# **RE: Big Tree Diameters**

From: Walton, Adrian P FLNR:EX s.15

To: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>
Sent: January 7, 2020 at 9:31:53 AM Pacific Standard Time

Thanks. Talk to you then.

Adrian

----Original Message----

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

Sent: January 7, 2020 9:31 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: Re: Big Tree Diameters

250-896-9911

On 2020-01-07, 9:22 AM, "Walton, Adrian P FLNR:EX" <Adrian.Walton@gov.bc.ca> wrote:

Good. Is there a number I can call you at? I can call just after 2pm.

Adrian

----Original Message-----

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

Sent: January 7, 2020 9:21 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: Re: Big Tree Diameters

Sure.

On 2020-01-07, 9:15 AM, "Walton, Adrian P FLNR:EX" <Adrian.Walton@gov.bc.ca> wrote:

Hi Shawn,

Do you have time to discuss after 2pm today?

Adrian

-----Original Message-----

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

Sent: December 17, 2019 7:33 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: Re: Big Tree Diameters

We should just discuss in person or via phone when I'm back to work on Jan 7.

SH

On 2019-12-17, 8:49 AM, "Walton, Adrian P FLNR:EX" <Adrian.Walton@gov.bc.ca> wrote:

Hi Shawn,

Do you have a document or email where you describe the process you used to establish the diameters chosen for the species in the big tress list? I looked at the spreadsheet you created where you were looking at the percentiles from the cruise data and the big tree registry percentages. I see which values you chose (and which data set it came from) but do you have rational for the times you chose the big tree registry data over the cruise data? Also how you chose which "percentage of maximum" to use from the BT Registry?

Apologies if you have this clearly documented and I missed it. \$.22

will be checking email.

Thanks,

Adrian

### Re: BIG Trees and Woodlots

From: Brian McNaughton <lone tree@telus.net>

To: Patrick Russell <Patrick.Russell@gov.bc.ca>, Russell, Patrick H FLNR:EX

<Patrick.Russell@gov.bc.ca>

Cc: Emma Neill <Emma.Neill@gov.bc.ca>, Shawn Hedges <Shawn.Hedges@gov.bc.ca>, Adrian P FLNR

Walton <Adrian.Walton@gov.bc.ca>, Neill, Emma FLNR:EX <Emma.Neill@gov.bc.ca>, Hedges,

Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>, Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca>

Sent: January 7, 2020 at 3:05:48 PM Pacific Standard Time

Thanks. I know Adrian from CFLT so no need for an introduction.

Talk soon.

Brian

From: "Patrick Russell" <Patrick.Russell@gov.bc.ca>

To: "Emma Neill" <Emma.Neill@gov.bc.ca>, "Brian McNaughton" <lone\_tree@telus.net>

Cc: "Shawn Hedges" <Shawn.Hedges@gov.bc.ca>, "Adrian P FLNR Walton" <Adrian.Walton@gov.bc.ca>

Sent: Tuesday, January 7, 2020 2:29:19 PM

Subject: RE: BIG Trees and Woodlots

Thank you Emma here are my last notes on where the broader file is at. Brian feel free to engage directly with Shawn and or Adrian

From our Nov 21 RSTC summary where Shawn gave an update on Big Tree

### Highlights

- Government wants a more legal approach to strategy.
- · Min 1 ha surrounding "Big tree" with shape suiting operational needs.
- · Cannot increase the risk of blown due to harvesting practices.
- New policy will likely be released March to April 2020.

RSTC colleagues, given that I won't have much time on the agenda for next Tuesday's meeting, here's the highlights of what I intend to speak to re: big tree and glyphosate files:

- 1. Big tree In response to helpful feedback I've received from a number of folks, the list of qualifying big tree species has been shortened. To do that in a credible manner I used the number of trees by species nominated in the BC Big Tree Registry as a proxy for demonstrating sufficient public interest for big trees of that species to warrant special protection (I used a cut-off of 10 trees).
- 2. Big tree Based on recent feedback from our ADM steering committee, I have revised a key big tree area reserve practice as follows "The person carrying out a primary forest activity that encounters a big tree must establish a 56-meter radius reserve around the tree, or a smaller area or different shape if supported by a windthrow assessment completed by a qualified person." Note that this rule would just set a minimum legal reserve requirement. It wouldn't, in my view, preclude the establishment of a larger reserve if a QP determined that was necessary to provide a reasonable assurance that the primary forest activity wouldn't materially increase the risk of the big tree blowing down. Of course it also wouldn't preclude integrating potential big tree reserve areas into stand or landscape level biodiversity areas (e.g. WTPs), OGMAs, riparian reserve areas, etc. where that makes sense.
- 3. Big tree For a variety of reasons progress has been slower than anticipated on this file. That said, based on my current projections it appears that the new practice requirements, if approved, could be brought into effect by March or early April 2020. Also note that notwithstanding previous updates I've given you folks, the policy team is not currently contemplating grandfathering in existing CPs or TSLs.

### Revised proposed big tree shortlist:

Column 1	Column 2
Species	Diameter (cm)
Coniferous	
Douglas-fir (Coastal)	245
Douglas-fir (Interior)	147
Grand fir	194
Ponderosa pine	131
Sitka spruce	257
Western redcedar	351
Yellow-cedar	257
Deciduous	
Arbutus	186
Bigleaf maple	256
Black cottonwood	255
Garry oak	131
Pacific Yew	86

From: Neill, Emma FLNR:EX <Emma.Neill@gov.bc.ca>

Sent: January 7, 2020 2:14 PM

**To:** Russell, Patrick H FLNR:EX <Patrick.Russell@gov.bc.ca> **Cc:** McNaughton, Brian FLNR:IN <lone\_tree@telus.net>

Subject: BIG Trees

Adrian Walton is the individual who has taken over the file from Shawn Hedges.

Emma Neill RPF | Senior Tenures Forester

Forest Tenures Branch | Ministry of Forests, Lands, Natural Resource Operations and Rural Development p: 250.726.6249 | o: 250.725.2245 | e: <a href="mailto:Emma.Neill@gov.bc.ca">Emma.Neill@gov.bc.ca</a>

### Re: Thresholds

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: January 8, 2020 at 11:09:17 AM Pacific Standard Time

On the 6<sup>th</sup> floor doing some printing s.22 . I'll send you an email this afternoon I guess.

From: "Walton, Adrian P FLNR:EX" <Adrian.Walton@gov.bc.ca>

**Date:** Wednesday, January 8, 2020 at 11:08 AM **To:** Shawn Hedges <a href="mailto:Shawn.Hedges@gov.bc.ca">Shawn.Hedges@gov.bc.ca</a>

Subject: RE: Thresholds

When are you here? I will be meeting with Peter Ott between now and noon if you are around.

Adrian

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

Sent: January 8, 2020 10:48 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: Re: Thresholds

I'm on the 6<sup>th</sup> floor 727 Fisgard for a bit. Would you like to meet and discuss further in person?

From: "Walton, Adrian P FLNR:EX" <Adrian.Walton@gov.bc.ca>

**Date:** Wednesday, January 8, 2020 at 10:32 AM **To:** Shawn Hedges <a href="mailto:Shawn.Hedges@gov.bc.ca">Shawn.Hedges@gov.bc.ca</a>

**Subject:** Thresholds

HI Shawn,

Thanks for your time yesterday. A question about your thresholds. Ignoring that for some species the 99.99% percentile DBH was used, what was the rationale for the following thresholds used?

[1] The minimum diameter thresholds for coastal Douglas-fir, Sitka spruce, western redcedar and yellow-cedar are set at 50% of the largest tree on record for those species; the minimum diameter for hemlock and true fir species is set at 90% of the largest tree on record for those species due to the form, silvics (e.g., susceptibility to disease, shallow root system) and the preponderance of the species; and, the minimum diameter threshold for all other species is set at 75% of the largest tree on record for those species.

Adrian

### **RE: Thresholds**

From: Walton, Adrian P FLNR:EX s.15

To: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

Cc: Berg, Shane FLNR:EX <Shane.Berg@gov.bc.ca>, McReynolds, Tom W FLNR:EX

<Tom.McReynolds@gov.bc.ca>

Sent: January 8, 2020 at 1:45:17 PM Pacific Standard Time

This is perfect. I appreciate you taking the time to write this all out. Thanks Shawn.

s.22 so I think neither of us will be at the

Old Growth meeting scheduled for tomorrow morning.

Adrian

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

Sent: January 8, 2020 1:41 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Berg, Shane FLNR:EX <Shane.Berg@gov.bc.ca>; McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Subject: Re: Thresholds

Adrian, further to yesterday's lengthy convo, here's how I went about designing the specifications:

The 50% retention thresholds described in the footnote for coastal Doug fir, Western redcedar, Sitka spruce and Yellow cedar originated from the well-established thresholds being used for those species by WFP and coastal BCTS operations under their respective BMPs. At the time, I didn't want to get off-side with those specifications.

The thresholds for the other species used in the May provincial policy I put forward for approval were the result of an analysis I did of the data in the BC Big Tree Registry and discussions with the BC Big Tree Committee and industry stakeholders and an attempt to balance the competing objectives of conserving bona fide big trees of cultural significance (a relatively small population) vs. a desire to minimize direct and indirect timber supply impacts to the greatest extent possible.

In the above context, I decided that a retention threshold of 75% of the biggest tree on record in the BC Big Tree Registry for species other than those at the 50% and 90% thresholds was appropriate and achieved the balance I was striving for.

Based on the data I was reviewing, conversations I was having with stakeholders, the thinness of the dataset I was using at the time (i.e., spring 2019) and other factors, I had significant concerns about hemlock and true fir species and so set the thresholds for those species at 90%.

As I mentioned yesterday, notwithstanding the above, once the direction was given in June 2019 to drop the notion of a policy-based approach in favour of pursuing a regulated approach, I decided to use it as an opportunity to circle back and address my core concerns related to my lack of confidence/the thinness of the BC Big Tree dataset (only ~ 340 trees or so). That gave rise to the work I did with IFS and the scattergrams of the 2.23 M tree dataset Timber Pricing Branch gave me to work with. At the time I wasn't aware of the 4 M tree dataset you mentioned yesterday. Regardless, that IFS work coupled with more stakeholder discussions, including with smart folks like John Deal from WFP and Tania Barnes from Interfor and other industry folks on the RSTC, gave rise to the work set out in the attached spreadsheet which in turn was subsequently modified to the species and diameters set out in the attached BN.

Further, and with reference to the attached BN, I received direction through Bawtinheimer and McReynolds in the late summer or early fall of 2019 to design an option that resulted in roughly 1,500 big trees being impacted. Given the nature of the exercise, the scale and scope of the land-base and trees involved, there's uncertainty baked into all this, but I'm confident that the recommended species specs that we've ultimately put forward in the attached BN are a credible and reasonable starting point for a new set of regulated bid tree practice requirements. If government concludes after a year or so that the thresholds aren't capturing enough bona fide big tree it can simply amend the regulation. Ditto for adding additional species if sufficient public interest is demonstrated.

Ps. Although you didn't ask about it, I also gave lots of thought to the notion of designing something based on NDT types and that factored in height criteria. I ultimately pushed both idea overboard as overly complex, full of additional risks/uncertainties and would result in unacceptable delays in delivering a regulation by December 2019.

Cheerio.

Shawn

From: "Walton, Adrian P FLNR:EX" < Adrian.Walton@gov.bc.ca >

**Date:** Wednesday, January 8, 2020 at 10:32 AM **To:** Shawn Hedges <a href="mailto:Shawn.Hedges@gov.bc.ca">Shawn.Hedges@gov.bc.ca</a>

**Subject:** Thresholds

HI Shawn,

Thanks for your time yesterday. A question about your thresholds. Ignoring that for some species the 99.99% percentile DBH was used, what was the rationale for the following thresholds used?

[1] The minimum diameter thresholds for coastal Douglas-fir, Sitka spruce, western redcedar and yellow-cedar are set at 50% of the largest tree on record for those species; the minimum diameter for hemlock and true fir species is set at 90% of the largest tree on record for those species due to the form, silvics (e.g., susceptibility to disease, shallow root system) and the preponderance of the species; and, the minimum diameter threshold for all other species is set at 75% of the largest tree on record for those species.

Adrian

# Re: BC Woodlot Almanac

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: January 8, 2020 at 2:55:57 PM Pacific Standard Time

Emma's solid and is a helpful ally on this file and it's important to keep her happy and engaged. Suggest you work with her to clean this up and then vet through the RSD folks, but put a time limit on it. It Tom's away maybe just send it directly to Brian and cc Tom. That said, it's totally your call how you want to handle.

From: "Walton, Adrian P FLNR:EX" <Adrian.Walton@gov.bc.ca>

**Date:** Wednesday, January 8, 2020 at 2:49 PM **To:** Shawn Hedges <a href="mailto:Shawn.Hedges@gov.bc.ca">Shawn.Hedges@gov.bc.ca</a>

Subject: RE: BC Woodlot Almanac

Thanks Shawn. That is my sentiment also. Tom did say to limit communication until approved, but Emma Neill in Tenures who wrote the article wanted to put something in the Almanac, and it seemed she was referencing information that had already been shared.

Adrian

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

**Sent:** January 8, 2020 2:45 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: Re: BC Woodlot Almanac

I think there's some factual errors in your text below (e.g., the July Part 13 orders protected 54 trees, not 70. As well, I'm not sure if your description of the species that are in or out aligns with the Dec 5/19 BN for the deputy). Regardless, I wouldn't send out anything like this before checking with Bawtinheimer and McReynolds. I have found both of them to be uber-cautious with respect to communications like this. This is their file to lead, including deciding on communications like this.

From: "Walton, Adrian P FLNR:EX" < Adrian. Walton@gov.bc.ca >

**Date:** Wednesday, January 8, 2020 at 2:38 PM **To:** Shawn Hedges <a href="mailto:Shawn.Hedges@gov.bc.ca">Shawn.Hedges@gov.bc.ca</a>

Subject: BC Woodlot Almanac

HI Shawn,

How comfortable would you be if the follow (excerpt) about the big tree regulation was included in the BC Woodlot Association's Almanac? Do you think it too pre-emptive?

As part of the Big Tree initiative FLNRORD has identified 70 trees from the Registry that have been given immediate protection under Part 13 of the Forest Act. This tool has limited utility given protections are temporary in nature (10-year maximum). In order to protect big trees over the longer term FLNRORD has decided to develop a regulation that details what is considered a big tree. Based on an analysis of timber cruising data in the system, FLNRORD has identified parameters for most species in BC. The current proposal is for the largest 0.01 percent of trees to be protected, that means that 99.99 percent of the trees measured to date will not be captured – estimates are this will protect approximately 1500 trees across the Province.

The protection measures will likely include a reserve around the tree, in part, to minimize windthrow hazard to the identified tree. In some cases these trees could be located in WTPs, and single trees can contribute to WTP requirements. The Regulation is a work in progress and FLNRORD staff has been engaging with industry, including the FBCWA on the criteria. Several trees, not generally found in the Timber harvesting land base will likely be excluded from the Regulation, this includes Arbutus, Garry Oak and White bark Pine. FLNRORD has

shared the proposed list of tree species and diameters that would trigger a Big Tree with the FBCWA and District Woodlot staff, if you are interested to see if any of your trees may become a Big Tree.		

# RE: background information on diameter thresholds

From: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: January 8, 2020 at 3:51:52 PM Pacific Standard Time

Hi Adrian

Thanks very much for this further information and for the background information from Shawn. That is great to know that you might be able to have the thresholds defined by the end of January.

Thanks, and s.22

Jessie

Jessie Givner
Senior Policy Analyst
Resource Stewardship Division
Ministry of Forests, Lands and Natural Resource Operations
Ph: 778 974-5796

Pn: 778 974-5796 Jessie.Givner@gov.bc.ca

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

**Sent:** January 8, 2020 3:45 PM

To: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Subject: RE: background information on diameter thresholds

Hi Jessie.

I just forwarded Shawn's email.

Our Biometrician says that aiming to have the thresholds defined by the end of the month is a realistic goal.

I will check in with you when I am back on the 20<sup>th</sup> to see if there are any updates on your end.

Take care, Adrian

From: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca >

Sent: January 8, 2020 3:36 PM

**To:** Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca > **Subject:** background information on diameter thresholds

### Hi Adrian,

Thanks for the information you provided this afternoon. That's good to hear that the biometrician may be able to calculate the diameter thresholds using some of the UBC data, and that you might be able to come up with the diameter calculations by the end of January. As discussed, I gather that the list of species will stay the same and there is no inclination to change this. Would you be able to forward on Shawn Hedge's email (email with the background on the diameter threshold calculations) s.22

Many thanks,

Jessie

Jessie Givner Senior Policy Analyst Resource Stewardship Division Ministry of Forests, Lands and Natural Resource Operations Ph: 778 974-5796

Jessie.Givner@gov.bc.ca

# RE: Big tree regulation work

From: Prasad, Atmo P FLNR:EX <Atmo.Prasad@gov.bc.ca>

To: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>

Cc: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: January 13, 2020 at 3:31:27 PM Pacific Standard Time

Brian -1 s.22

From: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>

Sent: January 9, 2020 4:44 PM

To: Nussbaum, Albert F FLNR:EX <Albert.Nussbaum@gov.bc.ca>; Prasad, Atmo P FLNR:EX <Atmo.Prasad@gov.bc.ca>;

Salkeld, Tim H FLNR:EX <Tim.Salkeld@gov.bc.ca>

Subject: Big tree regulation work

Hi — as you may know, Tom McReynolds \$.22 working with Adrian Walton who was stepping in for Shawn Hedges \$.22 I believe he was

There was some work going on with the original threshold numbers that Shawn had put together, and some double checking on whether those numbers were going to achieve protecting the "1000 biggest trees in BC" general target. I know UBC wanted the threshold lower.

I think Adrian was working with one of the metrics staff in FAIB on this. I just wanted to check in with both Tom and Adrian gone on confirming this work, if its underway etc.

### Brian Bawtinheimer

Executive Director, Provincial Stewardship Strategies and Planning Resource Stewardship Division

Ph: 778 974 2497 • brian.bawtinheimer@gov.bc.ca

## Re: for review - Draft Agenda PFF January 16, 2020 - draft confidential

From: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>

To: Berg, Shane FLNR:EX <Shane.Berg@gov.bc.ca>

Cc: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>, Givner, Jessie FLNR:EX

<Jessie.Givner@gov.bc.ca>, Pedersen, Carrie-rae FLNR:EX<CarrieRae.Pedersen@gov.bc.ca>, McKendry, Colleen FLNR:EX

<Colleen.McKendry@gov.bc.ca>

Sent: January 14, 2020 at 2:12:53 PM Pacific Standard Time

Attachments: BT speaking notes (Jan 14\_20).docx

Shane, as requested, see attached speaking points re: Big Trees.

Note that I haven't been fully in the loop lately, but I'm reasonably confident with what and how I've written it.

Also note that I've given you more that you likely need regarding how I came up with the DBH thresholds, but it seems likely folks always want to go there so at least you're prepared if you need it. That said, I didn't say anything regarding how I came up with the species short-list. If you're questioned on that I suggest you say something like "Hedges used an collaborative, iterative, credible process linked to demonstrable public interest in short-listed species."

Last, as you know, this file has shifted to the slow track for a variety of reasons. As such, if asked about timing, I suggest you just say that government is committed to putting new big tree practice requirements in place in 2020.

Shawn

On 2020-01-14, 1:12 PM, "Hedges, Shawn FLNR:EX" <Shawn.Hedges@gov.bc.ca> wrote:

Will do.

On 2020-01-14, 1:08 PM, "Berg, Shane FLNR:EX" <Shane.Berg@gov.bc.ca> wrote:

Shawn, I was hoping to provide the PFF an updated on the Big Tree file. I know we've been talking at length with the OG group. Could you give me some bullets I can speak off of for this PFF update?

thanks

Shane Berg, RPF

Executive Director – Deputy Chief Forester

Office of the Chief Forester

Ministry of Forests, Lands, Natural Resource

Operations and Rural Development

(Kamloops) 250-828-4494 (cell) 250-851-6333

Email: Shane.Berg@gov.bc.ca "Caring for BC's Forests"

----Original Message----

From: Laberge, Steve S FLNR:EX Sent: December 19, 2019 12:29 PM

To: XT:Uhrich, Kalin FLNR:IN; Jacobsen, Peter W FLNR:EX; Stagg, Chris J FLNR:EX

Cc: Schafthuizen, Jim FLNR:EX; Berg, Shane FLNR:EX; Ethier, Tom FLNR:EX; Manwaring, Richard G FLNR:EX

Subject: for review - Draft Agenda PFF January 16, 2020 - draft confidential

Hello,

I updated the draft PFF agenda with Kalin's suggestions. I sent invitations to the leads and I scheduled a call on the 8th for you to review before I send it out to the group.

Thank you

Steve Laberge

### **Big Trees**

### **Background**

- In 2017 and 2018, WFP and coastal BCTS began piloting a big tree management protocols.
- This was followed by the development of voluntary provincial big tree conservation policy.
- In July, government put in place special protection measures via Part 13 of the Forest Act for 54 of BC's largest and previously unprotected trees. At the same time, government also decided to set the voluntary policy aside and in favour of a regulated approach.
- Work on the development of a regulated approach ensued throughout the summer – winter 2019, but has slowed of late due to the Christmas break, competing objectives, staffing changes and the need to land several key policy decisions.

## **Current Practice Requirements**

- While some policy decisions remain outstanding, noteworthy elements/most current thinking is as follows:
  - Define a "big tree" as one that is living and that meets the species and meets or exceeds the DBH threshold specifications set out in a table (ref. table 1-1 on last page). Additional species may be added in the future if sufficient public interest demonstrated.
  - Prohibit a person who carries out a forest practice from cutting, damaging, or removing a big tree.
  - Require a person who carries out a forest practice to establish a minimum 1 ha buffer zone around the tree with the shape to be determined by a professional forester.
  - Require a person who carries out a forest practice to report the species, diameter, height, crown spread, and location of a big tree to the Minister, in a form specified by the Minister, within 30 days of identifying a big tree.
  - Authorize the Minister to exempt a person who carries out a forest practice from any big tree requirements if satisfied that the cutting, damaging, or removing of the big tree is necessary to address a forest health risk, public safety, or public property.

