

# **Measuring and Communicating Sustainability Progress Within the City of North Vancouver**

**A Sustainability Review  
Prepared by  
Fraser Basin Council**

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## **Measuring and Communicating Sustainability Progress within the City of North Vancouver**

### **i Introduction:**

The City of North Vancouver approached the Fraser Basin Council in 2009 to request an objective review of the City's policies and programs from a sustainability perspective. In particular, the City was interested in soliciting ideas for increased performance and ensuring an integrated approach to sustainable development. This report is the Fraser Basin Council's response to that request.

This service was provided at no cost to the City of North Vancouver as part of the mandate of the Fraser Basin Council's Greater Vancouver Sea to Sky Regional Office, and due to the generous support of the Smart Planning for Communities (SPC) Funders Group<sup>1</sup>.

### **ii Scope of Work:**

Because a full scale sustainability audit was beyond the mandate of the Fraser Basin Council, a high level approach was taken, incorporating a review of key City documents and programs, limited staff interviews, an online staff survey and a community indicator profile. This approach tests the quality and nature of guiding municipal policy and procedural documents (what we say we want to do), the understanding and implementation of those instruments (how we actually deliver on those words), and the effects or impacts the implementations of those documents have across the broader community (the reality check). North Vancouver is viewed as a leader in municipal sustainability initiatives, and as such was seen as the perfect candidate for this undertaking. The desire is that the review will inform the City staff and decision-makers and that information gained during the project will also benefit Fraser Basin Council staff in their work supporting other municipalities.

Given the limited nature of this review, and the extent of the positive achievements the City has already made, the authors hope that some of the opportunities identified will be seen as just that, possibilities for enhancing a program that has long been pursuing excellence in service provision to the community of North Vancouver.

### **1.0 Document Review and Limited Interviews**

A review of key documents, programs, projects and collaborations was performed to gain a sense of where the City had been focusing its attention in recent years. As a way of undertaking the comparison the review built upon the BC Ministry of Community Services Smart Planning Community Assessment Template<sup>2</sup>. Expanding the number of assessment categories from 15 to 24 allowed a level of detail more appropriate to the range of topics the City of North Vancouver addresses.

In-person interviews were held over two days in late August with 13 staff from eight departments. Unfortunately, due to staff schedules and vacation times, RCMP and Fire and Rescue staff were not available during the interview days.

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<sup>1</sup> The Real Estate Foundation of BC, the BC Ministry of Agriculture and Lands, BC Ministry of Community and Rural Development, BC Ministry of Environment, BC Hydro, , Ducks Unlimited and the Canadian Rural Partnership

<sup>2</sup> [http://www.fraserbasin.bc.ca/programs/documents/MCS\\_community\\_assessment\\_template.pdf](http://www.fraserbasin.bc.ca/programs/documents/MCS_community_assessment_template.pdf)



## **1.1 Document Review – Key Findings**

Over 100 documents, programs, policies, projects and collaborations were reviewed. The seven sustainability planning principles used by the Smart Planning for Communities Program form the structure of the results.

### **a) Long term thinking –**

The 100 Year Sustainability Vision for a zero carbon future project is the first document to reflect the City's willingness to take a truly long term approach to sustainability planning. Trying to plan in terms of generations rather than 10-20 years is neither easy nor common for municipalities. The City is in the forefront by engaging in the Vision project. Long term plans could force staff to consider radically different future scenarios and try to build resilience into our all systems, given the higher degree of uncertainty about the future. The upcoming Official Community Plan (OCP) update is also expected to go beyond the typical planning timeframe.

### **b) Broad in scope –**

The City's plans, policies, programs, key projects and partnerships cover a broad range of sustainability topics. However, based on a limited review using the assessment template for scoring, it appears that the following topics could be reflected in greater depth in future documents and discussions:

#### **Water**

- Water is a fundamental human need. Although the City has been a leader in innovative stormwater management and stream protection, projected population growth and the uncertainties posed by climate change mean that the quality and quantity of potable water should not be a silent issue. For the most part neither staff nor documents reflected it as a significant issue.
- The new OCP would be a good document in which to explain the source of the City's drinking water in the ecosystem, the relationship between the mountains, freshwater systems and the ocean ecosystem of Burrard Inlet.
- In highlighting the urban water cycle, links between water use and wastewater treatment, energy, the urban forest, economic development, carbon emissions, and human health could be made. Placing local water use in its global context would help the community set and meet sustainability targets.

