial biosphere. They sequester and store atmospheric carbon for thousands of years.
- Peatlands are critical for biodiversity conservation. They support many specialised species and unique ecosystem types, and can provide a refuge for species that are expelled from non-peatland areas affected by degradation and climate change.
- Peatlands play a key role in water resource management, storing a significant proportion of global freshwater resources. Peatland degradation can disrupt water supplies and decrease flood control benefits.
- Degradation of peatlands is a major and growing source of anthropogenic greenhouse gas emissions. Carbon dioxide emissions from peatland drainage, fires and exploitation are estimated to currently be equivalent to at least 3,000 million tonnes per annum or equivalent to more than 10% of the global fossil fuel emissions.
- Peatland degradation affects millions of people around the world. Drainage and fires in SE Asian peat swamp forests jeopardise the health and livelihoods of millions of people in several countries in the region. The destruction of mountain peatlands in Africa, Asia and Latin America threatens the water and food supply for large rural and urban populations.
- Climate change impacts are already visible through the melting of permafrost peatlands and desertification of steppe peatlands. In the future, impacts of climate change on peatlands are predicted to significantly increase. Coastal, tropical and mountain peatlands are all expected to be particularly vulnerable.
- Conservation, restoration and wise use of peatlands are essential and very cost-effective measures for long term climate change mitigation and adaptation as well as biodiversity conservation.
- Optimising water management in peatlands (i.e. reducing drainage) is the single highest priority to combat CO₂ emissions from oxidation and fires as well as address peatland degradation and biodiversity conservation.
- There is in most countries an urgent need to strengthen awareness, understanding and capacity to manage peatlands- to address peatland degradation, biodiversity conservation and climate change.

Minister for the Pacific Gateway
David Emerson

Dear Sir,

The Strategic Advisors report that was commissioned for your Ministry has validated what the citizens of Delta have been saying all along. The Gateway to Asia should be developed through our northern Ports where strategic positioning and current infrastructure makes it the common sense location. It states we need to make the shift away from truck transport except for local delivery, invest in rail to help protect the environment, and to enhance our existing infrastructure instead of building new roads such as the SFPR.

“Fundamental to our recommendations is the enhanced use of existing infrastructure before the construction of new.” (Pg. 12)

Written by the three Strategic Advisors the ‘Asia Pacific Gateway and Corridor Initiative, report and recommendations’, (APGCI, 2007), as a ‘guiding principle’ talks of protecting the environment, respecting the land and communities, and recommends the development of Prince Rupert before investing more money in Lower Mainland Ports and infrastructure. The report goes into great detail explaining how we must build a quick, reliable, cost effective system, and how the Port of Prince Rupert, with its close proximity to Asia, its lack of congestion, and easily upgraded rail infrastructure, makes it ideal. When Prince Rupert is fully up and running it will become the quickest, most efficient route to North American destinations, and combined with our current capacity, our ports will be able to handle a greater amount of the container trade than the projected need. There is no need to pollute and damage our environment and our communities by further expanding DeltaPort, or building the SFPR.

DeltaPort will become less and less necessary, as according to the report, it is only competitive because there is a present need for the capacity and it’s ***“not worse than Los Angeles.”*** Further expansion of DeltaPort and its infrastructure would be a waste of time, money, farmland, wildlife habitat, residential livability and air quality, and be totally contrary to the green objectives and strategies that our governments are committed to.

The British Columbia Government’s Ports Strategy 2005 outlines our ability to increase our market share in container trade by 17% to 8.8 million units by the year 2020 by becoming the North American Gateway to Asia. It states that B.C.’s Port System’s strengths are ‘deep, natural harbours’ with ‘shorter voyage distance/times... compared to U.S. ports.’

DeltaPort has neither of these factors. Instead, it is surrounded by one of the most important and sensitive wildlife habitats in the world and is no closer to Asia than the U.S. Ports of Tacoma or Seattle.

CONTAINER PORT	ANNUAL CAPACITY IN TEUs 2020
Centerm/Vanterm	2,500,000
Fraser Docks	500,000
Prince Rupert	5,000,000 (currently 2,000,000)
DeltaPort (current)	850,000 (with 3 rd Berth, 2,000,000 by 2020)
Total Capacity	8.85 million
DeltaPort with 3 rd Berth, add another	1, 150,000 (under construction)
Projected volume	10 million (projected need 8.8 million TEUs)

(Source: BC Port strategy 2005, The Prince Rupert Port Authority website and the Canadian Pacific Asia-Pacific Gateway and Corridor May 2007)

It is easy to see from the above table that with no further improvements to any BC ports, when Prince Rupert reaches capacity, and DeltaPort 3rd Berth is completed, our Ports will be able to handle over 10 million TEUs, which is already greater than the projected need of 8.8 million in the year 2020, and our Northern Ports can be easily upgraded to handle even more.

