

Workshop on Vision, Goals & Indicators for the Sea-to-Sky Corridor

June 16, 2005
9:30am - 4:00pm

Sea to Sky Hotel, Eagle Room
Garibaldi Highlands (Squamish)



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The Sheltair Group



Using an Adaptive
Management
Framework

Workshop Objectives

- Develop shared vision for air quality in the corridor
- Identify key air quality issues
- Define goals that will contribute to achieving vision,
- Identify strategies for early action, and
- Discuss long term funding sources and structure.



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Outline

1. Trends in air quality
2. Developing a shared vision *Break*
3. AQMP structure and funding *Lunch*
4. Identifying key issues
5. Identifying key goals *Break*
6. Ideas for early action
7. Next Steps



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Trends in Sea-to-Sky Air Quality

Trends in Sea-to-Sky Air Quality

- A quick look at the pollutants of concern: Common Air Contaminants (CACs), Greenhouse Gases (GHGs), and Air Toxics.
- Forecast Projections for Pollutant Emissions in neighbouring Greater Vancouver.
- Projected growth in the Sea-to-Sky Corridor.



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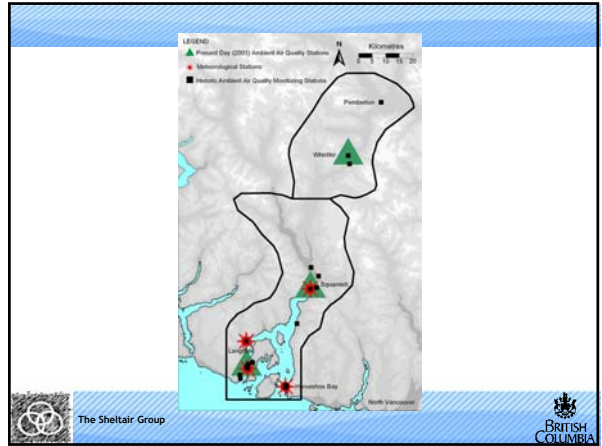


Common Air Contaminants (CACs)

- Common Air Contaminants (CACs):
 - Particulate Matter (PM₁₀ and PM_{2.5})
 - Ozone (O₃)
 - Sulphur Dioxide (SO₂) and Total Reduced Sulphur (TRS)
 - Nitrogen Oxides (NO_x)
 - Carbon Monoxide (CO) - not measured
 - Volatile Organic Compounds (VOCs) - not measured



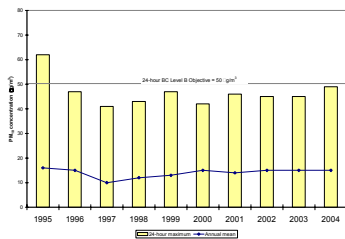
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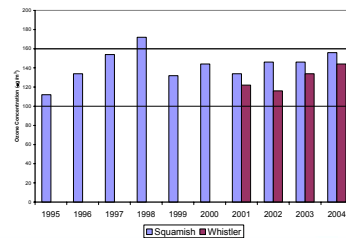
Squamish PM₁₀



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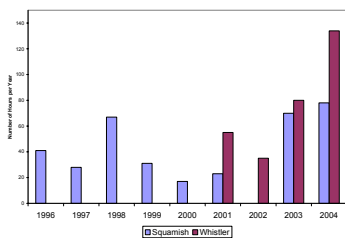
Squamish & Whistler 1-hour Max Ozone



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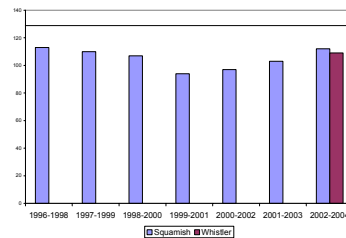
Squamish & Whistler O₃ Hours Above Maximum Desirable Level (100 µg/m³)



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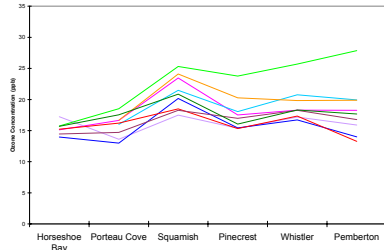
Squamish & Whistler O₃ Canada-Wide Standard



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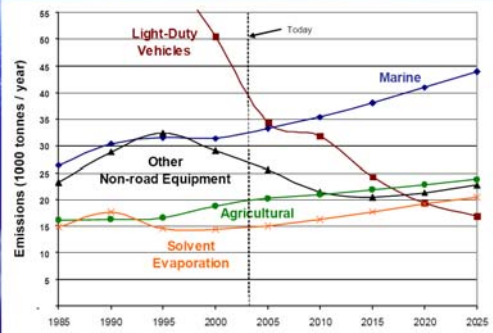
How Much of our Ozone Problem is Local?



