

Spruce Beetle Working Group Meeting Minutes

Date & Time: Thursday March 10th, 2016 @ 8:30 am

Attendees	Organization
Darius Low	FLNRO
Heather Wiebe	FLNRO
Nathan Voth	FLNRO
Cheyrl Hotter	Conifex - Fort St James
Trevor Joyce	L&M
Keith Taite	Carrier Lumber Ltd.
Jason Gordon	Carrier Lumber Ltd.
Sara Cotter	CANFOR
Stacy Perkins	FLNRO
Alec Chingee	McLeod Lake Indian Band
Doug Perdue	Dunkley Lumber Ltd.
Jonathan Taylor	BCTS
Lee Evans	BCTS
Jeanne Robert	FLNRO
Traci Van Spenger	FLNRO
Mike Byl	FLNRO
Mike McLachlan	FLNRO
Cecil Gray	Lakeland Mills Ltd.
Carl Pollard	CNC Research Forest
Jacek Bankowski	FLNRO
Judy Carlson	FLNRO
Robert Hodgkinson	FLNRO
Duncan McColl	FLNRO

Item 1: Introductions – Darius Low

- Welcome, safety procedures, and introduction of Heather Wiebe, Omineca Spruce Beetle Project Manager.

Item 2: Strategic Update: Omineca Plan – Heather Wiebe

Heather:

- Licensee meeting update from Feb 29th.
 - Section 26. It is part of FRPA that allows the Minister to make an order to control forest pests. Where we have landed with this is that we have talked about tying it to an entire TSA but that it will only be used in an area if licensees fail to live up to the plan or reasonable measures then the Decision Maker can order licensee to follow the plan.
 - FRPA General Bulletin Number 11 – might have more info regarding the general application of this Section.

- Media communications
 - Media conferences are done on the phone now and will be at 930 am Friday. This is when the Minister will make the announcement where it is now a Spruce Beetle Epidemic and that \$850,000 was spent in the past year and up to \$1 million is budgeted for next year.
 - I'm on the hook as Project Manager now.
 - There is not much difference from now other than we foresee an uptake in public interest. FCBC will be the first line of communication for the Ministry.
 - My background was to make people get along and I did a lot of communication pieces and I think that is important now. We will provide fact cards about trap trees, baits, etc.
 - We hope to get in front of this in the media and the public. The message is that we have a united front with government and licensees.
- There has been discussion about the Mackenzie and PG groups pulling together and being one single group. There are some benefits and some issues like travel conditions and drainage specific management. We will not get involved in operational business but Mike can help with that.

Question: Have you considered having more of a joint licensee presence in the news release?

- Heather: I am new to being managed by a group and we had a separate presentation meeting. I thought Sara should be present with it but it is not my decision. I don't think it will get ready by Friday if communication from the Ministry wants to move in that direction but not and not her decision or pay grid.
- Sara: I haven't heard anything from my end so doesn't think so at this point.
- Heather: We are trying to present an image to the public so only having one licensee present might not portray that. Sara came to mind as she was a co presenter at the CIF dinner presentation.
- Sara: I spoke with other licensees a few days ago at a meeting and will make sure that all licensees are on board and on the same page.
- Heather: I am the Resources Manager in Mackenzie but this will be her main function until it is not an epidemic.

Item 3: Review Regional BMP's (Larger Group Review)

Darius:

- I noticed we didn't send out the "Spruce Beetle Management Direction" document with the rest of them. Shawn Rice the Acting DM sent it out last Friday and Nathan got his out yesterday.
- All of the documents are available at the back of the room. We will review the documents and highlight important areas.

Omineca Region "Spruce Beetle Beneficial Management Practices" Document

- The document starts out with some background and biology.

- The Spruce Beetle Ground Survey Guidelines were put out about a year ago and is important to review if haven't seen it.
- All FLNRO staff report all Spruce Beetle areas – later on we are going to go and look at the spatial database that Jacek has talked about a lot recently.
- We need to get the data from the licensee and staff as soon as possible to get it into the database.
- Any discussion on the approach to detection?
 - No comments.