#### **Marine Ecosystem**

- Many documents which address natural and built assets seem to touch lightly on the existence of the marine shoreline and almost never on the role the City plays as a land manager adjacent to the marine ecosystem of the magnificent Burrard Inlet. The 100 Year Sustainability Vision is an exception.
- The shoreline has been highly altered in the past and is almost exclusively industrial or commercial. There may be little current likelihood of enhancing the shoreline. However, long range planning should explore the challenge of how to be a steward to the living ocean on one's doorstep, while still keeping valuable employment and providing industrial services.
- There are opportunities to explore the connection to human health, climate change, economic development, culture, heritage, food security, and possible 'no net loss' partnerships with other shoreline communities.

### **Natural Assets**

- Traditional infrastructure and planning documents, along with financial plans, tend to emphasize built or capital assets and assign dollar value as a way of preparing for future financial needs, assessing risk, etc.
- Along with developing a capital asset base, it is useful to explore the concept of a complementary natural asset base. A simple approach to natural assets is to reflect the natural services which ecosystems provide and attempt to give order of magnitude financial values to them within key infrastructure and financial documents.<sup>3</sup>
- The 100 Year Sustainability Vision project emphasizes green infrastructure and strongly reinforces the concept of layering to meet multiple goals in the public realm.

### **Urban Forest**

- One natural asset in particular, the urban forest (shrub and tree vegetation covering all public and private lands, not merely parks and protected areas) could be better integrated into guiding documents.
- Specifically, links to property values, human health and wellbeing, north shore wildlife corridors, stormwater management, culture, the arts, heritage, urban food and fibre production, climate change impacts/adaptation, densification, energy use, potential for social enterprise or small business, etc. could be articulated to advance various community goals.
- How will a tripling of housing density over 100 years affect the existing urban forest? What plans should be made to align street tree management plans with future challenges? How will conflict between desire for forest cover and protecting solar access for power generation be avoided?

### **Adaptation to Climate Change**

- Although the City is poised to begin addressing adaptation to climate change, perhaps more so than any community in BC, this topic ranked lowest in the community assessment template scoring. This is likely because the topic is a new one for society. Other guiding documents will be brought into alignment with whatever findings and recommendations result from the adaptation components of the OCP renewal process.
- Several recent documents (such as the Economic Development Strategy) make no, or minimal, reference to climate change, or emissions reduction, and it does not seem to be a factor in the policies or recommendations of those documents.

### **Food Security**

- Access to adequate, appropriate, affordable food is essential for any community yet it is rarely mentioned in the City's guiding documents.
- Building on some excellent recent initiatives, the City could further reflect the importance of food in key guiding documents. Food growing, sourcing, transport, processing, sharing, recycling, marketing and retailing, and its links to health, the urban forest, and economic development could all be explored.
- Where does most of the City's food come from? What's the carbon footprint? How much does food contribute to the local economy? Is there room for social enterprise to

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<sup>3</sup> The World Bank and UN have been exploring this concept in some detail



support the disadvantaged? Given that the City is highly urban, can innovative partnerships be made with a rural community in BC to support their agricultural economy and culture and replace imports from further away – a sort of Sister City for food purposes?

#### **Solid Waste/Materials Flows**

- Although solid waste (non recyclables) disposal is managed by Metro Vancouver on behalf of its members, and the City is a partner in the North Shore Recycling Program, the issue warrants more recognition and integration with other topic areas in City documents.
- Opportunities exist to highlight the links to climate change, wealth generation, energy use, air quality, traffic volumes, and road deterioration (hauling); to assess the impact of different economic development strategies and development densities; and to consider and understand the community's place in typical global materials flows. The Integrated Resource Recover Study (underway) will address some of these topics deeply and in a coordinated fashion.
- Given the timing of Metro's Solid Waste Management Plan Update process and the Zero Waste Initiative (both underway) there will be new information available to integrate into the City OCP and support more educational information for City residents on the website and elsewhere.