- Scope of application The new big tree practice requirements would apply to all cutting authorities, including those previously issued.
- Stipulate, for deterrence purposes, the maximum offence and contravention penalties will be significant.

### Thresholds

- A critical component in the design of big tree practice requirements is the establishment of credible species and diameter threshold specifications (the "specifications") that will support the legal definition of what qualifies as a big tree.
- Development of the specifications considered past work by WFP and coastal BCTS operations, the draft voluntary Provincial Big Tree Conservation Policy and information obtained from the BC Big Tree Registry. However, close scrutiny of the pool of underlying data suggested it was too thin to instill confidence for several species.
- To address data thinness concerns a deep pool of historic appraisal-related timber cruise information submitted to the Ministry over the last 8 years was analyzed. Using this 2.3 million tree dataset, the information was analyzed for each of the select species with the aim of establishing credible specifications that captured the biggest, most iconic trees while minimizing timber supply and economic impacts to the greatest extent possible.
- Recent work has resulted in specifications that rely on the following business rule: <u>the greater of</u> the diameter at breast height (DBH) that was set out in the draft voluntary Provincial Big Tree Conservation Policy, <u>or</u> the 99.99<sup>th</sup> percentile DBH by species from the 2.3 million tree dataset.
- To help put that into perspective, if just the 99.99<sup>th</sup> DBH percentiles were used, that would represent 1:10,000 trees, or 230 trees out of the 2.3 million tree dataset (i.e., 0.01%). Regardless, when the specifications are coupled with experience gained to-date, it is estimated that the total number of trees that will be captured by the specification's province-wide will be ~ 1,500.
- Based on discussions with staff from the Ministry's Forest Analysis and Inventory and Compensation and Business Analysis branches, timber supply and economic impacts associated with the use of the proposed specifications are predicted to be insignificant when viewed on a provincial scale. Even so, it is likely that much of this timber will already be inoperable (e.g., in a riparian zone or other forms of reserve) or can be used to

- complement existing landscape and stand-level biodiversity requirements further lessening any net timber supply impacts.
- Geographic and licensee-specific big tree impacts are difficult to estimate with confidence. However, based on policy work to-date, its' reasonable to state that the timber supply and economic impacts, limited as they may be, will be felt more so by licensees operating on the central and south coasts than those in the interior. As well, based on fall 2019 discussions with major licensees on the Resource Stewardship Tenures Committee, it appears to be generally accepted that the big tree impacts will be manageable, especially when viewed in the context of the mitigating factors noted in the preceding bullet and the anticipated increase in social operating licence associated with conserving the Province's largest and most iconic trees.

### Significant Outstanding Work

First Nation notification.

s.12: s.13

Resolving an array of smallish outstanding policy matters.

s.12; s.13

### **Timing**

 Government is committed to putting new big tree practice requirements in place in 2020.

# **Big Tree Specifications**

Table 1-1, Proposed Big Tree Species and DBH Retention Thresholds

Column 1 Species	Column 2 Diameter (cm)
Coniferous	
Douglas-fir (Coastal)	245
Douglas-fir (Interior)	147
Grand fir	194
Ponderosa pine	131
Sitka spruce	257
Western redcedar	351
Yellow-cedar	257
Deciduous	
Arbutus	186
Bigleaf maple	256
Black cottonwood	255
Garry oak	131
Pacific Yew	86

Table 1-2, List of non-qualifying tree species

Column 1		
Species		
Coniferous		
Engelman spruce		
Pine sp.		
Hemlock sp.		
Subalpine fir (Coast/Interior)		
Tamarack		
Larch sp.		
Deciduous		
Alder sp.		
Apple sp.		
Aspen sp.		
Cherry sp.		
Douglas maple		
Pacific dogwood		
Paper birch		
Vine maple		
Willow sp.		

January 14, 2020 ver.

# RE: Big tree thresholds

From: Walton, Adrian P FLNR:EX s.15

To: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>

Sent: January 20, 2020 at 11:16:20 AM Pacific Standard Time

Hi Brian.

Do you have time for a call? My number is 778-974-5516.

Adrian

From: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>

Sent: January 20, 2020 9:31 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: Big tree thresholds

Hi Adrian – now that you are back just wanted to touch base on next steps to confirm the big tree thresholds. I got a bit of an update from Tom before he left that the work Shawn did was being confirmed and/or adjusted. Any updates you have on this would be great. I'm meeting with Tom E, Diane and Craig this afternoon and it may come up. Thanks.

#### Brian Bawtinheimer

Executive Director, Provincial Stewardship Strategies and Planning Resource Stewardship Division

Ph: 778 974 2497 • brian.bawtinheimer@gov.bc.ca

## RE: OG ADMs meeting - requests

From: Walton, Adrian P FLNR:EX s.15

To: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>

Cc: Nussbaum, Albert F FLNR:EX <Albert.Nussbaum@gov.bc.ca>, Givner, Jessie FLNR:EX

<Jessie.Givner@gov.bc.ca>

Sent: January 21, 2020 at 4:32:40 PM Pacific Standard Time

Attachments: Rationale for Reassessing the Currently Proposed Big Tree Diameter Thresholds (Jan 21

2020).docxP.docx

HI Brian,

Please review the attached/below and let me know if you think this is what the OG ADM are looking for.

### Rationale for reassessing the currently proposed Big Tree diameter thresholds

The diameter thresholds Shawn Hedges proposed were based on two approaches. For roughly half of the tree species, Shawn chose the 99.99 percentile (one tree in every 10,000) based on analysis of 8 years of cruise data, for the other half of the species the diameter thresholds were chosen from UBC Big Tree Registry database. For most of the diameter thresholds Shawn chose using the UBC Big Tree Registry data, the chosen diameters were significantly larger than if the 99.99 percentile had been used.

For example, using Shawn's proposed diameter threshold for Western Hemlock, which used his UBC Big Tree Registry approach, 4 of the 6 Western Hemlock in the UBC registry could be cut down (and according to the UBC Big Tree Registry Committee one of these trees has recently been cut down -a 2.38m diameter tree near the Nahmint). Using the 99.99 percentile approach could see 2 of the 6 Western Hemlock trees in the UBC registry being unprotected (i.e. 4 of the 6 would be protected including the tree near the Nahmint previously mentioned).

The advice from both the FLNRORD Biometrician, Peter Ott, *and* the UBC Big Tree Committee (who have voiced their concern over the currently proposed thresholds) is that almost all the diameter thresholds should be based on the cruise data, and only in very limited situations should the threshold be derived from the UBC Big Tree Registry database. Peter Ott also suggests using a more statistically sound approach when required to derive a diameter threshold from the UBC Big Tree database. I think this is also an opportunity to reassess whether the 99.99 percentile (one tree in every 10,000) would achieve a target of approximately 1,500 trees protected.

Adrian Walton, Landscape Ecologist
Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations
and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt
Victoria, BC, V8W 9C2
Phone: (778) 974-5516

From: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>

Sent: January 20, 2020 4:40 PM

To: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Nussbaum, Albert F FLNR:EX <Albert.Nussbaum@gov.bc.ca>

**Subject:** OG ADMs meeting - requests

Hi – I had an update meeting with OG ADMs (Tom E, Craig S, and Shane in for Diane). A couple of requests came out:

Adrian, would you be able to describe in a ½ to 1 page a bit more detail on the thresholds work? Basically need to know the process used the first time, what questions/risks/concerns that process raised, and how the

new process will run. ADMs did understand that being careful on getting the thresholds correct is important, and simply want a reference piece they can turn to for explaining to the Deputy or Minister.

Jessie, can you please laid out a plan of key steps and timeline for the regulation work? Best estimates and maybe Jason will need to assist – not sure.

Thanks.

Brian Bawtinheimer
Executive Director, Provincial Stewardship Strategies and Planning
Resource Stewardship Division
Ph: 778 974 2497 • brian.bawtinheimer@gov.bc.ca

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## RE: OG ADMs meeting - requests

From: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: January 21, 2020 at 4:37:40 PM Pacific Standard Time

Hi Adrian,

Thank you very much for this summary! This is a very clear and helpful explanation of the problem with the earlier diameter thresholds.

Jessie

Jessie Givner
Senior Policy Analyst
Resource Stewardship Division
Ministry of Forests, Lands and Natural Resource Operations
Ph: 778 974-5796

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

**Sent:** January 21, 2020 4:33 PM

Jessie.Givner@gov.bc.ca

To: Bawtinheimer, Brian FLNR:EX < Brian.Bawtinheimer@gov.bc.ca>

Cc: Nussbaum, Albert F FLNR:EX <Albert.Nussbaum@gov.bc.ca>; Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Subject: RE: OG ADMs meeting - requests

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The advice from both the FLNRORD Biometrician, Peter Ott, *and* the UBC Big Tree Committee (who have voiced their concern over the currently proposed thresholds) is that almost all the diameter thresholds should be based on the cruise data, and only in very limited situations should the threshold be derived from the UBC Big Tree Registry database. Peter Ott also suggests using a more statistically sound approach when required to derive a diameter threshold from the UBC Big Tree database. I think this is also an opportunity to reassess whether the 99.99 percentile (one tree in every 10,000) would achieve a target of approximately 1,500 trees protected.

Adrian Walton, Landscape Ecologist
Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations
and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt
Victoria, BC, V8W 9C2

Phone: (778) 974-5516

From: Bawtinheimer, Brian FLNR:EX < Brian.Bawtinheimer@gov.bc.ca >

Sent: January 20, 2020 4:40 PM

To: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca >; Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca >

Cc: Nussbaum, Albert F FLNR:EX < Albert.Nussbaum@gov.bc.ca>

Subject: OG ADMs meeting - requests

Hi – I had an update meeting with OG ADMs (Tom E, Craig S, and Shane in for Diane). A couple of requests came out:

Adrian, would you be able to describe in a ½ to 1 page a bit more detail on the thresholds work? Basically need to know the process used the first time, what questions/risks/concerns that process raised, and how the new process will run. ADMs did understand that being careful on getting the thresholds correct is important, and simply want a reference piece they can turn to for explaining to the Deputy or Minister.

Jessie, can you please laid out a plan of key steps and timeline for the regulation work? Best estimates and maybe Jason will need to assist – not sure.

Thanks.

Brian Bawtinheimer
Executive Director, Provincial Stewardship Strategies and Planning
Resource Stewardship Division
Ph: 778 974 2497 • brian.bawtinheimer@gov.bc.ca

## Big Tree Regulation - Thurs meeting

From: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca>

To: Pedersen, Carrie-rae FLNR:EX <CarrieRae.Pedersen@gov.bc.ca>, McKendry, Colleen FLNR:EX

<Colleen.McKendry@gov.bc.ca>, Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: January 28, 2020 at 11:28:15 AM Pacific Standard Time

Hi All,

In advance of our meeting later this week, I am updating the status of some of the Big Tree policy issues. I understand from Adrian that he will likely have the updated diameter thresholds by mid February. During the big tree call last Thursday, I think there was some discussion of the new approach of establishing a site designation (rather than a practice requirement) and developing a new regulation. My understanding is that it was determined that executive should make a decision on this new approach, and there should be a decision note on this. Is this correct?

Tom McReynolds will be \$.22 in the office on Monday next week, so he will be able to weigh in on the decision note. Given that Adrian \$.22 , it might be good to have a meeting this week. Do you have time to meet this Thursday, Colleen and Carrie-rae, or would you prefer that we postpone the meeting until Tom McReynolds \$.22 and until we have more direction from executive on the new approach?

Thanks,

Jessie

Jessie Givner
Senior Policy Analyst
Resource Stewardship Division
Ministry of Forests, Lands and Natural Resource Operations
Ph: 778 974-5796
Jessie.Givner@gov.bc.ca

## RE: OG ADMs meeting - requests

From: Walton, Adrian P FLNR:EX s.15

To: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>

Sent: January 30, 2020 at 12:39:25 PM Pacific Standard Time

HI Brian,

I have been working on reviewing the trees diameter thresholds with the help of our ministry biometrician and it is taking longer than originally anticipated. I had hoped to get it done prior to \$.22

but it looks like it will be closer to mid/later February givens.22 I heard that Tom

McReynolds<sup>s.22</sup> so I will check in with him <sup>s.22</sup>

PS – You mentioned on the phone a couple of weeks back that you might have a short document on windthrow hazard assessment. Is this correct? If you do, can you email it to me?

Thanks,

Adrian Walton, Landscape Ecologist
Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations
and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt
Victoria, BC, V8W 9C2

Phone: (778) 974-5516

#### Adrian

From: Bawtinheimer, Brian FLNR:EX < Brian.Bawtinheimer@gov.bc.ca>

Sent: January 21, 2020 9:15 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Subject: RE: OG ADMs meeting - requests

Excellent – thanks to both of you for your responses.

### Brian Bawtinheimer

Executive Director, Provincial Stewardship Strategies and Planning

Resource Stewardship Division

Ph: 778 974 2497 • brian.bawtinheimer@gov.bc.ca

From: Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca >

**Sent:** January 21, 2020 8:31 AM

**To:** Bawtinheimer, Brian FLNR:EX < Brian.Bawtinheimer@gov.bc.ca >

Cc: Nussbaum, Albert F FLNR:EX < Albert.Nussbaum@gov.bc.ca >; Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca >

Subject: RE: OG ADMs meeting - requests

Will do. I will send by the end of the day.

Adrian

From: Bawtinheimer, Brian FLNR:EX < Brian.Bawtinheimer@gov.bc.ca>

Sent: January 20, 2020 4:40 PM

To: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Nussbaum, Albert F FLNR:EX < Albert.Nussbaum@gov.bc.ca >

Subject: OG ADMs meeting - requests

Hi – I had an update meeting with OG ADMs (Tom E, Craig S, and Shane in for Diane). A couple of requests came out:

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Jessie, can you please laid out a plan of key steps and timeline for the regulation work? Best estimates and maybe Jason will need to assist – not sure.

Thanks.

Brian Bawtinheimer
Executive Director, Provincial Stewardship Strategies and Planning
Resource Stewardship Division
Ph: 778 974 2497 • brian.bawtinheimer@gov.bc.ca

# **OGSLT**

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Nussbaum, Albert F FLNR:EX < Albert.Nussbaum@gov.bc.ca>, Prasad, Atmo P FLNR:EX

<a href="mailto:Atmo.Prasad@gov.bc.ca">Atmo.Prasad@gov.bc.ca</a>

Sent: February 19, 2020 at 10:17:55 AM Pacific Standard Time

Hi Adrian,

Are you going to be on the OGSLT call tomorrow?

Are you available to speak briefly about the diameter thresholds?

Why we're taking a second look at them

Steps involved

When you expect to be done

Thanks,

Tom McReynolds

Director, Strategic Policy, Resource Stewardship Division, FLNRORD

s.17

## OGSLT Agenda for Today

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

To: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>, Nussbaum, Albert F

FLNR:EX <Albert.Nussbaum@gov.bc.ca>, Hadway, Sharon L FLNR:EX <Sharon.Hadway@gov.bc.ca>, Coster, Jessica FLNR:EX <Jessica.Coster@gov.bc.ca>,

Berg, Shane FLNR:EX <Shane.Berg@gov.bc.ca>, Prasad, Atmo P FLNR:EX <a href="mailto:</a></a>, Liesch, Nancy FLNR:EX <Nancy.Liesch@gov.bc.ca>, Psyllakis, Jennifer FLNR:EX < Jennifer. Psyllakis@gov.bc.ca>, Kachanoski, Steve B

FLNR:EX <Steve.Kachanoski@gov.bc.ca>, DeCourcy, Tara D FLNR:EX

<Tara.DeCourcy@gov.bc.ca>, Valdal, Eric FLNR:EX < Eric. Valdal@gov.bc.ca>, Recknell,

Geoff FLNR:EX < Geoff.Recknell@gov.bc.ca>, Webb, Clinton M FLNR:EX

<Clinton.Webb@gov.bc.ca>, Parkinson, Yvonne M FLNR:EX <Yvonne.Parkinson@gov.bc.ca>, Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca>

Sent: February 20, 2020 at 8:44:56 AM Pacific Standard Time

#### Agenda

Update on the policy/regulation and project governance - Tom Update on the big tree policy/regulation - threshold analysis from OCF - Adrian Update on the Old Growth Strategic Review - engagement stats and next steps - Steve and Brian Panel report review process – assembling a team (looking for interested staff to participate) – Brian

Regrets Geoff Recknell Yvonne Parkinson Sharon Hadway

Tom McReynolds

Director, Strategic Policy, Resource Stewardship Division, FLNRORD

s.17

## Meeting Notes - Old Growth Strategic Leadership Team - Feb 20

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

To: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>, Nussbaum, Albert F

FLNR:EX <Albert.Nussbaum@gov.bc.ca>, Hadway, Sharon L FLNR:EX <Sharon.Hadway@gov.bc.ca>, Coster, Jessica FLNR:EX <Jessica.Coster@gov.bc.ca>,

Berg, Shane FLNR:EX <Shane.Berg@gov.bc.ca>, Prasad, Atmo P FLNR:EX <a href="mailto:</a></a>, Liesch, Nancy FLNR:EX <Nancy.Liesch@gov.bc.ca>, Psyllakis, Jennifer FLNR:EX < Jennifer. Psyllakis@gov.bc.ca>, Kachanoski, Steve B

FLNR:EX <Steve.Kachanoski@gov.bc.ca>, DeCourcy, Tara D FLNR:EX

<Tara.DeCourcy@gov.bc.ca>, Valdal, Eric FLNR:EX < Eric. Valdal@gov.bc.ca>, Recknell,

Geoff FLNR:EX < Geoff.Recknell@gov.bc.ca>, Webb, Clinton M FLNR:EX

<Clinton.Webb@gov.bc.ca>, Parkinson, Yvonne M FLNR:EX <Yvonne.Parkinson@gov.bc.ca>, Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>, Omelchuk, Susan D FLNR:EX

<Susan.Omelchuk@gov.bc.ca>

Sent: February 21, 2020 at 10:37:41 AM Pacific Standard Time

Update - Policy/regulation and project governance - Tom

Tom Ethier is the Ministry lead.

Collaborating with Old Growth ADMs - Diane Nicholls and Craig Sutherland

Tom McReynolds is leading the project team.

Collaboration with:

Adrian Walton, Legislation team, Jessie Givner, legal counsel, etc.

Weekly meetings have resumed.

Significant work remains.

The proposed diameter thresholds are being revisited.

s.12; s.13; s.14

First Nations letters will trigger a month-long waiting period.

s.12; s.13

Estimates preparation – We will prepare to answer questions regarding old growth and big trees.

Questions regarding the timeline for the big tree file are likely to arise, given that it is taking longer than expected.

Brian will work with Tom Ethier's office to circulate estimates notes from various divisions relating to old growth and bit trees to ensure consistency and to fill any gaps.

Old growth - Consistent and factual numbers and information needs to be to the fore.

Clinton will contact Albert to follow up with a concern raised earlier regarding missing information in the current FAIB summaries. - % of BEC zone protected

Update - big tree policy/regulation - threshold analysis from OCF - Adrian

The threshold analysis conducted in the summer / fall needs to be reviewed.

Adrian is working with Iaian McDougall, Spatial Data Specialist and expects to be ready to propose new thresholds by the end of next week.

Update - Old Growth Strategic Review - engagement stats and next steps - Steve

Engagement is now complete - meetings and online engagement ended at the end of January

211 meetings in 36 communities - 700 individuals attended. - No major gaps

300 written submissions

10,000 emails, many appearing to be the result of letter-writing campaigns

18,500 online surveys completed

Currently Gorley and Merkel are in the analysis and writing phase.

A contractor is summarizing the materials for themes.

Another contractor is helping Al and Garry with writing and document management.

Draft report due April 1

Final due April 30

Merkel and Gorley may contact staff to check facts, through Steve.

Merkel and Gorley will provide the draft and the final version to the Minister. Any opportunities for staff to review the draft will be limited.

Upcoming Work - Panel report review process - assembling a team - Brian

Tom E has asked for a plan and communications strategy.

The minister has six months to release the final report (agreement and ToR) but we should plan to release the report quickly.

The release will require the minister to respond in some fashion.

OGSLT should continue to provide advice.

Technical advice will also be needed.

We don't know the panel will recommend.

Views and information expressed in meetings with the panel were polarized/divided responses than some people expected.

Writing campaigns were more positional.

The panel is more interested in the diversity of ideas more than counting duplicate messages. - not a vote

Tom McReynolds

Director, Strategic Policy, Resource Stewardship Division, FLNRORD

s.17

# **RE: Urgent: Big Tree Status for Coastal OIF**

From: Walton, Adrian P FLNR:EX s.15

To: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>, Givner, Jessie FLNR:EX

<Jessie.Givner@gov.bc.ca>

Sent: February 26, 2020 at 4:19:32 PM Pacific Standard Time

Thanks Tom. I did try calling you a couple of times but it just went to voicemail -hence my email. I just talked to Jessie and she gave me a brief update and said essentially the same thing you just wrote.

I will let Pam Silver know that there is very little I can share at this points.12; s.13 s.12; s.13

Adrian

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

**Sent:** February 26, 2020 4:05 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Subject: RE: Urgent: Big Tree Status for Coastal OIF

Hi Adrian,

I don't think we should say very much to a group that includes external people.

s.12; s.13; s.16

s.12; s.13

s.12; s.13

I hope this helps. Please feel free to call me if you'd like to chat about this.

**From:** Walton, Adrian P FLNR:EX **Sent:** February 26, 2020 3:47 PM

To: McReynolds, Tom W FLNR:EX; Givner, Jessie FLNR:EX

Subject: Urgent: Big Tree Status for Coastal OIF

Hi Tom and Jessie,

I received an email from Pam Silver who is the Resource Initatives Section Head for the Coast Area. She is meeting with the Coastal Operational Issues Forum, which is includes Gov't and industry, and looking for an update on the Big Tree project. Specifically she says:

I am asking for each of your help to provide me with a few summary bullets /background material by EOD today

- Updates / timelines for current initiatives that can be announced related to these (or if not, a head's up on what I can indicate)
- proposed legislative/policy linkages

Looking back at an email Jessie sent to Brian back in mid-January with timelines (below), what can be shared with Pam and the Coastal OIF?