Flights:

- Heather: I had lots of people talk about aerial flight surveys and there are a number of issues. It isn't ideal for spruce beetle and it is such a high level look. It is good to go back with GPS and do helicopter flights. We will fly during the best window. Next year we hope that it will be based on helicopter information rather than fixed wing.
- Darius: Ortho photo work will be taken later this year.
- Sara: It is quite an effective tool for 2015 flights. They were taken in July 2015 and we were able to determine which trees were stressed and we did ground truthing now and it seems to correlate very well with photographs so far. The greys area very obvious and results should be coming within the next few weeks for identified polygons. We are working with branch and trying to see if we can use satellite imagery. We need to get down to the right pixel level but might give 2-3 months of extra time. We are trying to see if there are other methods that can be used. Cost wise there are no comments about cost issues. We are working with ministry. There are known areas that have gone grey and we are trying to go back in time to see if they can see some stress signs.
- Lee (PG BCTS): With IFS it is approximately \$4/photo with really good results and imagery.
- Darius: The expectation is that licensees do walkthroughs and probes in high risk areas. They should be done prior to action in areas. The focus is still on population reduction.
- Heather: We are going to look at how we do samples and try to take from it from a 5% to a 10% sample. We will be asking contractors to drop pins to understand if it is last year's attack or this year's. We will be dropping pixels all along. We aim to get information concise the first time and in your hands to use the information sooner. SENECA is the main contractor.
- Jacek: Codes 1-4 have live insects and 5-6 are salvage with spruce trees. We want to be as efficient as possible and in a timely manner to be able to action results.

Omineca Region "Spruce Beetle Beneficial Management Practices" Document

Darius:

- District staff are supposed to establish objectives from the BMU's.
- If you look at the layers right now every layer is set to suppression.

- Suppression means to reduce the population and to maintain them at a relatively low level.
- Holing is similar where you are trying to maintain population levels. The level of harvest and treatment are equal to current population. I think a lot of areas are in this category.
- The Salvage BMU's objective is for salvage of worthy timber.
- There might be some BMU's that make it as salvage and surrounding BMU's work on suppression.

BMU Questions

Licensee: A comment about Carp Lake Provincial Park. If the areas are managing other resources we need to look at objectives reflecting reality of not being able to action the area.

Darius: Anna from BC parks is willing to work with licensees to manage beetle within the park as they have no resources themselves.

Sara: I'm curious of the scale of BMU's and wondering about that?

Heather: I don't think pack will dictate suppression or holding with riparian or ungulate winter ranges. I don't think the level of BMU is dictated by that. I think it is more landscape level than site level. We can provide advice.

Alec Chingee: In spring we time get strong winds and a bunch of blowdown. I think those would be natural places for beetles to visit. We should keep an eye out for those types of things.

Darius: I never thought about that but we will discuss blowdown and we will have to look into salvage opportunities.

"Spruce Beetle Management Direction" document

Darius: We reviewed the expectations of harvesting and timeframes.

Cecil: I have a question from page 2 with constraints around riparian areas. One of the biggest challenges when establishing trap trees is riparian areas. It would be good to lighten up on regulations.

Darius: Is there an ability to manage that through FSP's?

Item 4: Review District Guidelines and Expectations (Smaller Group Review)

Darius:

- We will break into 2 groups. One will review the Hauling & Milling document and the other will review Conventional Trap Trees document.

15 Minute Coffee Break

Group Discussion Results:

“Guidelines for Spruce Beetle Haul and Mill Strategies” document – Doug Perdue

- It is only relevant in suppression BMU’s – maybe we don’t need the sentence in there.
 - And what about hauling through low infestation areas?
- Any infested wood that comes through the mill is a priority for processing.
 - We have been decking it up at Bear Lake and we have been separating the BA and SP and milling the spruce first.
 - Currently no sorting within block but more by timber mark.
- Separate infested spruce logs from non-infested logs.
- Monitor at the log yard for flight info rather than temperature based hauling guidelines. The Pine Beetle didn’t always behave within the guidelines so Spruce Beetle might not either.
- We need some leeway to adjust strategies for what beetles are up to.
- Is hog fuel or bark an issue? We have no beehives or bioenergy.
 - Do the beetles get mushed up when we take the bark off or is there still a threat?
- Winter hauling & processing is preferred. It is an option to avoid beetle flight.
- Is on site de-barking an option? De-barking an infested area to not haul through a non-infested area.
- CP postponement & extension options for currently issued CP’s.
- The crown has passed on the liability to the licensees but what about broadcast burn liability sharing?
- There is some uncertainty on Spruce Beetle behaviour.
- TSL hauling restriction opportunities – can we attach guidelines?

“Guidelines for Establishing Conventional Trap Trees” document – Planning Considerations - Mike

- 1 year cycle vs 2 year cycle
 - Planning trap trees around that.
 - Probe work.
- How many trap trees are you falling per infestation?
 - What is the appropriate ratio of trap trees to level of infestation? 8:1?
 - What is the appropriate size of trap trees? Large diameter and old aged.
 - 1-10 to start with and then down to 1-5 at the lowest to not deplete the canopy too much. It is from old literature/research. Maybe we need to add it to the new document. From reference document “Spruce Beetle Management in BC 1979-1984”.
- Windthrow Detection
 - We should check the operating areas for windthrow.
- Consider operation and legal constraints as well
 - If there are too many constraints maybe we should prioritize another area so we can be more effective.

