

THE VIEW AHEAD: MANAGING VISIBILITY IN B.C.

JUNE 19, 2007, SFU SEGAL BUSINESS SCHOOL, VANCOUVER

WORKSHOP REPORT : EVALUATING OPTIONS FOR A VISIBILITY MANAGEMENT FRAMEWORK FOR BRITISH COLUMBIA

1.0 INTRODUCTION

A workshop was held on June 19, 2007 in Vancouver to discuss possible management directions for managing visibility in British Columbia. The workshop was organized by:

- Environment Canada (EC)
- B.C. Ministry of Environment (B.C. MoE)
- Greater Vancouver Regional District (GVRD)
- Fraser Valley Regional District (FVRD)

The workshop objectives were:

- *To obtain input on the importance of visibility to various sectors (e.g. tourism, parks, forestry and others); and*
- *To obtain feedback on draft visibility management options from these sectors.*

The workshop agenda was as follows:

Presentations	
Managing Visibility: Policy Drivers	<i>Hu Wallis</i> (B.C. MoE)
Visibility Science in B.C. & Canada	<i>Dr. Karen McDonald</i> (Concordia University College of Alberta)
History of Visibility Management in B.C.	<i>Steve Sakiyama</i> (B.C. MoE)
Draft Management Options	<i>Peter Reid</i> (Jacques Whitford AXYS)
Visibility: an Okanagan Perspective	<i>Corey Davis</i> (City of Kelowna)
Participant activities	
Break-out Session: Why is Visibility Important to Your Sector?	
Plenary: The Importance of Visibility	
Break-out Session: Input on Draft Management Options	
Plenary: Draft Management Options	

Prior to the workshop, participants were provided a copy of a report entitled “The View Ahead - Identifying Options for a Visibility Management Frameworks for British Columbia” (prepared by Jacques Whitford AXYS). This report provided a background on the issues, visibility science, management regimes in other jurisdictions and five potential management options for B.C..

2.0 SUMMARY OF COMMENTS

What follows is a summary of the input received from the breakout sessions and the plenary discussions that ensued.

2.1 Importance of Visibility

Participants were asked to comment on: i) what visibility meant to them, ii) whether it was important to them and why (or why not), and iii) what they considered to be the key drivers. Input received included the following:

What does visibility mean?

- 1) The enjoyment of our environment based on our ability to:
 - ♦ See far and clear; important both from on the ground and for recreational pilots
 - ♦ Enjoy scenic vistas
 - ♦ Enjoy recreation outdoors
- 2) A proxy for air quality such as:
 - ♦ A measure of the public's happiness and acceptance of air quality
 - ♦ An indicator of air quality in a geographic area
 - ♦ An ability to gauge whether other air quality management efforts are also protecting visual air quality
 - ♦ Advances the issue of air quality on the public agenda

What is the importance of visibility?

Visibility is intricately connected to the well-being of our economy, environment and health. Maintaining good visibility is essential to meeting legal and environmental responsibilities under the [1991 Canada/US Air Quality Agreement](#) and provides a 'visible' linkage to help support other air quality initiatives, such as [AirCare](#).

Economy

- ♦ Maintaining and increasing tourism and offering a first and lasting impression for visitors to B.C.
- ♦ Maintaining high levels of livability and sustainability in order to attract new industries to the area (e.g. high tech sector)
- ♦ Ensuring an economic and competitive advantage by being able to consistently (low variability from day to day) view and film beautiful scenery ([B.C. Film Commission](#))

- ♦ Remaining attractive to new migrants and as a retirement destination for retirees who place increasing importance on environmental factors which contribute to the quality of life
- ♦ Maintaining good visibility in areas where construction is a key driver of the economy

Environment & Health

- ♦ Maintaining visibility to allow for early detection necessary for fire protection
- ♦ Protecting human health by regulating fine particulate matter and aerosols, which degrade visibility and health

Legal and Environmental Responsibilities

- ♦ Leaving a personal legacy for future generations
- ♦ Fulfilling commitments outlined in the [1991 Canada/US Air Quality Agreement](#) to protect visibility in Canada and minimize impact on visibility in the US

What are the key drivers for managing visibility?

