

Notes from the Thursday November 17, 2005 Meeting of the Scientific Advisory Panel

Burns Bog Ecological Conservancy Area

Attendance

SAP members: Richard Hebda, Geoff Scudder, Hamish Kimmins, Bert Brink, and Bob Peart

Absent: Allan Dakin

Planning Team Members: Greg Paris, Verne Kucy, Michael Dunn, and Mitch Sokalski

Guests: Hugh Fraser, Sarah Howie, Paul Whitfield, and Marcel Laroche

1. Notes from the October 20, 2005 Meeting

- Accepted with minor changes.

ACTION

Bob to re-circulate.

2. Wildfire Strategy for Burns Bog

SAP members thanked Bryon Funnell and Rick Lehbauer from the Delta Fire Department for attending for a follow-up discussion on the recent fire in the Bog. SAP members requested this meeting because fire has such an important role in the ecology of the Bog, the Bog is sensitive and the approach to fighting the fire needs to be an important consideration. Following are the key points discussed:

- Historically there were fires in the Bog in late summer and early fall when the Bog was drier. These fires were more intense and the Bog was wetter, so in the past there were fewer trees. Also these fires tended to skip and jump and leave behind important portions of the Bog.
- The recent fire didn't harm higher value portions of the Bog. Generally, burning the trees and their root matt is good and burning the Bog is not good. We want sphagnum, not pines. Restoring the lagg will assist with fire management.
- It was essential that the fire not move to the perimeter interface and thus harm houses, industry and transportation. Delta simply couldn't risk this...so water and retardant was dropped as quickly as possible in an effort to put the fire out. First strike control was necessary and fundamental.
- Did this fire protection methodology harm the Bog, break the Covenant and/or could the sensitivity of the Bog be considered during future fires? Hopefully, years from now when the Bog is wetter and there are (hopefully) fewer pine trees; fire won't be as big a threat.
- The Delta fire department requires water and access --- how can the design of the Bog facilitate this?
- Public education/communication is important so that our approach will be understood and supported.
- Can't ignore air quality...this is what most of the calls are about when a fire is burning.

Some potential solutions/ideas were shared. The goal is to reduce the size that any fire could become, so the concern for putting it out immediately is reduced. Providing increased access for the firefighters is important. Important that whatever is done it not harm the ecology of the Bog or the efforts made to restore it:

- Facilitate emergency access --- for example along 72nd Avenue and 80th Street
- 'Compartmentalize' the Bog. Fire won't grow as large if controlled by design. Section the Bog off somehow to allow physical access and sources for bog water to fight the water.
- Create corridors and fire breaks along which trees were removed and the Bog was made wetter so the fire won't spread; for example, press the top litter into the surface of the Bog with the goal of having Sphagnum overgrow.
- Try not to do anything that will encourage non-bog plants.
- Cut trees/prescribed burns --- 'roll back the fuel'. Physically remove the trees from the Bog.
- Focus on the perimeter interface and stopping the fire from spreading out of the Bog --- 100-metre fire edge suggested.
- Excavate bog ponds and map the 'deep' sources of bog water
- Strategically located helicopter pads made from the cut down trees, to assist access and bog water pick-up.

AGREED

GVRD and Delta Fire Department to develop:

1. A fire protocol. This protocol would outline criteria for fighting the fire and common interests. It is imperative to reduce risk and to agree on what must be done when a fire first starts to minimize both perimeter interface risk and smoke.
2. A short-term agreement while a longer-term strategy is being negotiated. Access and availability of bog water would be the focus.
3. A longer-term strategy that would focus on a Bog design and reducing the number of trees, particularly near the perimeter --- a wildfire and bog design plan.

ACTION

- **Hebda** will speak to Thomas Munson and about obtaining protocols related to fires near archaeological sites and see if there is anything relevant.
- **GVRD and Delta** to meet and begin the process of developing the protocol, short term and long term agreements. They are to present an update to SAP at their March meeting.
- **Scientific Advisory Panel** to discuss Bog design as a means of controlling wildfire as part of their research strategy conversation in March.
- **Peart** to discuss wildfire strategy with Mike Feller at UBC.

