

## Motivation

- Open burning emissions are the largest source of fine particulate matter in B.C. on an annual basis.
- Most burns must conform to requirements set by the Open Burning Smoke Control Regulation (OBSCR).
- Since the early 2000s forest licensees in the Bulkley have worked collaboratively with ENV and FLNRO on smoke management planning.
- Successful elements have been incorporated into new OBSCR.



# COLLABORATIVE APPROACH TO SMOKE MANAGEMENT IN THE BULKLEY TSA

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& THE ORIGIN OF IMPORTANT ELEMENTS OF THE NEW OPEN  
BURNING SMOKE CONTROL REGULATION

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Ministry of  
Environment and  
Climate Change Strategy

October 6, 2019

# Smoke Management Plans (SMP)

- Provide guidance for burn operators to manage smoke such that they can:
  - abate fire hazard in a timely, efficient and effective manner
  - minimize the negative impacts on human health and the environment.

- 1 – Smoke management strategies
- 2 – Smoke management zones
- 3 – Data collection + reporting
- 4 – Engagement through dialogue

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**BULKLEY TIMBER SUPPLY AREA  
SMOKE MANAGEMENT PLAN**

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Term: September 7, 2018 to Dec 31, 2018

Approved By:

  
Jovan Hanchard, District Manager  
Skeena Stikine District  
Ministry of Forest, Lands, Natural  
Resource Operations & Rural  
Development

  
Ed Hoffman, Director  
Authorizations North  
Ministry of Environment and Climate  
Change Strategy

Originated from sections in the old OBSCR that talked about the ability for a burn plan approved by FLNRO to alter some of the provisions in the OBSCR. Locally there was a multi-stakeholder group, led by FLNRO that developed a series of best management practices for smoke management. Licensees that signed their names to the end of the SMP committed to following the BMPs in the SMP.

4 elements to SMP

Timing – CVF only  
Smoke release periods - shorter  
Daily ignition periods

Smoke sensitivity zones

Alternatives

BMPs

- Pile construction and seasoning
- Planning
- Crew training
- Consultation and notification
- Follow up
- Signing on the dotted line

Burn progression

Burn engagement and notification

Burn reporting

Complaint tracking

Focus was on increased attention in HSSZ – more stringent rules which licensees committed to.

In LSSZ there was a relaxing of venting requirements to fair/fair.

In MSSZ there was some clarification on when burns could start and how long they could burn for.

## Based on collaboration



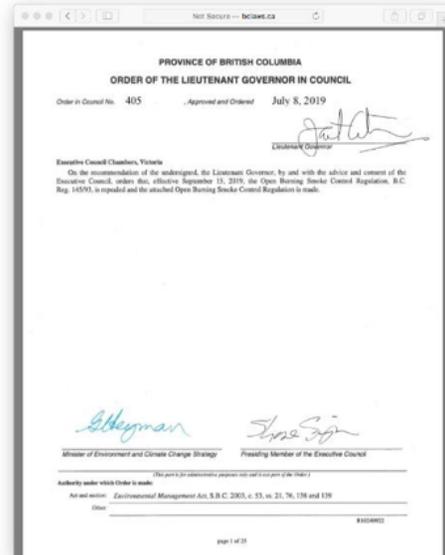
Met annually when SMP was under development.

Plans were tweaked each year to ensure lessons learned from previous years were incorporated into next iteration.

Also field trips.

## New Open Burning Smoke Control Regulation

- New OBSCR as of September 15.
- Protect and improve air quality while simultaneously allowing flexibility where possible.
- Many of the regulation's criteria originate from the Bulkley SMP (and other plans).

