



Figure 1. Header on forum documents -- focus on agriculture and air quality in the Okanagan

- 1) Jim Vanderwal, Program Manager, Fraser Basin Council**
 - a) Workshop presented by the Fraser Basin Council, funding from the BC MoE
 - b) Need for balance between environmental performance and industry
 - c) Presentations demo agriculture doing its part (presentations will be available on FBC website); focus on air quality and agriculture in the Okanagan (see Figure 1, above)

- 2) Mayor Jake Kimberley, City of Penticton**
 - a) loss of fruit trees to grape plantings with associated burning concerns
 - b) water quality and quantity and air quality equal issues for Penticton

- 3) Lynn Bailey, ADM, Environmental Protection Division, MoE (on behalf of Minister Penner)**
 - a) Overview of Provincial Clean Air Initiatives
 - b) Working on Air Action Plan – anticipate Spring Release (before June 21st, 2008)
 - c) \$13.5M over 3 years in air quality investment (3.5M 07-08; 5M 08-09; 5M 09-10)
 - d) promoted CLEAR fund (<http://www.fraserbasin.bc.ca/programs/clear.html>); \$600,000 over 3 years for Research; objective is to bridge researchers with local community
 - e) Q -- MoE's strategy to deal with open burning on ag lands? -- local government consultation, EFPs, CLEAR fund alternatives to burning
 - f) Q – MoE's position on co-generation using wood? – refer to BioEnergy Strategy
 - g) Q – new regs for forestry open burning? – watch for Policy Intentions Paper
 - h) Q --- Best Practices for secondary wood industry? – work in progress

- 4) David Poon, MAL Air Quality Technician, “DRAFT -- Air Quality Improvement Plan for BC Agriculture” by Gustav Rogstrand, MAL Waste Management Engineer**
 - a) 3 principles: environmental impact; public perception; feasibility
 - b) 3 priority issues -- ammonia, primary particulate matter, greenhouse gases
 - c) strategies include the following: i) optimizing N in animal feed; ii) reducing barn PM emissions; iii) recycling vs burning; iv) waste-to-energy (W2E) – manure/food waste to methane and renewable energy conversion
 - d) seeking comments on Draft Plan from MoE, AAFC, Environment Canada and the BC Lung Association
 - e) Q –crop burning in Creston Valley (& Idaho counterparts) – any potential for crop stubble as W2E?

- 5) Janice Johnson, Air Quality Program Coordinator, Regional District of Okanagan Similkameen “Innovative programs for agricultural plastic and wood waste recycling”**
 - a) Acknowledge funding partners which included BCAC, IAFBC, AAFC & MAL
 - b) Provided overview of AEI 06-014 “Ag Plastic Recycling Pilot”
 - c) Provided overview of AEI 07-022 “Ag Wood Waste Disposal Pilot”

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- d) Q – is curtain burning a viable option for Regional Districts? – consider burning requirements in other industries (construction) and on Band Lands; requires accessibility and volume
 - e) Q – any concerns about leachates from wood chips – no
 - f) Q – estimate amt of ag plastic available to recyclers? – 75%
 - g) Q – who pays for ag plastic recycling – RD pays for shipping; revenue potential for self-supporting program
 - h) Q – who pays for wood waste chipping – general taxation; positive response to request for contribution from ag producer participants
- 6) Kevin Chipperfield, Manager, BC Sustainable Poultry Farming Group & David Poon, Air Quality Technician, MAL – “Collaborative pilot project with poultry industry”**
- a) Research team includes Chipperfield, Rogstrand, Poon, Shabtai Bittman (AAFC) and Karen Bartlett (UBC School of Environmental Hygiene)
 - b) Acknowledge funding partners – AEI, BCAC, SPFG, poultry associations
 - c) Poultry Farmer Research objectives as follows:
 - i) Treatment not intrusive to production systems
 - ii) Treatment enhances production → bird health, Return on Investment
 - iii) Simple to use and maintain
 - iv) Public relations benefit
 - d) Outside barn vegetative filters (cedar, hybrid poplar, red maple)
 - i) Q’s – why deciduous sp? – foliage filter requirement is seasonal; most complaints received during BBQ season, rainy season limits dust transport; do trees take up ammonia; is general tree health affected by ammonia? – Bitmann’s work in progress; need to evaluate PM sampling protocol? – suggested measuring PM-2.5 (not PM-10)
 - e) In barn electrostatic space charge system (ESCS)
 - i) Ionizer within barn creates negatively charged particles that are attracted to positively charged barn walls; low energy requirement (high voltage, low amperage)
 - ii) Ventilation and calibration considerations
 - iii) Link between reduce PM and increased productivity is hypothesized to be microbial load and bird health; ongoing work by Bartlett
- 7) Don Magnusson, Environmental Farm Program, BC Fruit Growers Association “Agricultural Producers – Putting Clean Air into Practice”**
- a) Acknowledge BCAC
 - b) Explained voluntary EFP – id environmental risks, develop action plan, confidential (except when human health risk is found)
 - c) BMPs – funding available; due diligence; 4 areas – biodiversity, air quality, soil quality, water quality and quantity
 - d) Fruit growers BMPs – fuel and pesticide storage, sprayers, flail mowers
 - e) Q – Mayor Shepard wanted to know why participants in publicly funded programs are kept confidential? – Magnusson explained that there is an option available to waive confidentiality; certificates issued; signs available
- 8) Chris Jenkins, Manager, Air Action, BC MoE “Provincial Initiatives to Support Local Air Actions”**
- a) Gov’t commitment “Great Goal #4”
(www.bcbudget.gov.bc.ca/2008/sp/prem/default.html#4)
 - b) Clean Transportation – PST rebates, tail pipe emission, Scrap-It, Green Fleets, School Bus Emissions Reduction, Anti-Idling measures
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- c) Clean Industry – beehive burners, BC BioEnergy Strategy (incl wood waste co-gen); boiler emission standards, oil/gas flaring (BC Energy Plan)
- d) Clean Communities – local air shed planning; woodstove exchange, idle reduction; CLEAR fund
- e) During 2009 licensing year, heavy duty diesel vehicle emissions require minimum 20% reduction
- f) Q – 2% of provincial primary emission (PM-2.5) is from agriculture – note secondary emission from agriculture in the Fraser Valley is 33% of the total
- g) Q – what is off road use of diesel? – industrial equip, farm tractors, logging equip – different emission standards
- h) Q – does the Right To Farm Legislation affect the new strategies – MAL at the table