These numbers are very much on the conservative side as DeltaPort handled 1.2 million containers last year without the third berth, despite a stated capacity of 850,000 to 900,000 T.E.U.s. Therefore, the real projected capacity of our BC Ports will be closer to 12 million T.E.U.s annually by 2020.

Our Northern towns want the business and have the infrastructure and the capability. With the added report recommendations to build inland terminals along the rail lines in other northern towns, the boost to our northern economy would vastly improve several struggling communities instead of devastating the communities Sunbury, Annieville, Bridgeview, Fraser Heights, Royal Heights, Bolivar Heights, Port Mann and East Ladner with the environmental impacts of the SFPR and expansion at DeltaPort;

- ☞ Loss of 1000 acres of Farmland at a time when the importance of protecting our farmland has never been greater.
- ☞ Loss of Wildlife Habitat for threatened and endangered species despite strategies to protect what little is left.
- ☞ Loss of Heritage values by separating an historic fishing community from its river and sending pioneer families packing through expropriation.
- ☞ Loss of archaeological sites and disturbance of ancestral burial grounds.
- ☞ Loss of greenspace, parkland and red-listed species at risk with impacts to Fraser Heights Wetlands, Surrey Bend Regional Park, the Delta Bluffs wildlife corridor and Burns Bog.
- ☞ Threatening the very survival of Burns Bog, despite a protective covenant designed to protect it in perpetuity.
- ☞ Loss of Air Quality through increased pollution and loss of greenspace.
- ☞ Loss of livability in our neighbourhoods contrary to the Governments stated objectives, and initiatives.

The 3rd Berth expansion at DeltaPort was done without a proper Cumulative Effects Assessment as required by the Canadian Environmental Assessment Act and was only able to be considered with the removal of the Terminal 2 plans. The T2 portion of the expansion plans are now being reconsidered and are under attack by Environmental groups, as well as Federal, Provincial and local politicians. DeltaPort was built in one of the most environmentally sensitive and important estuary habitats in the world and all expansion plans have been opposed by even the D.F.O. since the 1970s.

T2 expansion would not only be further impacting the Pacific Migratory Flyway, the Fraser River Salmon Fishery and the Southern resident Orcas, (all of which are supposed to be protected through one initiative or another), but according to the Government's own reports, would be entirely unnecessary. The projected amount of container growth doesn't warrant the expansion, the focus on protecting the environment is greater than ever, and there is a growing understanding for the need to move away from truck dependant shipping and the building of new roads.

The South Fraser Perimeter Road is a decades old plan that was designed for the expansion of Fraser Surrey Docks. (BC Port Strategy 2005 appendix D). These Docks have since lost 70% of their business due to container ships choosing other Ports. In addition, the SFPR Environmental Review is being vilified by the Canadian Environmental Assessment Agency, the Scientific Advisory Panel, local politicians and over 55 community groups opposed to the current Gateway strategy of coming through Delta. The impacts that would be caused to Delta's communities by the construction of the SFPR are counter to the Strategies and initiatives that have been put in place to protect the livability of our region.

The Canadian Environmental Assessment Agency, the B.C. Environmental Stewardship Division, and the Burns Bog Scientific Advisory Panel have stated that the current SFPR route along the western side of the bog would cause irreparable damage to the Bog which is not permitted under the protective covenant that states;

“The Province, Delta, and the GVRD shall not do anything, or allow anything to be done, that does or could reasonably be expected to destroy, impair, diminish, negatively affect, or alter the Bog or (it's) amenities.”

And the Ministry of Transportation response to Environment Canada comments states;

“In considering refinements to the alignment on the west side of Burns Bog, analysis undertaken by MoT indicates that a further shift (i.e., to the west side of Crescent Slough) would not eliminate impacts to areas of

concern to EC, associated with the original alignment, while at the same time increasing impacts to other values as follows:

- Increase the area and intensity of zone of influence effects on wildlife habitat (i.e., Sandhill Crane, Trumpeter Swan and water associated birds) provided by agricultural fields;
- Potential increases in collision mortality to Barn owls associated bisecting remaining foraging habitat (to the east of Crescent Slough);
- Impacts to fisheries values (where none currently exist) associated with two crossing of Crescent Slough; and
- In order to minimize impacts to agricultural values the alignment will still be required cross, and impact, some ecological values associated with the Corporation of Delta lands north of the Nottingham property.

It is noted that the proposed relocation does have cost (est. \$20 million) and other social, economic and community effects.”

Along with the comments and concerns from the environmental agencies, this quote shows that **any** alignment along the western side of the Bog **would** destroy, impair, diminish, negatively affect, and alter the Bog and its amenities.

DeltaPort officials have stated that the SFPR is not necessary if DeltaPort Terminal 2 is not built, and the T2 portion had to be removed from the expansion plans in order for a 3rd berth to get a go-ahead. Neither of these projects would pass a real environmental assessment. The impacts of the 3rd Berth will not be able to be quantified until after the monitoring is complete in 2017 and so T2 impacts cannot be properly estimated until that time. Building the SFPR before T2 is even found to be environmentally feasible would be like putting the cart before the horse.

