

**BURNS BOG ECOLOGICAL CONSERVANCY AREA
SCIENTIFIC ADVISORY PANEL MEETING
Tuesday, Oct 13 2009 from 4:30 – 7:30 PM
Metro Vancouver Head Office, 4330 Kingsway, Burnaby BC**

Draft Meeting Notes

ATTENDEES:

Dr. John Jeglum, Scientific Advisory Panel
Dr. Paul Whitfield, Scientific Advisory Panel
Allan Dakin, Scientific Advisory Panel
Dr. Richard Hebda, Scientific Advisory Panel
Mike Brotherston, Corporation of Delta
Sarah Howie, Corporation of Delta
Cassandra Counce, BC Ministry of Environment
Chair, Mitch Sokalski, Metro Vancouver Regional Parks
Greg Paris, Metro Vancouver Regional Parks
Markus Merkens, Metro Vancouver Regional Parks
Wendy Warn, Metro Vancouver Regional Park
Loger Aure, Metro Vancouver Regional Parks
Heather Sinclair, Metro Vancouver Regional Parks

REGRETS:

Dr. Hamish Kimmins, Scientific Advisory Panel
Dr. Geoff Scudder, Scientific Advisory Panel
Jennifer McGuire, BC Ministry of Environment
Angela Danyluk, Corporation of Delta

1.0 INTRODUCTIONS

2.0 REVIEW AGENDA & JULY 21 2009 MEETING NOTES

3.0 ACTION ITEMS FROM LAST MEETING

- Coordinate a day-long workshop with SAP participants to finalize the BBECA Research Strategy (scheduled for Aug. 26, 2009) – Completed

4.0 REQUEST FOR SAP DELEGATION TO SPEAK AT DELTA COUNCIL (DISCUSSION)

- MB communicated a request from one of the new Councillors to have a delegation from the Scientific Advisory Panel speak at a regular Delta Council meeting, which ordinarily take place Monday evenings at 7:00 pm
- The SAP expressed concerns that a fifteen-minute timeslot would not enable them to accomplish much, and suggest a workshop setting; MB indicates that this is also a possibility as a workshop generally precedes the meeting
- SAP suggested that Delta Council pose a question to the panel in order to focus the presentation (i.e. Do they need a “Bog Education”, or would they like to learn about a specific initiative of the panel, etc.)
- Greg suggested waiting until the Research Strategy is completed in the new year and use that as a framework for the presentation, which the panel feels is a very good idea

ACTION: Mike Brotherston will follow up with Delta Council regarding a presentation by the SAP in the new year.

