

**VANCOUVER ISLAND NORTH WOODLANDS ADVISORY GROUP
(VINWAG)**

***Western Forest Products Inc.*
Community Advisory Group
Minutes of Meeting Held June 27, 2019**

Attendance:

Jon Flintoft, NIFO, WFP	Gaby Wickstrom, Port McNeill Mayor
Tom Doak-Dunelly, General Public	Chris Read, Aquaculture
Patrick Donaghy, Local Government Alternate	Ray Harper, Labour
Dave Trebett, Tourism & Recreation	Steve Lacasse, Environment
John Tidbury, District of Port Hardy	Fred Robertson, Education

Presenters: Steve Platt, WFP, Planning Analyst

Regrets: Gunnar Wigard, Large Contractors, Vince Case, Suppliers

Observers: Jim McDowell, WFP, Planning Manager, North Island Forest Operation; Melissa Gauchier, WFP, Field Planner, North Island Forest Operation; Teri Bloom-Heaslip, WFP, Summer Student, North Island Forest Operation

Advisors: Paul Barolet, MoFLNRORD

Chairperson and Facilitator: Annemarie Koch

Minutes taken by: Jon Flintoft and Annemarie Koch

1.0 SAFETY AND INTRODUCTIONS

Annemarie welcomed everyone to the meeting, stressed the importance of safety throughout WFP's operations, and reviewed the procedures to follow in the event of an emergency. Annemarie reviewed the objectives of the meeting, namely to review the action items and minutes from the April 25th, 2019 meeting, hear a presentation by Steve Platt on the innovative uses of LiDAR, have a final review of the 2018 annual report, hear a report out on the external audit, undertake the annual review of the Terms of Reference, discuss the itinerary for the September 13th field trip and set the date of the next meeting.

Annemarie invited everyone to introduce themselves for the benefit of the presenter.

2.0 REVIEW OF LAST MEETING MINUTES AND ACTION ITEMS

Annemarie asked if there were any comments on the minutes of the April 25th meeting and reviewed action items requiring updates or immediate attention with members, and the results of the discussion are summarized in the table below, along with the addition of seven action items developed and one revised during the course of this meeting. For the benefit of new or recent members, Annemarie noted that she would be assuming all members had read their minutes and would not be taking additional time to go through them at the meeting, other than to deal with questions, changes and action items. Action items that were completed were dropped from the list and revised action items were retained as modified.

Annemarie noted that action items 238, 250, 253, 258,259, 264 and 267 had been completed. She noted that, with respect to action item 237, Jane Cameron had indicated that new Indicator 3.2.2 provided an expanded way to protect special water features and that WFP's new Western Stewardship and Conservation Plan might address some of the concerns related to monitoring water quality and quantity on the DFA. Annemarie asked Jon to provide an update on action item 264.

Jon noted that the road to Side Bay had been beaten down and was currently open to vehicles with higher ground clearance.

Annemarie asked Paul to address action item 265, in response to the question regarding why stumps are not included in calculation of woody debris. He explained that retention of coarse woody debris is largely to support biodiversity and stumps provide minimal habitat for this purpose. He noted that stumps are attached to the ground, rot slowly, and are not therefore considered coarse woody debris. He added that stumps pulled from the ground are considered to degrade more quickly and provide better habitat, and are therefore included as coarse woody debris.

He also provided the following notes on coarse woody debris (CWD):

Data collected for CWD include species, diameter, length, and decay class. Length is collected as a qualitative indicator for CWD – long pieces >10 meters are generally better for habitat and decay slower. Stumps and stubs are indeed wood but they provide minimal value as habitat in general. They are also attached to the soil and do not qualify as CWD as per the definition below.

CWD Defined

Coarse woody debris is dead woody material, in various stages of decomposition, located above the soil, larger than 7.5 cm in diameter (or equivalent cross-section) at the crossing point, which is not self-supporting. Trees and stumps (intact in ground) are considered self-supporting, and therefore are NOT considered CWD.

Pieces of CWD may be suspended on nearby live or dead trees, other pieces of CWD, stumps, or other terrain features. There is NO minimum length for CWD.