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Top 5 Smog-Forming Emission Sources in LFV



Smog-Forming Pollutants = NO_x + SO_x + VOC + $\text{PM}_{2.5}$ + NH_3

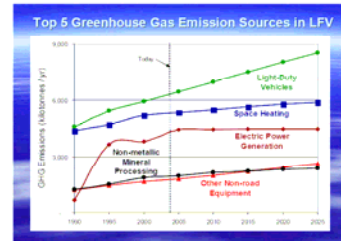
Greenhouse Gases

- Carbon Dioxide (CO_2), Methane (CH_4), Nitrous Oxide (N_2O) and others usually expressed as CO_2e
- Emissions currently not quantified for Sea-to-Sky.
- Resort Municipality of Whistler and GVRD have done inventory and predictions for growth.

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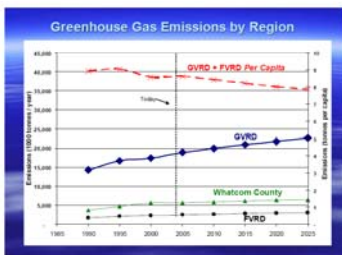
Greenhouse Gas Predictions for LFV



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Greenhouse Gas Predictions by Region



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Air Toxics

- Emissions currently not quantified for Sea-to-Sky, and no ambient measurements.
- GVRD has draft air toxics emission inventory of 290 substances, and measurement of 67 of these.
- Types of air toxics would be similar in Sea-to-Sky, but quantity would be very different.

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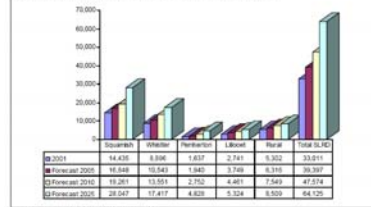


Implications for Sea-to-Sky

- Population growth projections are similar to those of Lower Fraser Valley.
- Emissions associated with population growth (vehicles, space heating, etc) are similar.
- Vehicle, space heating, etc. emissions expected to significantly outpace any growth in industrial sources.

Predicted Growth for SLRD

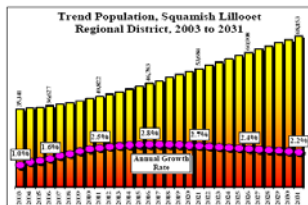
Figure 8 Municipal and Electoral Area Population Projection to 2026



Source: BC Stats, Population Projections, 2004

Predicted Growth for SLRD

Figure 6 Trend Population Projections



Developing a Shared Vision for Air Quality

HSCF Principles for Cooperation

The HSCF envisions that communities within this area can be healthy, productive and sustainable by:

- Promoting compact and complete communities;
- Encouraging safe and liveable communities;
- Encouraging an integrated transportation system;
- Preserving a healthy and natural environment;
- Supporting the sustainable use of resources;
- Fostering a vibrant and dynamic economy;
- Raising awareness about land use; and
- Ensuring that the public is informed and encouraged to be active.

Characteristics of a Vision

A vision...

- Describes the desired end state.
- Provides a focus, purpose & direction.
- Encapsulates the desired direction in an easy to remember statement.

Example Visions

- *"Clean and healthy air for current and future generations", GVRD*
- *"Communities along the corridor enjoy a healthy air environment and a healthy economy, while at the same time, access to opportunities is distributed equitably", example from Sharing the Air Report*

Visioning Exercise

- Imagine air quality in the s2s corridor in 20 years.
In 20 years the s2s air quality....

BREAK

AQMP structure and funding

Funding Issues

- Annual/Fixed Budget vs. Project Budget
- Funding Structure - models from other air quality management groups.
- Current Funding in 2005/06
- Account Management and Administration

Annual/Fixed vs Project Budget

- Annual/Fixed Budget - we do what we can with what we've got.
- Project Budget - every year we estimate what we'll need (government model)
- Which model fits with local government budgets?

Who and how much?

- To date, MWLAP has provided ~ \$25 K per year for process, \$14 K per year for instrument maintenance, and staff time.
- Average price of one instrument is ~ \$30 K (funded by pulp mills, MWLAP or NAPS).
- Annual budgets can range from "maintenance" (bare bones) to "full deal", and group decides what can be achieved each year if funding availability fluctuates.
- Annual budget = \$25 K to \$60 K (excluding special projects)

Clean Air Strategic Alliance (CASA) model

- Each airshed in Alberta is part of CASA which is a non-profit association.
- Budgets include monitoring equipment and maintenance and are usually between \$500K to \$1 million per year, funded almost entirely by industry (oil & gas).
- Funding contribution of stakeholders is based on pollution contribution (i.e. piece of the pie).
- All decisions are reached by group consensus.

Why the Usual Model Doesn't Apply

- Which pollutant do we use to determine contribution? How accurate is the inventory?