5.0 USE OF BIOSOLIDS IN LANDFILL CAPPING AT VANCOUVER LANDFILL (DISCUSSION)

- Corporation of Delta has requested SAP's input regarding the City of Vancouver's request to cap their landfill site adjacent to BBECA with biosolids
- The double-ditch on the northern side of the Vancouver Landfill (VLF) consists of an outer ditch with bog water and an inner ditch with leachate from the Land Fill; the water level in the outer ditch needs to be kept higher (higher gradient) to limit the migration of leachate northward; the leachate in the inner ditch flows to Annacis Waste Water Treatment Plant;
- SAP noted that it would be useful to investigate the current operational effectiveness of the double-ditch by testing the soil chemistry of the catotelmic peat between the ditches, and measuring the water levels & water chemistry in the outer and inner ditches; as mineral waters migrate into the catotelmic peat (mineralization), it's ability to act as a barrier declines;
- The 21 September 09 Letter from BC Ministry of Environment to the City of Vancouver declining the City's request to use biosolids on a trial basis as a subsoil material in capping the Phase 1 closure of the VLF was shared with SAP;
- Phase 1 closure of the VLF adjoins the BBECA Provincial Lands, with the outer landfill ditch being approximately 30 metres from the property line of the BBECA;
- Former 'Parcel D' adjoined the VLF; 'Parcel 2' was transferred to the joint ownership of Delta and MV; 'Parcel 2' was created by dividing the southern 100 metres from the western part of the parcel and southern 150 metres from the eastern part of the parcel; the southern area remained in the ownership of the City of Vancouver;
- Parcel 2 contains some of the most pristine raised bog conditions in the ECA;
- A SAP member who was not able to attend the meeting (providing comments by e-mail), cautioned that biosolids characteristics vary and thorough investigation is required;
- SAP recommended that no capping run-off be directed to the outer ditch, regardless of whether the capping material is clean fill, topsoil or biosolids, as the mineral waters would harm the bog;
- SAP noted that biosolids may be high in calcium and phosphorus, which are harmful to bogs, e.g. lowering acidity (raising pH), harmful to mosses;
- Run-off to the inner ditch could be problematic as well; higher water levels in the inner ditch (than the outer ditch) would encourage the migration of minerals into the catotelmic peat between the two ditches, thereby compromising its ability to act as a barrier;
- SAP recommended that the capacity of double-ditch be studied in relation to the likely run-off from closed sections of the VLF, as well as proposed hydrological controls, to ensure that overtopping does not occur with the potential resulting flows of mineral waters into the boglands; SAP suggested that the CH2MHill modelling of the bog might be used to test scenarios with large run-offs from the VLF;
- SAP recommended that grading of the landfill to the south be considered, as well as the installation of a stormwater ditch south of the double-ditch to catch and transport landfill capping run-off;
- Planting trees (e.g. native willow) close together (i.e. bio-engineering approach) along with a native grass mix would provide a quick vegetative cover and greater evapo-transpiration capacity;

ACTION: Metro Vancouver to compose a letter to Delta with discussion notes regarding Vancouver Landfill Capping issues as per Delta's letter.

6.0 FIRE BREAKS (DISCUSSION)

- WW reported that the Delta Fire Department feels that current natural breaks are sufficient for them
- SH wanted a grad student to study affected areas before, during and after creating fire breaks, which SAP supports; however, it may have to wait until next year
- It would be very important to manage PR and public education if trees were to be cut for fire breaks
- Fire breaks are still a priority, especially given the upcoming El Nino year; however, sources of funding would need to be secured and someone would have to take responsibility for maintaining environmental and WCB standards
- JJ suggested prescribed burn after creating the fire breaks as it would be beneficial to bog restoration efforts
- RH suggested there may be funding options through the province for reducing the risk of catastrophic fire (using methods such as reducing ladder fuels and tree density); some sites have recouped partial costs through selling the felled lumber but it's unlikely that timber removed from Bog would be of value
- The best option may be to choose one key location as a test; should get rough estimate for cost of completing chosen site versus the expense of fighting a fire
- JJ suggested consulting with Fire Behaviour Specialists; Metro Vancouver's watershed fire suppression team may also be able to consult on the project

7.0 4X4 ACCESS ROUTES

- Discussion was deferred to the next meeting following the BBECA Operations meeting at which access routes will be evaluated; resulting recommendations will be presented to SAP for discussion

8.0 PRINCESS FARMS REMEDIATION (ISSUE AND DISCUSSION)

- 200mx25m stretch of fairly deep hogfuel, several metres deep in places, has now been partially removed from the site but a significant pad of hogfuel remains; how should remediation progress from this point?
- RH felt that this is a perfect lagg experiment site given that bog ecology will never be restored here and it should therefore be treated as upland; he feels that the land owner should pay for the restoration costs associated with vegetation planting and drainage improvement (to be planned by SH/SAP)
- PW suggested that there should be a trench created and mineral soil introduced to support lagg species; this will encourage water to collect there rather than flowing into the Bog
- This would be an opportunity to have a double ditch dug, as well as a fire break created (which would be ideal given that this is where the previous fire started) and piezometers installed to allow monitoring in this area

