



bulkley valley - lakes district
airshed management society

COMMUNITY ACTION PLAN *for* CLEAN AIR

A five-year strategy

7



AGRICULTURE, LAND
DEVELOPMENT & SMALL
SAWMILL DEBRIS BURNING

For full report, see www.cleanairplan.ca
LAST UPDATE: JUNE 1, 2006

Agriculture, Land Development and Small Sawmill Debris Burning

7.1 Background

Agriculture is common throughout the BVL D and has helped to build the foundation on which the communities and economy has been based. Land development occurs as more people move into the **airshed** and can be expected to continue on some scale. Small sawmills are part of the forest industry that also forms a basis for area communities and local economies, and these typically small operations provide employment in areas where other opportunities may not exist.

Techniques for open burning can vary from sector to sector, and operator to operator. However, all operators and sectors began burning wood waste as opposed to any other management technique because it was practical and effective. Larger operations may have different equipment such as excavators that can more readily build clean (no dirt) piles. Smaller operations are often equipped with bulldozers and tractors which tend to incorporate more soil into debris piles. This increases the chances for smoke generation.

The experience level of the pile builder/burn operator also plays a significant role. Compared with forest harvest debris burning where dedicated contractors are responsible for building and burning piles, burning done for agricultural and land development purposes is often (but not always) done by operators whose positions are not solely focussed on burning.

There are however many burns for these purposes that are done well, with little or no impact from the smoke produced. By making the knowledge behind successful burns available to all operators, best practices can be promoted airshed-wide.

Small sawmill operators may dispose of wood waste (slabs and sawdust) by trucking it to permitted burning operations (beehive burners) or seek authorization to dispose of it through open burning. MOE staff may require the use of forced air or enhanced burning in containers (i.e. air curtain burners) where warranted. Conditions to limit smoke **emissions** are included in the authorization.

7.2 Significance of Source to Ambient Air Quality

Open burning for agriculture and land development occurs throughout the year however typically is more common in spring and fall, limited by snow cover in winter and fire hazard in summer, similar to forest harvest debris burning. The source of emission oftentimes occurs in valley bottoms, close to populated areas, and as a result can contribute significantly to ambient air quality where people live. Many small sawmill operations are more remote, lessening their potential to impact on people.

7.3 Emission Reduction Efforts to Date

There has been a growing trend toward better **piling** and burning practices by operators in agriculture, land development. The experience level of operators and their awareness of both improved techniques

and the benefits of lower smoke emissions are rapidly increasing. There is still however a need for further improvement to reduce or eliminate impacts that continue to occur from these sources.

Small sawmill operators are encouraged to seek options of using sawdust for animal bedding and soil amendments on farms. They are also assisted by MOE staff in finding burning opportunities that will result in less smoke. In this latter case, it is often costly to obtain commitments from air curtain burning contractors for their services. This could be rectified if the sawmill operators could coordinate their efforts to obtain those services.

7.4 Relevant Regulations and Community Plans

- Forest Fire Prevention and Suppression Regulation (under Forest Practices Code of British Columbia Act)
- Open Burning Smoke Control Regulation (under Environmental Management Act)
- Environmental Management Act
- Bulkley Timber Supply Area Burn Plan for Smoke Management
- Nadina Forest District Burn Management Plan

7.5 Community Consultation/Key Players

- Cattleman's Association
- Dairyman's Association
- Provincial Government-MOE, MOF
- **Licensees**
- Permit and approval holders
- Local operators not included in the above list
- Regional District of Bulkley-Nechako

7.6 Goals, Indicators and Strategies

The goals, indicators and strategies for this emission source are similar to those for forest harvest debris burning and there was much cross-consultation between the writers for these two chapters. Table 7-6 summarizes the implementation plan for reducing emissions from agriculture debris, land clearing and small sawmill operations.