Coarse woody debris includes:

- *downed horizontal or suspended (not self-supporting) dead tree boles with or without roots attached;*
- *fallen trees which still have green foliage if they no longer have roots attached (no living cambium) to the ground to keep them alive;*
- *woody pieces greater than 7.5 cm at the point where the sampling line crosses the piece;*
- *uprooted (not self-supporting) stumps greater than 7.5 cm in diameter at the crossing point and any of their exposed dead roots greater than 7.5 cm in diameter at the crossing point;*
- *fallen broken tree tops which may be horizontal or leaning, or large fallen branches;*
- *recently cut logs;*

Coarse woody debris does not include:

- *dead branches still connected to standing trees;*
- *self-supporting (not overturned) stumps;*
- *exposed roots of self-supporting trees or stumps;*
- *material that is buried beneath organic or mineral soil layers, or has decomposed enough to be part of the forest floor;*
- *live or dead trees (still rooted) which are self-supporting.*

Annemarie asked Jon to report out on items 266 and 268.

Jon noted that he would like to defer discussion of action item 266 to his review later in the meeting of Indicator 4.1.1 in the annual report.

Jon noted that, with respect to action item 268 on updates to FRPA, the Ministry was currently running a public engagement process and was seeking input on the proposed changes to FRPA. He noted that the deadline for input was July 15th and he encouraged VINWAG members to participate in the process and provide input. Jon noted that he expected there would be more information on the changes in the fall,

after the public engagement process ends, and he offered to provide an update at the September 12th meeting.

Steve asked when the recommendations of the public participation surveys were going to be implemented and Annemarie noted that she would review the status of the recommendations and report out at the next meeting.

ACTION ITEMS					
#	Item	Responsibility	Initiation Date	Target Date	Completion Date
140	Follow up on engaging youth in SFMP	Fred Robertson/Jon Flintoft/ Kindry Mercer/A. Koch	June 27, 2013	Ongoing, in 2019	
191	Follow up on recommendations 4-5 of the 2015 participant satisfaction survey in mutual consultation	Members of VINWAG and WFP	February 25, 2016	Ongoing	
196	Consider ways to enhance communication of what VINWAG does to the public, integrate with WFP's communications strategy	Annemarie Koch	April 28, 2016	Ongoing	
213	Implement recommendations in 2016 participant satisfaction survey report	Annemarie Koch/Jon Flintoft/VINWAG Members	February 23, 2017	Ongoing	
237	Talk to the writers of the new CSA Z809-16 standard to determine whether the intent of the new Indicator 3.2.2 is to provide direct measures of water quality and quantity in the DFA	Jon Flintoft/Will Sloan	November 9, 2017	Discussion with Jane Cameron on February 22, 2018. Annemarie to follow up with Jane in 2019	Completed June 27, 2019
243	Implement recommendations in 2017 report on participant satisfaction survey	Annemarie/Jon/VINWAG Members	February 22, 2018	Ongoing	
246	Continue to review and develop the targets for new Indicator 3.2.2	Jon Flintoft/Kevin Laird/VINWAG members	April 26, 2018	Ongoing	
248	Consider holding a 'VINWAG open house' to let members of the public know about the group and its role	Annemarie/Jon/ All VINWAG Members	June 14, 2018	Sometime in 2019	
260	Implement recommendations from 2018 participant satisfaction survey	All	February 28, 2019	Ongoing	
265	Report out to VINWAG members why stumps are not included as woody debris	Paul	April 25, 2019	June 27, 2019	Completed June 27, 2019

266	Find out why carbon produced in natural wildfires is not currently included in calculations of net carbon uptake	Jon	April 25, 2019	June 27, 2019	Completed June 27, 2019
268	Provide update on changes to FRPA and the professional reliance model	Jon	April 25, 2019	September 12, 2019	
269	Provide a report on status of the recommendations from the participant satisfaction surveys	Annemarie	June 27, 2019	September 12, 2019	
270	Revisit the target for Indicator 5.2.6 and possibly make it a reporting out target	Jon/Annemarie	June 27, 2019	Ongoing in 2019-2020	
271	Confirm and distribute prizes to winners of 2018 annual report contest	Jon	June 27, 2019	September 12, 2019	
272	Place discussion of 2020 external audit on February and May VINWAG meeting agendas in 2020	Annemarie/Jon	June 27, 2019	February & May, 2020	
273	Confirm and distribute VINWAG Terms of Reference for 2019	Annemarie	June 27, 2019	Distribute with June 27, 2019 meeting minutes and link to FRPA public engagement website	
274	Advise Jon of anything you would like to see during the September 12, 2019 field tour	VINWAG Members	June 27, 2019	By September 4, 2019	
275	Make arrangements for 6 p.m. dinner and 6:30 p.m. start time for September 12 th meeting	Annemarie/Jon	June 27, 2019	September 12, 2019	

Annemarie noted that the remainder of the action items were ongoing or in process and asked members if they had any comments or questions on the action items or minutes.