Summary of Big Tree protection regulation work and timelines

Page 033 of 333

Withheld pursuant to/removed as

s.12; s.13; s.14

## RE: REQUEST: Support for Thursday OIF meeting

From: Walton, Adrian P FLNR:EX s.15

To: Silver, Pam FLNR:EX <Pam.Silver@gov.bc.ca>

Cc: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: February 26, 2020 at 4:48:33 PM Pacific Standard Time

Hi Pam,

Tom and I have been busy most of the day so it has been difficult for him and I to connect on this.

Unfortunately we don't have a lot to share given that the Big Tree project is still very much a work in progress and still exploring the policy options. What I can share is that staff are still working on the proposed Big Tree regulation, s.13

At this time I cannot provide timelines.

If you want to discuss further please contact Tom or myself.

Regards,

Adrian Walton, Landscape Ecologist
Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations
and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt
Victoria, BC, V8W 9C2
Phone: (778) 974-5516

From: Silver, Pam FLNR:EX <Pam.Silver@gov.bc.ca>

Sent: February 26, 2020 9:59 AM

To: Sunde, John FLNR:EX <John.Sunde@gov.bc.ca>; Morton, Ben FLNR:EX <Ben.Morton@gov.bc.ca>; Walton, Adrian P

FLNR:EX <Adrian.Walton@gov.bc.ca>; Snowdon, Barry B FLNR:EX <Barry.Snowdon@gov.bc.ca>

Subject: REQUEST: Support for Thursday OIF meeting

Importance: High

Hi all,

I have been requested to support the WCR Operational Issues joint government industry Forum at their Coastal Delivered Log Cost Reduction project meeting tomorrow to provide assistance on the following general topics to help capture/assess what would require legislative changes. I haven't seen the nature of the proposals, but the OIF has been tasked with coming up with proposals for measureable reductions to their logging costs, and it seems there is more emphasis on planning-related measures than the organizers had expected, hence the rush request.

In order to support this, I am asking for each of your help to provide me with a few summary bullets /background material by EOD today

- Updates / timelines for current initiatives that can be announced related to these (or if not, a head's up on what I can indicate)
- proposed legislative/policy linkages
- 1. THLB and multi resource planning impacts Barry OCF LLP
- 2. LRD timing Ben, John
- 3. Big trees Adrian

I you are not the right person for this, please confirm who would be .

Apologize for the short notice -

And thank you

-----

#### Pamela Silver, RPF

Resource Initiatives Section Head, West Coast Region Ministry of Forests, Lands and Natural Resource

Operations

Tel: 250-751-7379 / cell: 250-268-2334

E-mail: Pam.Silver@gov.bc.ca

From: Silver, Pam FLNR:EX Sent: February 25, 2020 3:51 PM

To: Mitchell, Mary FLNR:EX < Mary.Mitchell@gov.bc.ca>

Subject: RE: Support for Thursday OIF meeting

Hi Mary – can you confirm whether you wan t me there for all/part of the day/

Thx

From: Mitchell, Mary FLNR:EX <Mary.Mitchell@gov.bc.ca>

**Sent:** February 25, 2020 2:55 PM

To: Silver, Pam FLNR:EX < Pam.Silver@gov.bc.ca >

Cc: Husband, Randy FLNR:EX < Randy. Husband@gov.bc.ca >

Subject: RE: Support for Thursday OIF meeting

Great thank you Pam, and Ritchard is already lined up to atte

Mary

\_\_\_\_\_

Mary Mitchell, RPF, CPA, CGA

Coast Forest Sector Revitalization Implementation Lead

Coast Area

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

e-mail: mary.mitchell@gov.bc.ca

Tel: (250) 751-7184 Cell: (250) 741-6481

From: Silver, Pam FLNR:EX < Pam.Silver@gov.bc.ca>

**Sent:** February 25, 2020 2:53 PM

**To:** Mitchell, Mary FLNR:EX < Mary.Mitchell@gov.bc.ca > **Cc:** Coster, Jessica FLNR:EX < Jessica.Coster@gov.bc.ca >

Subject: RE: Support for Thursday OIF meeting

I will attend for all or portions of the meeting – let me know how I can help.

Will you be able to forward proposals to the relevant leads for review – I see the deadline was yesterday.

From the list below, I can contribute to items 1,3,5. Items 2 and 4 are Richard Laboucane's team.

Pam

From: Mitchell, Mary FLNR:EX < Mary.Mitchell@gov.bc.ca>

**Sent:** February 25, 2020 2:41 PM

To: Silver, Pam FLNR:EX < Pam.Silver@gov.bc.ca>
Subject: RE: Support for Thursday OIF meeting

The general topics are as follows:

- 1. THLB and multi resource planning impacts
- 2. FSP extensions
- 3. LRD timing
- 4. VQOs (maybe the stewardship shop?)
- 5. Big trees

The idea would be the person could help capture/assess what would require legislative changes.

I will forward the project outline and template so your person will understand the scope.

Mary

\_\_\_\_\_

Mary Mitchell, RPF, CPA, CGA

Coast Forest Sector Revitalization Implementation Lead

Coast Area

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

e-mail: mary.mitchell@gov.bc.ca

Tel: (250) 751-7184 Cell: (250) 741-6481

From: Silver, Pam FLNR:EX < Pam.Silver@gov.bc.ca>

**Sent:** February 25, 2020 2:32 PM

To: Mitchell, Mary FLNR:EX < Mary.Mitchell@gov.bc.ca>
Cc: Coster, Jessica FLNR:EX < Jessica.Coster@gov.bc.ca>
Subject: RE: Support for Thursday OIF meeting

Hi Mary,

Yes, my team will be able to support the OIF and thanks for providing the agenda. What types of 'land use planning ideas' have you received?

I will get back to confirm who will attend.

\_\_\_\_\_

### Pamela Silver, RPF

Operations

Resource Initiatives Section Head, West Coast Region Ministry of Forests, Lands and Natural Resource

Tel: 250-751-7379 / cell: 250-268-2334

E-mail: Pam.Silver@gov.bc.ca

From: Coster, Jessica FLNR:EX <Jessica.Coster@gov.bc.ca>

Sent: February 25, 2020 2:15 PM

To: Silver, Pam FLNR:EX < Pam.Silver@gov.bc.ca > Cc: Mitchell, Mary FLNR:EX < Mary.Mitchell@gov.bc.ca > Subject: FW: Support for Thursday OIF meeting

Hi Pam – please see Mary's note below. Are you available? If not, can you recommend someone else from the team (ex. John, Retzer...\_

Jessica Coster | Director, Regional First Nation and Strategic Initiatives West Coast Region

Ministry of Forests, Lands & Natural Resource Operations and Rural Development Suite 142 - 2080 Labieux Rd, Nanaimo BC, V9T 6J9

Tel(Nanaimo): 250 751-7323 Tel(CLRS): 250 749 – 6811 ex.43 Email: <u>Jessica.Coster@gov.bc.ca</u>

From: Mitchell, Mary FLNR:EX < Mary.Mitchell@gov.bc.ca>

Sent: February 25, 2020 2:07 PM

To: Coster, Jessica FLNR:EX < Jessica.Coster@gov.bc.ca >

Subject: Support for Thursday OIF meeting

Good afternoon Jessica,

We are looking for some land use planning support for Thursday afternoons OIF meeting. There were more land use planning ideas than anticipated and it would be good to have a resource available to answer questions. Do you have someone that may be able to assist in the process?

Thank you, Mary

Mary Mitchell, RPF, CPA, CGA
Coast Forest Sector Revitalization Implementation Lead
Coast Area

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

e-mail: mary.mitchell@gov.bc.ca

Tel: (250) 751-7184 Cell: (250) 741-6481

# **RE: Tree Data**

From: Walton, Adrian P FLNR:EX s.15

To: De Jong, Rene FLNR:EX <Rene.DeJong@gov.bc.ca>
Sent: February 28, 2020 at 10:54:29 AM Pacific Standard Time

HI Rene,

Thanks for talking with me this morning. As you suggested, here is more information on the project.

The objective is to determine the DBH thresholds for the species listed below that would net approximately 1500 of the largest diameter trees -across all the species listed below. Some of the species are lumped, for example most of the birch species, and some have been split into coast/interior.

I have approximately one month to complete this. So would it be possible to get supporting data from you by mid march, or sooner if possible?

# Thanks, Adrian

ACB ACT ACT Coast ACC AT Coast AT Coast AT AT Interior ATI B Coast B B Interior B BA BB B	In Species Code AC	CoastInterior	BigTreeSpeciesCode AC
AT coast ATc AT interior ATi B coast BA B interior BLi BA BG BG BL coast BLc BL coast BLc BL interior BLi C coast CWc C interior CWi CW coast CWc CW coast CWc CW interior CWi D DR DR DR E EP EA EP EA EP ES EP EXP FD coast FDc FD interior FDi FDC FD interior FDi FDC FDL H interior HWi HM HW coast HWc HW interior HWi L L LW LW LW  BAA BA BA BA BA BA BA BB BA BB BA BB BA BB BA BB BC BA BB BC	ACB		AC
AT interior ATi B coast BA B interior BLi BA BG BG BL coast BLc BL coast BLc BL interior BLi C coast CWc C interior CWi CW coast CWc CW interior CWi D DR DR DR E EP EA EP EA EP EXP FD coast FDc FD interior FDi FDC FD interior FDi FDC FDI H interior HWi HM HW coast HWc HW interior HWi L LW LW LW  BAA BA B	ACT		AC
B coast BA B interior BLi BA BG BG BL coast BLc BL BL interior BLi C coast CWc C interior CWi CW coast CWc CW interior DD DR DR DR E EP EAA EP EP ES EP EXP FD coast EP EXXP FD coast FDc FD interior FDi FDC FD interior FDi FDC FDI Interior HWi HM HW coast HWc HW interior HWi L LW LW LW LW  BG BG BA	AT	coast	ATc
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EP         EP           ES         EP           EXP         EP           FD         coast         FDc           FDC         FDc         FDi           FDI         FDi         HWi           HM         HM         HM           HW         interior         HWc           HW         interior         HWi           L         LW           LW         LW			
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FDI H interior HWi HM HW coast HWc HW interior HWi L LW LW		interior	
H interior HWi HM HM HW coast HWc HW interior HWi L LW			
HM HW coast HWc HW interior HWi L LW LW			
HW coast HWc HW interior HWi L LW LW		interior	
HW interior HWi L LW LW			
L LW LW			
LW	HW	interior	
MB MB			
	MB		MB

PA		PA
PW	coast	PWc
PW	interior	PWi
PY		PY
RA		RA
SS		SS
Т		TW
TW		TW
TX		TW
WP		WP
YC		YC

From: Walton, Adrian P FLNR:EX Sent: February 25, 2020 3:20 PM

To: De Jong, Rene FLNR:EX <Rene.DeJong@gov.bc.ca>

Subject: Tree Data

Hi Rene,

I am looking for the most tree observations I can get that have the following:

- Tree species
- DBH
- Age
- District and/or TSA
- BEC

Let me know if you have any questions.

Thanks, Adrian

# **RE: Tree Data request**

From: Walton, Adrian P FLNR:EX s.15

To: Salkeld, Tim H FLNR:EX <Tim.Salkeld@gov.bc.ca>

Sent: February 28, 2020 at 11:47:06 AM Pacific Standard Time

Hi Tim,

laian has done some work for me on this project. He calculated the trees per hectare for the species of interest. He did this so I could get an estimate of how many trees there are on the landbase within the THLB, legally-loggable, and crown areas.

Do you want to discuss further?

Adrian

From: Salkeld, Tim H FLNR:EX <Tim.Salkeld@gov.bc.ca>

Sent: February 28, 2020 11:26 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: FW: Tree Data request

Adrian is this consistent and tied in to the work that laian is doing on this file??

Tim

From: De Jong, Rene FLNR:EX < Rene.DeJong@gov.bc.ca>

**Sent:** February 28, 2020 11:12 AM

To: Salkeld, Tim H FLNR:EX <Tim.Salkeld@gov.bc.ca>; Johansen, Gary FLNR:EX <Gary.Johansen@gov.bc.ca>

Subject: FW: Tree Data request

Tim and Gary,

Fyi,

here is another data request for a project Adrian is working on, towards

s.12; s.13; s.14

Only issue here is that Adrian want's this sooner than later, and it will involve another investment of time to process.

Rene

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

**Sent:** February 28, 2020 10:54 AM

To: De Jong, Rene FLNR:EX < Rene.DeJong@gov.bc.ca>

Subject: RE: Tree Data

HI Rene,

Thanks for talking with me this morning. As you suggested, here is more information on the project.

The objective is to determine the DBH thresholds for the species listed below that would net approximately 1500 of the largest diameter trees -across all the species listed below. Some of the species are lumped, for example most of the birch species, and some have been split into coast/interior.

I have approximately one month to complete this. So would it be possible to get supporting data from you by mid march, or sooner if possible?

# Thanks, Adrian

InSpeciesCode	CoastInterior	BigTreeSpeciesCode
AC		AC .
ACB		AC
ACT		AC
AT	coast	ATc
AT	interior	ATi
В	coast	ВА
В	interior	BLi
ВА		ВА
BG		BG
BL	coast	BLc
BL	interior	BLi
С	coast	CWc
С	interior	CWi
CW	coast	CWc
CW	interior	CWi
D		DR
DR		DR
Е		EP
EA		EP
EP		EP
ES		EP
EXP		EP
FD	coast	FDc
FD	interior	FDi
FDC		FDc
FDI		FDi
Н	interior	HWi
HM		HM
HW	coast	HWc
HW	interior	HWi
L		LW
LW		LW
MB		MB
PA		PA
PW	coast	PWc
PW	interior	PWi
PY		PY
RA		RA
SS		SS
Т		TW
TW		TW
TX		TW
WP		WP
YC		YC

From: Walton, Adrian P FLNR:EX Sent: February 25, 2020 3:20 PM

To: De Jong, Rene FLNR:EX < Rene.DeJong@gov.bc.ca>

Subject: Tree Data

Hi Rene,

I am looking for the most tree observations I can get that have the following:

- Tree species
- DBH
- Age
- District and/or TSA
- BEC

Let me know if you have any questions.

Thanks, Adrian

# RE: How many trees would meet these two DBH options?

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: March 17, 2020 at 2:38:59 PM Pacific Daylight Time

**Prodding works** 

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: March 17, 2020 2:39 PM

To: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

**Subject:** RE: How many trees would meet these two DBH options?

I'm just on the phone with Scott Mitchell. He just called.

Adrian

From: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca>

Sent: March 17, 2020 2:37 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: FW: How many trees would meet these two DBH options?

The staff member I tasked with this just returned from \$.22

- I will check with him

Most of the trees retained, not encompassed in the harvest set asides like RMZ's, has been 0 buffer. Typically these trees are quite windfirm but we have wording for that aspect to be assessed

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca>

Sent: March 17, 2020 2:33 PM

To: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca >

**Subject:** RE: How many trees would meet these two DBH options?

HI Al,

Just following up on my earlier email regarding big trees. Is someone in BCTS able to answer my questions?

Also, has BCTS established any purpose-built buffers around the identified legacy trees if the trees weren't being colocated with something else? How large a buffer did BCTS create if they established a stand-alone legacy tree protection area?

Thanks, Adrian

From: Walton, Adrian P FLNR:EX Sent: March 3, 2020 3:23 PM

**To:** Powelson, Allan FLNR:EX < <u>Allan.Powelson@gov.bc.ca</u>> **Subject:** How many trees would meet these two DBH options?

Hi Al,

Of the trees BCTS has already tagged as big trees according to the BCTS policy, how many would meet or exceed the following thresholds? Also, how many years has BCTS been following their big tree policy? Three years was it?

PS – I am guessing that not all of the species listed below are reflected in the BCTS list

Species Species DBH 1 DBH 2

Douglas-fir coast	FDc	245	270
Douglas-fir interior	FDi	146	161
Grand Fir	BG	103	104
Pacific Yew	TW	33	68
Ponderosa Pine	PY	119	120
Sitka Spruce	SS	275	284
Western Red Cedar coast	CWc	360	385
Western Red Cedar interior	CWi	265	290
Yellow Cedar	YC	257	265
Bigleaf Maple	MB	130	130
Black Cottonwood	AC	174	177

Adrian

# RE: How many trees would meet these two DBH options?

From: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>, Powelson, Allan FLNR:EX

<ali>Allan.Powelson@gov.bc.ca>, Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca></a>

Sent: March 17, 2020 at 4:06:35 PM Pacific Daylight Time

Attachments: BCTS Coastal Legacy Trees\_BMPs (June1\_2019).pdf, image002.png

Hi Adrian. My apologies for the delayed response; \$.22 and now working from home.

As per our discussion earlier this afternoon, I have contacted Don Davis of our GIS group and he is able to pull an up-to-date summary of trees that have been protected to date, filtered by the DBM thresholds in your email.

BCTS has been voluntarily been implementing its Legacy Tree BMP on its coastal operations since September 2017. Our guidance re species and diameter limits are as follows. A copy of the policy is attached, fyi.

Table 1: Diameter Guidance for Legacy Tree Retention<sup>4</sup>

Species	Diameter (m DBH) Guidance for Legacy Tree Retention
Yellow-cedar	2.1
Coastal Douglas-Fir	2.1
Sitka Spruce	2.2
Western red cedar	3.0

As we discussed, the current BCTS BMP doesn't provide any specific direction related to buffering of the Legacy Trees. It does speak to co-location where possible. Otherwise, buffering would be left to the discretion of the prescribing forester at the site level. It is reasonable to assume that, if co-location is not a viable option, buffering would be done in such a way to minimize THLB impact. I do not believe that we are capturing buffering information in our dataset but will confirm this with Don.

Don, please proceed as per our discussion. If you have any questions about Adrian's query, please don't hesitate to contact him directly. Thank you!

Scott Mitchell, RPF Sustainability Officer

FLNRORD, BCTS Headquarters 250-956-5140 (work) 250-230-1782 (cell)

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

Sent: March 3, 2020 5:18 PM

To: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Subject: Fwd: How many trees would meet these two DBH options?

Hi Scott

Can you please try and get answers to Adrian's questions?

I suspect our data or his group could do the analysis

Cheers

Αl

Allan Powelson A/Director

# Sustainability and Forestry BCTS

# Begin forwarded message:

From: "Walton, Adrian P FLNR:EX" < Adrian. Walton@gov.bc.ca>

Date: March 3, 2020 at 15:23:29 PST

To: "Powelson, Allan FLNR:EX" < Allan.Powelson@gov.bc.ca > Subject: How many trees would meet these two DBH options?

Hi Al,

Of the trees BCTS has already tagged as big trees according to the BCTS policy, how many would meet or exceed the following thresholds? Also, how many years has BCTS been following their big tree policy? Three years was it?

PS – I am guessing that not all of the species listed below are reflected in the BCTS list

	Species		
Species	Code	DBH 1	DBH 2
Douglas-fir coast	FDc	245	270
Douglas-fir interior	FDi	146	161
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Pacific Yew	TW	33	68
Ponderosa Pine	PY	119	120
Sitka Spruce	SS	275	284
Western Red Cedar coast	CWc	360	385
Western Red Cedar interior	CWi	265	290
Yellow Cedar	YC	257	265
Bigleaf Maple	MB	130	130
Black Cottonwood	AC	174	177

Adrian



# Best Management Practices for Coastal Legacy Trees

#### A. Introduction

The Pacific temperate rainforests ecoregion of North America is one of the richest and most diverse temperate forest ecoregions on earth<sup>1</sup>. These coastal rainforests contain enormous trees, referred to as "legacy trees", which are a result of the area's favourable growing conditions, including mild year-round temperatures and heavy rainfall. Legacy trees are exceptionally large and old, and a unique feature of British Columbia's coastal forests.

BC Timber Sales (BCTS) recognizes that legacy trees are often attributed with having important cultural, aesthetic and ecological value. These trees, when retained, can play an important role in habitat conservation by bridging old-growth characteristics into second growth stands. In addition, large trees are increasingly supporting the growing ecotourism economy as valuable destinations in and of themselves. In that context, BCTS' aim is to retain legacy trees throughout the program's coastal operating areas in accordance with the protocols below.

# B. Scope

The following best management practices for the retention of legacy trees apply to the coastal operating areas of the BCTS Strait of Georgia, Seaward-tlasta, Chinook and Skeena Business Areas, which are located within the Skeena, West Coast and South Coast Natural Resource Regions of British Columbia (BC)<sup>2</sup>.

# C. Best Management Practices

# 1. Guidance for Selection of Legacy Trees for Retention<sup>3</sup>

A legacy tree is defined as a tree that is of the species and the minimum diameter specified in Table 1.

Table 1: Diameter Guidance for Legacy Tree Retention<sup>4</sup>

Species	Diameter (m DBH) Guidance for Legacy Tree Retention
Yellow-cedar	2.1
Coastal Douglas-Fir	2.1
Sitka Spruce	2.2
Western red cedar	3.0

It is difficult to confirm the exact measurements of standing trees; therefore, the table's measurements are a guide. It is up to the judgment of the assessor to use both estimated

https://gww.nrs.gov.bc.ca/flnr/files/flnr/media/internal\_communications/FLNRO\_regional\_map\_0.pdf?pl=mo-flnr-regional\_map

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<sup>&</sup>lt;sup>1</sup> See: <a href="http://wwf.panda.org/about">http://wwf.panda.org/about</a> our earth/ecoregions/pacific temperate rainforests.cfm

<sup>&</sup>lt;sup>2</sup> See: https:

The University of British Columbia (UBC) <u>BC Big Tree Registry</u> is used in this BMP as the reference source to identify the largest trees by diameter and species for those species that are capable of growing to very large diameters in BC. As guidance, this BMP recommends that trees that are at least 50% (diameter threshold higher for Yellow cedar due to safety issues such as dead tops, hollow cores, etc.) of the largest diameter of those registered in the UBC Big Tree Registry can be considered as unique and can be considered by BCTS for retention.

<sup>&</sup>lt;sup>4</sup> Largest Diameter Tree (m DBH) specified in Table 1 as per the UBC Big Tree Registry (Note: Select 'metric' and 'diameter' parameters in Big Tree Lists report).



