

Protecting Environmental and Human Health Through Partnerships and Communities

Air Quality Council
of
Port Alberni



Air Quality Council of Port Alberni



Mission Statement

The Air Quality Council serves to promote health by working to ensure the cleanest possible air for the Alberni Basin and its inhabitants

AQC Goals

- 1) To seek the *co-operation of all agencies and stakeholders in promoting and protecting clean air.***
- 2) To educate and inform the community regarding air quality issues.**
- 3) To encourage clean air lifestyles and business practices.**
- 4) To integrate regional air quality goals into local government policies.**
- 5) To ensure comprehensive monitoring of air quality.**
- 6) To *the network with other agencies and organizations committed to protection of air quality.***

ACTIONS

2003-2010

1. Clear the Air
2. Fine Particulate Sampling
3. Smoke Reduction
4. Dioxin Research
5. Primary Education
6. Woodstove Exchange
7. Open Burn Smoke Control

CLEAR THE AIR

YEAR	2003-2004
SUPPORT	VIHA
TASKS	Public Education * Smoke Reduction/Best Burning Practices (woodstoves, outdoor burning) * Article Series
	Research * Airshed Management Models * Alberni Basin Airshed
RESULTS	AQC Framework * Membership * Mission Statement * Goals * Recommendations for Action
	Heightened Public Awareness

FINE PARTICULATE SAMPLING

YEAR	2004-2005
SUPPORT	MOE
TASKS	PM 2.5 data collection from 6 different sites (using 6 portable Mini-vol filtration samplers) Equipment calibration, deployment, maintenance Mobile nephelometer sampling
RESULTS	<ul style="list-style-type: none">* Engagement of AQC members as effective working group* Co-authored scientific paper* Scientific basis to appeal for public and policy changes.* Recommendations for better monitoring



SMOKE REDUCTION

YEAR	2005-2006
SUPPORT	MOE
TASKS	Public Education * Anti Garbage Burning Campaign * Burn it Smart
	Research * SWMP Review * Recommendations for Action
RESULTS	* Successful working relationship with City Fire Department * Engagement of City and ACRD * Increased awareness of air quality and health issues

DIOXIN RESEARCH PROJECT

YEAR	2006-2007
SUPPORT	NONE
TASK	Investigate possibility of piloting BAT for measuring Dioxin emissions from local pulp mills Hold multi-stakeholder talks at MOE, Nanaimo
RESULTS	* Remarkable collaboration on local industrial air quality issue (AQC, MOE, RFU, Crofton Catalyst, Port Alberni Catalyst, Paprican, EC)

AIR QUALITY EDUCATION

YEAR	2008
SUPPORT	MOE
TASKS	Support ongoing AQC operations Air Quality Science and Health Program Development and delivery of a 9 part series for two Grade 5 classes: <ul style="list-style-type: none">* Respiration Biology* Alberni Basin Airshed* EBAM* Inversion Experiments,* “Making a Difference” – air pollution and health,* Tree Planting/Roadside remediation* Vehicle Emission Reduction* Idle Free Campaign* David Hardwick Pathology Learning Centre
RESULTS	<ul style="list-style-type: none">* Multi-level participation (students, families, principals, teachers, SD70, City engineers, workers, Hospital, Fire Department, Shaw TV)* Unprecedented cooperation due to student focus.* Full program extension to the public through media