Visibility is the [single most important indicator](#) of air quality to the public. Managing visibility cultivates the confidence of the public (and politicians) in the effectiveness of air management programs. If visibility is not maintained or improved, there may be a perception that the government and air management programs have failed.

Conversely, if visibility is maintained or improved, public confidence in air management programs may increase. This may encourage tourism by contributing to visitor satisfaction with the natural environment.

What issues are involved?

The main issues involved with managing visibility involve *coordination*, *cooperation* and *communication*. First, any management program must ensure the *coordination* of visibility initiatives in both urban and rural areas, addressing the concern that visibility protection may be more complicated in urban areas. Also, any visibility management program must *coordinate* visibility management with health and greenhouse gas-focused initiatives. Secondly, visibility initiatives must enlist the *cooperation* of related agencies (e.g. parks) in order to maintain and improve visibility in both urban and wilderness areas. Thirdly, a management program must ensure to effectively *communicate* the science of visibility to industry.

3.0 POLICY OPTIONS

Participants were asked to comment on the following policy options:

- Option 1 Status Quo - No New Efforts for Visibility Protection

- Option 2 Build on CWS CI-KCAC Implementation to Include Visibility
 - Option 3 Leverage Existing Policy Mandates and Establish Visibility as a Protected Value
 - Option 4 Legislate the Establishment of Visually Important Areas
 - Option 5 Develop a National Visibility Management Program
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3.1 Option 1: Status Quo - No New Efforts for Visibility Protection

The status quo is not a “do nothing option” as there are several initiatives underway (or forthcoming) that could improve visibility. However, there is a need to quantitatively *evaluate* whether these initiatives are impacting visibility and establish a baseline through increased monitoring and assessment.

3.2 Option 2: Build on CWS CI-KCAC Implementation to Include Visibility

Potential positive outcomes

No additional positive outcomes (See Table p. 26 *The View Ahead: Identifying Options for Visibility Management Framework for B.C.*¹)

Other considerations

There is a need for visibility targets to be entrenched in policy or legislation in order for progress to be made. Specifically, commitments to maintaining and/or improving visibility should be enshrined in provincial policy or legislation as well as the policies of [Continuous Improvement-Keeping Clean Areas Clean \(CI-KCAC\)](#). The [Canada-wide Standards](#) should be expanded to include all population sizes (including those under 100,000) and the establishment of airshed-specific targets should be considered. Finally, for wilderness areas, primary visibility initiatives should be focused on areas commonly visited by residents and tourists and secondary initiatives on areas that are less frequently visited.

Obstacles and data gaps

Current policies are not effective enough to ensure a long-term focus on visibility. There is a need to develop specific visibility goals as well as to address competitive advantage concerns.² In addition there is a need for increased cameras and monitoring equipment³ (especially in parks and wilderness areas) and additional monitoring that includes speciation analysis.

Potential outcomes

There may be some improvement in the environmental impact assessment process.

¹ Contact [June Yoo Rifkin](#) to obtain a copy

² A community upwind of a sensitive airshed may have to undertake measures to improve its air quality to minimize impact downwind (not an issue in the US experience)

³ Should consider mobile monitoring as a way to reduce costs

Feasibility

This option is only likely to be effective if there is a political desire as well as policy support and monitoring.

3.3 Option 3: Leverage Existing Policy Mandates and Establish Visibility as a Protected Value

Potential positive outcomes

Any actions that support monitoring promote the ability to obtain baseline trends and data.

Other considerations

This option would require: i) a policy statement with objectives and goals for achievement within a specified timeframe as well as ii) concrete legislation since any preliminary initiatives could be demoted or changed by subsequent governments.

In addition a visibility management plan should manage all air pollutants that affect visibility. For example, the GVRD's [Air Quality Management Plan](#) manages PM mass without specifically targeting aerosols that may be important to visibility.