# Best Management Practices for Coastal Legacy Trees

measurements and quality indicators to determine if a tree qualifies as a legacy tree suitable for retention.

# 2. Planning Considerations

Legacy trees selected for retention are ideal features to anchor retention patches. Legacy trees can be retained within areas that will normally be set aside from harvesting (e.g., wildlife tree retention areas, ungulate winter ranges, wildlife habitat areas, old growth management areas, riparian reserve zones and any other areas reserved for non-timber values). Despite best efforts, it is also recognized that due to operational factors it is not possible to identify or retain all legacy trees or include them within retention patches.

# 3. Operational Factors

Legacy trees may need to be felled during or after primary harvesting operations if they constitute a safety hazard (or are affected by other operational factors) that cannot be addressed through other means.

Operational factors to consider in making a decision of whether to retain a legacy tree will be based on, but not limited to, the following considerations:

- a. Worker safety.
- Operational constraints associated with the location of a tree, potential isolation of timber and impacts to cutblock design, in particular in cutblocks that rely on overhead cable harvest systems.
- c. Windfirmness of the tree.
- d. Known First Nations' interests based on recent consultation.
- e. Local abundance of legacy trees.

### 4. Field Marking, Mapping and Documentation

All legacy trees selected for retention will be marked in the field, mapped, visually inspected, and their key characteristics (e.g., species, estimated height, diameter at breast height, crown spread) and location recorded per the BCTS Coastal Legacy Tree Spatial Tracking Procedure. In addition, all exceptionally large legacy trees that meet the criteria for the BC Big Tree Registry "Top Ten List" will be nominated for inclusion on the list<sup>5</sup>.

#### 5. Relationship Between Legacy Trees and Monumental Cedars

Where BCTS Forest Stewardship Plans (FSPs) or other commitments warrant a different management approach such as retention of monumental cedars, large cultural cedars or culturally modified trees that also fit the definition of legacy trees, those commitments supersede BCTS' Best Management Practices for Coastal Legacy Trees.

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<sup>&</sup>lt;sup>5</sup>The BC Big Tree Registry Top Ten List presents the top ten highest scoring trees for each species. Big trees are ranked using the "Tree Importance Score", which is based on tree height, circumference (or diameter) and crown spread. Information on nominating trees to the BC Big Tree Registry can be found at http://bigtrees.forestry.ubc.ca/nominating-trees/.

Table 1: Diameter Guidance for Legacy Tree Retention<sup>4</sup>

Species	Diameter (m DBH) Guidance for Legacy Tree Retention
Yellow-cedar	2.1
Coastal Douglas-Fir	2.1
Sitka Spruce	2.2
Western red cedar	3.0

# RE: How many trees would meet these two DBH options?

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

To: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>, Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca>

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>
Sent: March 19, 2020 at 8:21:22 AM Pacific Daylight Time

Attachments: IMG\_0154.jpg, image001.png

From: Powelson, Allan FLNR:EX Sent: March 19, 2020 8:15 AM

To: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

**Subject:** RE: How many trees would meet these two DBH options?

Thanks!

Adrian; FYI based on those DBH1 and DBH 2 diameters used below for Ba or Bg I would have at least 2 Bg "Big trees" in my yard.

Αl

From: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca >

**Sent:** March 19, 2020 8:05 AM

To: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

**Subject:** RE: How many trees would meet these two DBH options?

Hi Al,

Here is the Ba breakdown;

Species	Height	Diameter	<b>Crown Spread</b>	DBH1_Group	DBH2_Group
Ва	61	1.33	8.3	Yes	Yes
Ва	56	1.17	8.7	Yes	Yes
Ва	61	1.36	9.9	Yes	Yes
Ва	58	1.32	10.7	Yes	Yes
Ba	56	1.35	10.3	Yes	Yes

Yes I noticed that as well, there were only 5 Ba CLTs but they fit into both diameter classes. I guess I could/should have put them into one or the other but not both...



**Don Davis RFT** 

**Lidar/Remote Sensing Specialist** 

BC Timber Sales | Headquarters

Ministry of Forests, Lands, Natural Resource Operations and Rural

Development

New P. 250.850.1672 | 370 South Dogwood Street, Campbell River

From: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca>

**Sent:** March 19, 2020 8:01 AM

To: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Subject: RE: How many trees would meet these two DBH options?

#### I was curious so...

	legacy tree			DBH1	DBH2	
Species	dbh	Count	dbh	Count	dbh	Count
Ва	-	5	103	5	104	5
Cw	300	58	360	6	385	2
Fdc	210	64	245	18	270	6
Ss	220	2	275	0	284	0
Yc	210	25	257	0	265	0

Don – what are the diameters of the Ba we recorded?

From: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca>

Sent: March 19, 2020 7:31 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>; Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Subject: RE: How many trees would meet these two DBH options?

Hi Adrian,

There was a total of 155 recorded Coastal Legacy Trees as of yesterday but one Cw did not have diameter, height or crown spread recorded.

Here is the summary for the remaining 154 that had all the attributes to date;

# **BCTS Coastal Legacy Trees**

Species	Number
Ва	5
Cw	58
Fdc	64
Ss	2
Yc	25
<b>Grand Total</b>	154

Regards,



#### **Don Davis RFT**

# **Lidar/Remote Sensing Specialist**

BC Timber Sales | Headquarters

Ministry of Forests, Lands, Natural Resource Operations and Rural

New P. 250.850.1672 | 370 South Dogwood Street, Campbell River

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

Sent: March 18, 2020 4:11 PM

To: Davis, Don FLNR:EX < Don. Davis@gov.bc.ca>

Cc: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>; Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

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Sent: March 18, 2020 3:39 PM

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Cc: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca>

Subject: RE: How many trees would meet these two DBH options?

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Have a look and let me know if you have any questions.

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			Co	unt
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Regards,



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Sent: March 17, 2020 4:07 PM

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Cc: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>; Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>; Mitchell, Scott C

FLNR:EX <Scott.Mitchell@gov.bc.ca>

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and now working from home.

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Coastal Douglas-Fir	2.1
Sitka Spruce	2.2
Western red cedar	3.0

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Don, please proceed as per our discussion. If you have any questions about Adrian's query, please don't hesitate to contact him directly. Thank you!

Scott Mitchell, RPF Sustainability Officer

FLNRORD, BCTS Headquarters 250-956-5140 (work) 250-230-1782 (cell)

From: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca>

Sent: March 3, 2020 5:18 PM

To: Mitchell, Scott C FLNR:EX < Scott.Mitchell@gov.bc.ca>

Subject: Fwd: How many trees would meet these two DBH options?

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I suspect our data or his group could do the analysis

Cheers

Αl

Allan Powelson A/Director Sustainability and Forestry BCTS

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From: "Walton, Adrian P FLNR:EX" < Adrian. Walton@gov.bc.ca >

Date: March 3, 2020 at 15:23:29 PST

To: "Powelson, Allan FLNR:EX" < Allan.Powelson@gov.bc.ca > Subject: How many trees would meet these two DBH options?

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Bigleaf Maple	MB	130	130
Black Cottonwood	AC	174	177

Adrian



Page 55 of 333 FNR-2021-14593

# RE: How many trees would meet these two DBH options?

From: Walton, Adrian P FLNR:EX s.15

To: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>, Davis, Don FLNR:EX

<Don.Davis@gov.bc.ca>

Sent: March 19, 2020 at 11:56:30 AM Pacific Daylight Time

Attachments: image001.png

Thanks Al, Don and Scott. Your help on this is very much appreciated!

Adrian

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

Sent: March 19, 2020 8:44 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>; Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>

Subject: RE: How many trees would meet these two DBH options?

The one I'm pictured by would be close – the other, no it would not

Αl

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca>

Sent: March 19, 2020 8:43 AM

To: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>; Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>

**Subject:** RE: How many trees would meet these two DBH options?

AI:

How about if the BG DBH limit was 146cm? Would your trees qualify?

Adrian

From: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca>

Sent: March 19, 2020 8:15 AM

To: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca >; Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca >

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Subject: RE: How many trees would meet these two DBH options?

Thanks!

Adrian; FYI based on those DBH1 and DBH 2 diameters used below for Ba or Bg I would have at least 2 Bg "Big trees" in my yard.

Αl

From: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca >

Sent: March 19, 2020 8:05 AM

To: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca >; Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca >

Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Subject: RE: How many trees would meet these two DBH options?

Hi Al,

Here is the Ba breakdown;

Species	Height	Diameter	<b>Crown Spread</b>	DBH1_Group	DBH2_Group
Ва	61	1.33	8.3	Yes	Yes
Ва	56	1.17	8.7	Yes	Yes
Ba	61	1.36	9.9	Yes	Yes
Ba	58	1.32	10.7	Yes	Yes
Ва	56	1.35	10.3	Yes	Yes

Yes I noticed that as well, there were only 5 Ba CLTs but they fit into both diameter classes. I guess I could/should have put them into one or the other but not both...



#### **Don Davis RFT**

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Sent: March 19, 2020 8:01 AM

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Cc: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Subject: RE: How many trees would meet these two DBH options?

#### I was curious so...

11143 5411543 5511							
	legac	y tree		DBH1		DBH2	
Species	dbh	Count	dbh	Count	dbh	Count	
Ва	-	5	103	5	104		5
Cw	300	58	360	6	385		2
Fdc	210	64	245	18	270		6
Ss	220	2	275	0	284		0
Yc	210	25	257	0	265		0

Don – what are the diameters of the Ba we recorded?

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# Big Tree documents for review/discussion (DBH sizes; Buffer size; Data collection)

From: Walton, Adrian P FLNR:EX s.15

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>, Givner, Jessie

FLNR:EX <Jessie.Givner@gov.bc.ca>, McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>, McReynolds, Tom W FLNR:EX

<Tom.McReynolds@gov.bc.ca>

Sent: March 20, 2020 at 3:42:00 PM Pacific Daylight Time

Attachments: Tree Buffer Options.docx, Big Tree Data Collection Plan (July 4 19).docx,

Methodology and Rationale to determine Big Tree diameter thresholds.docx

Thanks Tom.

I have attached a few documents for everyone to review and possibly discuss next week.

My suggested DBH size thresholds and the methodology I used

Tree buffer ideas

Data loading and recording options (courtesy of Tim Salkeld and Iaian Mcdougall in my branch who had previously created this document for Shawn Hedges)

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: March 19, 2020 12:01 PM

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>; McKendry, Colleen FLNR:EX

<Colleen.McKendry@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; Givner, Jessie FLNR:EX

<Jessie.Givner@gov.bc.ca> Subject: Big Tree Regulation

I've invited Susan Westmacott or her backup (Natalie Work) to join us for a half hour next week.

Tom McReynolds

Director, Provincial Stewardship Strategies, FLNRORD

s.17

# Tree Buffer Options

Chuck Rowan, Coastal Harvesting Methods Forester with experience in windthrow assessment and risk, suggests the best way to protect a tree is with a risk assessment and plan done by a qualified professional (forester, agrologist, biologist). In the absence of a risk assessment and plan defaults can be used but they are not ideal.

Using a default buffer in the shape of circle may (or may not) protect a tree adequately on the prevailing wind side but may be unnecessarily large on the leeward side. Also, the length of cleared area outside the buffer has a large influence on the buffer's effectiveness. As do such things as slope, terrain, soil wetness. These would be considered by a risk assessment when designing a buffer, but not considered when using a default buffer.

Ideally the buffer on the windward side should be over one tree length in depth. Given that certain tree species in the Big Tree Registry are as tall as 96 metres using a buffer with a radius of 100m is not unreasonable, which would create an individual buffer area of approximately 3 ha. Chuck Rowan states that a 100m radius buffer on the coast would be adequate in *most but possibly not all* situations.

Talking with Gary Johansen, Team Lead for Productivity and Sample Data in the Forest Analysis and Inventory Branch, they buffer their permanent sample plots with a radius of 100m on the coast and 50m in the interior.

#### Buffer options:

- Create a buffer with a radius 25% larger than the observed big tree
- On the coast use a buffer with a radius of 60m for Arbutus, Garry Oak and Bigleaf Maple; 120m for all other species. In the interior use 60m for all species.
- Use one of the two above options as the default with an option for a buffer designed by a
  designated by a qualified professional through a risk assessment.

When designating a default buffer radius, choosing a size that goes beyond what is necessary in most cases would minimize the chances that the buffer is inadequate and contributes to a big tree falling over. Also, choosing a default buffer size that is overly generous may prompt the licence holder to seek a qualified person to perform a risk assessment and associated harvest plan that maximizes the tree's chance of continued survival.

# Big Tree Data Collection Plan

# Objective

- 1. Create and manage a dataset that records and tracks the location of Big Trees and related attribute information.
- 2. Create the appropriate infrastructure and protocols for forest tenure holders and BC Timber sale to report big tree data to FAIB by September 1<sup>st</sup> each year. These protocols must allow for data to be easily checked for quality and seamlessly incorporated into the dataset in the most automated way possible.
- 3. Regularly update the big tree dataset using the information from UBC's own big Tree registry.
- 4. Regularly update any status changes to specific big trees (e.g. standing live, harvest, down felled).
- 5. Make data accessible to the public and other stakeholders.
- 6. The Forest Analysis and Inventory Branch (FAIB) to be the data custodian.

## State of Current Data

- Data is available from the UBC big tree data registry. This data has most of the needed attributes including spatial coordinates, height, diameter, and crown spread. The status of the trees (i.e. if tree is alive and standing) from this dataset can be derived in most cases from a comments attribute but trees may still need to be authenticated in the field.
- BCTS big tree data has been made available. Attributes include spatial coordinates, height, diameter, crown spread, licence number, bcts business area and species. Data is missing the year located and tree status attributes.
- Data from UBC and BCTS have been complied into a single dataset by FAIB.
- Licensees currently manage their own big tree datasets. The format of these datasets has yet to be examined.

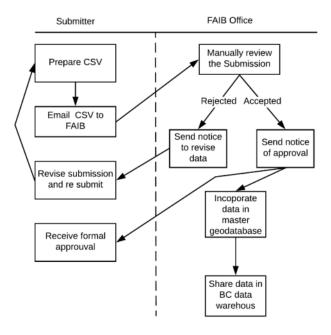
# Data model

 A simple data model for the big tree dataset has been proposed as a single flat file. See Appendix A.

# Implementation

Short Term Plan (Option 1)

Have licensees email big tree data to FAIB and store data in a file geodatabase.



#### 1. Develop a protocol for forest tenure holders and BCTS to submit big tree data

o Have licensees email FAIB a CSV in a standard format with big tree data.

## 2. Develop a system to verify data and integrate it into the live dataset

- Manually verify data
- Communicate directly with licensee if issues exist
- o Integrate into master file geodatabase

## 3. Make dataset accessible to public and stake holders

o Upload the dataset to the BCGW and update dataset as needed

### **Advantage**

- Easy to set up and have running right away.
- Easy for forest tenure holders to create csv. No technical expertise/extra software required to submit.

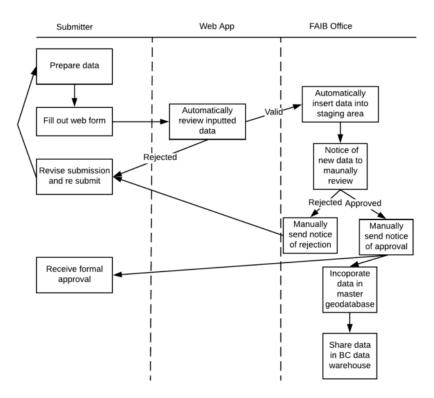
#### Potential Issues/disadvantages

- Difficult to automate process.
- Difficult to verify data.
- Potential data consistency issues may occur.
- FAIB employees must monitor email regularly

•	May need to to set up a group FAIB email account to monitor.

# Short Term Plan (Option 2)

Create FLNRORD website with a open source web form for licensees to submit big tree data (see Appendix B for example web form) and store data in a file geodatabase.



#### 1. Develop a protocol for forest tenure holders and BCTS to submit big tree data

 Create FLNRORD website with a web form for licensees to submit data (see Appendix B).

#### 2. Develop a system to verify data and integrate it into the live dataset

- Initial automatic verification at data input by web app. This provides instant feedback.
- o Web app uploads inputted data to staging area.
- FAIB office verifies data in staging area and communicates directly with licensee if issues exist.
- FAIB office integrates data into master file geodatabase.

#### 3. Make dataset accessible to public and stake holders

Upload the dataset to the BCGW and automate any updates to the data.

#### **Advantages**

- Validation of data can be mostly automated.
- Users submitting data can have instant feedback to quality of data (e.g. missing data values, typos).
- Have user to choose from pre-determined values to when submitting data.

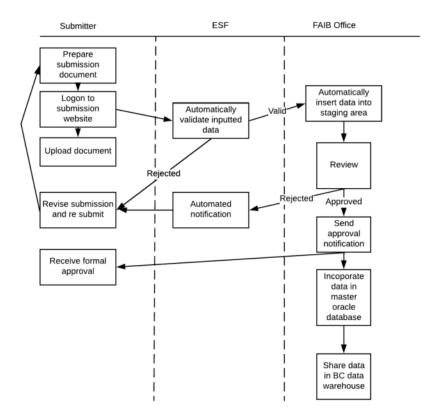
- Submitted data will be centralized into a single location (database on cloud) that is easy to query and approved.
- Easier to track which licensees have reported.

# Potential Issues/disadvantages

- Difficult to authenticate users. Must create a system that only allows forest tenure holders and BCTS to access submission form.
- Need a server or cloud service that is always running in order to save submitted data (e.g. saving data into a staging area database).
- Need approval to use third party cloud service.
- Longer to set up than email.
- Requires some technical expertise to set up.

# Long Term Plan

Create a procedure for submission using the already existing Electronic Submission Framework (ESF) and manage dataset in a Oracle database.



- 1. Develop a protocol for forest tenure holders and BCTS to submit big tree data
  - Use the ESF for submissions
- 2. Develop a system to verify data and integrate it into the live dataset
  - ESF will automate the initial verification of data
  - Have ESF uploaded input data into a staging area
  - o Data will be integrated form staging area in the master dataset in Oracle
- 3. Make dataset accessible to public and stake holders
  - o BCGW automatically updates changes

# **Advantages**

- Forest Tenures holders are familiar with system since they already use ESF for RESULTS and Tenure submissions.
- System is and tried and tested.
- User authentication/security is already provided.

# Potential Issues/disadvantages

- Potential high cost to set up through contractor.
- Hard to have in place before September 1<sup>st</sup>.

# Appendix A

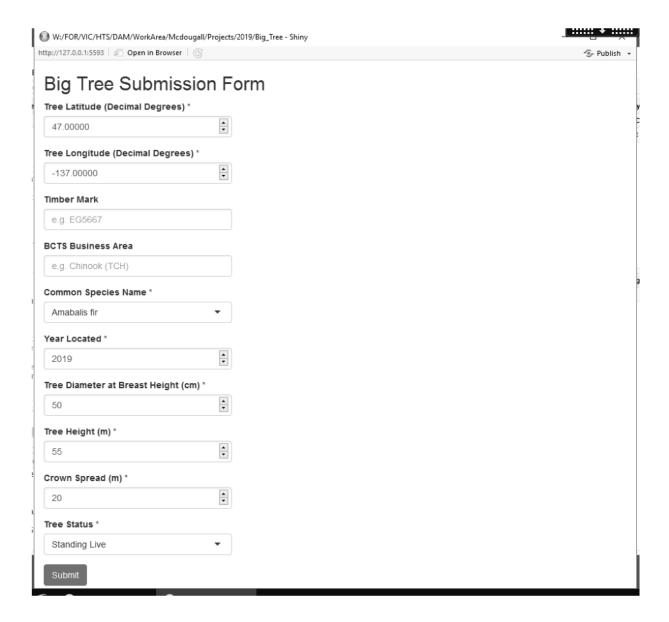
Format - Simple flat non-spatial table with latitude and longitude coordinates.

Attribute	Data	Max.	Comments
	Type	Characters	
BC_ALBERS_Y	DOUBLE		BC Albers Y coordinate Rounded to the nearest
			metre e.g. 862515
BC_ALBERS_X	DOUBLE		BC Albers X coordinate Rounded to the nearest
			<b>metre</b> e.g. 1046895
FOREST FILE ID	TEXT	10	The FOREST FILE ID represents the licence number
			of the opening corresponding to the cutting
			authority. Note where there is more than one
			tenure associated with the opening, the prime
			licence is shown. Eg. TFL49, A19204, W0014.
BCTS_IND	TEXT	1	Indicates whether tree is in a British Columbia
			Timber Sales (BCTS) area. Values must be Y or
			N
BCTS_ NAME	TEXT	10	BCTS Business Area
DC13_ IVAIVIL	I LXI		Values must be TSK, TPL,TPG,TSN,TBA, TCH, TST,
			TSG, TCC, TKA, TOC, TKO
YEAR_LOCATED	NUMERIC	5	OPTIONAL FIELD Year big tree was originally
TEAN_LOCATED	TTO WIETTIC		located. 4-digit year. E.g. 2016
SPECIES_NAME	TEXT	25	Common Species Name. Must be in following list:
SI ECIES_IVAIVIE	12/11		AMABALIS FIR,
			DOUGLAS-FIR (COASTAL),
			DOUGLAS-FIR (INTERIOR),
			ENGELMAN SPRUCE,
			GRAND FIR, MOUNTAIN HEMLOCK,
			PACIFIC YEW,
			PONDEROSA PINE,
			SITKA SPRUCE,
			SUBALPINE FIR (COAST),
			SUBALPINE FIR (INTERIOR), WESTERN HEMLOCK,
			WESTERN HEMILOCK, WESTERN LARCH,
			WESTERN REDCEDAR,
			WESTERN WHITE PINE (COAST),
			WESTERN WHITE PINE (INTERIOR),
			WHITEBARK PINE,
			YELLOW-CEDAR, ARBUTUS,
			BIGLEAF MAPLE,
			BLACK COTTONWOOD,
			GARRY OAK,
			PAPER BIRCH,
			RED ALDER, PACIFIC WILLOW (COAST),
			SHINING WILLOW (COAST),
			TREMBLING ASPEN (COAST),
			TREMBLING ASPEN (INTERIOR),
			OTHER

DBH_CM	NUMERIC	5	Tree diameter at breast height in centimeters. No
			decimals. E.g. 281.
HEIGHT_M	NUMERIC	5	Tree height metres. One decimal place. E.g. 34.1
CROWN_SPREAD_M	NUMERIC	5	Crown spread metres. One decimal place. E.g. 5.1
STATUS	TEXT	25	Status of tree. Values must be in
			standing Live , standing dead, down naturally, down
			felled

# Appendix B

#### Proposed Big Tree Submission Form



#### Background

Direction to staff was that the proposed Big Tree Policy should protect approximately 1,500 of the biggest trees from harvest. This was interpreted to mean that the 1,500 trees should be spread over a selection of the most publicly-recognized exceptionally big tree species.