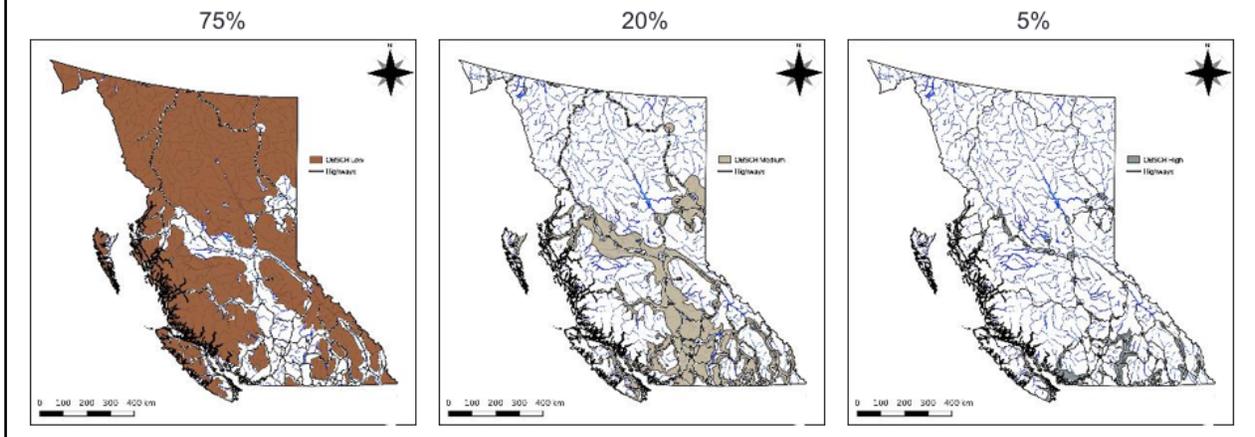


Bulkley SMP endeavored to test new criteria when new regulation was in draft.

Feedback from licensees was very positive, particularly the use of BMPs, custom venting and increased communication.

# Similarities Between Bulkley SMP and OBSCR

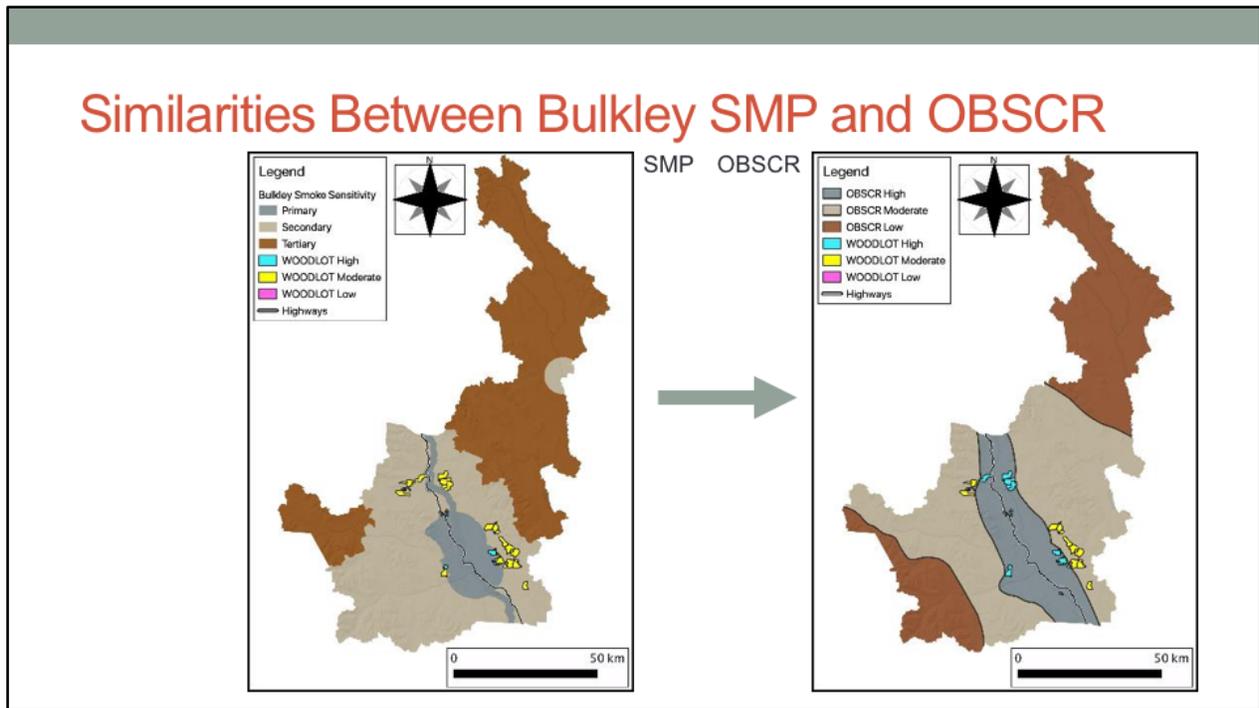
## 1. Smoke sensitivity zones



Smoke management zones rolled out on a provincial basis.