Table 7-6 Goals, Indicators and Strategies

Goals	Indicators	Strategies	Status
To reduce or eliminate air quality episodes attributable to agriculture, land development and small sawmill debris burning.	Number of PED where PM10 24 hour averages are greater than 25 µg/m ³ and the episode is attributed to this cause, based on confirmed complaints, inspection or audit reports.	Work with operators to improve timing, duration and extent of burning, based on local weather patterns.	Need to verify that outreach is working. Information is conveyed through representatives re: Burn Operators Forum and CVI forecasting service.
		Communicate with operators and facilitate sharing of knowledge between emitters about the benefits of burning well piled, seasoned debris. Publish educational articles in farming periodicals such as <i>Beef in BC</i>	As above. Not done – can add to 2006/2007 workplan.
		Work with operators to find alternatives to open burning (value added, or advanced burning technology).	To be done through Burn Operators Forum – this will be the theme for 2006.
	Category 3-6 Burns: Require to indicate number of piles to burn	Require operators to submit to MOE the size and number of piles to burn, location and when burnt, and include the maximum number of total piles to burn per day outlined in airshed plan and burn plans for smoke management Burns fall under Forest Harvest debris burn plans (Bulkley Timber Supply Area Burn Plan for Smoke Management and Nadina Forest District Burn Management Plan) with regards to smoke management -need to facilitate awareness among operators of this and ensure they follow the plans	To be verified with MOE – can report out at 2006 Burn Operators Forum
Reduce or eliminate the number of burning days in the small sawmill sector	Number of open burning days for each small sawmill. Number of “air curtain burner” days for each small sawmill	Assist small sawmill operators in coordinating contracted air curtain burning services.	Project planning has begun by identifying partners and specific sawmills that may require assistance. More effort needed in the year ahead.
Reduce emissions from burning of mixed wood waste collected at transfer stations operated by Regional District of Bulkley-Nechako.	Number of complaints.	Consultation with RDBN. Promotion of solutions. Public Education.	Wrote letter and gave presentation to RDBN in September 2005. Provided input into draft and comments on final report on wood waste management options.

7.7 Additional Working Group Recommendations

- Education surrounding best practices for dealing with various types/species of debris to ensure conditions for burns are optimal and **emissions** minimized (Bulkley CWG)
- Promote agricultural land clearing “just after the sap has risen in the trees” followed by fall burning. This is dependent on favorable ground conditions to operate machinery in spring. Even if early spring debris piling is not feasible, burning in fall of same year. (RWG)
- Pursue discussions with CANFOR re: using cogen plant for handling land clearing debris’ will need to develop delivery protocols and fuel specs (Morice CWG)
- Cattlemen’s Association to discuss possibilities of equipment cost sharing through co-op purchases, rentals, or contracted services (Morice CWG)

7.8 Tools and Resources

- Skeena Region Air Quality Information Line 1-888-281-2992 (Environment Canada Public **Venting Index forecasts** for Smithers and Burns Lake and to find out information on mandatory (ie. burn ban) and voluntary emission reduction strategies are in place, MOE regulatory requirements for open burning and daily air quality conditions.
- Ministry of Forests Burn Reference Numbers 1-888-797-1717
- Ministry of Water, Land and Air Protection-Skeena Region (Smithers) (250) 847-7260
- Environment Canada 2-day Spot Venting Index Forecast
Call 1-250-491-1544 to set up an account and 1-900-565-2255 to obtain spot venting index forecast (fee of \$25 per forecast, will need to provide latitude, longitude, elevation and aspect)
- Venting Index Forecast
<http://MOEwww.gov.bc.ca/epd/epdpa/venting/venting.html>
- BVLD 3-day Custom **Venting Index Forecast** (see Appendix F)
(250) 847-7224 Ben.Weinstein@gems1.gov.bc.ca (no fee, provide lot location, elevation, number and size of piles)
- Skeena Region Guide to the OBSCR:
<http://MOEwww.gov.bc.ca/ske/skeair/reports/OBSCRguide2002.pdf>
- MOE Guide to the OBSCR: <http://MOEwww.gov.bc.ca/air/particulates/agttobsc.html>
- OBSCR Checklist
http://www.bvldamp.ca/html/documents/MicrosoftWord-Checklist_000.pdf
- Nadina Forest District Burn Management Plan
<http://MOEwww.gov.bc.ca/ske/skeair/reports/nadinaplan.pdf>

- Bulkley Timber Supply Area Burn Plan for Smoke Management
<http://MOEwww.gov.bc.ca/ske/skeair/reports/BTSABurnPlan2002.pdf>
- The Environmental Farm Planning project (in development), is a voluntary, confidential process to perform an environmental risk assessment of the farming operation and to develop a plan to reduce or avoid these risks. Best Management Practices will also be promoted through a Reference Guide and Planning Workbook. Worksheets for Dust and Particulates as well as Open Burning will be available by the end of 2004. For the Press Release (Feb.26/04) describing this project, see the Agriculture and Agri-Food Canada website:
http://www.agr.gc.ca/cb/index_e.php?s1=n&s2=2004&page=n40226a
- For a description of the Environmental Farm Program see:
http://bcac.bc.ca/efp_programs.htm
- Burning Unwanted Crop Residue Fact Sheet <http://www.lung.ca/cando/content/FS-stubble.pdf>