

**PG TSA Spruce Beetle Working Group
Meeting Minutes**

Date: Friday, June 24, 2016, 1:00PM – 4:30PM

Location: Aleza Room, Plaza 400 (4th Floor), Prince George

Attendees

FLNRO: Alena Charlston (Stewardship PG District, Chair), Dave Banham (Resource Manager PG District), Jason Caswell (Authorizations PG District), Stacy Perkins (FN Advisor PG District), Heather Wiebe (Omineca IBS Project Manager), Mike Byl (Stewardship Mackenzie District), Shannon Carson (Stewardship Omineca Region), Jeanne Robert (Entomologist Omineca Region), Duncan McColl (Ecosystems Stewardship Omineca Region)

Forest Licensees: Sara Cotter (Canfor), Cecil Gray (Sinclair Group – Lakeland), Erik Anderson (Sinclair Group), Keith Taite (Carrier Lumber), Lee Evans (FLNRO BCTS), Carl Pollard (CNC Research Forest), Trevor Joyce (L&M)

Regrets: Doug Perdue (Dunkley)

Objective: The focus of these meetings has been shifted to an operational level, to work together with the Forest Licensees/BCTS to address the spruce beetle in the Prince George TSA. Strategic issues will be managed by the Omineca Spruce Beetle Project Manager, Heather Wiebe.

1. **Introduction and meeting objectives/ agenda (Alena Charlston)**

2. **Omineca Spruce Beetle Research Update (Jeanne Roberts)**. Refer to the attached presentation on 'Research plans and funnel traps set up'. Recent projects include trap tree efficacy, new lures for spruce beetle funnel traps, shelf life study of spruce affected by the beetle.

Presentation Highlights and Discussions:

- Enhanced SB Lure
 - Nelson entomologists are developing and researching 3 v 2 component lures
 - If lures are more attractive potential use to "mop-up" clear cut areas.
 - Research sites located in Nelson, Mackenzie, and CNC forest
- Shelf life study
 - Currently finding field sites for data collection
 - **Goal** is to determine how different spruce is from pine in terms of salvage time
 - **Research:** Kathy Lewis – Professor and Researcher at UNBC – has conducted research on pine salvage window. She suggests that the spruce salvage window may be similar to pine.
 - **Other Research** from Utah and Colorado: references from the '50s and '60s; suggest long shelf life for spruce. Goal is to understand if this research can apply to our area.
 - **Pine:** 1-2 years for a shelf life; more moisture is in base and it dries quicker at top. As it dries the top decreases in quality more quickly. Moisture levels can also contribute to decay and rot of tree.
 - **Moving forward.** Looking for sample sites with recent SB attack. Take down trees and check the moisture levels, wood borers, decay, checking.
- At **higher elevations** Spruce can get spiral check in the log. This causes trees to "shatter," "explode," when they are cut down. So, what is level of wood moisture, range of wood

moisture? Pine meanwhile is not as big and doesn't drop as far. Also should check pathological indicators and spiral check, on top of moisture. (Keith Taite)

- **Shelf life study needs to take into account different needs for different use.** For example 2x4's versus chip, versus pellet, nano-fiber in terms of what level of moisture is ideal for harvesting. (Mike Byl)
- Looking for definition of "normal stand". Normal definition – site series, the most prevalent, age, elevation, accessibility.
- Looking for stands that have a certain incident of beetle? (Sara Cotter)
 - Yes, snap shot in time, various stages of attack, three categories. (Jeanne)
- Treatment options: Study woodpecker: when they peck and removes bark does this affect the shelf life and moisture retention.
- Looking for 10 of each site type (10 normal, 10 riparian, 10 retention). Plan to start project in Mackenzie.
- Different cruise methods suggested– quality timber cruise (bio-grain, call factor) apply timber cruising. (Trevor Joyce)
- Suggestions for Potential sites: TFL 30, Aleza Lake Research forest is well located but does not have any known SB.
- **Trap Tree program.**
 - Assessment: looking at success levels, how many attacked, what level, how many trees saved.
- Windthrow Assessment
 - How do we qualify the risk of windthrow assessment. Looking for measurements of risk of SB connected to blow down
 - Riparian areas: if areas have blowdown. Need data assessment procedures. How bad is it if we leave the blow down in terms of Beetle attack areas next to Riparian
 - Retention areas that have blowdown, suggested look at impact with standing as well. (Keith Taite)

3. **Guidelines for Lindgren Funnel Traps for spruce beetle (Jeanne Robert)** Draft guidelines provided.