A draft version of this map was created in 2007 and went through various iterations of review to what it is now.

## Similarities Between Bulkeley SMP and OBSCR



Zones have changed because criteria are not exactly the same.

High SSZ criteria is the same.

Moderate SSZ smoke release was 3 days in M for SMP and is 4 days in OBSCR.

Low SSZ smoke release was 4 days for L in SMP and is 6 days in OBSCR.

# Similarities Between Bulkley SMP and OBSCR

## 2. Venting rules and burn duration

### 4.4.1 Favourable Weather for Smoke Dispersion

Open burning may be initiated in accordance with the IC presented in table 4.1.

**Table 4.1:** Summary of IC and SRP requirements in each smoke sensitivity zone.

Smoke Sensitivity Zone	Venting Forecast on Day of Ignition*	Venting Forecast on Day After Ignition*	Daily Ignition Period Limits	Smoke Release Period
Primary	Good	Fair or better	Yes	4:00 PM the 1st day after ignition
Secondary	Good	Fair or better	Yes	4:00 PM the 2nd day after ignition
Tertiary	Fair or better	Fair or better	No	4:00 PM the 4th day after ignition

Refer to Appendix B for more detailed information on daily ignition periods. For burns that are located on the border between the PSSZ and SSSZs, if the forecasted meteorological conditions are such that smoke from the SSSZ will be blown directly into the PSSZ, the PSSZ IC and SRP criteria will apply.



# Similarities Between Bulkley SMP and OBSCR

3. Daily ignition times (based on sunrise)

4. Definition of the end of the burn

Figure B.1: Ignition periods for the PSSZ and SSSZs for 2018.

**Bulkley Valley Smoke Management Plan - 2018**  
**Appendix E-1 Daily Ignition Periods**  
**Primary and Secondary Smoke Sensitivity Zones - 2018 Daily Ignition Periods**

Zone	Start one hour after sunrise		All Zones				
	PSSZ	SSSZ	Primary	Primary	Secondary	Secondary	
Date	Sunrise	Sunset	Start	Finish	Duration (hrs)	Finish	Duration (hrs)
10-Sep-18	6:45 AM	6:00 PM	7:45 AM	3:00 PM	7.25	5:00 PM	9.25
17-Sep-18	7:00 AM	7:45 PM	8:00 AM	2:45 PM	6.75	4:45 PM	8.75
24-Sep-18	7:15 AM	7:30 PM	8:15 AM	2:30 PM	6.25	4:30 PM	8.25
01-Oct-18	7:30 AM	7:00 PM	8:30 AM	2:00 PM	5.50	4:00 PM	7.50
08-Oct-18	7:45 AM	6:45 PM	8:45 AM	1:45 PM	5.00	3:45 PM	7.00
15-Oct-18	8:00 AM	6:30 PM	9:00 AM	1:30 PM	4.50	3:30 PM	6.50
22-Oct-18	8:15 AM	6:15 PM	9:15 AM	1:15 PM	4.00	3:15 PM	6.00
29-Oct-18	8:30 AM	6:00 PM	9:30 AM	1:00 PM	3.50	3:00 PM	5.50
<b>05-Nov-18</b>	<b>7:45 AM</b>	<b>4:45 PM</b>	<b>8:45 AM</b>	<b>11:45 AM</b>	<b>3.00</b>	<b>1:45 PM</b>	<b>5.00</b>
12-Nov-18	8:00 AM	4:30 PM	9:00 AM	11:30 AM	2.50	1:30 PM	4.50
19-Nov-18	8:15 AM	4:15 PM	9:15 AM	11:15 AM	2.00	1:15 PM	4.00
26-Nov-18	8:30 AM	4:00 PM	9:30 AM	11:00 AM	1.75	1:00 PM	3.75
03-Dec-18	8:45 AM	4:00 PM	9:45 AM	11:00 AM	1.25	1:00 PM	3.25
10-Dec-18	8:45 AM	4:00 PM	9:45 AM	11:00 AM	1.25	1:00 PM	3.25
17-Dec-18	8:00 AM	4:00 PM	10:00 AM	11:00 AM	1.00	1:00 PM	3.00

Sunday Nov 6, 2018 marks the beginning of Daylight Savings Time



Sunrise and sunset tables published each year

Examining the 'burnt surface area' of a pile the day after it was burned to assess whether 2-day burns were realistic, and whether the end of a burn definition was grounded.