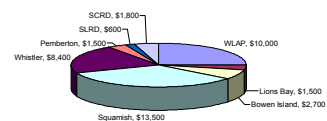
Other Funding Structures

- Quesnel: Municipalities each agreed to contributed \$20K for 5 years while regional districts paid \$5K. Administered by MWLAP.
- Prince George: City contributes \$20K annually for monitoring, and \$30K for implementation (plus staff person). Administered by City.

Proposed Funding Model for StS

- Funding contribution of stakeholders is based on population (weighted by population density or indicator?).
- \$10 K support from MWLAP, as well as traditional support for monitoring and technical staff.
- Potential for funding from Health or other agencies.
- Contributions from industrial sources will come in the form of monitoring, emission reduction measures and special studies related to their emissions.

Proposal based on \$40 K budget



- Funding managed/maintained by central group/agency or municipality? Non-profit registration may be unnecessary.

2005 – 06 Budget and Needs

- MWLAP contributing \$25 K to support process and Sheltair facilitation to complete Goals and Targets/Indicators.
- Website is currently on 'charity' status and is being maintained unofficially.
- \$15 K needed to complete Strategies and Actions planning by March 2006.

Summary of Funding Questions

- Current Funding in 2005/06 (\$15 K remaining)?
- Annual/Fixed Budget vs. Project Budget?
- Funding Structure (% contribution)?
- Account Management and Administration?

LUNCH

Identifying Key Issues

Identifying Key Air Quality Issues

- At each table, discuss & identify what you feel are the most significant issues relating to air quality.
- Write each issue on sticky note.
- Present top 4 issues to larger group.

Air Quality Issues and Drivers

- Visibility
- Human health
- Ecosystem health
- Odour
- Tourism losses
- Regional contribution to climate change
- Liveability

Identifying Key Goals

Existing goals in the Sea to Sky corridor

- GVRD
 - Minimize the risk to public health from air pollution.
 - Improve visibility.
 - Minimize Greater Vancouver's contribution to climate change.



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Goals from other Jurisdictions

- Bulkley Valley - Lakes District
 - Gain a better understanding of air quality in the plan area; and
 - To continuously improve air quality in the BVLD airshed.
- Parkland Airshed Management Zone (Red Deer)
 - Be dynamic and evolutionary in nature, capable of responding to changing or emerging concerns, issues, technologies, and developments in other management zones/programs



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Ideas for Early Action

Examples of Early Actions

- Planning Mechanisms
- Regulatory Mechanisms (bylaws)
- Economic Incentives
- Public Education
- Partnership Initiatives and Programs

Planning Mechanisms

- Already engaged in Sea-to-Sky:
 - Official Community Plans
 - Greenhouse Gas Action Plans
 - Community Energy Plans
 - SmartGrowth
 - Integrated Planning



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Regulatory Mechanisms (bylaws)

- Woodburning appliances & solid fuel
- Open burning
- Idling
- Dust control

Burning Bylaws

- Examples from Prince George, North Okanagan, Quesnel, Golden.
- Work from Okanagan region is particularly applicable to Sea-to-Sky.
- Build connections with Corey Davis from Central Okanagan / Kelowna.

Economic Incentives

- Wood Stove Exchange Programs
- Mow Down Pollution
- Employer Pass Programs
- Tax relief for efficiency
- Vehicle scrappage programs

Public Education

- “Burn-It-Smart” programs
- Let’s Drive Green
- GHG Action Guide
- One Tonne Challenge
- Clean Air Day
- ICBC’s Way to Go! School Program

Partnership Initiatives and Programs

- Fleet Challenge BC
- Green Fleet Purchases
- West Coast Diesel Collaborative
- School Bus Retrofits
- Energy-efficient Buildings
- Transportation Demand Management
- Demonstration Projects

Summary

- Examples of Early Actions are everywhere.
- Take advantage of linkages and partnerships with GVRD, other municipalities, and International Airshed Strategy initiatives.
- See “Tools” Guide from MWLAP.

Ideas for Early Action

- Identify actions by issue area.
- Focus on sphere of influence.
- Ideas but not a commitment.

Next Steps

Next Steps...

- Compile results of today's workshop.
 - Vision, goals & indicators
- Circulate vision, goals, funding approach for committee approval.
- Committee members seek approval of their Councils and Boards.
- Develop recommended indicators.

Characteristics of Indicators

An ideal indicator is one that:

- Is easy to collect data for evaluation;
- Is robust and not subject to short term changes; and
- Is responsive to changes in policy.

example *Tonnes per year per Capita CO₂e Emissions*

Next Steps...

- Compile results of today's workshop.
 - Vision, goals & funding approach
- Circulate vision, goals, funding approach for committee approval.
- Committee members seek approval of their Councils and Boards.
- Develop recommended indicators.
- Workshop in Fall (targets and actions).