- Traps come in a box with no instructions. Key things to watch:
 - Different levels available; different numbers of tiers
 - Suggest going with longer funnel (12 cup length) versus shorter (8 cup length which is cheaper). Having more cups increases area to enter trap.
 - Beetles slide in the black part of the trap and are collected at cup at bottom
 - Pheromone caps: attach extenders and clip onto side so the vials go inside
 - Information to gather when collecting beetles: list in hand out
- Type of cup on bottom of trap: wet vs dry vs nothing
 - Dry are nice however insecticidal strips are currently are not approved for use in funnel traps in Canada (currently working to gain approval)
 - Wet cups, uses antifreeze. Beetles must be drained, filtered and cleaned out of antifreeze.
 - If nothing is used then beetles escape and it is unknown how many stay and how many have escaped. Predatory beetles come in to eat spruce beetles and lose data.
- Vendor list provided for traps
- Frequency to check traps: once a week. At most every couple of days if fills up faster.
- Density of traps:

- Research indicates traps should be 20m apart to demonstrate choice between traps. Recommended about 100 m between traps.
- Place them away from other susceptible trees (100m from healthy stands); don't attract beetles to healthy tree as there can be spill over attacks.
- Traps not as effective in heat of sun, aim for shady area.
- How long is lure effective? Lures are good for the season (couple of months). If don't use, store in freezer to extend life.
- New trap design being experimented with CNC – less funnels, larger diameter, cup has seamless ridges and other design changes.
- Spacing clarification – 30-100m, one in each location? (Licensee)
 - One or more trap can be used in one area; sometimes can be three. Make sure to reduce proximity to healthy trees. (Jeanne)
- Noticed that the SB avoided traps set up in the brushy areas in CNC. (Carl Pollard)
- Using traps in winter for beetles in stumps? (Licensee)
 - The 3 component lure can be used for this purpose, but the lure currently available may not be worth it. An option to try if not close to susceptible trees. (Jeanne)
- Baited trees slated for harvest or conventional trap trees may be better options. Funnel Traps are for where trap trees are not suitable.

4. **A) Omineca Guidelines - Expedited Authorization Submissions (Alena Charlston)** Refer to the attached presentation on 'Expedited Authorization and Blanket Salvage Permit Review'.

Presentation Highlights and Discussions:

- Initiative at PG District is that expedited authorizations will be placed at the top of the authorization priority list for processing. However, application must still follow timelines to address FN consultation, cruise checks, ECE review, etc.
- Rational for expedited needs be provided. Full probe not required, but must address the extent, intensity, vigour and risk of spruce beetle attack. Sanitation Harvest Rating must be greater than 1000.
- Timelines still followed with processing the permit application – minimum of 40 working days. This includes 30 days to check that the cruises meet the required standards, FN Summary and Exhibit A process. Road permits paired with CP's can save time. Suggest submitting ECE to District Tenures group ahead of CP applications. (Jason Caswell)
- Need to submit information as soon as possible to the District. FN Consultation can be focused on permits needed. District staff is not assigned per licensee. (Dave Banham)
- Concerns over big versus little licensees and processing applications: time versus size. (Licensees)
 - The District understands this and tries to create equitable, expedited processes that take into account prioritizing. Aware of larger versus small submissions. (Dave Banham)
- Information sharing and the consultation referral process will continue as per status quo with expedited permits. (Stacy Perkins)
- Licensees need to give the District a heads up of what is coming, as soon as possible. The District receives large stock pile of applications in the fall that need to get permitted right away. We are aware this will happen and have been discussing how to address this internally, but we have to think ahead as a group. If Licensees plan ahead more, it helps us.

Sharing of learnings from Mackenzie District (Mike Byl)

- Expedited – FN consultation first on list of expedited application with a 30 day turn around – Normally quarterly in-takes: start beetle talks earlier instead of part of FN consultation.

Communication about what's happening to increase informed level of FNs. When submitting and attaching multiple blocks and issues into a single permit with one or two projects it complicates and slows down the process. Better information leads to more efficient processing.