9) Dora McMillan, Chair, Quesnel Air Quality Roundtable (QAQR), Community Air Quality Planning and Action “Implementation of Quesnel Airshed Management Plan: Successes and Challenges”

- a) In 1995, Quesnel had the worst air quality in BC
- b) 3 years of research resulted in QAQR plan written by consensus – 26 recommendations
- c) QAQR with no authority to enforce air quality regulations
- d) Baker Creek Enhancement Society contracted to provide extension services
- e) Challenges – dust control, weather, industrial traffic
- f) Successes – last beehive burner removed, wood stove exchange, reduced S emission

10) Sara Leckie, School of Environmental Health -- UBC Woodstove Exchange Study (WEST)

- a) Michael Brauer is lead at UBC; <http://web.cher.ubc.ca/woodstove/>
- b) Levoglucosan is wood smoke tracer; volatile organic compounds (VOCs)
- c) Skeena-Bulkley Valley Lake District pilot (Terrace, Smithers, Telkwa, Houston, Burns Lake)

11) Chris Moslin, Chair, Boundary Air Quality Committee (BAQC) -- Boundary Air Quality – Advice on Getting Started in a Small Community – www.city.grandforks.bc.ca/air

- a) Acknowledged Moe cash and staff support
- b) With facilitator, prepared Air Quality Management Plan for local government
- c) Roxul (www.roxul.com) investment of \$13M into air quality improvements

12) Corey Davis, Regional Air Quality Coordinator, City of Kelowna, Central Okanagan and Valley-Wide Air Quality Initiatives

- a) Public complaints drive air quality programs
- b) Central Okanagan Air Quality Management Plan
- c) Pro-active bylaw enforcement (mostly farmers)
- d) Ag wood waste chipping – approx. 179 ac/year
- e) Ag industry education

13) Ron MacDonald, Environmental Engineer, The Sheltair Group -- Whistler integrated air quality, energy and climate change plan (www.whistler2020.ca)

- a) Combining community energy plans with air quality plans – reduce energy consumption, reduce greenhouse gas emissions, obtain desired supply sources
- b) Plan Drivers: Air Quality, Energy, GHGs, AI, Gordon & Arnold
- c) Leverage public interest in climate change to support Air Quality planning
- d) Efficiencies in joint planning process – inventories, reduction measures, process

14) Glen Okrainetz, BC Ministry of Environment – concluding remarks

- a) Acknowledged Forum organizers, participants and sponsors

15) Mayor Sharon Shepard, City of Kelowna – concluding remarks

- a) Pine beetle impact on air quality?
- b) Right to farm legislation – require investment in agriculture programs
- c) Ag plastic recycling program encouraged
- d) EFPs – celebrate, encourage farmers to share
- e) Community advocacy – grass root programs/advisory committees
- f) Wood stove exchange program supported
- g) Climate, energy and air quality plans promoted
- h) Regional governance discussion ongoing
- i) Need commitment, priority, appropriate budgets, bylaws, policy implementation