#### **Species Selection**

The province of BC is home to 60 recognized native tree species (34 conifers, 26 hardwoods). Establishing size thresholds for each of these tree species is impractical and considered beyond the scope of the desired policy.

A decision was made to create a shorter list of species based on prevalence in the BC Big Tree Registry, which is an existing catalogue of big trees managed by the independent BC Big Tree Committee but residing at UBC. This registry contains 27 tree species (17 conifer, 10 hardwood) with an average number of observations per species of approximately 10.

The deciding criterion for a tree to be included in the draft provincial Big Tree policy was that a tree species must have at least 10 entries/observations in the Big Tree Registry. This resulted in shorter list of 12 species. These species were: coastal Douglas-fir, interior Douglas-fir, grand fir, pacific Yew, ponderosa pine, Sitka spruce, western red cedar, yellow cedar, arbutus, bigleaf maple, black cottonwood and Garry oak.

Given the naturally large size of western red cedar both on the coast and in the interior, but with there being a recognizable size difference between the coast and interior, it was decided that western red cedar be given two size thresholds -one for the coast and one for the interior. A similar approach was decided for Black Cottonwood, which also occurs in both the coast and interior. This results in a total of 14 required size thresholds: 12 recognized species, with two species have two thresholds depending on coast or interior location.

# Establishing an Appropriate Size Threshold

The BC Big Tree Registry uses three measures to determine if a tree qualifies to be registered as a big tree. These are: diameter at breast height (where breast height is measured 1.37m above the estimated germination point), height and crown spread.

Given that every tree is not visited and measured prior to harvest and that doing so would be cost prohibitive, identification of large trees will rely on ground crews visually scanning lower trunks. For this reason, it was proposed that whether a tree qualifies as a Big Tree be based solely on diameter at breast height (DBH) measurements using a methodology consistent with provincial Cruising Manual, which typically is measured 1.3m above the high side of the tree.

Using cruise data to explore DBH thresholds

Establishing appropriate DBH thresholds require an adequate number of individual tree measurements. Thankfully the ministry has collected a large number of tree measurements over the past 5 years through submitted appraisal-related timber cruise information. For the 14 required DBH thresholds this resulted in over 430,000 unique tree observations.

Unfortunately, not all the species occurred in abundance in the timber cruise tree observations. A decision was made to only use the cruise data analysis approach for those species that had more than 1,000 observations in the cruise data. This excluded grand fir, pacific yew, arbutus, bigleaf maple, Garry oak, and black cottonwood on the coast from the cruise-data analysis approach.

Using the cruise data, DBH size thresholds were generated at various percentiles, as well as the number of trees in the cruise data that would be at or above the various DBH percentiles.

Extrapolating from number of trees in the cruise data to the possible number of trees harvested

Choosing the appropriate percentile to use required understanding the relationship between the number of trees observed in the cruise data to the possible number of trees harvested. Advice from Tenures Branch (suppliers of the cruise data) was that every tree in the cruise data *potentially* correlates to 313 harvested trees (see appendix).

Choosing a DBH threshold that corresponds to the 99.999th percentile would, for those trees analysed using the cruise data, result in 11 cruised trees being at or above the DBH threshold. Assuming the future harvest profile is similar to what was observed in the cruise data this could equate to over 3,000 trees—of the species analysed using the cruise data—being protected from harvest.

Using the Big Tree Registry for those species not analysed using the cruise data

To establish DBH thresholds for those species not analysed using the cruise data the Big Tree Registry data was used. Although not large in number of observations it does represent a sample of some of the largest observed trees.

Looking at those species analysed using the cruise data, the 99.999th percentile cruise data DBH *roughly* corresponded to the 25th percentile of the DBH values recorded in the Big Tree Registry. In other words, using the cruise data 99.999th percentile would, for most of the species using the cruise data, result in approximately three quarters of the corresponding tree species in the Big Tree Registry being protected from harvest. Using this relationship, it is proposed that for each tree species using the Big Tree Registry as the data source the 25th percentile of the Big Tree Registry DBH be used.

# Estimated number of trees protected from harvest

As mentioned above, using the 99.999<sup>th</sup> percentile for those species size thresholds derived using the 5 years of cruise data could potentially protect 3,000 trees of those species over then next 5 years. Including those species not analysed using the cruise data, which are anticipated to be less prevalent in the potential harvested area given their lower occurrence in the cruise data, it is possible that approximately 4,000 trees are protected from harvest over then next 5 years. Also as mentioned above, this assumes that the future harvest profile is similar to what is observed in the cruise data.

4,000 is higher than the direction given to staff. However, it is felt that it would be prudent to error on the side of caution given uncertainty in the relationship between number of trees observed in the cruise data to the number of trees harvested as well as uncertainty that the future harvest profile will resemble the past.

# Proposed Species and Diameter at Breast Height (DBH) Thresholds for Big Tree Policy

	Species		DBH	
Species	Code	DBH Data Source	(cm)	
Douglas-fir coast	FDc	Cruise data	271	
Douglas-fir interior	FDi	Cruise data	161	
Grand Fir	BG	Big Tree Registry	146	
Pacific Yew	TW	Big Tree Registry	63	
Ponderosa Pine	PY	Cruise data	120	
Sitka Spruce	SS	Cruise data	284	
Western Red Cedar (coast)	CW	Cruise data	385	
Western Red Cedar (interior)	CW	Cruise data	290	
Yellow Cedar	YC	Cruise data	265	
Arbutus	RA	Big Tree Registry	164	
Bigleaf Maple	MB	Big Tree Registry	198	
Black Cottonwood (coast)	AC	Big Tree Registry	268	
Black Cottonwood (interior)	AC	Cruise data	177	
Garry Oak	QG	Big Tree Registry	136	

# Appendix

Relationship between number of trees cruised and potential number of trees harvested

The database of 2.23 million "cruised" trees represents 5 years of logging

Assuming an average harvest of 190,000 ha per year.

Assuming each hectare has on average 750 harvestable trees.

5 \* 190,000 \* 750 = 700M trees harvested over five years

700M trees harvested / 2.23M trees cruise = 313 harvested trees per tree cruise

Therefore each tree in the cruise database represents roughly 313 trees harvested.

# RE: Big Tree documents for review/discussion (DBH sizes; Buffer size; Data collection)

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: March 20, 2020 at 3:49:26 PM Pacific Daylight Time

Thanks Adrian!

I look forward to chatting on Monday.

\_\_\_\_\_\_

From: Walton, Adrian P FLNR:EX Sent: March 20, 2020 3:42 PM

To: McReynolds, Tom W FLNR:EX; Pedersen, Carrie-rae FLNR:EX; McKendry, Colleen FLNR:EX; Givner, Jessie

FLNR:EX

Subject: Big Tree documents for review/discussion (DBH sizes; Buffer size; Data collection)

Thanks Tom.

I have attached a few documents for everyone to review and possibly discuss next week.

My suggested DBH size thresholds and the methodology I used

Tree buffer ideas

Data loading and recording options (courtesy of Tim Salkeld and Iaian Mcdougall in my branch who had previously created this document for Shawn Hedges)

<< File: Methodology and Rationale to determine Big Tree diameter thresholds.docx >> << File: Tree Buffer Options.docx >> << File: Big Tree Data Collection Plan (July 4\_19).docx >>

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: March 19, 2020 12:01 PM

To: Pedersen, Carrie-rae FLNR:EX <CarrieRae.Pedersen@gov.bc.ca>; McKendry, Colleen FLNR:EX

<Colleen.McKendry@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; Givner, Jessie FLNR:EX

<Jessie.Givner@gov.bc.ca> Subject: Big Tree Regulation

I've invited Susan Westmacott or her backup (Natalie Work) to join us for a half hour next week.

Tom McReynolds

Director, Provincial Stewardship Strategies, FLNRORD

# FW: Old Growth Strategic Leadership Team Meeting - room in Victoria, agenda, guests, attachments - concerns re big tree regulation

From: Webb, Clinton M FLNR:EX <Clinton.Webb@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: April 2, 2020 at 10:49:23 AM Pacific Daylight Time

FYI

**From:** Webb, Clinton M FLNR:EX **Sent:** November 14, 2019 11:55 AM

To: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Cc: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>; Valdal, Eric FLNR:EX <Eric.Valdal@gov.bc.ca>

Subject: RE: Old Growth Strategic Leadership Team Meeting - room in Victoria, agenda, guests, attachments - concerns

re big tree regulation

The wording you suggest below would be one option, except it seems the "or a smaller area ..." should be "or a bigger area ...". However my recommendation would be wording that ensures an overall requirement for the buffer area around the tree to be designed by a QP to mitigate windthrow risk to the protected tree, and to allow it to include a protective management zone if the QP assessment indicated this would be effective. I would expect the minimum one hectare reserve zone would often be incorporated into a larger Wildlife Tree Patch as required by the licence holder's FSP.

My suggested wording would be:

"... a person that encounters a big tree must establish a minimum one hectare management area around the tree, with a size and configuration designed by a qualified person to mitigate windthrow risk to the big tree, consisting of

- a. A minimum one hectare reserve zone around the big tree, and
- b. An optional management zone with minimum 50% basal area retention that is designed to protect the reserve zone

Clinton

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: Thursday, November 14, 2019 9:54 AM

To: Webb, Clinton M FLNR:EX < Clinton.Webb@gov.bc.ca >

Cc: Hedges, Shawn FLNR:EX < Shawn.Hedges@gov.bc.ca >; Valdal, Eric FLNR:EX < Eric.Valdal@gov.bc.ca >

Subject: RE: Old Growth Strategic Leadership Team Meeting - room in Victoria, agenda, guests, attachments - concerns

re big tree regulation

Hi Clinton,

I'm changing the big tree agenda item from an update to a discussion.

Have you heard about the following option re: windthrow / buffer?

• A person carrying out a primary forest activity that encounters a big tree must establish a 56m radius reserve around the big tree (consistent with the July 2019 Part 13 big tree protection orders), or a smaller area or different shape if supported by a windthrow assessment completed by a qualified person.

We're working with the OG ADMs on a new version of the BN. The economic analysis appendix is being removed from the BN on diameter thresholds. I think there is agreement that the regulation won't result in 1500 ha being removed from the THLB / AAC and the economic impacts are overstated as a result of the assumptions being inaccurate.

From: Webb, Clinton M FLNR:EX

Sent: Wednesday, November 13, 2019 11:54 AM

To: McReynolds, Tom W FLNR:EX

Cc: Hedges, Shawn FLNR:EX; Valdal, Eric FLNR:EX

**Subject:** RE: Old Growth Strategic Leadership Team Meeting - room in Victoria, agenda, guests, attachments - concerns

re big tree regulation

Tom thanks for the response.

OK on the windthrow issue and "must be at least 10 ..."

Not trying to be difficult, but where is the BN aligned with many of the trees outside THLB? The BN doesn't mention it, and the first assumption in the economic impacts appendix is the 1500 trees with 1ha each are removed from the THLB resulting in AAC decline. This is not correct, TSR already applies a % netdown to account for WTR.

From: McReynolds, Tom W FLNR:EX < Tom. McReynolds@gov.bc.ca >

Sent: Wednesday, November 13, 2019 11:36 AM

**To:** Webb, Clinton M FLNR:EX < Clinton.Webb@gov.bc.ca >

Cc: Hedges, Shawn FLNR:EX <Shawn.Hedges@gov.bc.ca>; Valdal, Eric FLNR:EX <Eric.Valdal@gov.bc.ca>

**Subject:** RE: Old Growth Strategic Leadership Team Meeting - room in Victoria, agenda, guests, attachments - concerns

re big tree regulation

Thanks for your note Clinton,

I had an update on the agenda but will leave some time for discussion.

Shawn did some more work on the wind throw issue since you raised it. Further discussion may be warranted.

s.12; s.13

From: Webb, Clinton M FLNR:EX

Sent: Wednesday, November 13, 2019 10:53 AM

To: McReynolds, Tom W FLNR:EX

Cc: Hedges, Shawn FLNR:EX; Valdal, Eric FLNR:EX

Subject: RE: Old Growth Strategic Leadership Team Meeting - room in Victoria, agenda, guests, attachments - concerns

re big tree regulation

Hi Tom

Regarding the big tree regulation, I have several concerns, not sure if you want to include them in that portion of our call tomorrow?

- Windthrow risk to the protected tree I previously emailed this concern to you and Shawn, there is no wording in the BNs or policy analysis that mitigation of windthrow risk to the protected big tree will be addressed in reserve design (all wording references are indirect/vague)
- Changes to the species/diameter BN distributed since our last call
  - The new rule "... must be at least 10 or more big trees for that species recorded in the citizen-based BC Big Tree Registry" is not scientific or relevant. The number of each species on the citizen registry isn't a statistically valid measure of public interest or ecosystem representation. Many of the 17 species thereby excluded are either ecologically rare or otherwise significant, or less easily recognized, and should be eligible for protection under the new regulation. After going to the work of identifying the diameter thresholds for 99.99<sup>th</sup> percentile diameter, keeping the original list is defensible and is unlikely to generate a much greater number of proposed candidates.
  - The added appendix re estimated economic impact assessment doesn't account for, in addition to increase tourism, the fact that a large portion (if not almost all) trees protected under the reg will be

covered by the Wildlife Tree Retention (WTR) requirements which are already in place under FRPA – this is already accounted for in TSR and not a new impact on the THLB

Regards,

#### **Clinton Webb**

Land and Resource Specialist
Ministry of Forests, Lands and Natural Resource Operations
400 - 640 Borland, Williams Lake, B.C.
V2G 4T1

phone (250) 398-4283 fax (250) 398-4214 Clinton.Webb@gov.bc.ca

From: McReynolds, Tom W FLNR:EX < Tom. McReynolds@gov.bc.ca>

Sent: Wednesday, November 13, 2019 10:04 AM

To: Bawtinheimer, Brian FLNR:EX <Brian.Bawtinheimer@gov.bc.ca>; Hedges, Shawn FLNR:EX

<<u>Shawn.Hedges@gov.bc.ca</u>>; Hadway, Sharon L FLNR:EX <<u>Sharon.Hadway@gov.bc.ca</u>>; Coster, Jessica FLNR:EX

<Jessica.Coster@gov.bc.ca>; Berg, Shane FLNR:EX <Shane.Berg@gov.bc.ca>; Nussbaum, Albert F FLNR:EX

<a href="mailto:Albert.Nussbaum@gov.bc.ca">Albert.Nussbaum@gov.bc.ca</a>; Prasad, Atmo P FLNR:EX <a href="mailto:Atmo.Prasad@gov.bc.ca">Atmo.Prasad@gov.bc.ca</a>; Liesch, Nancy FLNR:EX

<<u>Nancy.Liesch@gov.bc.ca</u>>; Psyllakis, Jennifer FLNR:EX <<u>Jennifer.Psyllakis@gov.bc.ca</u>>; DeCourcy, Tara D FLNR:EX

<Tara.DeCourcy@gov.bc.ca>; Valdal, Eric FLNR:EX <Eric.Valdal@gov.bc.ca>; Recknell, Geoff FLNR:EX

< Geoff.Recknell@gov.bc.ca >; Webb, Clinton M FLNR:EX < Clinton.Webb@gov.bc.ca >; Parkinson, Yvonne M FLNR:EX

<Yvonne.Parkinson@gov.bc.ca>; McQueen, John FLNR:EX <John.McQueen@gov.bc.ca>; Vanderham, Julia FLNR:EX

<Julia.Vanderham@gov.bc.ca>; Dale, Alec R FLNR:EX <Alec.Dale@gov.bc.ca>; Givner, Jessie FLNR:EX

<<u>Jessie.Givner@gov.bc.ca</u>>; Kachanoski, Steve B FLNR:EX <<u>Steve.Kachanoski@gov.bc.ca</u>>

Cc: Mlinar, Shannon C FLNR:EX <Shannon.Mlinar@gov.bc.ca>

Subject: Old Growth Strategic Leadership Team Meeting - room in Victoria, agenda, guests, attachments

#### Room in Victoria

• 780 Blanshard Street – Room 204 – Tom's office – Please feel free to join me.

#### Agenda

- 1. Focus of this week's meeting Preparing to support the Government's response to the Old Growth Strategic Review panel report and recommendations
- 2. Updates
  - Part 13 Order Nahmint Valley
  - Big Tree Regulation
  - Work with the panel
  - Communications, websites, fact sheets
- 3. Any additions to the agenda

# Guests for Agenda Item 1 – Plan to support the Government's response to the OGSR panel report and recommendations

- John McQueen and Julia Vanderham Indigenous Relations Branch on collaboration with First Nations and the First Nations Forestry Council
- Alec Dale Resource Stewardship Division on the draft Stewardship Policy/Decision Analysis Guidelines and the latest thinking about policy and decision analysis
- Jessie Givner Resource Stewardship Division will be outlining a plan to support the Government's response to the OGSR panel report and recommendations

# Geographic Distribution of DBH Thresholds

From: Walton, Adrian P FLNR:EX s.15

To: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: May 8, 2020 at 4:28:32 PM Pacific Daylight Time

I've been trying to do more analysis on the distributions of the species with north/south and the regions but I've been having network problems and kept getting disconnected. It seemed to improve mid afternoon. Anyways, I decided to write up a quick summary of the options for diameter thresholds distributions (below). What else should be included? Should I provide estimates of the number of trees per region from each of the options? That's what I was trying to calculate today.

Using diameter at breast height criteria for coastal and interior species will result in some areas of the coast and the interior containing most, if not all, of the significant trees. Given that the significant tree policy is meant to address public concern that publicly-recognizable significant trees may be removed through logging activities it may be best to define a significant tree based upon its regional significance.

Currently, species are divided into coast and interior. A slightly finer provincial distribution could be achieved by dividing both the coast and interior into northern and southern regions. These could be based upon either a simple line of latitude or a grouping of the existing natural resource regions. A further subdivision of the significant tree specifications by natural resource region would improve the chances that a significant tree would be found regionally. Note that even with defining criteria by region, some regions may not contain a significant tree because none of the significant tree species occur within their area.

The decision that needs to be made is whether the significant tree diameter thresholds are to be defined by their occurrence within:

- coast/interior,
- north coast/south coast (defined by either grouping natural resource regions or by a simple line of latitude), or
- natural resource regions.

Adrian

#### RE: OG ADMs

From: Walton, Adrian P FLNR:EX s.15

To: Nussbaum, Albert F FLNR:EX <Albert.Nussbaum@gov.bc.ca>, McReynolds, Tom W

FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: May 22, 2020 at 2:48:52 PM Pacific Daylight Time

Yes, I will put something together.

Adrian

From: Nussbaum, Albert F FLNR:EX < Albert. Nussbaum@gov.bc.ca>

Sent: May 22, 2020 1:57 PM

To: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>; Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca> Subject: RE: OG ADMs

Tim

Best if I leave this with Adrian as I have not been engaged in this project in a significant way recently. If Adrian cannot make it I may be able to pinch hit if Adrian can prep me.

Albert

Albert Nussbaum, R.P.F.

Director, Forest Analysis and Inventory Branch

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

Phone: 778 974 5490 Cell: 250 888 5609

Email: Albert.Nussbaum@gov.bc.ca

<< OLE Object: Picture (Device Independent Bitmap) >>

Caring for BC's forests

\_\_\_\_\_\_

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: May 22, 2020 1:49 PM

To: Nussbaum, Albert F FLNR:EX <Albert.Nussbaum@gov.bc.ca>; Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca>

Cc: Berg, Shane FLNR:EX <Shane.Berg@gov.bc.ca>; Bawtinheimer, Brian FLNR:EX

<Brian.Bawtinheimer@gov.bc.ca>

Subject: OG ADMs

Hi Albert and Adrian,

Would one or both of you be available on Wednesday the 27th at 11 to join part of the old growth ADMs call to discuss the proposed regional approach to setting diameter thresholds for big trees?

The team now includes ADMs Muter, Sanderson, Sutherland, Nicholls and Rasmussen and ED Kennah.

As of yesterday, Adrian's analysis was still in progress. Would it be possible to provide a specific proposal by

Wednesday? If you're not ready to do that, could you tell them about the issue and make sure they are generally comfortable with the a general approach?

Adrian, you could also tell them about what you've found with respect to some large, coastal species and see if they are comfortable with slightly larger default buffers for some species (that could be reduced on a case-by-case basis once a site assessment is done).

Thanks,

Tom

# RE: Speaking notes for Big Tree diameter thresholds and buffer size

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>, McKendry, Colleen FLNR:EX

<Colleen.McKendry@gov.bc.ca>, Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Cc: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: May 26, 2020 at 2:49:34 PM Pacific Daylight Time

Execs asked for this on short notice.

Adrian will speak during the OG ADM Committee call tomorrow 11. Only a few minutes will be spent on big trees, as the committee plans to spend more time on the OG report.

From: McReynolds, Tom W FLNR:EX

**Sent:** May 26, 2020 2:38 PM

To: Pedersen, Carrie-rae FLNR:EX; McKendry, Colleen FLNR:EX; Givner, Jessie FLNR:EX

Cc: Walton, Adrian P FLNR:EX

Subject: RE: Speaking notes for Big Tree diameter thresholds and buffer size

Execs asked for

From: Walton, Adrian P FLNR:EX Sent: May 26, 2020 1:54 PM

To: McReynolds, Tom W FLNR:EX; Pedersen, Carrie-rae FLNR:EX; McKendry, Colleen FLNR:EX; Givner, Jessie FLNR:EX

**Subject:** Speaking notes for Big Tree diameter thresholds and buffer size

Hello Tom, Colleen, Carrie-rae and Jessie

What are your thoughts on my speaking points below?