There was no further discussion and the minutes were accepted as circulated.

3.0 INNOVATIVE USES OF LIDAR ON THE DFA, STEVE PLATT, WFP

Steve noted that he would be reviewing some of the work that had been done and the results using the data that had been collected since his last presentation to VINWAG close to two years ago.

He noted that he wouldn't be spending much time on how LiDAR works, as he had previously talked to VINWAG about this (February 26th, 2015). Steve noted that over half a trillion data points had been collected on WFP's land base since he made his last presentation to VINWAG. He noted that most of the area covered by the LiDAR work was in WFP's TFL's.

Steve demonstrated the richness of the data using a video of a flyover. Steve showed some of the basic datasets, including contours, slope models, canopy height models, tree top analysis and hydrological models.

Steve noted that the use of this data has greatly influenced how the company carries out planning. He discussed ways in which these large quantities of data can be accessed by planners. He reviewed the use of LiDAR data in calculating forest influence, for example.

Steve used a proposed cutblock in Port McNeill to demonstrate various LiDAR-based tools such as locating a deflection line. He also demonstrated how the slope tool works to calculate and show the slope of roads in a cutblock, for example.

There was a discussion of whether LiDAR could be used over time and in future to monitor quality and quantity of water in streams. Steve noted that soil information would also have to be worked into these calculations.

There was a discussion of some possible uses of LiDAR in future and its current limitations. It was noted that more flying of the sites was needed to collect information on features that change over time, e.g. landslides.

Steve showed how a forest influence map can be generated using LiDAR data. He noted that the data used to generate the map was actual and not estimated and so resulted in a more accurate product.

Steve reviewed how LiDAR can be used to review operability and how it can confirm whether sites can be accessed or not.

Steve reviewed landbase blocking – a detailed and accurate inventory of the landbase. He noted that the exercise helped to determine what is operable and how it will be harvested and what is not operable and why it is not.

Steve noted that, through LiDAR, WFP was getting more detailed information with which to develop short, mid and long-term plans.

He noted that use of LiDAR will better inform WFP when making capital investments, will ensure WFP stays on profile and is harvesting sustainably and will better position WFP to provide what its mills require.

Steve noted that landbase blocking will help with long term forecasts, 20-year planning and short and mid term planning.

Steve demonstrated how, using LiDAR data, terrain constraints can be identified, road locations can be determined and riparian and other areas can be netted out, leaving the operable areas, and identifying which areas can be harvested using conventional methods or heli-logging or other means of harvesting.

Steve reviewed the use of LiDAR to produce individual tree inventories. He noted that LiDAR could be used to determine the location, height, DBH, volume and species of trees, though the accuracy of identifying species type is still not as high as desired. He demonstrated what a tree inventory looks like, including colour coding for the tree species, e.g. blue for spruce.

Steve explained how the method can be used to identify tree species. He noted that ground-truthing is still required to confirm the LiDAR work on tree species identification.

Steve reviewed the accuracy of the individual tree identification model, using LiDAR. He noted that accuracy by species varies, adding that cypress and cedar were not well identified by the method, but the accuracy levels go up over large areas and numbers of species, and are comparable to cruise results. He noted that the accuracy was improving as more data was gathered and the technology improves. He noted that there were likely a number of understorey trees that were not being picked up, for example, but as long as these variables were known, the LiDAR tool would improve.

There was a discussion of how much of the information generated was proprietary but the technology was freely available. Steve noted that the Ministry purchased some of WFP's data last year.

Steve reviewed the use of LiDAR to inventory big trees and populate them as part of a 'Big Tree Registry.' He noted that all of the big tree information had to be ground-truthed and checked against the point cloud data. Steve noted that, as of today, Sayward was home to WFP's tallest tree: a 94 metre Douglas fir, just shy of the previously recorded tallest tree on Vancouver Island, a 96-metre fir in the Carmanah. There was a discussion of what constitutes a 'big tree,' including height and diameter and crown spread.

Steve pointed to other examples of big trees identified using LiDAR, including some on the North Coast.