#### **c) Integration –**

The City has an obvious strength in addressing the social aspects of sustainability. Its environmental protection programs have been very forward thinking and a new detailed Economic Development Strategy shows that planning for a healthy economy with links to social goals and strong partnerships is underway. The greatest opportunity to enhance the sustainability agenda is to move beyond trying to “balance” the three key aspects of sustainability towards actual integration of those aspects. The City could begin to coordinate its various projects and programs by linking many of the guiding documents used by staff in their everyday work, and those which help guide private actions within the City. Integration also includes thinking and problem solving across disciplines, departments and organizations. The Sustainable Purchasing Policy is an example of this type of approach.

In the list “b) Broad in scope” above, several ideas for integration have been suggested and more follow below.

#### **d) Collaboration –**

- A collaborative culture within the City is highly developed. North Vancouver recognizes that, as an urban area, it functions as part of an integrated and much larger metropolitan area and it makes alliances with others accordingly.
- The City is actively engaged with its Regional partners on various Metro-led projects. It also collaborates with academic institutions and non profits, such as UBC and the BC Sustainable Energy Association.
- In addition to several Advisory Committees which address issues across the North Shore, many more working and planning groups also collaborate across municipal boundaries. A bylaw dispute system, food advisory working group and task force on homelessness are examples.
- Formal agreements exist between the City and several partners for service provision or resource sharing such as the North Shore Emergency Preparedness Office. Non municipal partners include the School District, Chamber of Commerce, Hotel Association and the Squamish Nation.

- Very few existing guiding documents reference the existence of First Nations in any significant way (the Economic Development Strategy is an exception). Building upon the work of the Protocol Agreement signed in 2008, and recent joint projects, opportunities exist to deepen the relationship between First Nations governments and the City local government. The City has begun strengthening this relationship through actively supporting collaboration, such as by sharing Human Resources knowledge. Reflecting the cultural history of, and present connections with, the diverse community in all City documents as they come forward for renewal will help reinforce this work. The OCP is a key opportunity for this.

#### **e) Engagement & Education –**

- The corporate website references sustainability frequently on many of the web pages, often linking to four key topic areas (climate change, social, environmental and economic)
- The example of the pay parking issue (January 2010) shows that the website is used to engage the public via surveys, and providing good information about issues and engagement processes
- The website supports integration of ideas and topics by providing many cross links between departments and topic areas
- Annual citizen surveys are undertaken and outreach processes on topics such as the West Nile Virus and Pesticide Education are used. The recent GHG reduction outreach to school aged population is a successful example.
- In addition to formal Advisory Committees, several working and planning committees also address issues such as child care, food security, early childhood development, and transportation. The City also supports many specific programs for youth and seniors.
- The Centennial and the Green City Living Film and Speaker Series are examples of creative approaches to educating the public and staff about topical issues
- Stewardship programs, and a highly developed advisory group culture that works to include youth and seniors, strongly support engagement and education for sustainability planning at the City. The Environmental Monitoring Program specifically identifies opportunities for volunteer efforts
- Overall, the City has taken a comprehensive and inventive approach to community engagement and education.

#### **f) Implementation –**

All the best plans and policies in the world won't make a community sustainable. Plans must be put into action – which means decision making should ideally reflect and be informed by all the good community and professional work that has gone into making good plans and policies. Some decisions are made by Council, often with the advice of advisory committees, and some have been delegated to staff (such as issuing permits, planning programs and services, etc.). When considering how plans will be implemented it could help to take into account the following points about committee structure, organizational structure and consistency of direction:

##### **Committee Structure**

- North Vancouver Advisory Committee titles indicate an exceptional level of support for the social aspects of sustainability (substance abuse, library, public art, social planning, family courts and youth justice, disability, heritage, cemetery, museum and archives, recreation).
- The environmental sphere is addressed by one committee which seems willing and able to be proactive on a wide range of city-wide and regional topics, while still advising on park management and site protection issues.