- **Clear Information:** Recommend to keep beetle information specific to the block for the cruise submission and not to blend it in the cruise. Focus on green attack. If there is no attack in some areas and you can hold off, then make note of that when you do permit. Prioritization is important on dealing with the SB.

B) Omineca Guidelines – Draft – Blanket Salvage Permits (Alena Charlston)

Presentation Highlights and Discussions:

- Criteria for BSPs are noted in Guidelines. BSP's will be authorized under a CP affiliated with the applicant's forest license. Silviculture obligations are triggered as per their FSP requirements. Scaled based volume in which table rates apply.
- Isolated timber definition clarification requested. (Cecil Gray)
- Definition of 'Isolate Timber' read out from draft BSP guideline: 'timber that cannot be logically added to an approved or potentially planned harvest opportunity unless required for sanitation timber salvage purposes'. Preference is to put the trap trees, small green attack areas under a RP or CP cutting authority. BSP's are a tool for licensees to use for small isolated areas, where this is not possible. Potential example for this would be the removal of trap trees that you cannot put under a RP or CP cutting authority due to isolated/not operating in the area. (Alena)
- Bark beetle salvage permit, if you are close to where you are logging where is it considered 'isolated'? If you identified fresh green attack near a CP, there may be flexibility to use CP? (Licensees)
 - Recommend using a CP or RP to access these areas. If nothing in area then can looking into using the BSP. (Mike Byl)
- An option is to have some examples on what considered a potential BSP in addition to the guideline. Recommend the licensees provide a rationale for requesting the BSP - why this area will not be added to a CP or RP. BSP can be a great tool to remove isolated trap trees that were issued under section 52 and cannot be removed under a CP or RP authority. (Alena)
- This is a tool that can be utilized as a preventative measure to be able to go in and grab what out can because you can see it, to stop an attack into areas of interests. (Heather Wiebe)
- How does FN consultation fit in? Also, if harvesting in the area or already have approved CP's in the area, and find a pocket of green attack in the area that is outside of the approved authorization area? (Keith Taite)
 - Information sharing is important here. If close to an area that was already consulted on, we can work quickly if we haven't identified it prior to make sure FN has a chance to identify special interest. We also don't want to do a broad PG District wide referral for trap trees in all areas of DPG, as this is hard for FNs to deal with. Distinct units work better. (Stacy Perkins)
- This can be used to go after the green attack when it is small to help avoid a large scale salvage issue. (Heather Wiebe)
- **Action:** Review the definition of 'isolated timber' in the draft Omineca BSP Guideline and make changes to ensure a clear understanding of the definition. Option may be to include examples.

5. **Licensee Updates – upcoming plans, learnings, challenges**

a) **Carrier** (Keith Taite)

- Operating Area: Working with Sinclair in the Bill's Creek area

- Two primary areas focused on for this year:
 - Currently focussing on area accessed via the 900 Road (old Bill's Creek FSR). Layout complete. The probe was completed prior to the flight and found every block over sanitation level except for 2 blocks were just under at the time.
 - Next area is located in the eastern portion off Bill's creek. Looking into options with Dunkley to access this area from the south via the 700 Road (Chuchinka FSR) on the 900 Road. This section of the 900 Road has been closed for about 30 years, so lots of engineering requirements. This option will help to alleviate the high amount of traffic that is expected this winter on the Tacheeda Canyon with Sinclair and Canfor using the 800 Road.
 - Estimate about 100,000 m³ within each area and plan to harvest these areas this winter, prior to spring.

b) **Sinclair** (Cecil Gray)