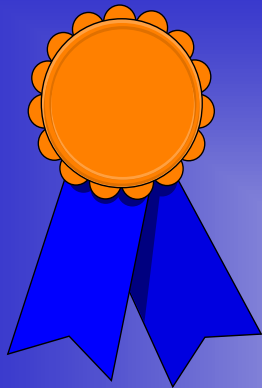


WOODSTOVE EXCHANGE

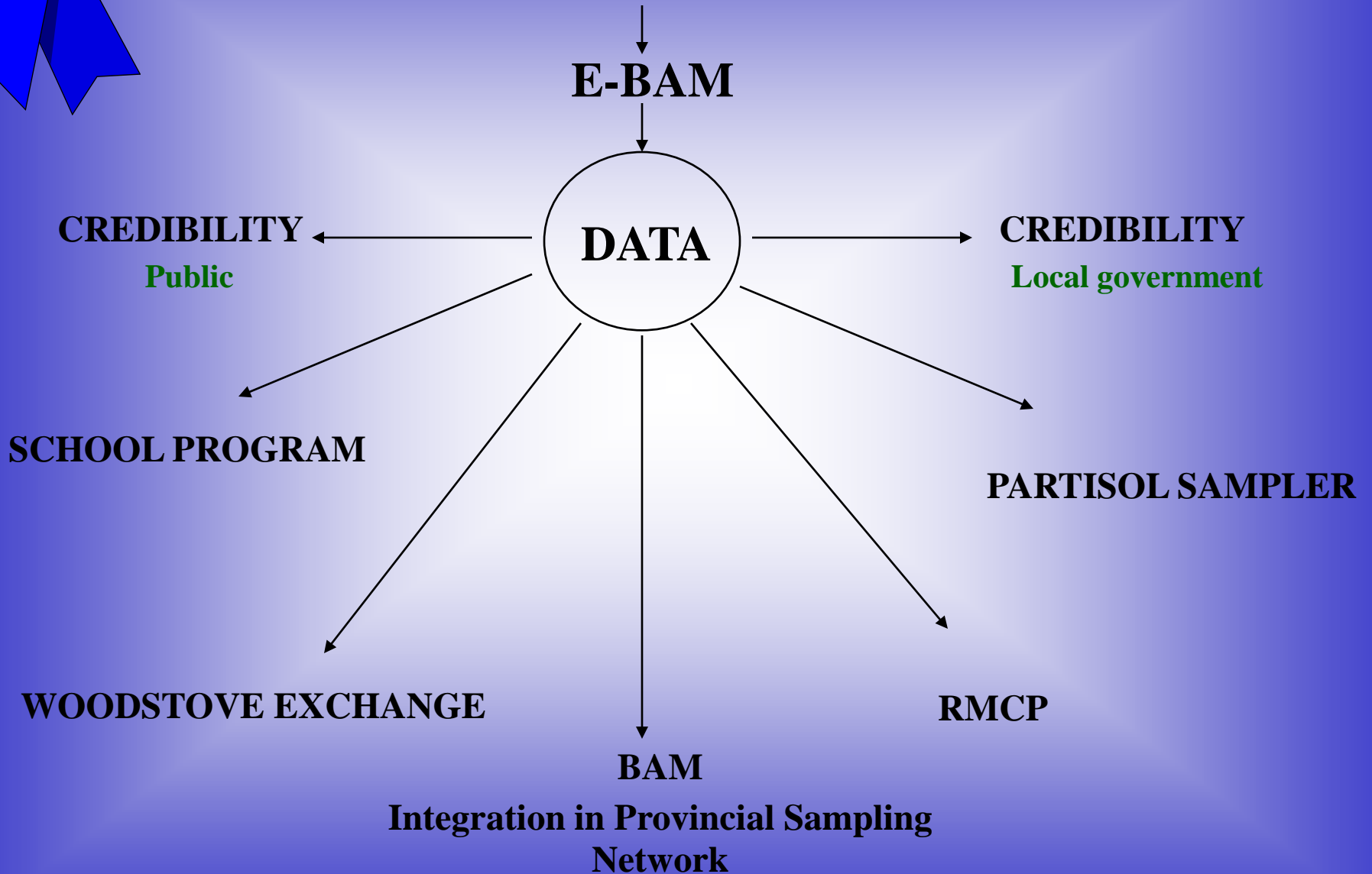
YEAR	2009-2010
SUPPORT	MOE, MHLS
TASKS	Public Education Article Series, Burn it Smart Programs First Nations Program Change out 100 old wood stoves.



RESULTS	<ul style="list-style-type: none">*Opportunity for in-kind support from City and ACRD*Working relationship established with ACRD staff*Close collaboration with the City Fire Department*Effective province-wide coordinator communication (orchestrated by Rebecca Freedman, MHLS).* Significant smoke pollution reduction.* Increased network of support for AQC
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FINE PARTICULATE SAMPLING PROJECT