- The economic sphere is not supported by a specific advisory committee. This may be because the business model has been seen as dominant and already at some advantage during conversations about development and municipal business. Given the need for integration however, a recommendation within the recent Economic Development Strategy for an advisory committee on this topic is worth exploring.
- There is an opportunity to tap into the creative energy of the many members of the City's advisory committees for cross-pollination of ideas, creating collaborative initiatives, and sparking innovative thinking. Perhaps this can be done through a real or virtual facilitated networking event, or by tasking each member of each committee to attend a different committee meeting once each year (similar to suggestions made in the environmental Protection Program Action Plan of 2000).

### **Organizational Structure**

- Few communities in BC can boast of employing a streetscape planner, an environmental coordinator, a manager of a community energy corporation, or a community development worker for youth. This speaks to the level of specialization and service provision the City is engaged in as it seeks to meet community goals.
- Creating the Lonsdale Energy Corporation was a bold step for a small municipality to take, demonstrating a strong commitment to new ways of doing business and meeting sustainability goals.
- Including Parks, Public Works and Environmental Coordinator functions within the Engineering Department provides an opportunity for synergies that might otherwise be lost. Staff interviews indicate it has helped to foster a strong culture of support for various City sustainability initiatives and helped many staff become well-informed public ambassadors.
- As in most large municipalities, fire and police services have been physically separated from City Hall, resulting in a culture and operations that can be more segregated than necessary. Staff survey comments indicated that staff in these locations would appreciate being more engaged with education events and sustainability initiatives originating from City Hall. Even if police and fire operations cannot change much to reflect sustainability goals, enhancing their knowledge creates community ambassadors for sustainability initiatives. Any discussion of adaptation to climate change will have direct bearing on these services and would benefit from their involvement.
- Not having a single staff or elected position charged with overseeing the sustainability portfolio implies that all department heads and staff are to incorporate it into their own work, rather than assume someone else is ensuring its implementation. This certainly seems to be the culture that is now developing. This aligns with current thinking about shared empowerment and is more likely to embed ownership throughout the organization.

### **Consistency of Direction**

- Without a staff person or committee overseeing the integration that sustainability requires, and with many departments split by discipline, it may be hard to ensure all aspects of sustainability are taken into consideration at decision-making time. One simple way to help with this is to create a standard Council report format for all departments that includes line items such as: Climate Change Implications, Social Implications, Environmental Implications and Economic Implications. Another approach is to use checklists which prompt staff or applicants to seek more information or try to resolve issues before they come before Council.

- Many survey respondents referred to the 10 Year Financial Plan in their work, a very detailed but clear document that includes corporate objectives and measures, and a community summary. Several staff also indicated they used the Corporate Strategic Plan (2006) but it was unclear how the two were to mesh, how the Strategic Plan supported the OCP, or helped determine how different plans related to one another. The Corporate Plan also did not clearly reflect the concept of sustainability. Updating the Corporate Plan is another opportunity for integration.

**g) Monitoring & Evaluation –**

- In terms of monitoring performance related to achieving OCP commitments, the Targets, Indicators and Monitoring System TIMS process was launched as part of last OCP update. It had considerable public input, but does not appear to have become the interactive and publicly accessible system hoped for.
- Recent projects related to climate change and carbon emissions focus very strongly on measurement, in particular on striving to set and meet challenging goals and targets.
- The 10 year Financial Plan seems to rival the TIMS approach in its detail but includes progress reports based on achieving corporate strategies for all departments. A TIMS-like but electronic and interactive method of cataloguing progress on all City goals might be a helpful tool in supporting integration, as very few people could be aware of all the goals and strategies across all the City's present documents.
- In terms of actual indicators of community sustainability, the City has not engaged in comprehensive state-of-the-community-type reporting projects in the past. It is hoped that the Community Indicator Profile section of this report will be helpful in determining additional information to measure progress toward achieving a sustainable community.