Steve went on to discuss use of LiDAR to identify timber supply, allowing the company to validate key timber supply inputs against actuals for height and site index and to verify Operational Adjustment Factors (OAFs). He noted that this better informs WFP's decisions regarding timber supply. Steve provided an example of how actual OAF's, measured using LiDAR, can be much lower than the provincial default of 15%. It was noted that this information should help inform the Province in the calculation of timber supply.

Steve demonstrated how LiDAR can be used to determine and confirm stand productivity through actual measurement of tree height. He showed how the LiDAR inventory work shows how much higher the trees can be than what is estimated through the traditional inventory process.

There was a discussion of whether LiDAR can be used to identify key habitat for species at risk. Steve noted that LiDAR was currently being used to identify key wildlife habitat.

Steve pointed to some next steps, including developing new visual impact assessment processes using high resolution data, overall improvement of the dataset for tree species identification and improving work on hydrology to better manage riparian habitat.

It was noted that the company must still feel there is value in using LiDAR, as data collection continues to be funded. Steve noted the real value of the technology would be realized through the timber supply work.

It was noted that the laser scanner used for LiDAR could be rigged from a helicopter, fixed wing or a drone.

Annemarie thanked Steve for his presentation and invited him to stay for the rest of the meeting and answer any further questions from VINWAG members after the meeting.

4.0 FINAL REVIEW OF 2018 ANNUAL REPORT: JON FLINTOFT, WFP

Annemarie reminded members that Jon had started his review at the April meeting and would be finishing off his review this evening.

Jon thanked Melissa for her help in pulling together the report. Jon noted that, of the 65 targets, there was information for 64 targets, 44 targets had been met, 10 had not, six were overlapping with other targets and four met the variance.

Jon reviewed the two targets for Indicator 2.1.1, reforestation, noting target one, related to reforestation within four years of harvest was on track to be met and target two, related to the free-growing commitment, had been met.

Jon reviewed how the targets for Indicator 2.1.1 are measured, using field surveys of reforestation and free-growing commitments.

Jon reviewed Indicator 3.1.1, level of soil disturbance, and noted that target one had been met and was previously reported under target one of Indicator 2.1.3. He noted that target two would be met, after a reportable slide near Holberg is planted within the two-year period allowed.

Jon reviewed a picture showing a slide and there was a discussion of the areas that can be treated and revegetated.

Jon reviewed target two of Indicator 3.1.2, level of downed woody debris, noting twelve of the thirteen blocks sampled had met the target. He explained that the 13th block might have met the target but had not been covered by the sampling procedure. Jon showed a photo and chart demonstrating amount and location of CWD in a block.

Jon reviewed targets for Indicator 3.2.1, proportion of watersheds with recent stand-replacing disturbance. He noted that both targets had been met.

Jon reviewed the two targets under Indicator 3.2.2, proportion of forest management activities consistent with prescriptions to protect identified water features. He demonstrated, using a cutblock site plan map, how a wildlife tree retention site was located to help protect water features. He noted that target 1 had been met and target 2 had been met. Jon reviewed the reasons why the targets might not have been met, including weather and data collection techniques that did not directly address the target.

Jon reviewed Indicator 4.1.1, net carbon uptake, and he explained that net carbon uptake is measured only from operational fires, i.e. from activities on the DFA, and not from natural fires.

Jon reviewed targets one and two of Indicator 5.1.2, evidence of open and respectful communications, and noted that both targets had been met. He provided some examples of these communications, including the discussion of the Hecht Trail and Ledge Point harvesting plans.

Jon reviewed Indicator 5.2.6, new hires that are local. He noted that the target was that 100% of qualified local people who apply are hired. Jon noted that, while this target was difficult to meet, the Forest Fundamentals training program had been a source of trained employees.

Jon reviewed the two targets under Indicator 5.2.7, noting both targets had been met. He noted, for example, that WFP had supported National Forestry Week celebrations.

Jon reviewed the target under Indicator 7.1.1, evidence of a good understanding of the nature of aboriginal title and rights and pointed to some actions taken to address this target, including distribution of the Truth and Reconciliation Calls to Action booklet to planning staff.

There was a suggestion that the target for Indicator 5.2.6 be revisited and perhaps be a reporting out, to allow acknowledgment for people who become local after being hired. It was agreed to make this an action item to be addressed over the year.