In order to engage more closely with the US on visibility initiatives there is a need to conduct regional modeling (as opposed to current small scale modeling). There is concern that this monitoring could be very costly. Furthermore, as B.C. would be the only province with a visibility management plan, this could lead to economic disparity (or alternatively a perception of B.C. as a leader).

Obstacles and data gaps

This option may be costly for both air management agencies and industry. Air management agencies would have to invest in modeling to establish numerical targets and/or collect baseline data. It may also become more expensive and complicated for individuals seeking air permits.

Potential outcomes

A better understanding of the issue can be obtained through improved monitoring and science. This option will also demonstrate to the public that the government is responsive to their concerns.

Feasibility

Feasibility concerns for this option focus on cooperation and cost. Cooperation could occur through existing climate change agreements or current management strategies can be adjusted to

address visibility. Alternatively, US approaches and protocols could be adopted including, joining the [Western Regional Air Partnership \(WRAP\)](#) and expanding [IMPROVE](#) monitoring into B.C.. To ensure that funding for this option would not impact other programs, this option would require an increased budget.

3.4 Option 4: Legislate the Establishment of Visually Important Areas

Potential positive outcomes

This option could lead to positive outcomes for the public as well as increased cooperation with the US. Improving visibility could demonstrate leadership to the public which may garner increased public support for other environmental initiatives. Also, protecting visibility in the wilderness areas will maintain good visibility in perpetuity for the residents of B.C..

Adopting models of managing visibility from the US and participating in WRAP could enhance the air quality programs in the US and Canada and lead to increased collaboration (instrumentation, technical and policy work, etc.).

Other considerations

The major consideration for this option is the creation of a definition for “Visually Important Areas”. To do so, areas included in the definition of a ‘visibility protected area’ (wilderness, rural, urban or all three) should be defined. The US Class I areas may need to be included in this definition. Moreover, a *process* should be developed to define visually protected areas. This process may need to involve the general public in addition to stakeholders.

Obstacles and data gaps

For this option, there may be conflicting interests in declaring visually protected areas (similar to competing interests with respect to the [Agricultural Land Reserve](#)). Multiple jurisdictions (provincial, national, regional, local, First Nations) and varied interests need to be addressed in declaring a protected area. Also, the application of US protocols to B.C. should be assessed, specifically whether there should be varying management approaches for urban, rural or wilderness areas. Finally, the contribution from other geographic areas (Asia, the US, Alberta, the Territories, Alaska, etc.) should be better understood as there may be others contributing to our problem which we may not have any control over.

Potential outcomes

This option will likely result in improved coordination and relations between the US and Canada and may encourage public support for air quality programs.

Feasibility

To make this option feasible, a pilot project within a small geographical area and/or with an existing airshed management committee could be undertaken. Another strategy could be to begin creating provincial objectives and guidelines before advancing legislation (e.g. an objective of number of days when important landmarks are highly visible).

3.5 Option 5: Develop a National Visibility Management Program

Potential positive outcomes

A national program would likely keep a ‘level playing field’ between all of the provinces. It could also lead to increased potential for international harmonization and negotiations with the US.

Other considerations

There are currently enough national and provincial programs addressing common air contaminants and greenhouse gases that the “status quo” (Option 1), partnered with an enhanced monitoring and assessment program, could be a key step towards a national program. There may also be certain sub-options (i.e. variations on Option 5) depending on whether Environment Canada engages unilaterally with [Canadian Council of Ministers of the Environment \(CCME\)](#), or with individual provinces.

Obstacles and data gaps

Some provinces may not be supportive of a national program due to issues such as differences in monitoring from east to west, and unequal allocation of resources between provinces. On a local level, there may be conflict between neighbourhood visibility concerns and regional air quality plans. In addition, the effects of greenhouse gas and climate change plans on visibility is not well understood. Lastly, it would be difficult to maintain momentum if a very long-term goal was chosen as part of this option.

Potential outcomes

This option could result in a national monitoring system and analysis plan, as well as allow Canada to progress discussions with the US on the [1991 Canada/US Air Quality Agreement](#).