Adrian Walton, Landscape Ecologist & A/Team Lead, Data Management Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt Victoria, BC, V8W 9C2

Phone: (778) 974-5516

# RE: Speaking notes for Big Tree diameter thresholds and buffer size

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

To: McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>, Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca>, Pedersen, Carrie-rae FLNR:EX <CarrieRae.Pedersen@gov.bc.ca>,

Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Sent: May 26, 2020 at 3:09:01 PM Pacific Daylight Time

Thanks Colleen and Adrian – I'm adding some comments below (green highlighting). Happy to chat if any of this doesn't make sense.

**From:** McKendry, Colleen FLNR:EX **Sent:** May 26, 2020 2:46 PM

To: Walton, Adrian P FLNR:EX; McReynolds, Tom W FLNR:EX; Pedersen, Carrie-rae FLNR:EX; Givner, Jessie FLNR:EX

**Subject:** RE: Speaking notes for Big Tree diameter thresholds and buffer size

Hi Adrian,

Here are some notes for consideration. If not already considered, the table of species/diameters and buffers would be good to accompany the text.

You'll see that I changed 'proposed' to 'recommended' - not sure if this is being presented with 'decisions required' to the 3-ADM committee?

Thanks, Colleen

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: May 26, 2020 1:54 PM

To: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>; Pedersen, Carrie-rae FLNR:EX

<CarrieRae.Pedersen@gov.bc.ca>; McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>; Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Subject: Speaking notes for Big Tree diameter thresholds and buffer size

Hello Tom, Colleen, Carrie-rae and Jessie

What are your thoughts on my speaking points below?

Page 088 of 333

Withheld pursuant to/removed as

Adrian Walton, Landscape Ecologist & A/Team Lead, Data Management Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt Victoria, BC, V8W 9C2

# RE: Speaking notes for Big Tree diameter thresholds and buffer size

From: McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>, Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca>, McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>,

Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Sent: May 27, 2020 at 8:59:14 AM Pacific Daylight Time

Hi,

I agree with Carrie-rae's addition to the last bullet, and I also like the other additions to the notes e.g., species information.

Thanks Colleen

From: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>

**Sent:** May 27, 2020 7:53 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; McReynolds, Tom W FLNR:EX

<Tom.McReynolds@gov.bc.ca>; McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>; Givner, Jessie FLNR:EX

<Jessie.Givner@gov.bc.ca>

Subject: RE: Speaking notes for Big Tree diameter thresholds and buffer size

Morning all, sorry for the delay in getting back to you, I hope it isn't too late.

A couple of things: s.12; s.13; s.14

Thank you! Fingers crossed we get some clear direction on this and can get moving

Carrie-rae Pedersen | Sr. Legislation and Policy Analyst

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

**Sent:** May 26, 2020 5:00 PM

To: McReynolds, Tom W FLNR:EX < Tom.McReynolds@gov.bc.ca>; McKendry, Colleen FLNR:EX

< Colleen.McKendry@gov.bc.ca>; Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>; Givner, Jessie FLNR:EX

<<u>Jessie.Givner@gov.bc.ca</u>>

Subject: RE: Speaking notes for Big Tree diameter thresholds and buffer size

Latest version. I added the table to the bottom mostly for my reference (it does not include the region analysis). More comments?

Page 091 of 333 to/à Page 092 of 333

Withheld pursuant to/removed as

#### **RE: OG ADMs**

From: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>
To: McReynolds, Tom W FLNR:EX < Tom.McReynolds@gov.bc.ca>

Cc: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>, McKendry, Colleen FLNR:EX

<Colleen.McKendry@gov.bc.ca>, Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Sent: May 27, 2020 at 1:49:35 PM Pacific Daylight Time

Thank you, Tom.

I actually think that this is a good thing. I would suggest we set some time to seriously consider our major policy questions (thresholds; buffers; BCTS trees; etc.) and put them together in a single decision item for the Minister. We know we aren't going to get this into place until September now, so be have (though tiny) bit of time to get this done.

While I think we all agree on what we believe to be the recommended options, this may be impacted by the OGMR, so your and Jessie's insight on how to address/manage this will of course be necessary.

Perhaps we can tackle some of this tomorrow on our call?

Thanks again.

Carrie-rae Pedersen| Sr. Legislation and Policy Analyst

From: McReynolds, Tom W FLNR:EX <Tom.McReynolds@gov.bc.ca>

Sent: May 27, 2020 1:36 PM

To: McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>; Pedersen, Carrie-rae FLNR:EX

<CarrieRae.Pedersen@gov.bc.ca>; Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

Cc: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: OG ADMs

Hi again,

We didn't get very far with the ADMs.

The only policy issue we discussed was a single set of thresholds vs. a more regional approach. The ADMs want us to take the issue to the minister.

We can provide more detail tomorrow.

Sorry I wasn't able to reply to Carrie-rae's note this morning. I started to but had computer problems.

Tom McReynolds Director, Provincial Stewardship Strategies Resource Stewardship Division, FLNRORD s.22 Page 094 of 333 to/à Page 097 of 333

Withheld pursuant to/removed as

s.12; s.13; s.14

Page 098 of 333

Withheld pursuant to/removed as

s.12; s.13; s.14; s.15

Page 099 of 333

Withheld pursuant to/removed as

s.12; s.13; s.14

#### **RE: Contact info for Mark Tamas**

From: Walton, Adrian P FLNR:EX s.15

To: Sitka Forestry Consulting <sitkaforestry@shaw.ca>
Sent: June 5, 2020 at 3:31:47 PM Pacific Daylight Time

HI Shawn,

I only have his email address. Do you need that?

The Big Tree is coming along. I did more analysis on the data and changed some of the thresholds. I also did some more analysis that could allow the policy to be expanded if there is interest. I am not sure when the policy is going to be ready or released. That is a political decision that above me.

#### Adrian

From: Sitka Forestry Consulting <sitkaforestry@shaw.ca>

**Sent:** June 5, 2020 3:13 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: Contact info for Mark Tamas

Hi Adrian. I've misplaced Mark Tamas's cell number. I'd like to send him a text msg about something. Do you have it?

Thanks.

Ps. How's that big tree reg coming along? Did it ever get done?

Shawn Hedges, RPF Sitka Forestry Consulting (778) 584-0527

# RE: assessing potential timber supply impacts of new practice regulations

From: Yaeger, Scott FLNR:EX <Scott.Yaeger@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: July 15, 2020 at 10:46:12 AM Pacific Daylight Time

Hi Adrian, just a quick response to acknowledge receipt and thank you for the backgrounder...hot on another topic at the moment, but hope to read this in next day or two and continue the conversation.

Glad you are keen to join our call.

More soon,

Scott

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: July 14, 2020 4:36 PM

**To:** Yaeger, Scott FLNR:EX <Scott.Yaeger@gov.bc.ca> **Cc:** Shatford, Jeffrey FLNR:EX <Jeffrey.Shatford@gov.bc.ca>

Subject: RE: assessing potential timber supply impacts of new practice regulations

Hi Scott and Jeffery,

First I want to say apologies Jeffery for not getting back to you. Your email request did fall off the bottom of my to-do list and I forgot to get back to you.

I welcome attending your meeting on the 28<sup>th</sup>. If you are interested, I can provide you with a bit of information on the Big Tree policy still in development.

The policy is not identify socially significant trees not ecologically. The only way we stratified was by species. Ecological/regional stratification was considered but not approved.

Below is part of the backgounder I wrote on how we chose the species and criteria. Given this policy is still draft and a publicly sensitive topic, **please check with me if you want to share it**. Costs and implications were estimated by Shawn Hedges, who led this project priors.22

I will look for those documents for the meeting on the 28<sup>th</sup>.

In the meantime let me know if you have any other questions. Also FYI, this project is being led by Tom McReynolds in the Resource Stewardship Division. I was involved to help determine species criteria, etc., and to develop the procedure on how the incoming tree observations will be received and recorded by gov't.

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt

Victoria, BC, V8W 9C2 Phone: (778) 974-5516

From: Yaeger, Scott FLNR:EX <Scott.Yaeger@gov.bc.ca>

Sent: July 14, 2020 3:04 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca> Cc: Shatford, Jeffrey FLNR:EX < Jeffrey.Shatford@gov.bc.ca >

Subject: RE: assessing potential timber supply impacts of new practice regulations

Hi Adrian,

I am following up on the below email conversation you had with Jeff re: your Big Tree project and I am keen to learn more about your work. We have interest in your efforts to determine potential number of big trees that might make the registry and are wondering if any of your efforts/analyses might be useful to inform our current task of trying to identify potential impacts to THLB if no-harvest buffers are placed around various important wildlife habitats. Some of the species we are addressing (e.g., bats, fishers, bears) use large diameter, typically declining or dead trees. I am assuming (hoping) that your work may have characterized different tree species size classes besides only the largest, and this information has various stratifications (e.g., BEC variant, Timber Supply Area, elevation, proximity to stream?) that might be leveraged to better understand the density and distribution of the larger (not largest) remaining trees in the province.

Are there some relevant documents/reports of the methodology or metadata associated with your work that I might review and use to form some more direct/intelligent questions for you?

Following this email, I will forward an invite to our next team meeting (28 July); perhaps you would consider joining for 15 or 30 minutes so we could share a few details re: our respective projects?

Thanks in advance for any help you may be able to provide. Jeff is about to step our for some annual leave, so I'd be happy to try and address any question you may have.

Cheers, Scott

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca>

Sent: June 9, 2020 4:59 PM

To: Shatford, Jeffrey FLNR:EX < Jeffrey.Shatford@gov.bc.ca>

Subject: RE: assessing potential timber supply impacts of new practice regulations

HI Jeff,

Yes, I am interested. Is this a priority for you? Can it wait for a week or so?

Adrian

From: Shatford, Jeffrey FLNR:EX < Jeffrey.Shatford@gov.bc.ca>

**Sent:** June 9, 2020 10:14 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: assessing potential timber supply impacts of new practice regulations

#### HI Adrian

I understand that you are working on the Big Tree project including assessing the potential impacts to timber supply or THLB overlap for this new initiative.

Do I have that correct?

I am working on some proposed new practice requirements for species at risk – specifically retention buffers around habitat features for things like grizzly bear dens, goshawk nest trees, caribou mineral licks and wallows. Some of these are big trees, or big snags or treed areas requiring buffers. The proposal includes required retention buffers (no harvest) of between 20 and 200 m radius depending on the feature.

In recent discussions with FAIB managers (Jim Brown and Albert Nussbaum) the Big Tree project was mentioned, and I thought it would be of interest to compare notes on assessing Timber Supply Impacts.

If this is of shared interests please let me know and I will set up a time to discuss,

Cheers Jeff

#### **Jeff Shatford**

Senior Terrestrial Habitat Specialist
Resource Stewardship Division | Species at Risk Recovery Branch
Ministry of Forests, Lands, Natural Resource Operations and Rural Development
Phone (778) 974-2402

# RE: List of Trees Protected under the Coastal Legacy Tree

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>, Mitchell, Scott C FLNR:EX

<Scott.Mitchell@gov.bc.ca>

Sent: August 12, 2020 at 8:02:18 AM Pacific Daylight Time

Attachments: RE: How many trees would meet these two DBH options?

Here is the last email string we had on this

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: August 11, 2020 3:41 PM

To: Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>
Cc: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>
Subject: List of Trees Protected under the Coastal Legacy Tree

Hi Scott,

I'm not sure if you are the correct person to contact about this. Do you (or someone else) have a list of the trees protected by the BCTS Coastal Legacy Tree policy -including the diameter of each of the trees? I thought that at one time I was provided such a list but I can't seem to find it.

Thanks,

Adrian Walton, Landscape Ecologist & A/Team Lead, Data Management
Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations
and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt
Victoria, BC, V8W 9C2

Phone: (778) 974-5516

#### RE: List of Trees Protected under the Coastal Legacy Tree

From: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>, Powelson, Allan FLNR:EX

<allan.Powelson@gov.bc.ca>, Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Sent: August 12, 2020 at 9:07:01 AM Pacific Daylight Time

Hi All,

Let me dig this information up, should be fairly easy, will get back to you shortly.

Regards,



#### Don Davis RFT Lidar/Remote Sensing Specialist

BC Timber Sales | Headquarters Ministry of Forests, Lands, Natural Resource Operations and Rural Development

New P. 250.850.1672 | 370 South Dogwood Street, Campbell River

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: August 12, 2020 9:03 AM

To: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>; Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Cc: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca>

Subject: RE: List of Trees Protected under the Coastal Legacy Tree

Thanks Al. What I am after now are the diameters of all the individual trees protected by the BCTS policy.

I have cc'd Don because I realize now that he was also one of the people who helped with my questions earlier in the year.

Adrian

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

Sent: August 12, 2020 8:02 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

Subject: RE: List of Trees Protected under the Coastal Legacy Tree

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From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

**Sent:** August 11, 2020 3:41 PM

To: Mitchell, Scott C FLNR:EX <<u>Scott.Mitchell@gov.bc.ca</u>>
Cc: Powelson, Allan FLNR:EX <<u>Allan.Powelson@gov.bc.ca</u>>
Subject: List of Trees Protected under the Coastal Legacy Tree

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Thanks,

**Adrian Walton**, Landscape Ecologist & A/Team Lead, Data Management Forest Analysis & Inventory Branch

Ministry of Forests, Lands, Natural Resource Operations and Rural Development 6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt Victoria, BC, V8W 9C2

Phone: (778) 974-5516

#### RE: VI private attributes

From: Walton, Adrian P FLNR:EX s.15

To: Mcdougall, Iaian FLNR:EX < Iaian.Mcdougall@gov.bc.ca>
Sent: August 12, 2020 at 9:13:09 AM Pacific Daylight Time

Actually, do you have a link to the that data? I would like to clip out the CRD portion to send to them.

Adrian

From: Mcdougall, Iaian FLNR:EX < Iaian.Mcdougall@gov.bc.ca>

**Sent:** August 11, 2020 4:45 PM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Subject: RE: VI private attributes

I sent him all of VI. I believe they can access the private lands by using the query project = 'VRI\_VANCOUVER\_ISLAND\_PRIVATE\_LAND'. The attributes are given a null value.

#### Iaian McDougall

Spatial Data Specialist

Forest Analysis and Inventory Branch

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

Tel: 778-974-5646 Email: Iaian.mcdougall@gov.bc.ca

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

Sent: August 11, 2020 4:21 PM

To: Mcdougall, Iaian FLNR:EX < Iaian. Mcdougall@gov.bc.ca >

Subject: RE: VI private attributes

One follow up question. Are these attributes missing from the private land data or just blank? When you provided data to Werner Kurz before, do you remember if you provided him with just the private lands on VI or dataset that combined both the public and private VRI data?

#### Adrian

From: Mcdougall, Iaian FLNR:EX < laian.Mcdougall@gov.bc.ca >

Sent: August 11, 2020 3:39 PM

To: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

Subject: VI private attributes

Hi Adrian,

The following attributes are missing from the private lands in Vancouver island. Note that the **species\_cd** attributes remain in private land but not the **species\_pct** attributes. Also although the exact age is removed, however, the **PROJ\_AGE\_CLASS\_CD\_1** attribute is left in.

SOIL\_MOISTURE\_REGIME\_1, fullLabel, QUAD\_DIAM\_175, QUAD\_DIAM\_225, INTERPRETED\_DATA\_SRC\_CD, EST\_SITE\_INDEX, EST\_SITE\_INDEX\_SOURCE\_CD, CROWN\_CLOSURE, REFERENCE\_DATE, SITE\_INDEX, DBH\_LIMIT, BASAL\_AREA,

VRI\_LIVE\_STEMS\_PER\_HA, DATA\_SRC\_VRI\_LIVE\_STEM\_HA\_CD, VRI DEAD STEMS PER HA, TREE COVER PATTERN, VERTICAL\_COMPLEXITY, SPECIES\_PCT\_1, SPECIES\_PCT\_2, SPECIES PCT 3, SPECIES\_PCT\_4, SPECIES\_PCT\_5, SPECIES\_PCT\_6, PROJ\_AGE\_1, PROJ\_AGE\_2 PROJ\_HEIGHT\_1, PROJ\_HEIGHT\_2, LIVE\_VOL\_PER\_HA\_SPP1\_125, LIVE\_VOL\_PER\_HA\_SPP1\_175, LIVE\_VOL\_PER\_HA\_SPP2\_125, LIVE\_VOL\_PER\_HA\_SPP2\_175, LIVE\_VOL\_PER\_HA\_SPP3\_125, LIVE VOL PER HA SPP3 175, LIVE\_VOL\_PER\_HA\_SPP4\_125, LIVE\_VOL\_PER\_HA\_SPP4\_175, LIVE\_VOL\_PER\_HA\_SPP5\_125, LIVE\_VOL\_PER\_HA\_SPP5\_175, LIVE\_VOL\_PER\_HA\_SPP6\_125, LIVE\_VOL\_PER\_HA\_SPP6\_175, LIVE\_STAND\_VOLUME\_125, LIVE\_STAND\_VOLUME\_175, DEAD\_STAND\_VOLUME\_125, DEAD STAND VOLUME 175, WHOLE\_STEM\_BIOMASS\_PER\_HA, BRANCH\_BIOMASS\_PER\_HA, FOLIAGE\_BIOMASS\_PER\_HA, BARK\_BIOMASS\_PER\_HA

DATA SOURCE BASAL AREA CD,

#### **Iaian McDougall**

Spatial Data Specialist

Forest Analysis and Inventory Branch

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

Tel: 778-974-5646 Email: Iaian.mcdougall@gov.bc.ca

#### RE: List of Trees Protected under the Coastal Legacy Tree

From: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>, Powelson, Allan FLNR:EX

<ali>Allan.Powelson@gov.bc.ca>, Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca></a>

Cc: Zejnulahovic, Zeka FLNR:EX <Zeka.Zejnulahovic@gov.bc.ca>

Sent: August 12, 2020 at 9:46:59 AM Pacific Daylight Time

Attachments: LegacyTreesAug08\_2020.xlsx

Hi Adrian,

Here is a new list of the Legacy trees with diameters in meters included.

Regards,



#### Don Davis RFT Lidar/Remote Sensing Specialist

BC Timber Sales | Headquarters Ministry of Forests, Lands, Natural Resource Operations and Rural Development

New P. 250.850.1672 | 370 South Dogwood Street, Campbell River

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

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Adrian

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**Sent:** August 12, 2020 8:02 AM

To: Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca >; Mitchell, Scott C FLNR:EX < Scott.Mitchell@gov.bc.ca >

Subject: RE: List of Trees Protected under the Coastal Legacy Tree

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Cc: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca>
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#### Thanks,

Phone: (778) 974-5516

Adrian Walton, Landscape Ecologist & A/Team Lead, Data Management Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations
and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt
Victoria, BC, V8W 9C2

			Height	Diameter	Crown Diameter			
FEATURE_	COMMENTS	Species	in meters	in meters	in meters	LABEL SOURG	CE_DATE	LICENSE
CLT	CLT1006	Fd	49	2.1	10		2019-11-04	TA0336
CLT	CLT30001	Cw	37	3.2	18		2018-07-27	A95371
CLT	CLT30027	Cw	35	3.1	4		2019-03-31	TA0556
CLT	CLT20033	Cw	49.6	3.15	5.25	CLT	2018-12-06	A92829
CLT	CLT20047	Cw	34	2.91	9.1	CLT	2018-12-06	
CLT	CLT20002	Су	34	2.2		CLT	2018-06-26	A95301
CLT	CLT20067	Fd	50	2.08		CLT	2019-10-01	A91776
CLT	CLT20106	Cw	40	3.28	13	CLT	2019-11-27	A87498
CLT	CLT20084	Fd	64.2	2.26		CLT		OGMA81
CLT	CLT20083	Fd	63.1	2.32	16	CLT		OGMA81
CLT	CLT20078	Fd	55.9	2.26	15	CLT		OGMA80
CLT	CLT20109	Cw	41	3	10	CLT	2019-11-27	A92829
CLT	CLT20113	Cw	36	1.3		CLT	2018-07-18	A95434
CLT	CLT20124	Cw	33	2.56		CLT	2018-07-18	A78662
CLT	CLT20128	Cw	38	1.36		CLT	2018-07-18	A78662
CLT	CLT20019	Fdc	45	2.81	7.9	CLT	2018-12-06	TA0271
CLT	CLT20086	Fd	47.4	2.62	17	CLT		OGMA81
CLT	CLT20100	Fd	70.3	2.5	13	CLT		OGMA80
CLT	CLT20143	Yc	56.1	3.01	14.6	CLT	2020-04-15	
CLT	CLT20147	Fdc	66.1	2.2	12	CLT	2020-04-15	OGMA14
CLT	CLT20154	Fdc	55.1	2.17	18	CLT	2020-04-15	OGMA66
CLT	CLT20161	Fdc	60	2.13	10.5	CLT	2020-04-15	OGMA66
CLT	CLT30007	Cw	36.4	3.3	9.8		2018-06-18	TA0287
CLT	CLT1002	Fd	60	2.5	20		2019-05-22	TA0042
CLT	CLT1003	Fd	55	2.1	17		2019-10-22	TA0034
CLT	CLT30021	Cw	30	3.6	0		2019-01-25	TA0461
CLT	CLT30020	Cw	40.6	3.1	15		2019-01-25	TA0585
CLT	CLT30023	Cw						
CLT	CLT20052	Yc	27	2.04	8.7	CLT	2018-12-06	
CLT	CLT20061	Ва	61	1.33	8.3	CLT	2019-05-28	A95710
CLT	CLT20012	Fdc	45	2.01	9.5	CLT	2018-12-06	TA0271
CLT	CLT20013	Cw	37	3.1	11.5	CLT	2018-12-06	TA0272