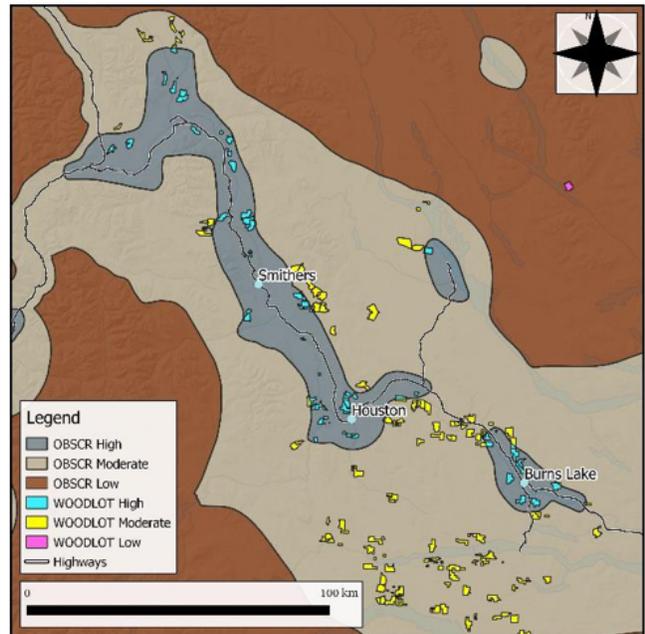
## Other Notable New Aspects of OBSCR

- Requirement to season wood in HSSZ (comes from Bulkley SMP).
- Limit on number of burn days on private land < 64 Ha in HSSZ.
- Increased setback distances.
- Provisions for community wildfire protection.
- Provisions for burning diseased vegetation.

## Woodlot stats

- Majority of woodlots are in MSSZ
  - Means little change for many requirements of new OBSCR.
- Woodlots in HSSZ will have more stringent criteria

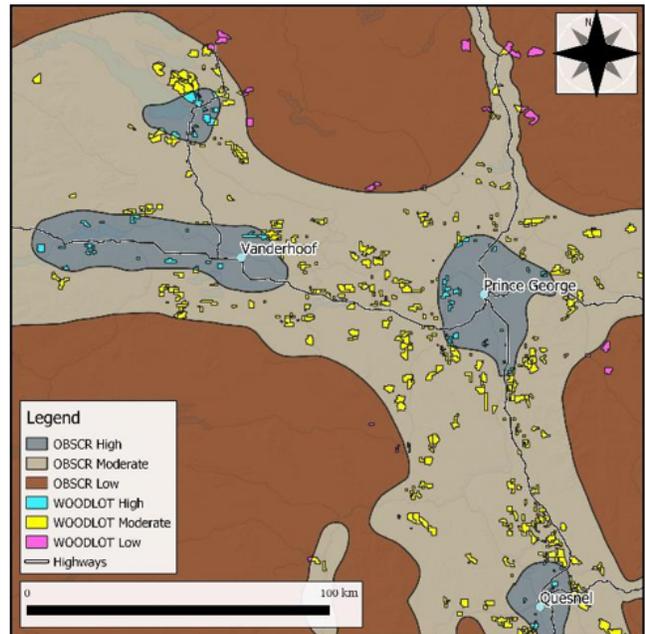
	Count	% Woodlot
<b>All Woodlots</b>	2417	
<b>All – post analysis</b>	2706	
<b>HSSZ</b>	826	31
<b>MSSZ</b>	1674	62
<b>LSSZ</b>	206	8