Steve suggested further work on the targets for Indicator 3.2.2. He noted there needed to be a better way of determining whether there were any impacts of harvesting or road development on a stream. It was noted that perhaps an inspection could be carried out to specifically identify threats and protect the integrity of streams. Steve noted that he felt that, even though the target hadn't been met this time for Indicator 3.2.2, it may not have been the best target to ensure the integrity of streams is maintained.

There was a discussion of the need for more work around target two of Indicator 3.2.2. It was suggested that WFP ensure that any work that wasn't completed and was responsible for the target not being met be done for the following year. Jim agreed to consider this, although it was acknowledged that it would be hard to track this allowance for addressing the target at a later date.

Jon reviewed the contest results. He noted that there were only a few entries and that the answers to the contest were the Kinsol Trestle and the Gentoo penguin. Jon noted that the four people who entered the contest, Chares Sheard, John Tidbury, Fred Robertson and Dave Trebett had all submitted at least one correct answer to the contest questions. He thanked those who participated in the contest. It was noted that the winners would receive bragging rights and a yet to be identified prize.

5.0 REPORT OUT ON EXTERNAL AUDIT: JON FLINTOFT, WFP

Jon noted that an external audit of the operations at Englewood and Port Alberni DFA's under CSA had taken place in May of this year. He noted that the auditors had recommended ongoing certification status in both CSA operations.

He reviewed good management practices identified in the audit, including provision of EMS forms for review by employees in advance of an audit. He noted that he intended to employ this practice for the next external audit on the DFA

Jon reviewed opportunities for improvement, including simplifying and clarifying maps that are used to communicate plans, and reviewing the membership requirements in the Terms of Reference to allow more flexibility for ongoing participation for those who do not attend three consecutive meetings.

Jon noted that the external audit for the North Island DFA was scheduled for May of 2020. He added that the discussions would be on the agenda for the February and May VINWAG meetings in 2020, in preparation for the external audit.

6.0 ANNUAL REVIEW OF TERMS OF REFERENCE: ANNEMARIE KOCH

Annemarie noted that she had previously circulated the Terms of Reference adopted by members of VINWAG in April 2018 and asked if there were any comments or recommended changes at this time.

In view of the external audit recommendations around membership in Port Alberni's Terms of Reference, VINWAG members took time to review the membership provisions on page 9 of their Terms of Reference and agreed that attendance at VINWAG meetings was strong and no changes were needed at this time.

Members noted that they enjoyed the quality of the presentations at VINWAG meetings and that this was part of why they continued to attend.

Members agreed to adopt the Terms of Reference for 2019.

7.0 DISCUSSION OF SEPTEMBER 13TH ANNUAL FIELD TRIP ITINERARY: JON FLINTOFT, WFP

Jon noted that he had Warren Henderson lined up to provide a look at, from concept to design and implementation, road construction sites of varying degrees of difficulty. Jon added that the tour might include a look at water quality and revegetation of slide areas. Dave suggested looking at Blue Ox as an example of a challenging road construction site.

Jon asked members to let him know by email between now and September if there was anything else they would like to look at during the tour.

8.0 NEXT MEETING: ANNEMARIE KOCH

Annemarie noted that, further to the schedule, the next meeting would take place on September 12th and would include a presentation on Road Design and Construction and Sedimentation Management by Warren Henderson of WFP, an update on harvesting plans, a review of the September 13th field trip itinerary and circulation of the annual participant satisfaction survey.

She noted that Jon had asked to add a presentation by John Deal on the Western Conservation and Stewardship Plan to the September 12th meeting agenda, and that this would take at least one and one-half hours. She asked members if they would be willing to start their meeting at 6:30 p.m. and have dinner at 6 p.m. on September 12th, in order to accommodate the additional presentation.

Annemarie noted that WFP wanted to ensure that North Island PAG members had heard a presentation on the company's Western Stewardship and Conservation Plan prior to the proposed all-PAG conference in Campbell River this fall. Jon noted he had passed on the feedback from VINWAG members on the proposed all-PAG meeting.

Annemarie asked VINWAG members present to RSVP with Fred by June 30th so that he could make appropriate arrangements for the July 10th Festival of Forestry dinner at the Quatse Salmon Stewardship Centre.

Annemarie and Jon thanked everyone for coming and wished them a safe journey home.

When: **September 12, 2019**
Dinner: **6:00 p.m.**
Meeting: **6:30 p.m.**