Item 5: Tentative: AAC and appointment issues, current status of partition – John Pousette

- Not available for the meeting today.

Item 6: Licensee IBS Project Updates

CNC Research Forest & Dunkley's Approach to Managing IBS - Carl Pollard

- The main things are beetle detection challenges from the air, sanitation and salvage, beetle trapping, and resource management issues.
- In the Tacheeda Lakes and Angus Mack areas we did probing in the areas where we flew in November and we couldn't detect any beetles from the air. We had 5 people in the helicopter and we couldn't differentiate from areas we knew were endemic.
- The Tacheeda Lakes was probed and they noted a small patch of blowdown. It came out to 14% 2015 and 6% 2013 attack. The notes indicate the beetle is on 1 year cycle.
- The Angus Mack air was not distinguishable. We walked in in November and found substantial beetle evidence. It came out to 22% 2013, 2% 2014, and 24% 2015 attack. It was probed as stopping at CNC Research Forest boundary and thought would extend in and it did.
- We finished 4 cutblocks in the areas this winter. The big driving force is to recover value from spruce trees as fast as possible and protect timber value as we have a fixed land base and because revenue is linked to research funding the message is clear to gain as much value as possible.
- The goal is to recover timber values and undertake salvage harvesting in endemic areas by holding or suppressing the beetle across all research forest units. We want to do it by next spring but we are currently chasing beetle at this time. To meet this goal we have a few things in mind.
- We will be doing sanitation and salvage harvesting to achieve the goals around the 2017 mark. We are going into the Caine Creek area with 3000m³ to be harvested in that area. It is the most heavily attacked area in a salvage situation.
- On the east side of the Crooked River from the probe we have light attack. We are engaging in the trap tree program. In Unit G as well the Angus Mack areas.
- We will be doing sanitation harvesting and shelf life has no deterioration noted at this time.
- We are using a 5 years shelf life as it is unknown at this time and we don't want to take any chances at this time with the timeframes.
- Unit G is 47% gross beetle attack old and current. It came out at 23% off grade and previous endemic outbreak 24%. We are not seeing any downgrading due to current attack as the contractor noted that a lot of the volume was already dry.
- We are looking into combining pine and spruce salvage together. The pine outer ring rot is difficult for bucking out good log.
- Unit D & C are in the Caine Creek area near Merton Lake is a very exposed piece of old growth timber and definitely a sink for beetle. It is 70% spruce balsam leading with virtually no pine salvage. The beetles are running out of hosts as a lot of pine logging already done in the area.
- Tacheeda Lakes area Predictions flight will be smaller and a good opportunity to hold beetle and has good road access.

- We don't actually have a plowed road into Unit G so we are doing hand falling and hoping to do up to 1000 trees. We are hoping for enough to hold beetle based on the information.
- We talked about doing a trapping experimentation this summer to do a pseudo horizontal trap tree but decided to abandon the experiment as major assumption is that horizontal tree is a major attractant and seems one major assumption flawed.
- Art stalk in south Cranbrook - Funnel traps with enhanced pheromone will trap beetles in cooler springs and thinks it might be a valuable tool for managing parks or other sensitive/restricted areas.
- If the new baits work properly and are easy to deploy and recover and trap a lot of beetles.
- I have a meeting this afternoon to get implemented will be installed for this flight might be as early as April this year (canopy temperature needs to be 16 degrees C and beetles need to be mature for flight to happen)
- Some monitoring with sanitation will continue regarding retention around streams and stream conditions with w/o trees
- Stub tree trial
- We have a commitment in the MP of natural distribution of coarse woody debris but not sure we will get to that right now.
- Undertaken new MP for all research forest areas with process have put a lot of thought around spruce beetle management what best things we can do around managing all values full biodiversity old growth area competes directly managing to fixed percent across land base without greatly affecting timber supply smaller land base but same issues will arise
- Stream flow hazard score will have fairly notable water impact with beetle harvesting area deserves further study.

In Tacheeda Lakes we will probably do some small patches and select harvesting.

Sara: We will cruise the areas rather than use beetle probes to get species mix and beetle levels.

Doug: We will be able to look at plots and exclude areas not infested like high balsam areas. If we can find uninfested parts of spruce that will be great but there will be some areas that we will have to be able to manage that in.

Sara: We will need to figure out how to model that to include in peak flow for harvesting.