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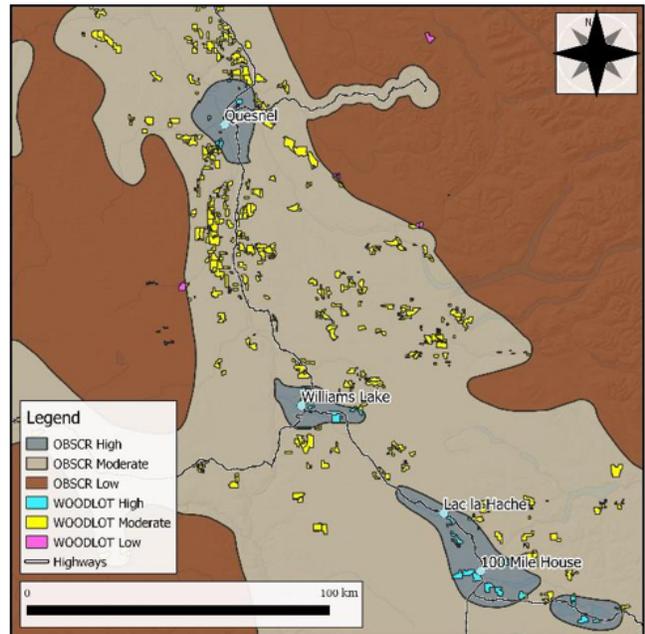
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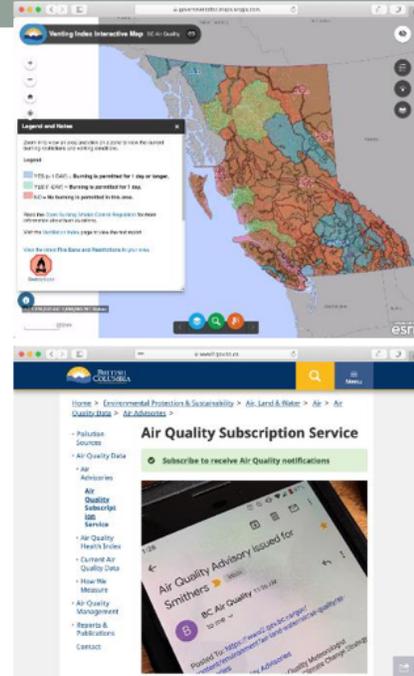
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## Summary & Other news

- Custom venting forecasting program continues – contact: [Ben.Weinstein@gov.bc.ca](mailto:Ben.Weinstein@gov.bc.ca)
- New venting index locations added in B.C.:  
<https://governmentofbc.maps.arcgis.com/apps/webappviewer/index.html?id=6d288bc667b24528a5c1e3b4c0373d07>
- Air quality advisory notification process has moved to online platform – ASSS:  
<http://aqss.nrs.gov.bc.ca>



### Summary & other news:

Open burning is the largest source of fine particulate in BC on an annual basis.

In Bulkley TSA there is a long history of collaboration with licensees on smoke management from open burning. This has resulted in protection of air quality (to the most part) while giving licensees added tools.

Many criteria in the new OBSCR originated from this collaboration and are close to or the same as what has been occurring operationally in the Bulkley for years... Success here has given me confidence that the new OBSCR will be successful around the province.

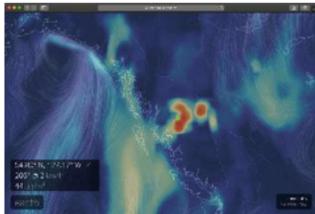
Many woodlots will be largely unaffected by the many of the changes in the OBSCR, and some will see a relaxation of the requirements.

We are also working on other tools, as per this slide.

## Contact Information

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- Environmental Protection
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- Toll Free (888) 334.0335
- [ben.weinstein@gov.bc.ca](mailto:ben.weinstein@gov.bc.ca)
- 
- BC Air Quality: <http://www.bcairquality.ca/>

## Last week in Smithers



Highlight that this is still a process of continuous improvement and a pertinent issue locally.

Facilitate this



Prevent this

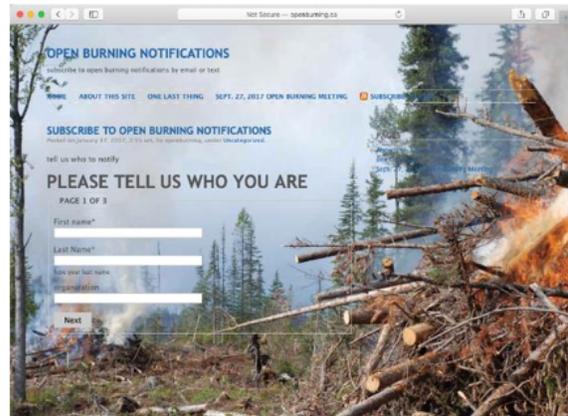


\* Pictures not from same day or period.

Smoke management planning provides opportunities for burning (such as picture on left) while preventing accumulation of smoke (such as picture on right).  
Pictures are not from the same day

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