- Area of Focus: Bill's Creek accessed via the 900 Road and the Tacheeda canyon.
- Started layout and traps trees were felled prior to this flight in Bills Creek along road permit right-of-ways and in Mertan Lake area. Hoping to use BSP for the removal of the trap trees.
- Funnel traps were set up in Lakeland's log yard, 9 in Bill's Creek, and about 20 in other areas. Information on beetle numbers collected from these traps provided. The log yard numbers show that the beetle numbers peaked June 1-7th, and the field traps May 19 -June 9th. We are not over the hump of the peak with the beetle flight.
- Finding lots of green attack in Bill's Creek area. In the yard, info provided.
- Spruce beetle activity found in Sinclair's (Apollo) operating area in Fort St James.
 - Recommend informing Cindy Holland in FSJ with Stuart Nechako District.
 - **Action:** Alena to follow-up with Ft. St. James staff.
- Harvesting occurred in the 80s and 90s in their operating area to address the SB.
- **Changes to Flight Times/ Weather:** Beetle flight this year occurred 1-3 weeks earlier than normal due to the warm weather. May 14th around the Bear Lake area (usually last week of May). Valuable to keep track of the data for the beetle flights via numbers collected from funnel traps. (Alena/Jeanne)
- Do cooler temps impact survival? There was 6 inches of snow in some areas. (Sara Cotter
 - It doesn't kill the mass number of SB, but they do not like to fly when it is too cold. Cooler temperature means the SB are more contained to epi-centre and take whatever host available. With warmer temperatures, these conditions make it more favorable for the SB to have time and energy to fly farther and search for the best host. (Jeanne)

c) **Canfor** (Sara Cotter)

- Felled about 300 trap trees prior to this year's SB flight in the Anzac, along the Seebach and Hayden Roads in TFL 30, and along the Sande FSR.
- Baited 4 blocks in the Anzac with Pheromone/Funnel Traps in April during pre-development, which will be harvested this fall.
- Expect 180,000 m³ to come out of the Seebach FSW in TFL 30 this winter to try to effectively address the SB green attack. Will prioritize the areas with >1000 sanitation levels in the FSW and focus use of trap trees. Heavy winter ground in the Seebach.
- Intend to set trap trees with right-of-way falling this winter prior to the 2017 flight and remove these trees in winter 2018.

- Try to be on the leading edge of finding the green attack. **Challenges:** By the time the probe data is collected and finding out where the SB is going where things are changing so much with the green attack, it makes it difficult for the licensee to be responsive and prioritize these areas that is cost effective. Especially with the field check is finding that the green attack areas can change from one beetle season to another. Trying to be effective on addressing the green attack for sanitation.
- Canfor plans to have a lot of volume coming out of the Parsnip/Anzac area this winter to address SB that will be coming down the Tacheeda Canyon – **Safety Concerns**. Setting up the Anzac Camp in the next few weeks that will be in place for the next 3 years to address the volume coming out of this area.
- Plan to harvest in the Table area (another SB area), but access roads need upgrading (in Sinclair’s operating area).
- Concerns have been brought forward by stakeholders/non-timber tenure holders on addressing the spruce beetle during referrals.
- Stakeholder group – Dazako Lodge (backcountry ski): SB activity in their license area (fairly small area) and have asked Canfor to leave this area untouched due to concerns with opening this area up for snowmobile access which can create a lot of damage for their business. Also impact with caribou. This area has been incorporated in the biodiversity retention Recruitment Strategy for A25 merged BEC unit, which is almost ready for submission by the licensees.

d) **BCTS** (Lee Evans)

- Did not set any trap trees for this year – logistically hard with their TSL’s. Trying to figure out options to work around this which include:
 - i. Engineering contract for road, incorporate into building roads (best scenario)
 - ii. Include probing and setting trap trees into the Recci contracts
- Colbourne area – trying to complete layout and upgrade the access roads to harvest this winter to address SB.
- Had an area prioritized to address SB around McLeod Lake, but may be part of the McLeod Lake Indian Band settlement reserve area. Currently looking into this.
- Recci planned for summer/fall of areas identified from 2015 Forest Health flights under a monitor stage and may go into these areas under a multi-phase for 2017.

e) **CNC Research Forest** (Carl Pollard)

- Estimate 300,000m³ to harvest this fall/winter to address SB
- Angusmac area has about 1/3 of unit under SB attack. Have set up Trap trees and baits, although difficult to find un-attacked trees to use. About 300 ha planned for harvest to address SB, with road construction to start mid-July.
- Caine Creek has 2 large polygons to address with about 850 ha total. Hoping to contain the SB in this area due to surround by pine stands.
- Found new attack in their Tacheeda Lake operating area, but issues with VQO’s and access.