Jacek: How will you use the data?

Carl:

- Data from the FLNRO probe is very useful for trap trees in areas based on mapping from contractors but when it comes to salvage and sanitation maps are a good guide.
- Unit G is large areas of old attack.
- The information was good. We wouldn't have known if we had good holding action if didn't know beetle levels and we didn't know the significance until we got the data.

- We are using the data for holding actions and it will guide small sanitation operations in the Tacheeda Lakes area and large sanitation salvage in Unit G.
- One of the things quite useful is balsam yellowed near spruce beetle areas.
- There are challenges around lots of new info and guidance around stream and enhanced retention around riparian areas.
- We couldn't justify having strong minimum retention around small streams but partial retention based on windthrow and forest health management.
- Species at risk – in some of the landscapes are already heavily modified and taking off some of the old growth areas and some species at risk but didn't want to commit to management without good predictive information.

Robert Hodgkinson

- Initially beetles are attracted by smell of tree host volatiles and the vertical or horizontal dark shape (both = primary attraction). Once the first attacking female beetle bores into the Sx and is content to stay (whether on prone or standing trees), her pheromone emission gets the ball rolling for the mass attack (= secondary attraction).
- The literature supports why prone trees have a "leg-up" in getting the mass attack going on them and the fact that felled trees then fill up with more beetles compared to standing Sx. That is why we always fell spruce for trap trees as spruce beetle prefer a pheromone source emanating from a felled tree vs. a standing tree.
- We are looking into doing more identification and then implementing more use for next season.

Item 7: DPG IBS Project Updates – Jacek and Darius

Darius:

- We are super excited about the new product. It is a web based ArcGIS product that anyone can go online and see it. We can send out the link.
- We have been working with the GIS guy to get it put together. It is kind of like a pdf viewer of ArcGIS where you can turn layers on and off.
- PG district beetle information - Jacek is promoting it.
- If you click on an area it brings up the info about that polygon/feature.
- There are various layers you can turn on and off.
 - IBS severity – beetle severity.
 - Beetle management units.
 - IBS sanitation score - 0-300 is no probe data for polygon to update. 1000 is the target to get the stand moved out of the bush as soon as possible.
 - Hazard rating high/very high - shows areas outside of beetle polygons.
 - Forest service roads
 - Road permits – they can help identify possible access.

- Structures at risk & road alerts – identify access hazards and closures.
- Trap tree roads – shows areas where trap trees are planned.

Jacek: The database originally was just infestation/flight information but we included other information like roads to make it more useful. We can add probe survey information as well.

Darius:

- We are developing the database to help planning at the landscape level.
- You can view info in table form as well.
- Is this information useful to use and manage beetle? We would like feedback.

Trevor: Is Mackenzie is using it as well?

Jacek: Not yet, but it is not hard to link it in as well.

Trevor: I think it is a good spatial description. Are we trying to close loop and contain or wait for spread again?

Jacek: It will be used for planning and we will include more info as it comes. Dan Burri has been collecting the info for the FSR's.

Pheromone blocks – CANFOR operating area in Anzac is their planned area this year.

Darius:

- Does it make sense to set BMU's to suppression if we are not able to manage to that level? We might need to be set it to holding or salvage due to constraints (i.e. access).
- The expectation when establishing trap trees is to have data collected – if it is received in a format as highlighted on the table it is more useful and time saving.
- Zonation approach – initial zoning still wanting to be updated and working to figure out more as time goes on.
- Blanket salvage permits – we are proceeding with the use of BSP's in the district. Tenures working group put together to look at salvage options to include sanitation. Deputy Minister gave the go ahead to issue them but the district has to develop guidelines. The requirements have a maximum volume of 5,000m³ and a maximum size of 15 hectares from the Interior Appraisal Manual. At this time BSP's are considered only for sanitation harvest of spruce beetle infested stands. They are for:
 1. Controlling spruce beetle populations in beetle management units with suppression/prevention and holding objectives.
 2. Trap tree sites and overflow sites associated with trap trees.
 3. Sanitation harvest priority rating exceeds 1000 from spruce beetle probes.
- We are advocating that this is the best idea. The idea is to try to take away the financial hurdles to do smaller multiple entry type harvesting.

Sara: is this draft?

Darius: There is a space for district signature below and it should be signed off soon. Trap tree sites can apply to be exempt from silviculture obligations. Any final comments/concerns?

Jacek: We would like further commitment from licensees to get survey information.

Darius: Info not only from aerial surveys but also ground. We know it is a busy time operationally. Doing something is better than nothing so thank you for your contributions.

Meeting Adjourned: 11:48 am