			Height	Diameter	Crown Diameter			
FEATURE_	COMMENTS	Species	in meters	in meters	in meters	LABEL SOURG	CE_DATE	LICENSE
CLT	CLT20032	Yc	30	1.76	8.2	CLT	2018-12-06	
CLT	CLT20034	Fdc	61.8	3.56	6	CLT	2018-12-06	A92829
CLT	CLT20040	Fdc	58	2	8	CLT	2018-12-06	A95352
CLT	CLT20005	CW	34	2	11	CLT	2018-11-19	A92526
CLT	CLT20000	Fd	78.8			CLT	2018-01-01	A91800
CLT	CLT20104	Fd	54	2.29	10	CLT	2019-11-27	A87498
CLT	CLT20103	Cw	43	3.11	11	CLT	2019-11-27	A87498
CLT	CLT20081	Fd	66.2	2.75	18	CLT		OGMA80
CLT	CLT20111	Cw	39	1.63		CLT	2018-07-18	A95434
CLT	CLT20018	Fdc	43	2.57	9.5	CLT	2018-12-06	TA0271
CLT	CLT20133	Fd	45.4	2.23		CLT	2020-04-15	A93041
CLT	CLT20131	Fd	58.6	2061	15	CLT	2020-04-15	A91776
CLT	CLT20144	Ss	69	3.56	22.7	CLT	2020-04-15	
CLT	CLT20150	Fdc	64.8	2.16		CLT	2020-04-15	OGMA37
CLT	CLT30028	Cw	42	3.3	6		2019-03-31	
CLT	CLT30029	Cw	25	3.1	3		2019-03-31	
CLT	CLT30012	Cw	38	3.6	7.2		2018-06-18	TA0287
CLT	CLT30015	Cw	30	3.4	13.7		2018-06-18	TA0287
CLT	CLT20168	Fd	45	2.3	8	CLT	2019-08-14	TA0153
CLT	CLT20164	Yc	27	8	8.5	CLT	2020-06-04	TA0712
CLT	CLT1004	Fd	67	1.9	17		2019-10-30	TA0034
CLT	CLT20167	Fd	60	2.3	10	CLT	2019-08-14	TA0153
CLT	CLT20166	Yc	34	2.29	9	CLT	2020-06-04	TA0712
CLT	CLT30019	Cw	50	3.2	12		2019-01-25	TA0585
CLT	CLT20054	Fdc	52	2.1	18	CLT	2018-12-06	
CLT	CLT20065	Ва	56	1.17	8.7	CLT	2019-05-28	A95710
CLT	CLT20024	Fdc	57	2.14	8.3	CLT	2018-12-06	TA0271
CLT	CLT20035	Cw	32.6	3.11	3	CLT	2018-12-06	A92829
CLT	CLT20038	Fdc	64	2.34	10.2	CLT	2018-12-06	A95352
CLT	CLT20041	Fdc	51	2.17	6.5	CLT	2018-12-06	A95352
CLT	CLT20049	Yc	32	1.78	8.4	CLT	2018-12-06	A95450
CLT	CLT20003	Су	32.8	1.9		CLT	2018-06-26	A95301

			Height	Diameter	Crown Diameter			
FEATURE_	COMMENTS	Species	in meters	in meters	in meters	LABEL SOURC	CE_DATE	LICENSE
CLT	CLT20066	Fd	62	2.7		CLT	2019-10-01	A91776
CLT	CLT20072	Cw	58.8	4.12	12	CLT	2019-10-21	A87716
CLT	CLT20101	Fd	59.4	2.54	12	CLT		OGMA80
CLT	CLT20108	Cw	34	3.66	11	CLT	2019-11-27	A92829
CLT	CLT30024	Yc	35	2.1	18		2019-07-29	TA0595
CLT	CLT20116	Cw	41	1.47		CLT	2018-07-18	A95434
CLT	CLT20114	Cw	41	1.19		CLT	2018-07-18	A95434
CLT	CLT20115	Cw	40	1.09		CLT	2018-07-18	A95434
CLT	CLT20123	Cw	38	1.42		CLT	2018-07-18	A78662
CLT	CLT20020	Yc	43	2.05	8.3	CLT	2018-12-06	TA0271
CLT	CLT20130	Cw	47	4.26	13	CLT	2020-04-15	A81998
CLT	CLT20153	Fdc	60.2	2.15	14	CLT	2020-04-15	OGMA66
CLT	CLT1005	Fd	55	2	15		2019-10-31	TA0034
CLT	CLT20169	Fd	55	2.6	10	CLT	2019-08-14	TA0153
CLT	CLT30003	Cw	33	0.3	16.5		2018-09-10	A95752
CLT	CLT30005	Yc	35	1.9	13		2018-08-16	A92723
CLT	CLT30006	Ss	69.8	2.2	13		2018-06-27	A93971
CLT	CLT20051	Yc	37	2.01	9	CLT	2018-12-06	
CLT	CLT20053	Fdc	41	2.2	7.6	CLT	2018-12-06	A87498
CLT	CLT20027	Yc	32	1.75	6	CLT	2018-12-06	
CLT	CLT20028	Fdc	25	2.24	10	CLT	2018-12-06	
CLT	CLT20058	Cw	42	3.6	16	CLT	2018-07-24	A95431
CLT	CLT20031	Yc	27	1.93	7.5	CLT	2018-12-06	
CLT	CLT20023	Fdc	37	2.02	10.4	CLT	2018-12-06	TA0271
CLT	CLT20004	Су	27.2	2		CLT	2018-06-26	A95301
CLT	CLT20071	Fd	45	2.2	9.5	CLT	2019-10-03	A95352
CLT	CLT20091	Fd	68.5	2.12	9	CLT		
CLT	CLT20098	Cw	58.6	3	14	CLT		
CLT	CLT20076	Cw	46.1	3.06	9	CLT		OGMA80
CLT	CLT20099	Fd	71.8	4.23	18	CLT		
CLT	CLT20080	Fd	57	2.27	15	CLT		OGMA80
CLT	CLT20105	Fd	57	2.56	11	CLT	2019-11-27	A87498

			Height	Diameter	Crown Diameter			
FEATURE_	COMMENTS	Species	in meters	in meters	in meters	LABEL SOURG	CE_DATE	LICENSE
CLT	CLT20117	Cw	39	1.87		CLT	2018-07-18	A95434
CLT	CLT20136	Yc	50.4	2.64	12	CLT	2020-04-15	A93041
CLT	CLT20138	Yc	32.8	1.92		CLT	2020-04-15	A95353
CLT	CLT20159	Fdc	65	2.18	14	CLT	2020-04-15	OGMA66
CLT	CLT20145	Cw	42.3	3.04		CLT	2020-04-15	
CLT	CLT30009	Cw	36	3.4	9		2018-06-18	TA0287
CLT	CLT1000	Fd	63	2.3	17		2018-07-24	TA0540
CLT	CLT20173	Fd	55	2.4	10	CLT	2019-08-14	TA0153
CLT	CLT20165	Yc	31	2.3	10.5	CLT	2020-06-04	TA0712
CLT	CLT30002	Ss	48	2.2	19.4		2018-09-10	A95476
CLT	CLT30016	Cw	35	3.2	12		2018-03-12	TA0431
CLT	CLT30025	Ss	80	3.3	16		2019-03-31	TA0067
CLT	CLT30026	Ss	60.5	2.5	19		2019-03-31	TA0067
CLT	CLT20029	Yc	39	1.81	8.2	CLT	2018-12-06	
CLT	CLT20030	Yc	26	1.97	10	CLT	2018-12-06	
CLT	CLT20060	Fdc	51	2.21	8.5	CLT	2019-05-28	A87498
CLT	CLT20009	CY	30	1.9	6	CLT	2018-11-19	A93248
CLT	CLT20025	Yc	37	1.37	8.2	CLT	2018-12-06	
CLT	CLT20015	Cw	32	3.05	10.3	CLT	2018-12-06	TA0272
CLT	CLT20039	Fdc	62	2.08	9	CLT	2018-12-06	A95352
CLT	CLT20043	Fdc	63	2.43	8.1	CLT	2018-12-06	A95352
CLT	CLT20001	Су	33	1.9		CLT	2018-06-26	A95301
CLT	CLT20006	YC	33	2.1	6	CLT	2018-11-19	A93248
CLT	CLT20097	Fd	42.1	2.1	9	CLT		
CLT	CLT20102	Fd	69.2	2.52	10	CLT		OGMA90
CLT	CLT20075	Fd	66.3	2.31	15	CLT		OGMA80
CLT	CLT20074	Fd	68	2.14	14	CLT		OGMA37
CLT	CLT20094	Fd	56.9	2.3	16	CLT		OGMA51
CLT	CLT20073	Fd	67.5	2.07	14	CLT		OGMA37
CLT	CLT20079	Fd	70.8	2.18	11	CLT		OGMA80
CLT	CLT20107	Cw	41	4.24	14	CLT	2019-11-27	A87498
CLT	CLT20125	Cw	38	1.06		CLT	2018-07-18	A78662

			Height	Diameter	Crown Diameter			
FEATURE_	COMMENTS	Species	in meters	in meters	in meters	LABEL SOURG	CE_DATE	LICENSE
CLT	CLT20077	Fd	63.9	2.4	11	CLT		OGMA80
CLT	CLT20135	Fdc	51.1	2.49	9	CLT	2020-04-15	A93041
CLT	CLT20137	Fdc	44.7	2.79	11	CLT	2020-04-15	A93041
CLT	CLT20132	Fd	48	2.57	7	CLT	2020-04-15	A91776
CLT	CLT20141	Ss	62.5	3.71	22.9	CLT	2020-04-15	
CLT	CLT20146	Fdc	61.7	2.35	14	CLT	2020-04-15	OGMA14
CLT	CLT20149	Ва	61.2	1.53	14	CLT	2020-04-15	OGMA14
CLT	CLT20151	Fdc	67.5	2.72	13	CLT	2020-04-15	OGMA68
CLT	CLT20156	Fdc	74.6	2.23	22	CLT	2020-04-15	OGMA66
CLT	CLT20158	Fdc	62	2.73	15	CLT	2020-04-15	OGMA66
CLT	CLT20160	Fdc	58	2.45	11	CLT	2020-04-15	OGMA66
CLT	CLT30010	Cw	35	3.4	8.3		2018-06-18	TA0287
CLT	CLT20162	Yc	34	2.29	9	CLT	2020-06-04	TA0712
CLT	CLT30018	Cw	35	3.2	20		2019-01-25	TA0461
CLT	CLT30022	Cw	50	3.2	18		2018-06-11	A95752
CLT	CLT20050	Yc	26	1.81	7	CLT	2018-12-06	A95450
CLT	CLT20026	Yc	37	1.38	8	CLT	2018-12-06	
CLT	CLT20062	Ba	61	1.36	9.9	CLT	2019-05-28	A95710
CLT	CLT20016	Cw	36	3	11.2	CLT	2018-12-06	TA0272
CLT	CLT20017	Cw	27	3.08	8.5	CLT	2018-12-06	TA0272
CLT	CLT20021	Fdc	42	2.19	7.9	CLT	2018-12-06	TA0271
CLT	CLT20044	Fdc	56	2.23	7.5	CLT	2018-12-06	A95352
CLT	CLT20045	Fdc	61	2.21	8.4	CLT	2018-12-06	A95352
CLT	CLT20008	CY	29	1.9	6	CLT	2018-11-19	A93248
CLT	CLT20069	Yc	32	2.5		CLT	2019-10-03	TA0708
CLT	CLT20007	CY	30	1.9	6	CLT	2018-11-19	A93248
CLT	CLT20093	Fd	65.8	2.45	20	CLT		OGMA90
CLT	CLT20095	Fd	51.9	2.55	19	CLT		OGMA51
CLT	CLT20089	Fd	53.3	2.15	10	CLT		OGMA3
CLT	CLT20090	Fd	71.9	2.04	11	CLT		
CLT	CLT20082	Cw	47.8	3.08	10	CLT		OGMA81
CLT	CLT20112	Cw	45	1.8		CLT	2018-07-18	A95434

			Height	Diameter	Crown Diameter			
FEATURE.	_COMMENTS	Species	in meters	in meters	in meters	LABEL SOURC	CE_DATE	LICENSE
CLT	CLT20118	Cw	39	1.52		CLT	2018-07-18	A95434
CLT	CLT20126	Cw	34	1.26		CLT	2018-07-18	A78662
CLT	CLT20127	Cw	33	2.23		CLT	2018-07-18	A78662
CLT	CLT20129	Cw	42	1.92		CLT	2018-07-18	A78662
CLT	CLT20134	Yc	44.7	1.93	8	CLT	2020-04-15	A93041
CLT	CLT20139	Ss	61	2.52	16	CLT	2020-04-15	A81998
CLT	CLT20155	Fdc	60	2.18	17	CLT	2020-04-15	OGMA66
CLT	CLT20157	Fdc	61.3	2.24	16	CLT	2020-04-15	OGMA66
CLT	CLT30008	Cw	21.2	3.2	3.9		2018-06-18	TA0287
CLT	CLT30011	Cw	39	3.5	6.9		2018-06-18	TA0287
CLT	CLT20172	Fd	55	2.5	8	CLT	2019-08-14	TA0153
CLT	CLT20163	Yc	34	2.29	9	CLT	2020-06-04	TA0712
CLT	CLT20011	Fdc	47	2.18	10	CLT	2018-12-06	TA0273
CLT	CLT30014	Cw	35	3.4	9.7		2018-06-18	TA0287
CLT	CLT30017	Cw	35	3	6		2018-03-12	TA0431
CLT	CLT20057	Су	40	2	20	CLT	2019-01-21	A95433
CLT	CLT20014	Cw	37	3.05	12	CLT	2018-12-06	TA0272
CLT	CLT20022	Fdc	42	2.05	7.9	CLT	2018-12-06	TA0271
CLT	CLT20042	Fdc	61	2.07	7.8	CLT	2018-12-06	A95352
CLT	CLT20048	Fdc	56	2.32	10	CLT	2018-12-06	A94429
CLT	CLT20087	Fd	61	2.46	14	CLT		OGMA81
CLT	CLT20088	Fd	65	2.4	11	CLT		OGMA81
CLT	CLT20110	Cw	41	1.69		CLT	2018-07-18	A95434
CLT	CLT20140	Cw	52.8	3.21	15	CLT	2020-04-15	A81998
CLT	CLT20148	Fdc	63.7	2.2	11	CLT	2020-04-15	OGMA14
CLT	CLT20152	Cw	62.3	3.73	9	CLT	2020-04-15	OGMA66
CLT	CLT20170	Fd	62	2.9	12	CLT	2019-08-14	TA0153
CLT	CLT20171	Fd	55	2.2	12	CLT	2019-08-14	TA0153
CLT	CLT1001	Yc	40	1.8	15		2018-10-11	A95878
CLT	CLT30013	Cw	36	3.4	12.3		2018-06-18	TA0287
CLT	CLT30004	Yc	30	2	13		2018-08-08	A92723
CLT	CLT20059	Cw	38	30.1	14	CLT	2018-07-24	A95431

			Height	Diameter	Crown Diameter			
FEATURE_	COMMENTS	Species	in meters	in meters	in meters	LABEL SOURCE	E_DATE	LICENSE
CLT	CLT20063	Ba	58	1.32	10.7	CLT	2019-05-28	A95710
CLT	CLT20064	Ba	56	1.35	10.3	CLT	2019-05-28	A95710
CLT	CLT20010	CY	31	2		CLT	2018-11-19	A85762
CLT	CLT20055	Fdc	45	1.95	11	CLT	2018-12-06	TA0273
CLT	CLT20056	Fdc	51	1.82	13	CLT	2018-12-06	TA0273
CLT	CLT20036	Fdc	55.6	2.14	5.5	CLT	2018-12-06	A92829
CLT	CLT20037	Fdc	53	2.49	7.8	CLT	2018-12-06	A95352
CLT	CLT20046	Fdc	65	2.23	8.1	CLT	2018-12-06	A95352
CLT	CLT20070	Fd	68	2.3	9.5	CLT	2019-10-03	A95352
CLT	CLT20068	Fd	52	3.26	14.6	CLT	2019-10-03	A42282
CLT	CLT20096	Fd	65	2.6	19	CLT		OGMA37
CLT	CLT20092	Fd	63.8	2.45	12	CLT		OGMA90
CLT	CLT20085	Fd	64.7	2.44	9	CLT		OGMA81
CLT	CLT20119	Cw	43	1.23		CLT	2018-07-18	A95434
CLT	CLT20120	Cw	37	1.03		CLT	2018-07-18	A78662
CLT	CLT20122	Cw	33	1.64		CLT	2018-07-18	A78662
CLT	CLT20121	Cw	34	1.12		CLT	2018-07-18	A78662
CLT	CLT20142	Yc	58.2	2.52	14.9	CLT	2020-04-15	

# RE: List of Trees Protected under the Coastal Legacy Tree

From: Walton, Adrian P FLNR:EX s.15

To: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>

Sent: August 12, 2020 at 10:47:59 AM Pacific Daylight Time

Thanks.

Adrian

From: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca>

**Sent:** August 12, 2020 10:28 AM

To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>;

Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>

**Cc:** Zejnulahovic, Zeka FLNR:EX <Zeka.Zejnulahovic@gov.bc.ca> **Subject:** RE: List of Trees Protected under the Coastal Legacy Tree

Oops, yes, I just saw that, funny how people put in slightly different species codes ...

# BCTS

#### **Don Davis RFT**

## **Lidar/Remote Sensing Specialist**

BC Timber Sales | Headquarters Ministry of Forests, Lands, Natural Resource Operations and Rural Development

New P. 250.850.1672 | 370 South Dogwood Street, Campbell River

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: August 12, 2020 10:03 AM

To: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>; Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>; Mitchell, Scott C

FLNR:EX <Scott.Mitchell@gov.bc.ca>

**Cc:** Zejnulahovic, Zeka FLNR:EX < Zeka.Zejnulahovic@gov.bc.ca > **Subject:** RE: List of Trees Protected under the Coastal Legacy Tree

Thanks Don. Are all Fd really Fdc? And cy is yc?

Adrian

**From:** Davis, Don FLNR:EX < <u>Don.Davis@gov.bc.ca</u>>

Sent: August 12, 2020 9:47 AM

To: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >; Powelson, Allan FLNR:EX < Allan. Powelson@gov.bc.ca >;

Mitchell, Scott C FLNR:EX < Scott.Mitchell@gov.bc.ca >

**Cc:** Zejnulahovic, Zeka FLNR:EX < Zeka.Zejnulahovic@gov.bc.ca > **Subject:** RE: List of Trees Protected under the Coastal Legacy Tree

Hi Adrian,

Here is a new list of the Legacy trees with diameters in meters included.

Regards,



## **Lidar/Remote Sensing Specialist**

BC Timber Sales | Headquarters

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

New P. 250.850.1672 | 370 South Dogwood Street, Campbell River

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: August 12, 2020 9:03 AM

To: Powelson, Allan FLNR:EX <<u>Allan.Powelson@gov.bc.ca</u>>; Mitchell, Scott C FLNR:EX <<u>Scott.Mitchell@gov.bc.ca</u>>

Cc: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca >

Subject: RE: List of Trees Protected under the Coastal Legacy Tree

Thanks Al. What I am after now are the diameters of all the individual trees protected by the BCTS policy.

I have cc'd Don because I realize now that he was also one of the people who helped with my questions earlier in the year.

Adrian

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

Sent: August 12, 2020 8:02 AM

To: Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca >; Mitchell, Scott C FLNR:EX < Scott.Mitchell@gov.bc.ca >

Subject: RE: List of Trees Protected under the Coastal Legacy Tree

Here is the last email string we had on this

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca>

Sent: August 11, 2020 3:41 PM

To: Mitchell, Scott C FLNR:EX < Scott.Mitchell@gov.bc.ca > Cc: Powelson, Allan FLNR:EX < Allan.Powelson@gov.bc.ca > Subject: List of Trees Protected under the Coastal Legacy Tree

Hi Scott,

I'm not sure if you are the correct person to contact about this. Do you (or someone else) have a list of the trees protected by the BCTS Coastal Legacy Tree policy -including the diameter of each of the trees? I thought that at one time I was provided such a list but I can't seem to find it.

Thanks,

Adrian Walton, Landscape Ecologist & A/Team Lead, Data Management
Forest Analysis & Inventory Branch
Ministry of Forests, Lands, Natural Resource Operations
and Rural Development
6th Floor, 727 Fisgard St, PO Box 9512 Stn Prov Govt
Victoria, BC, V8W 9C2

Phone: (778) 974-5516

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Withheld pursuant to/removed as

s.12; s.13; s.14; s.15

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Withheld pursuant to/removed as

# FW: BCTS Legacy Trees

From: Walton, Adrian P FLNR:EX s.15

To: s.22

Sent: September 3, 2020 at 1:08:57 PM Pacific Daylight Time

Attachments: Coastal Legacy Trees Spatial Tracking Procedure (Jan 1\_2018).pdf

From: Neill, Emma FLNR:EX < Emma. Neill@gov.bc.ca>

Sent: September 3, 2020 12:52 PM

**To:** Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca> **Cc:** Abanilla, Chantelle C FLNR:EX <Chantelle.Abanilla@gov.bc.ca>

Subject: FW: BCTS Legacy Trees

FYI

From: Konwicki, Dave FLNR:EX <Dave.Konwicki@gov.bc.ca>

**Sent:** Thursday, September 3, 2020 12:44 PM **To:** Neill, Emma FLNR:EX < Emma.Neill@gov.bc.ca>

Cc: Zejnulahovic, Zeka FLNR:EX <Zeka.Zejnulahovic@gov.bc.ca>; Mitchell, Scott C FLNR:EX <Scott.Mitchell@gov.bc.ca>;

Davis, Don FLNR:EX < Don.Davis@gov.bc.ca >

Subject: RE: BCTS Legacy Trees

Hi Emma,

As discussed, attached is a document that summarizes the technical specs for how BCTS is currently managing CLT data. Essentially, we are storing the data in an internal BCTS GIS layer as points with minimal attributes (species, height, diameter).

As noted, I don't believe there is an issue with the Map Notation approach. I have included Scott Mitchell (BCTS Sustainability Officer) and Zeka Zejnulahovic (BCTS GIS Manager) in this correspondence in case they wish to chime in.

Let me know if any additional questions.

d/.