**1.2 Limited Staff Interviews – Key Findings**

**a) Key Community Issues -**

- SOCIAL - There was very strong agreement that homelessness and the need for affordable housing was the key social issue the City would have to deal with in the coming years. Dealing with the struggle over densification and the pace of development ranked 2nd
- ENVIRONMENTAL - About half of the respondents felt climate change and/or greenhouse gas emission reduction was a key environmental issue for the City. Stormwater management and creek or fish habitat protection ranked 2nd.
- ECONOMIC - The most frequent economic issue "theme" mentioned was the need to pay more attention to the waterfront area (protecting the industrial base, potential for tourism, bringing more business to the area, and potential conflicts). Lack of affordable housing was the 2nd most common answer (affecting young people, employee attraction, and school enrolment).

**b) City Policy Context – Awareness of OCP was universal.**

- All staff were aware of the OCP and most used it in some way to help guide their work. Surprisingly, the Vision section was cited as most frequently used by this group, followed by "the whole thing".
- The Corporate Strategic Plan ranked 2nd most commonly used document.
- Many Provincial Regulations, Codes and Acts were cited as guiding or regulating City staff work.

**c) What Sustainability Means – Understanding of the term "sustainability" was quite good. The image of the three-legged stool is one that could be updated and refined to reflect the need for integration**



(rather than merely a balance) and the fundamental importance of the natural environment for any human endeavour to succeed.

- Interviewees were able to give good definitions of sustainability with most reflecting the idea of balancing or considering the three commonly cited aspects: social, economic and environmental. Some used terms like “balancing what we put in with what we take out.”
- The image of the three-legged stool, despite being dated now, was a strong one for people, whether they felt they had a “definition” or not.
- A few people mentioned the concept of inter-generational equity and some captured the concept of meeting human needs. Only one person thought it referred to environmental protection only.
- In contrast to the online survey results, some people questioned the wisdom of using the term sustainability, fearing it was not well understood, might be over-used, or somehow detract from the good work and goals associated with the underlying principles.
- Comments included:
  - “It should be woven into the fabric of what we do”
  - “It’s been incredibly difficult to come to terms with what it means. It may be seen to be removing individual decision-making power by some.”
  - “We can’t market it easily. In the community it falls flat.”
  - “I feel the term and idea is already evolving.”
- About half would like more information about what sustainability means to them at work

**d) Sustainability and City Activities** – Knowledge of sustainability activities undertaken by the City, and policies supporting it was very good. Staff were proud of actual achievements, citing the Green Team as having made a noticeable difference in corporate operations and thinking. The Lonsdale Energy Corporation was the most frequently cited example project, followed by the new library building. Alternative transportation options aimed at staff also had a high profile. Staff spoke of a positive work environment that was open to change. Many recognized that the City was a leader in taking practical actions to demonstrate sustainability approaches, and several volunteered that they had sought employment with the City because of this. However, some staff worried that the actual ‘on the ground’ implementation of otherwise excellent policies was often much more difficult than policy makers assumed.

- Interviewees were able to name a range of 12 other documents or activities (besides the OCP) where sustainability goals were expressed by the City (Climate Action Plan or committee, Green Team, 10 year financial planning process, 100 year vision, purchasing policy, TIMS project, Parks & Greenways Master Plan, Economic Development Strategy, website, new energy performance for buildings policy were cited)
- Respondents managed to relate a total of 28 actions the City was taking to become more sustainable. The most commonly mentioned activities fell into the categories of energy & green buildings, transportation, social wellbeing, waste reduction and education initiatives in that order.
- Almost all staff interviewed felt their work was fairly strongly related to the City’s sustainability goals.

**e) Removing Barriers** – Of the 13 people interviewed, only about 1/2 could think of barriers that either prevented them from helping achieve the City’s sustainability goals, or conflicting rules or regulations which were a barrier to sustainability. To preserve privacy and aid comparisons, these answers are combined with the on-line survey results in Appendix A.



## **2.0 Perceptions – Staff Survey**

To help understand how well the concept of sustainability was understood, how it was incorporated into the work of City staff, to reveal opportunities for more integration, and to remove possible barriers to implementation, a staff survey was administered during the last two weeks of October 2009.