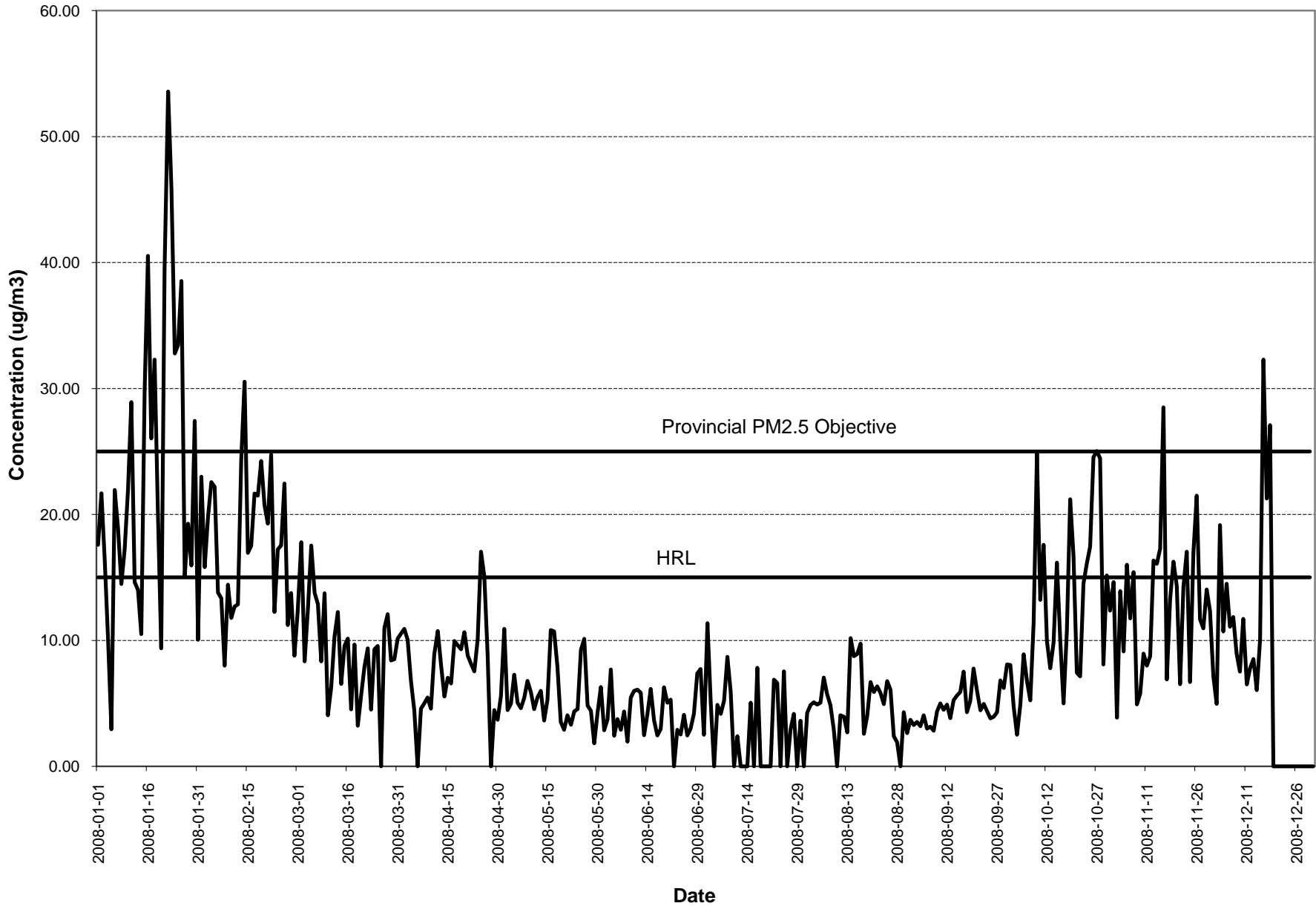




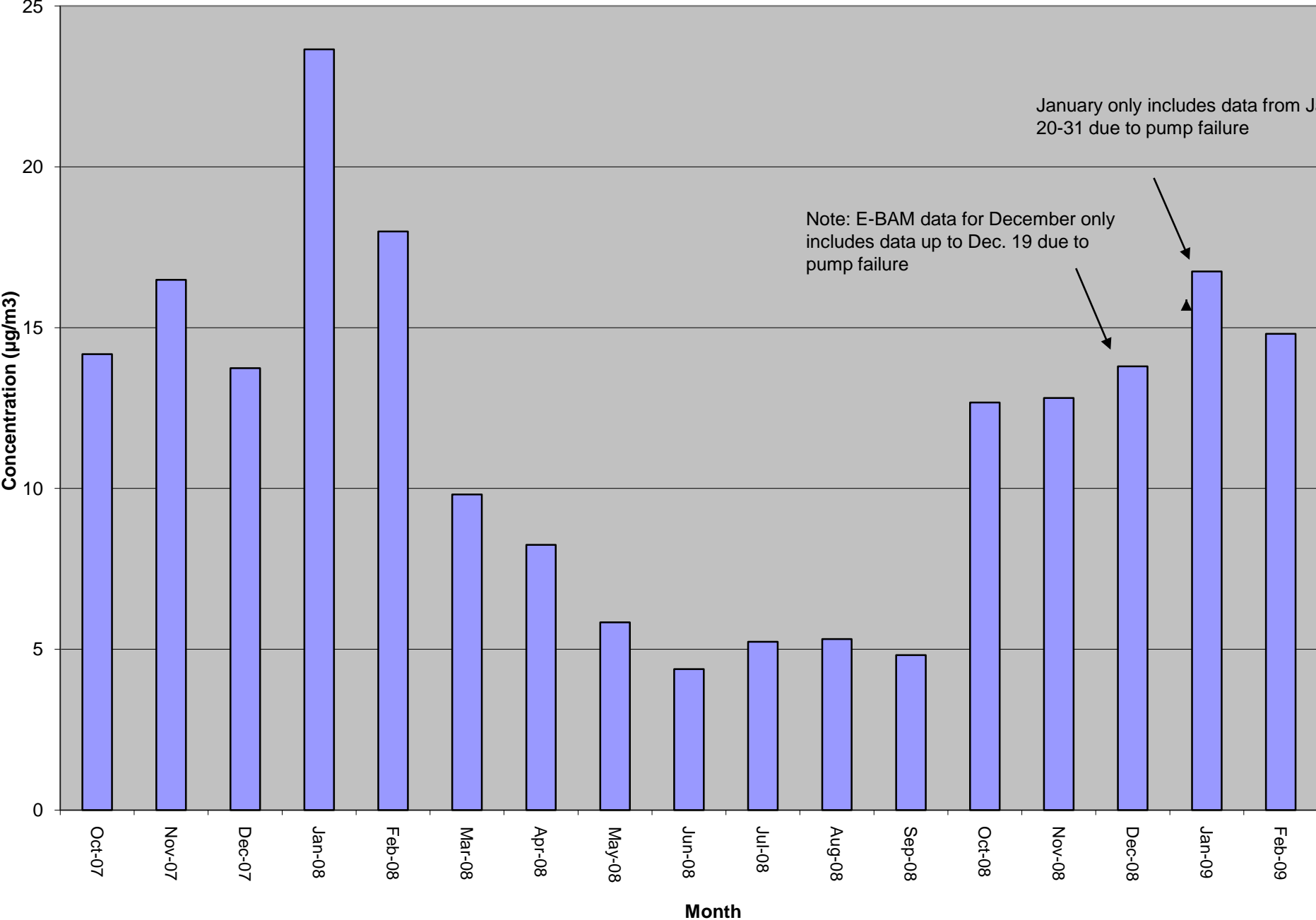
E-Bam and Partisol Sampler