3. Technical Workshop on the Ecology of the Burns Bog Lagg

- Dates confirmed:
Wednesday February 15 and Morning of Thursday February 16

- Format:

Wednesday February 15
Morning

Introductions
What is a raised bog and why a lagg is important

Hydrological and Ecological Characteristics
 Current Configurations/Drainage Flow and Structure
 Engineering and Beavers

Noon Field Trip Introduction to Camosun Bog (Audrey Pearson)
 On Site

Afternoon Case Studies
 * Rithets Bog
 * Ducks Unlimited
 * John Jeglum
 Reality Check
 * Implementation
 * Urban Interface
 Principles
 Next Steps

Thursday February 16
 Morning Field Trip to Burns Bog

- Attendees (the person's name in **bold** is to extend the invitation)
 - Planning Team members
 - SAP members and advisors
 - Ducks Unlimited **PEART**
 - **Allan Dakin --- any ideas on attendees?**
 - Terasen and Vancouver Landfill **GVRD**
 - John Jeglum **HEBDA** , Mike Feller **PEART**, Michael Church **KIMMINS**, Dan Moore **PEART**, David Nagorsen **HEBDA**
 - Meeting open to the public to come and listen
- Purpose
 - Discuss how we can restore the original lagg characteristics of the Bog and whether it can be done.
 - 100 years from now we want a properly functioning Bog, this necessitates a lagg --- how do we get there?
- Outcomes
 - Outline a concept and principles to create ecological values and water levels related to a functioning lagg that does not flood the neighbours.
 - Discuss the science more thoroughly and get a sense of whether/how establishing a lagg is possible.
 - Describe what a properly functioning lagg would look like. What would be the ideal and what are the gaps?
 - Discuss whether a lagg can be restored all the way around the Bog, within the existing boundaries: i.e. the land the government owns. Consider a 50-metre setback. (This means the lagg wouldn't necessarily be in its natural place, therefore its establishment will involve some engineering and have both a natural and artificial perimeter.)

ACTION

- **Hebda** to invite John Jeglum.
- **Peart** to review Ecosystem Review and distribute the most relevant information to SAP members.
- **Peart and Kimmins** to discuss details in preparation for the next meeting. **Kimmins** to reserve a room on UBC campus for 50 maximum.

4. Previous Items Update and Status4a True Elevation Update

- Hugh Fraser advised SAP members on his conversations and research since the previous meeting.

ACTION

- **Delta** will be conducting high-resolution flights in March 2006. The resultant digital elevation models will be available in the fall.
- **Hugh** is to obtain an estimate for contour and elevation mapping for discussion at the next meeting.

4b Piezometer Installation and Water Level Monitoring

- Sarah Howie distributed a report updating SAP members providing installation locations, preliminary readings and monthly monitoring schedules. She was thanked for her work and report.

4c Research and Monitoring Strategy

- Agreed that the March meeting will focus on developing a research and monitoring strategy, once we have information from the lagg workshop. A key component of this strategy is related to monitoring, which is underway --- Munson's plots and Delta's monitoring, the photo research related to the fire and Delta's water quality monitoring related to the fire.
- Monitoring is necessary, research is optional.
- Invasive Species also critical.
- Link with the necessary lagg research.
- It needs to be all pulled together into one research strategy document that provides a sense of the money needed to undertake, sets priorities and details scheduling/phasing.

4d Invasive Species Funding Opportunity

- SAP encouraged GVRD to submit an application to the Invasive Alien Species Partnership Program. Federal members said it should have a good chance of success. It should focus on:
 - GVRD wide program with Burns Bog as a key pilot site.
 - Participatory monitoring with key groups such as the Burns Bog Conservation Society.
 - Role of community groups in surveillance related to detect, control and eradicate.
 - The existing monitoring plots that we have in place allow a control and disturbance regime to be measured.
 - Species that can live in bog environments.
 - These aren't standard alien species...a special problem.
 - Need to build on the \$73M spent on the Bog, now need to restore it.

- Don't need matching funds as investment already made with money spent on purchase. Also GVRD/Delta time and Munson's contract.
- Stress SAP, its members, their role and how they would be linked to the application as invasive control so fundamental to restoring the Bog.
- Is there a link to fire strategy?

4e DFO and Salmon Information Update
(Deferred as **Ken Brock** not present)

4f Water Quality Sampling --- Post Fire

- Delta has continued their water quality sampling as requested.

ACTION

Kucy to circulate the latest monitoring data to SAP members.

NEXT MEETING

THURSDAY JANUARY 19 430PM.

NOTE: THE DECEMBER MEETING IS CANCELLED