## Dave Konwicki, RPF Provincial GIS Specialist

BC Timber Sales | Headquarters

Ministry of Forests, Lands, Natural Resource Operations and Rural Development

From: Neill, Emma FLNR:EX < Emma.Neill@gov.bc.ca>

Sent: September 3, 2020 12:22 PM

To: Davis, Don FLNR:EX <Don.Davis@gov.bc.ca>

Cc: Konwicki, Dave FLNR:EX < Dave.Konwicki@gov.bc.ca >

Subject: RE: BCTS Legacy Trees

We are going to establish the trees as a Map Notation in FTA as a short term fix, then decide who the data custodian would be for a more complex data system – potentially FAIB. Any concerns with this approach? Emma

From: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca>

Sent: Monday, August 31, 2020 11:55 AM

**To:** Neill, Emma FLNR:EX < <a href="mailto:Emma.Neill@gov.bc.ca">Emma.Neill@gov.bc.ca</a> **Cc:** Konwicki, Dave FLNR:EX < <a href="mailto:Dave.Konwicki@gov.bc.ca">Dave.Konwicki@gov.bc.ca</a>

Subject: RE: BCTS Legacy Trees

Hi Emma,

I have included Dave Konwicki our BCTs GIS Specialist as well as he is the best person to answer your questions about potential metadata for the dataset.

Thanks,



## Don Davis RFT Lidar/Remote Sensing Specialist

BC Timber Sales | Headquarters Ministry of Forests, Lands, Natural Resource Operations and Rural Development New P. 250.850.1672 | 370 South Dogwood Street, Campbell River

From: Neill, Emma FLNR:EX < Emma.Neill@gov.bc.ca>

Sent: August 31, 2020 11:15 AM

To: Davis, Don FLNR:EX < Don.Davis@gov.bc.ca >

Subject: BCTS Legacy Trees

Hi Don – looking to chat with you about the BCTS Coastal Legacy Tree Spatial Tracking Procedure, any documentation you could pass along? Where do you keep the data in the BCGW?

Emma Neill RPF | Senior Tenures Forester
Forest Tenures Branch | Ministry of Forests, Lands, Natural Resource Operations and Rural Development
p: 250.726.6249 | o: 250.725.2245 | e: <a href="mailto:Emma.Neill@gov.bc.ca">Emma.Neill@gov.bc.ca</a>



# Best Management Practices for Coastal Legacy Trees Spatial Tracking Procedure

## **Procedure:**

Spatial tracking of Coastal Legacy Trees, selected in the field, will utilize BCTS' existing spatial layer within the BCTS database management system (Trimble Resources/LRM). A new feature type with be added and the comment field will be used for recording their key characteristics.

Layout\_Point Layer

ATTRIBUTE	DATA TYPE	FIELD PROPERTIES
FEATURE_TYPE	Text	10
COMMENTS	Text	254
SUPPRESS	Text	3
LICENSE	Text	6
CUT_PERMIT	Text	6
MARK	Text	10
BLOCK	Text	20
SHAPE	Geometry	
ROTATION	Numeric	
LABEL	Text	25
SOURCE_DATE	Date	
CUTB_SEQ_NBR	Double	38

FEATURE\_TYPE Mandatory required field

• CLT – Coastal Legacy Tree

COMMENTS

Mandatory required field – populate with key characteristics

Syntax will be comma delineated

- CLT NUMBER CLT0000
  - o TCH will use numbers starting at 1000
  - o TSG will use numbers starting at 2000
  - o TST will use numbers starting at 3000
  - o TSK will use numbers starting at 4000
- SPECIES Yc/Fd/Ss/Cw
- **ESTIMATED HEIGHT** in meters (rounded to 0.1m)
- **DBH** in meters (rounded to 0.1m)
- CROWN SPREAD in meters

Example (metrics can be used to calculate a Tree Importance Score, based on the BC Big Tree Registry requirements)

• CLT1001, Cw, 70.0, 3.5, 12.5

LICENSE Optional field
CUT\_PERMIT Optional field
MARK Optional field
BLOCK Optional field

SOURCE\_DATE Mandatory required field

Enter date the tree was tagged in field

Effective: January 1, 2018

# question on big tree diameters

From: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: September 8, 2020 at 8:05:54 AM Pacific Daylight Time

Hi Adrian,

Do you have time for a quick call on tree diameters?

Thanks, Jessie

Jessie Givner
Senior Policy Analyst
Provincial Stewardship and Strategies Planning
Resource Stewardship Division
Ministry of Forests, Lands and Natural Resource Operations
Ph: 778 974-5796

Jessie.Givner@gov.bc.ca

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Withheld pursuant to/removed as

# RE: question about last year's Part 13 orders to protect big trees

From: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>, Walton, Adrian P FLNR:EX

<Adrian.Walton@gov.bc.ca>

Cc: McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>

Sent: September 8, 2020 at 9:51:01 AM Pacific Daylight Time

Thanks, Carrie-rae, and thank you for replying so quickly on this!

Jessie Givner

Senior Policy Analyst

Provincial Stewardship and Strategies Planning

Resource Stewardship Division

Ministry of Forests, Lands and Natural Resource Operations

Ph: 778 974-5796

Jessie.Givner@gov.bc.ca

From: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>

Sent: September 8, 2020 9:48 AM

To: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>; Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Cc: McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>

Subject: RE: question about last year's Part 13 orders to protect big trees

Hi both, attached is my analysis of the trees protected under Part 13 of the *Forest Act* and whether they will meet the STPR thresholds. You'll note there are some trees that I was unable to identify in the BTR that perhaps Adrian will be able to?

Please let me know if you need anything more.

Cheers.

Carrie-rae Pedersen | Sr. Legislation and Policy Analyst

From: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca>

Sent: September 8, 2020 9:10 AM

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca >; McKendry, Colleen FLNR:EX

<Colleen.McKendry@gov.bc.ca>

Cc: Walton, Adrian P FLNR:EX < Adrian.Walton@gov.bc.ca>

Subject: question about last year's Part 13 orders to protect big trees

Hi Colleen and Carrie-rae,

Sorry to bother you with a question about past Part 13 orders from so long ago! Tom has asked me a question about the individual trees protected under the Part 13 orders from last year. I didn't work on many of these orders (just worked on the one that protects four trees within the Nahmint). I think you worked on all of the orders.

Tom is asking, in particular, how many of the trees protected under these Part 13 orders from last year would meet the diameter thresholds under the proposed Special Tree Protection Regulation. Adrian Walton has indicated that it won't take him much time to answer this question if he knows what trees were protected under the Part 13 orders, but neither of us know about all the orders or all of the trees protected? Do you have information about the trees protected under these orders, and, if so, would you be able to send this information on to me and Adrian?

Many thanks,

Jessie

Jessie Givner Senior Policy Analyst Provincial Stewardship and Strategies Planning Resource Stewardship Division Ministry of Forests, Lands and Natural Resource Operations

Ph: 778 974-5796

Jessie.Givner@gov.bc.ca

Page 216 of 333 to/à Page 220 of 333

Withheld pursuant to/removed as

Page 221 of 333

Withheld pursuant to/removed as

s.16; s.18

Page 222 of 333 to/à Page 322 of 333

Withheld pursuant to/removed as

# RE: Carrie-rae's tree analysis

From: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: September 8, 2020 at 1:09:05 PM Pacific Daylight Time

Thank you, Adrian!

Jessie Givner

Senior Policy Analyst

Provincial Stewardship and Strategies Planning

Resource Stewardship Division

Ministry of Forests, Lands and Natural Resource Operations

Ph: 778 974-5796 Jessie.Givner@gov.bc.ca

From: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>

Sent: September 8, 2020 12:40 PM

To: Givner, Jessie FLNR:EX <Jessie.Givner@gov.bc.ca>

**Subject:** RE: Carrie-rae's tree analysis

Looks like 45 out of the 58 trees would be protected by the new STP Reg.

Adrian

From: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca >

Sent: September 8, 2020 12:26 PM

To: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

Subject: RE: Carrie-rae's tree analysis

Thanks!

Jessie Givner

Senior Policy Analyst

Provincial Stewardship and Strategies Planning

Resource Stewardship Division

Ministry of Forests, Lands and Natural Resource Operations

Ph: 778 974-5796 Jessie.Givner@gov.bc.ca

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

**Sent:** September 8, 2020 12:19 PM

To: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca >

Subject: RE: Carrie-rae's tree analysis

I just found Shawn's old analysis of the Part 13 trees. It is more complete than Carrie-rae's. I will get back to you short with a comparison to the new size thresholds.

Adrian

From: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca>

Sent: September 8, 2020 12:08 PM

To: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

Subject: RE: Carrie-rae's tree analysis

Thanks, Adrian, and thanks for answering this question quickly. From Carrie-rae's table, it seems to me that at least 39 of the Part 13 trees are within the threshold. Do you agree?

Thanks!

Jessie

Jessie Givner
Senior Policy Analyst
Provincial Stewardship and Strategies Planning
Resource Stewardship Division
Ministry of Forests, Lands and Natural Resource Operations
Ph: 778 974-5796

Jessie.Givner@gov.bc.ca

From: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

Sent: September 8, 2020 11:35 AM

To: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca >

**Subject:** RE: Carrie-rae's tree analysis

Of the 5 BCTS trees in the Nahmint, only one met the Specified Tree Protection Regulation diameter threshold. One tree in that list five was only 1cm short of the threshold.

#### Adrian

From: Givner, Jessie FLNR:EX < Jessie.Givner@gov.bc.ca >

Sent: September 8, 2020 10:56 AM

To: Walton, Adrian P FLNR:EX < Adrian. Walton@gov.bc.ca >

Subject: Carrie-rae's tree analysis

Jessie.Givner@gov.bc.ca

## Hi Adrian,

I think the "In" and "Out" designations in Carrie-rae's tree analysis table indicate whether the tree is within the Big Tree diameter threshold or outside of the threshold. It appears to me that most of the Part 13 trees are within the threshold. Are you able to identify the trees that Carrie-rae was unable to identify, and would you add anything to the table? Thanks,

Jessie

Jessie Givner
Senior Policy Analyst
Provincial Stewardship and Strategies Planning
Resource Stewardship Division
Ministry of Forests, Lands and Natural Resource Operations
Ph: 778 974-5796

# RE: For Approval: FRPA (CLTBMP) DN

From: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>

Cc: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>
Sent: September 8, 2020 at 2:14:15 PM Pacific Daylight Time

Of the 210 Coastal Legacy trees we have identified and are in our database since we started with these BMPs.

It would appear that TSG has 11-13 trees that qualify as Specified Trees (green cells require data validation – suspect these are data entry errors). TST has one qualifying Specified Tree. These trees may or may not be within issued TSLs; we are just in the process of confirming.

ORG_UNIT_CODE	FEATURE_TYPE	Unique ID	Species	Height (m)	Diameter(m)	Cro
TSG	CLT	CLT20164	Yc	27.0	8.0	00 8.5
TSG	CLT	CLT20059	Cw	38.0	30.3	14
TSG	CLT	CLT20034	Fdc	61.8	3.5	6 6
TSG	CLT	CLT20072	Cw	58.8	4.3	12 12
TSG	CLT	CLT20107	Cw	41.0	4.2	24 14
TSG	CLT	CLT20019	Fdc	45.0	2.8	31 7.9
TSG	CLT	CLT20137	Fdc	44.	2.7	79 11
TSG	CLT	CLT20130	Cw	47.0	4.2	26 13
TSG	CLT	CLT20141	Ss	62.	3.7	71 22.9
TSG	CLT	CLT20143	Yc	56.3	. 3.0	14.6
TSG	CLT	CLT20144	Ss	69.0	3.5	6 22.7
TSG	CLT	CLT20151	Fdc	67.	2.7	72 13
TSG	CLT	CLT20158	Fdc	62.0	2.7	73 15
TST	CLT	CLT30025	Ss	80.0	3.3	30 16

**From:** Powelson, Allan FLNR:EX **Sent:** September 8, 2020 8:48 AM

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae. Pedersen@gov.bc.ca>

Subject: RE: For Approval: FRPA (CLTBMP) DN

Thank you

From: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca >

Sent: September 8, 2020 8:47 AM

To: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

Subject: RE: For Approval: FRPA (CLTBMP) DN

Morning Al, a signed copy for your records.

Cheers.

Carrie-rae Pedersen | Sr. Legislation and Policy Analyst

From: Manwaring, Richard G FLNR:EX <Rick.G.Manwaring@gov.bc.ca>

Sent: September 8, 2020 6:49 AM

To: Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>

**Cc:** Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>; Olsson, Liz V FLNR:EX < Liz.Olsson@gov.bc.ca>; Blackstock, Sara FLNR:EX < Sara.Blackstock@gov.bc.ca>; Scowcroft, Lesley FLNR:EX < Lesley.Scowcroft@gov.bc.ca>

Thanks Al. Option 3 approved Carrie- Rae. Sent from my iPhone On Sep 7, 2020, at 8:35 PM, Powelson, Allan FLNR:EX <<u>Allan.Powelson@gov.bc.ca</u>> wrote: Hi rick The dn reflects the conversation I had with Carrie -Rae We are in the process of getting all information ready for immediate release and have been working closely with tenures and the leg group. s.13 Sorry, got rambling on .... Anyways we can make this work Αl Allan Powelson Director Sustainability and Forestry **BCTS** On Sep 7, 2020, at 19:08, Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca> wrote: Hi Rick, attached for your approval, specifically to apply your e-signature based on your selected option, is a decision note respecting the BCTS Coastal Legacy Tree Best Management Practices. While it won't be going through formal approvals in BCTS, because it has been developed over the weekend, I am confident that it reflects my conversation with Al Powelson on the

subject, as the A/ED at this time. All is copied on this message, so should he disagree with anything communicated in this note pre or post approval, he or I will ensure this is raised to

Subject: Re: For Approval: FRPA (CLTBMP) DN

you.

I apologize that this is not coming to you via eApprovals, but if you would please respond to this email it would be most appreciated.

Please let me know if you need anything more at this time.

Many thanks.

## Carrie-rae Pedersen | Sr. Legislation and Policy Analyst

From: Kennah, Morgan FLNR:EX < Morgan.Kennah@gov.bc.ca >

**Sent:** September 7, 2020 6:08 PM

To: Pedersen, Carrie-rae FLNR:EX < CarrieRae. Pedersen@gov.bc.ca>

Cc: Scowcroft, Lesley FLNR:EX < Lesley.Scowcroft@gov.bc.ca>; Haegedorn, Kathryn M FLNR:EX

<Kathryn.M.Haegedorn@gov.bc.ca>

Subject: RE: For Approval: FRPA (CLTBMP) DN

Approved

From: Pedersen, Carrie-rae FLNR:EX < CarrieRae.Pedersen@gov.bc.ca>

Sent: September 7, 2020 2:05 PM

To: Kennah, Morgan FLNR:EX < Morgan.Kennah@gov.bc.ca >

Cc: Scowcroft, Lesley FLNR:EX <Lesley.Scowcroft@gov.bc.ca>; Haegedorn, Kathryn M FLNR:EX

<Kathryn.M.Haegedorn@gov.bc.ca>

Subject: RE: For Approval: FRPA (CLTBMP) DN

Importance: High

Hi Morgan, updated version for your consideration based on a conversation with Tom.

Thanks again.

#### Carrie-rae Pedersen | Sr. Legislation and Policy Analyst

From: Pedersen, Carrie-rae FLNR:EX Sent: September 7, 2020 12:42 PM

To: Kennah, Morgan FLNR:EX < Morgan. Kennah@gov.bc.ca >

Cc: Scowcroft, Lesley FLNR:EX < Lesley.Scowcroft@gov.bc.ca >; Haegedorn, Kathryn M FLNR:EX

<<u>Kathryn.M.Haegedorn@gov.bc.ca</u>>
Subject: For Approval: FRPA (CLTBMP) DN

Importance: High

Hi Morgan, attached for your approval is a decision note for Rick respecting the Coastal Legacy Tree Best Management Practices.

While it won't be going through formal approvals in BCTS, because it has been developed over the weekend, I am confident that it reflects my conversation with Al P on the subject, and he is the A/ED at this time. I will also ensure he is copied on any communication to Rick respecting the DN.

I apologize that this is not coming to you via eApprovals, but if you would please respond to this email then I will see to further approvals.

Please let me know if you need anything more at this time.

Greatly appreciated and many thanks.

Carrie-rae Pedersen | Sr. Legislation and Policy Analyst
Legislation | Strategic Priorities | Deputy Minister's Office
Ministry of Forests, Lands, Natural Resource Operations and Rural Development
4<sup>th</sup> Fl 2975 Jutland St | PO Box 9816 Stn Prov Gov | Victoria BC V8W 9M3

Phone: 778-974-5858 7:20 am – 3:50 pm <FRPA (CLTBMP) DN.docx>

# RE: Special Tree SEPT\_02\_2020\_09-09 version.pdf

From: Walton, Adrian P FLNR:EX s.15

To: Neill, Emma FLNR:EX <Emma.Neill@gov.bc.ca>

Cc: Kelly, Doug FLNR:EX <Doug.Kelly@gov.bc.ca>, Pedersen, Carrie-rae FLNR:EX

<CarrieRae.Pedersen@gov.bc.ca>, McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>,

Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>, Richir, Gilbert C FLNR:EX

<Gilbert.Richir@gov.bc.ca>

Sent: September 9, 2020 at 8:13:00 PM Pacific Daylight Time

Hi Emma.

Here are some comments from me.

With respect to the species list:

- split Black Cottonwood into two records: 'Black Cottonwood (in the coastal biogeoclimatic zones)' and 'Black Cottonwood (outside the coastal biogeoclimatic zones)'
- split Western Red Cedar into two records: 'Western Red Cedar (in the coastal biogeoclimatic zones)' and 'Western Red Cedar (outside the coastal biogeoclimatic zones)'
- split Douglas-fir into two records: 'Douglas-fir, coastal' and 'Douglas-fir, interior'

Diameter: indicate that it should be in cm Height: indicate that it should be in meters

Latitude and Longitude: decimal degrees and ask for minimum 5 decimals of precision

Adrian

From: Neill, Emma FLNR:EX <Emma.Neill@gov.bc.ca>

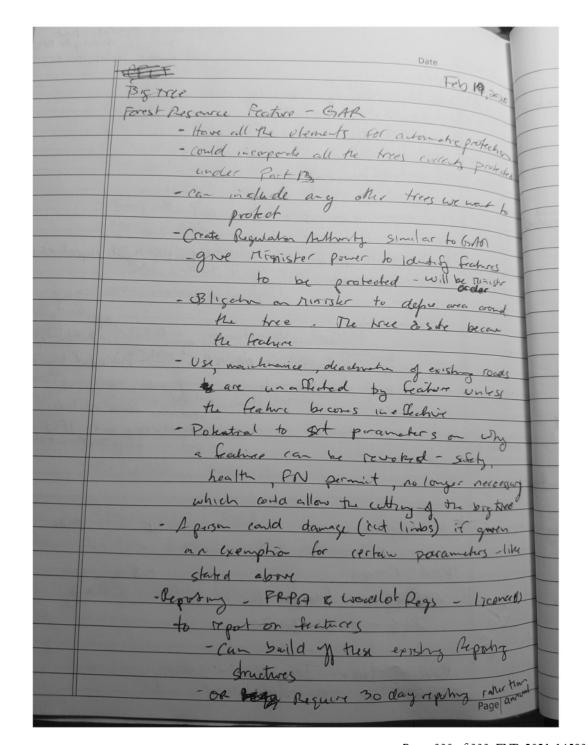
Sent: September 9, 2020 12:24 PM

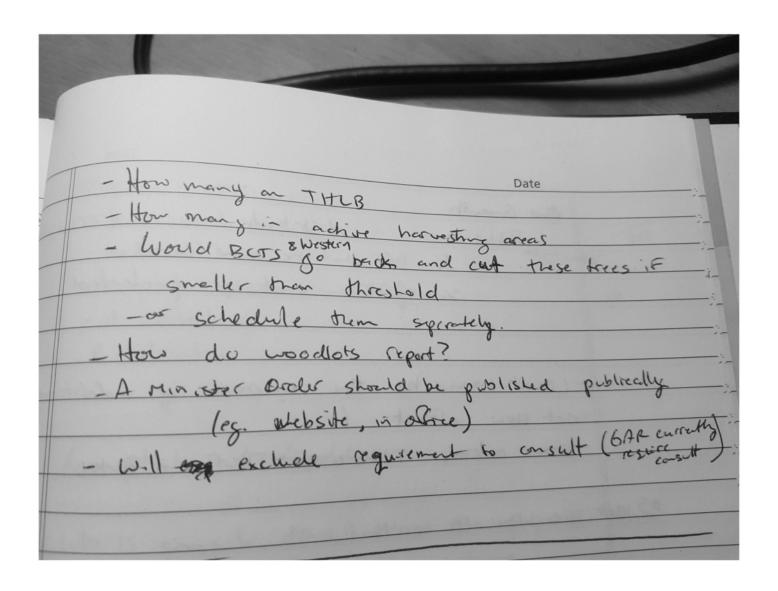
To: Walton, Adrian P FLNR:EX <Adrian.Walton@gov.bc.ca>; Richir, Gilbert C FLNR:EX <Gilbert.Richir@gov.bc.ca>; Kelly, Doug FLNR:EX <Doug.Kelly@gov.bc.ca>; Powelson, Allan FLNR:EX <Allan.Powelson@gov.bc.ca>; Pedersen, Carrie-rae

FLNR:EX <CarrieRae.Pedersen@gov.bc.ca>; McKendry, Colleen FLNR:EX <Colleen.McKendry@gov.bc.ca>

Subject: Special Tree SEPT\_02\_2020\_09-09 version.pdf

Here is the latest and greatest. I have a couple more comments from Doug to incorporate but if I could get Everyone's final comments by Thursday at 430 that would be great.





Shawn Add Superior hose of what was in

Shawn Add Superior UBC Registry

- ludge gale was general - 100 body gets monted about

10dgepble . - Plus it is a low diareter

Provide Aug - 19

Treered - Ann for Ix-2K trees - minimize impact to THIS

(1500 trees)

Obetter to be high - can't rouse late due to public Page