The SFPR is also not a solution to the commuter chaos and was not designed to be. It would not improve commuter congestion as it would only allow the bottleneck of traffic at the Port Mann to move further west to the highly congested and woefully inadequate Pattullo Bridge, the at-capacity Alex Fraser Bridge and the Massey Tunnel which reached commuter capacity many years ago. The Bottlenecks need to be fixed, not more roads leading to them.

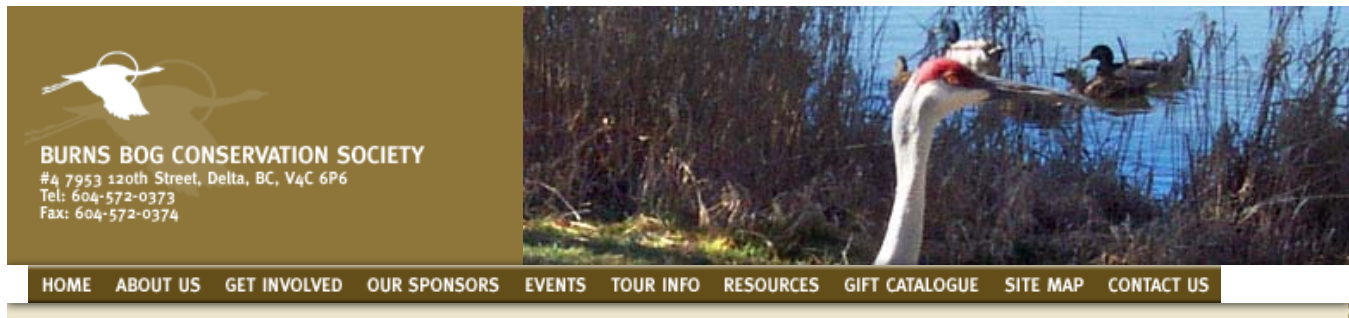
The solution for commuters is not more roads, but a proper transit initiative. There is not one example of a city building its way out of congestion, and worldwide there are major cities removing roads and replacing them with parkways, bikeways and transit for the people.

The SFPR was not designed as a commuter road but as a container route to facilitate the movement of goods from the Ports. With reports showing the SFPR and the expansion of DeltaPort and its infrastructure as unnecessary and incredibly damaging to the environment, it's time to put a stop to these projects and follow the guidelines of reports like the APGCI, 2007 that say we need a “clean slate” look at how to develop our country's infrastructure. The entire Gateway Initiative needs to be redesigned, instead of trying to fix decades old, outdated and poorly conceived plans.

I look forward to your personal response on this extremely important issue.

Yours sincerely,

Don Hunt
Sunbury Neighbourhood Association



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ENDANGERED MAMMALS ALONG SFPR

For the first time since 1948, the endangered *Southern Red-backed Vole* has been found in B.C. This species has been found in three unprotected areas of Burns Bog right along the route of the South Fraser Perimeter Road (SFPR).

Concerns from the B.C. Ministry of Environment, Environmental Stewardship Division (August 21, 2007) are being ignored:

"The Southern Red-backed Vole, occidentalis subspecies is provincially red-listed and is a candidate for listing as Endangered or Threatened under the BC Wildlife Act. Five individuals of this red-listed sub-species have been captured at three locations.... Impacts from habitat loss, degradation, and fragmentation will likely be significant given the sub-species' limited range."

Another Species at Risk, the *Trowbridge's Shrew*, has also been found at one of the same locations right where a massive SFPR interchange is planned at 80 th Street and Progress Way.

The suitable habitat for these endangered mammals, as well as the *Pacific Water Shrew* is the unprotected areas on the periphery of Burns Bog and along the route of the SFPR in Surrey. According to the *Burns Bog Ecosystem Review Synthesis Report, March, 2000*, another thousand acres still need protection to preserve Burns Bog as a viable ecosystem. The B.C. Government is planning the SFPR right through the unprotected unique habitats that still require protection.

Sources of Information

Burns Bog Ecosystem Review: Small Mammals, December, 1999, Mark Fraker, Claudio Bianchini, and Ian Robertson, Robertson Environmental Services Ltd.

South Fraser Perimeter Road , Vegetation and Wildlife Impact Assessment, Technical Volume 12, Robertson Environmental Services Ltd. September 2006

Letter from B.C. Ministry of Environment, Environmental Stewardship to Environmental Assessment Office, Re: The South Fraser Perimeter Road Development Application, August 21, 2007.

Burns Bog Ecosystem Review Study: Status of Wildlife in Burns Bog, Delta - 1999, Martin Gebauer



Seen on June 8, 2008 - Southwest Corner of Bog