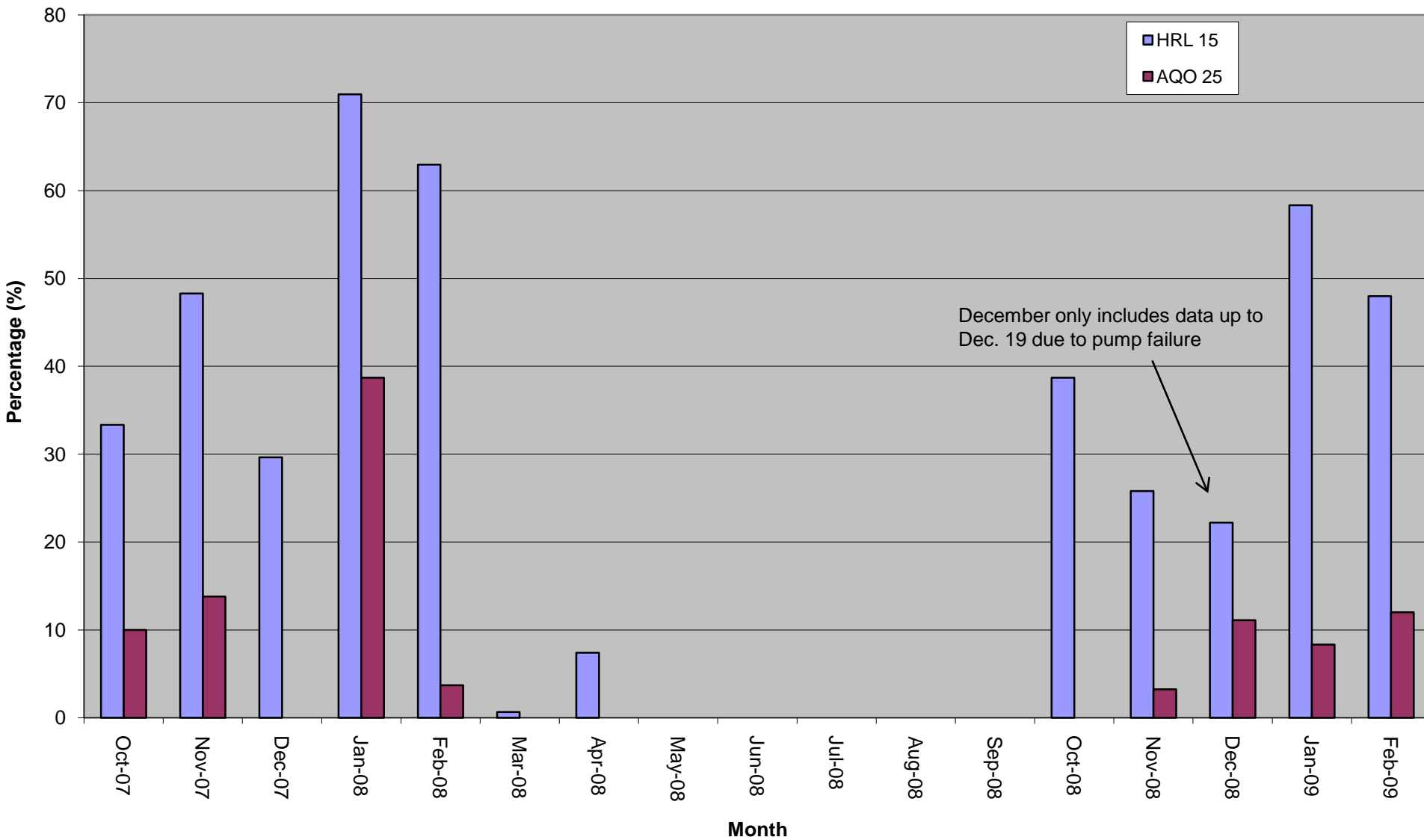
2008 Daily Average PM2.5 (E-Bam) Concentrations in Port Alberni