All staff were encouraged by the City Manager's office to complete the survey either online (using the Survey Monkey service) or via paper copies promoted and available at the Operations Yard. Approximately 13% of staff (52 of 390 FTE) participated. While the project would have benefited from greater participation it was never intended to be statistically accurate, but rather to provide a "sense" of issues and opportunities which might compliment the document review and indicators research. The great majority of respondents (75%) worked from the City Hall (as opposed to Works Yard, Fire, RCMP or Recreation or Community Centres, or Other) which also influenced the results.

### **Key Findings:**

#### **a) Key Community Issues -**

- **SOCIAL** – By far, the strongest agreement on any issue at all, similar to the in-person interviews, were those related to housing (affordability, adequacy/deterioration of stock, homelessness, effects upon community demographic). Changing demographics ranked second (aging population, seniors issues, future influx of younger families).
- **ENVIRONMENTAL** – Again, similar to the in-person interview, a very large majority of respondents agreed that climate change issues (emissions reduction, carbon footprint, mitigation, adaptation to impacts) would have to deal with by the City. Issues related to transportation were the strong 2nd most frequent response (need for enhancements, inducements, solutions, a regional approach; and anticipated increases in traffic and the number of cars).
- **ECONOMIC** – Issues related to the need to balance taxes and services was the most frequent economic theme mentioned. This included: pressures to maintain social services and/or upgrade infrastructure, yet keep taxes low; worries about the future costs of major projects such as waste water treatment infrastructure and transit upgrades; and the decrease in federal and provincial funding. Interestingly, issues related to housing were the 2<sup>nd</sup> most frequently cited economic issue.
- **CROSS-OVER ISSUES** – An issue that was listed very frequently by respondents across the social, environmental and economic spheres was transportation. Dealing with densification was also seen as a cross-over issue and poverty was noted in both the social and economic categories.

**b) City Policy Context** – When asked to identify up to six documents that guided their work, 47 respondents gave 190 answers and cited a very wide range of documents (63) including bylaws, guidelines, policies, plans, strategies, handbooks and programs. They related to internal policy and procedures, social issues, land use and development, building, transportation, financial operations, purchasing, parks management and economic development.

This indicates that despite the OCP being referred to frequently, many other documents still guide much of the detail work and responsibilities of City staff. Sustainability must be well incorporated to ensure consistency across departments and sections, and the ability to achieve community goals as expressed in an OCP. As one interviewee noted "Most people aren't tasked with balancing all aspects (social,

economic and environmental).” In addition, the need to clearly acknowledge regulatory limitations and to work with other municipalities and the Province is clear if provincial regulations stand in the way of achieving community-level goals. Staff can be frustrated when presented with policy directions that seem to be contrary to rules they feel must also be followed.

Awareness of and use of the OCP was high. That most OCP users refer to the Vision and Sense of Place chapters implies they are willing to try and interpret how these concepts should be reflected in City activities. This should be heartening for the staff, community members and officials who worked on crafting the document.

The wide range of documents which staff cited as including sustainability goals or policies is a testament to their understanding of the interdisciplinary nature of sustainability.