Feasibility

Existing federal legislation and action plans could probably support this option (with minor changes).

4.0 GENERAL COMMENTS ON VISIBILITY MANAGEMENT OPTIONS

All relevant stakeholders should be consulted and politicians should be solicited for their support (especially for Options 3, 4 & 5). Management resources for addressing visibility should not divert resources from health impacts to avoid potential tension. In addition, it must be determined if resources should be focused on national and provincial parks (visitor-focused) or on urban areas such as the Lower Mainland (resident/population-focused). Two or three management approaches may be needed: urban vistas, rural areas, parks and wilderness areas.

5.0 KEY THEMES

In addition to the detailed comments documented in this report, the following key themes were identified.

- ♦ Visibility is an important way in which the public perceives air quality and enjoys the environment
- ♦ Air quality management efforts that target common air contaminants and greenhouse gases may also improve visibility- it is important to build upon existing efforts in air quality management to match efforts as well as capitalize on current momentum.
- ♦ There are significant data gaps in understanding current levels of visibility: science, monitoring and assessment are important components in all of the management options
- ♦ Other than the status quo option, there will be a need to define visibility goals, standards and target areas
- ♦ Other stakeholders need to be consulted, including First Nations, parks sector and other business interests

6.0 STEERING COMMITTEE AND WORKSHOP PARTICIPANTS

6.1 Steering Committee

Greater Vancouver Regional District	Laurie Bates-Frymel Ken Stubbs
Fraser Valley Regional District	Bob Smith
Environment Canada	Peter Schwarzhoff June Yoo Rifkin
B.C. Ministry of Environment	Steve Sakiyama

Assisted by

Erika Lambert	Environment Canada (Research Assistant)
Raymond Penner	the Strategic Action Group (Facilitator)

6.2 Participants

B.C. Film Commission	Gordon Hardwick	<i>Manager of Community Affairs</i>
B.C. Ministry of Agriculture and Lands	Mark Robbins	<i>Regional Agrologist</i>

B.C. Ministry of Environment	Warren McCormick	<i>Air Quality Meteorologist</i>
	Eric Taylor	<i>Air Quality Meteorologist</i>
	Tony Wakelin	<i>Manager, Air Protection Section</i>
	Hu Wallis	<i>Director, Environmental Quality Branch</i>
B.C. Ministry of Forests	Eric Meyer	<i>Superintendent, Fire Weather</i>
Chamber of B.C. Shipping	Rick Bryant	<i>President</i>
City of Kelowna	Corey Davis	<i>Regional Air Quality Coordinator</i>
City of Richmond	Linda Barnes	<i>City Councilor</i>
Environment Canada: National Capital Region	Ilze Reiss	<i>Senior Policy Analyst, Air Emissions Priorities Division</i>
Environment Canada: Pacific/Yukon Region	Martin Mullan	<i>Head, Air Quality Management Unit</i>
	Bruce Kay	<i>Manager, Commercial Chemicals & Environmental Emergencies Section</i>
	Roxanne Vingarzan	<i>Atmospheric Processes Scientist</i>
GVRD	Ali Ergudenler	<i>Senior Engineer</i>
Natural Resources Canada	Andrew Thrift	<i>Senior Policy Advisor</i>
Port of Vancouver	Christine Rigby	<i>Environmental Specialist, Air Emissions</i>
Translink	Martin Lay	<i>Head of AirCare</i>
	Steve Stewart	<i>Senior Project Engineer</i>
US Environmental Protection Agency	Keith Rose	<i>Air Quality Specialist</i>

Several other organizations were invited but were unable to attend. Among these were Tourism Vancouver, Health Canada, Parks Canada, B.C. Ministry of Parks, B.C. Ministry of Energy and Mines, as well as First Nations representatives.

For more information about the workshop please contact: [June Yoo Rifkin](mailto:june.yoo.rifkin@ec.gc.ca) (Tel # 604-666-7829, email: june.yoo.rifkin@ec.gc.ca).