Overall Issues/ Challenges

- Beetle moving
- Winter – volume
- Expectant high amount of Cutting permits to process

Would setting up a second round of traps trees after harvest work to suck up the beetles from the slash/stumps? **Recommendations:**

- Depends on the stump level and slash / breeding ground. Literature review note that the SB does not do well after harvesting unless there are high stumps. If diameter of slash is small the heat is too much in summer, but if there is shady larger slash then trap trees can be useful. Debris piles can also be used to suck up the SB and left until fall to be burned. (Jeanne)
- Option is to leave decked wood on the block to suck up the beetles. Have the large diameter logs on the bottom/inside, covered by the smaller log. Leave an overhang with the decked wood to provide some shade.

Action: Re-send the SBIFF (Spruce Beetle Information Form) to the licensees (Alena)

6. **FLNRO Response on Recommendations Licensees/BCTS provided to government for spruce beetle management in Omineca** (Heather Wiebe)

- Operational working groups for PG and Mackenzie TSA with focus on detection and addressing arising issues at the District level. Ministry support to ensure operations are successful for addressing the SB.
- Strategic working group level that is currently working on a response to the licensees' 21 recommendation: A third of the recommendations are already ongoing, a third may not be able to address at this time, and a third will need to do some more work on to review and present suggestions.
- Public Advisory Group for SB that is representative across the Omineca. A meeting was held last week in which included 20 representatives from a cross section of people of high calibre with lots of wisdom and experience, some of which have worked with the spruce and pine beetle in the past. Attendees were recommended Steve Thompson, Greg Rawling or MLA Morris. The Meetings are not set as it is *task oriented*. First task is to review documents and receive input. PAG will identify non-timber values, what was missed or not done right - advice versus recommendations.
- **Wind-throw monitoring.** Williston's territory where SB populations grow in wind-throw and jump into standing timber. Pilot sites set up with monitoring of wind-throw in 10 sites.
- **Spruce Beetle APP** currently being developed for crowd sourcing information hoping to launch soon.
- Looking at **Summit** in fall in PG that includes experts on spruce beetle from North America and across all sectors with about 100 people. There are pockets of SB in northeast BC, Skeena, Alberta and Nova Scotia.
 - Learning: from past and from unpublished information
 - Training: foresters in other areas not prepared / BC – Omineca can provide expertise.
- TSR: Prince George modelling exercise to incorporate spruce beetle.
- Collection of information to understand implications of SB: Flight data for late/summer fall, partition monitoring, amount of SB harvest.
- Land Based Investment assistance available to carry out actions.

7. **PG District Update** (Alena Charlston)

Refer to the attached presentation on 'DPG Spruce Beetle Update'. Presentation Highlights and Discussions:

- Review of spruce beetle infestation levels in PG
- 2016 PG District plans for spruce beetle detection
 - Low level detailed aerial sketch-mapping with helicopters planned for late summer.

- Plan is to fly the areas of concern found with licensees in their operating area.
- Spruce beetle probing contracts planned for early fall 2016, to ground truth SB levels detected with aerial sketch-mapping. Will work with licensees to confirm what areas require ground surveys.
- **Goal:** To address green attack movement as soon as possible and get the information out to the licensees earlier to allow them more time to focus on sanitation and better information to change operations address the green attack.
- The next PG TSA WG in the fall would be good, post beetle flight and detailed aerial sketch mapping work to see the outcome of the 2016 beetle flight. (Licensees)
- The Omineca Guideline for SB treatments in Special Management Areas will be released very soon. Can set up a quick meeting with the regional stewardship group to review this guideline.

Next Meeting: Early Fall 2016.

Action Item	Person Responsible	Date Required	Updated Status
Review the definition of 'isolated timber' in the draft Omineca BSP Guideline and make changes to ensure a clear understanding of the definition. Option may be to include examples.	FLNRO - Omineca	Completed July 14/16	The BSP guidelines have been updated to incorporate these concerns and the finalized version has been sent out by the DPG DM (July 14/16). DPG District will discuss the potential use of BSP's and expectations internally to clarify the operational aspect of these guidelines. If required, examples or clarification at the operational level may be provided to the licensees from the district level working group.
Follow up with FSJ District staff of spruce beetle activity found in Sinclair's (Apollo) operating area in Fort St James.	Alena Charlston	Completed July 11/16	
Re-send the SBIFF (Spruce Beetle Information Form) to the licensees	Alena Charlston	Completed July 21/16	Sent out with meeting minutes.
Set up Next PG TSA Working Group Meeting in Early Fall	Alena Charlston	October 15, 2016	