9.0 SUCCESSION PLANNING FOR SAP MEMBERS (DISCUSSION)

- GP informed attendees that Dr. Geoff Scudder will be resigning, and that Dr. Hamish Kimmins is unlikely to make most meetings given that he lives on Denman Island
- Metro Vancouver will look to the SAP for advice in finding suitable candidates to fulfill the Terms of Reference of the SAP
- RH noted that it will be very hard to replace Geoff as he was very well-known and well-regarded, as well as very skilled in biodiversity, while Hamish brought a forest systems ecology perspective to the group

- RH pointed out that what is really needed is people with access to resources; SH suggests people associated with the universities
- PW advised that he will retire from his government position next year, so he will likely be replaced by the feds at that time

10.0 INFORMATION ITEMS

- 10.1 Southern Cross Update from CC
- The SFPR is required by the Ministry of Environment to perform habitat restoration as part of their project approval and CC suggests using this commitment to have them remove waste from the Southern Cross property; removal is estimated to cost approximately \$1,000,000
 - Currently in the process of determining feasibility, especially as concerns potential relocation sites for the waste
 - RH recommended instead that the waste be left in place and buried, and have the SFPR contribute the money it would have cost to move that material toward more critical rehabilitation projects
 - There is a high risk associated with digging out the waste material, including additional leeching and potential disruption of the hydrology
 - AD noted that leechate in this area has not been closely studied and it should be analyzed to determine leechate levels; but he agrees that digging out may create more problems than leaving it in place
 - CC stated that some waste must be removed to fulfill the SFPR contract
 - RH therefore suggested taking it down to slightly above the level of the Bog, capping it, and restoring it as a upland ecosystem while putting the remainder of funds from SFPR toward mitigation effects along the East-West ditch corridor
- 10.2 Research Strategy update from MM
- Recommended at the outset hiring students, possibly two per year, to complete eight projects; hopefully will be able to creep up those numbers over time
 - Should look at international funding opportunities
 - May have to take projects with funding in place; other selection criteria has yet to be fully defined
 - The strategy is to be completed late this year to allow for budget development and implementation in 2011
- 10.3 Ramsar Designation from MM
- BBCEA must meet at least one criterion out of nine to qualify
 - There are four that apply to BBCEA but supporting data needs to be collected
 - Other designations will be researched and reported on
 - MS has directed MM to put together necessary data, but no specific timeline currently in place
- 10.4 Northern Boundary Drainage Management update from GP
- GP is working with Gateway to gather the information necessary to manage this area
 - Landfill closures are going ahead in several locations, including Gateway's
 - JJ wants Gateway to provide the promised cross-sectional information and suggests contacting them; GP has been given the LiDAR data, but not the detailed ortho maps
- 10.5 Clarification of MV capital replacement program by MS

- Contrary to what Don DeMill told Delta Council recently (that Metro Vancouver was “building roads” in the BBECA), the capital replacement money actually goes toward maintaining existing access roads; no new roads are planned
- 10.6 2009 Operations update by WW
- Working to get pedestrian inhibitors installed rather than normal gates to restrict access to BBECA
 - Re-evaluating access routes to determine functionality
 - GPS-ing locations of invasive species, particularly blackberry; SAP notes there are many additional invasive species they would like to see mapped, plants to be listed at future date
- 10.7 Sphagnum growth update by RH
- The problems which had arisen regarding the measurement of sphagnum growth have now been resolved, hopefully a draft report will be available by next month
- 10.8 Bog-Related Research Evaluation Guidelines by MM
- MM was requested by his fellow Natural Resource Management Specialists to ask the members of SAP if they could provide guidelines for evaluating bog-related research application requests for other bogs
 - SAP indicated they would be willing to assist with this project
- 10.9 SFPR Wildlife Salvages update from CC
- Gateway has asked whether red- and blue-listed species captured on the SFPR site could be relocated into the Bog
 - MM has sent a letter to MoE outlining appropriate protocols that may allow introduction of salvaged red- and blue-listed species into the BBECA based on SAP input

11.0 Meeting Adjourned: Next meeting Tuesday November 17, 2009