2007-08 Monthly PM2.5 (E-BAM) Averages in Port Alberni



Percent of time that Daily PM2.5 Concentrations are Greater than the Health Reference Level and the Provincial PM2.5 Objective by Month





RMCP

RESOURCE MANAGEMENT COORDINATION PROJECT



YEAR

2009

SUPPORT

MOE/MOF

TASKS

**Reduce Smoke from Open Burning
Public, Landowner, Contractor Education
Field Staff Training
Pre-burn audits/inspections
Regulation Enforcement - OBSCR, EMA**

RESULTS

- *Cross-jurisdictional integration in delivery**
- *Targeted, seasonal inspection and enforcement effort.**
- *Integrating and building on AQC initiatives**
- *Government leadership and action in response to data.**
- * Education about and obstruction of non-compliant fires.**

Air Quality Summary

- PM2.5 concentrations are elevated during the fall and winter months at the Alberni Elementary School site
- Daily PM2.5 concentrations exceed the Provincial Air Quality Objective of 25 $\mu\text{g}/\text{m}^3$ during the winter months up to 39% of the time
- Additional sources of PM2.5 at this time of the year include open burning in fall (backyard, land-clearing, forestry), wood stoves, and increased idling. Emissions from the pulp mill will also have more of an impact during the winter months due to poor dispersion
- PM2.5 is a concern from a public health perspective and needs to be managed

CHALLENGES

- ❖ Housing AQC for the long term – community organization vs. government?
- ❖ Ability to replace volunteers - AQC member attrition
- ❖ Integration of AQC work into City and ACRD structures
- ❖ Lack of local political infrastructure to deal with environmental concerns
- ❖ Economic hardship limiting scope and resources directed to environmental issues.
- ❖ No bylaw protection with regard to air quality and health in the ACRD.
- ❖ The regulatory framework for air quality is not as clear or strong as, for example, water quality, putting local organizations and governments with minimal resources in a bind.

ELEMENTS OF AIRSHED PROTECTION

REFLECTIONS FROM EXPERIENCE

ATTITUDES AND BEHAVIOURS

- Scientists, 2001 - example of open, sharing of resources and information
- Public education is critical in establishing attitudes necessary to make a difference.
- Primary programs are a great place to start.

WORK

- Start where you are with what you have, selecting activities that will bring the highest return.
- The timing of projects and requests are critical, especially when obstacles are presented.

REGULATIONS

- Establishing and enforcing regulatory mechanisms can provide overt environmental and human health protection.
- Regulations serve as a clear commitment to environmental protection.
- Creative approaches to enforcement are useful. (seasonal, inter-departmental)

DATA

- Understanding, improving, and protecting air quality entails being able to measure it.
- Permanent equipment is desirable but data from portable samplers can also be very helpful.

PARTNERSHIPS

- Effective environmental protection can be developed when the resources and scientific expertise of government ministries are integrated with the local knowledge and commitment of community groups.
- Environmental protection can be increased by harmonizing the delivery of programs and enforcement

THANK YOU

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Chair, Air Quality Council

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