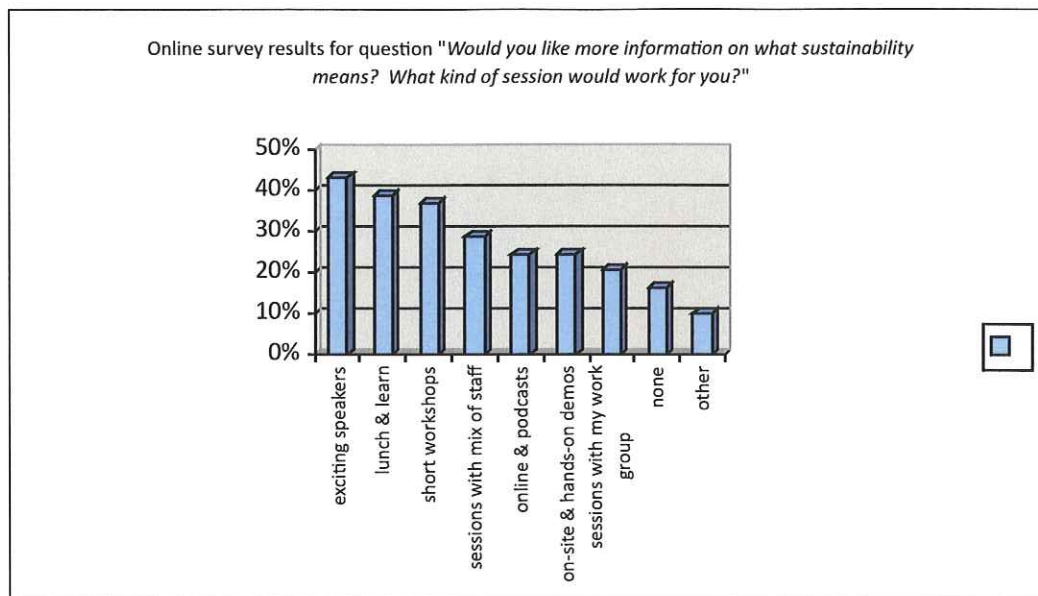
- The most frequently mentioned guiding document was the OCP.
- Agreement diminished in regards to the Zoning Bylaw, Strategic Plan, “all bylaws” and the Transportation Plan (in that order). Beyond those plans there was little agreement, reflecting the diverse range staff responsibilities.
- 24 of the 190 answers were not about City documents at all. Of these, seven were provincial or federal and two were published by professional organizations.
- The large majority (75%) were aware of the OCP and of these, about the same proportion did refer to it in their work either sometimes or frequently.
- The OCP chapter used by most respondents was the Vision section, followed by Transportation, Land Use, then, Sense of Place.

#### c) What Sustainability Means -

- A large majority (92%) felt they had a good idea of what sustainability meant.
- While everyone’s definition was unique, many answers (70%) included similar themes which reflected key elements of common definitions. In order of frequency these were:
  - TIME - a very long timeline; forever; and/or thinking about future generations
  - ENVIRONMENT - environmental protection; natural resource conservation; and/or working within natural limits
  - SOCIETY - social health and wellbeing; social equity or fairness; caring for the community
  - ECONOMY - economic wellbeing; jobs and or/healthy economies
  - NEEDS - meeting human needs (vs. wants or desires)
- A response which included all of these elements was “a balance of social, environmental and economic needs that will prevail into the future”
- Only two respondents either dismissed the term as a “trendy catch phrase” or feared it clearly meant a “lower standard of living”.
- 84% of respondents would like more information about what sustainability means to them in their work.
- Their learning format preferences are shown in Table 1 below
- The “other” category included suggestions for an online blog, postings, and ideas and for joint sessions of planning and engineering. One person requested it not interfere with their work day, and one asked how to effectively bring the principles of sustainability into decision-making

Table 1





- Half of the respondents could think of 27 unique City documents, other than the OCP, which included sustainability goals or policies. Half skipped the question. The top six documents cited related to transportation, corporate purchasing, land use, corporate strategy, social planning, and economic development, in that order.

**d) Sustainability and City Activities** – Respondents' awareness of things the City is actually doing to become more sustainable seems to be fairly high. Those who did respond to the question (70%) came up with 32 unique actions, again, speaking to their good understanding of the range of topics covered in a sustainability approach.

- Most surveyed staff had no trouble listing more than two sustainability activities the City was undertaking, and many could list the maximum option of six.
- Projects related to supporting alternative modes of transportation were mentioned most often (e.g. infrastructure, traffic calming, transportation plan implementation)
- Ranking 2nd were initiatives related to increased development density and actions that expanded the range of housing options (e.g. coach house guidelines, rental suites, lock-off units).
- Equally popular was the Lonsdale Energy Corporation, followed by greenways initiatives, going paperless, climate change work, energy saving and an improved vehicle pool for employees.

Most respondents (85%) filled in a fairly complicated table asking about whether the concept or principles of sustainability came up when they engaged in different types of work activities. This table is included as Appendix B. By far the majority of those performing the activities did consider sustainability either sometimes or frequently.

However, despite the existence of the sustainable purchasing policy, recent emphasis on carbon neutral operations, and changes to the vehicle fleet, it was interesting to see that some respondents did not take sustainability into account when making purchases or travel decisions, amongst other actions. Given that most of these respondents worked in emergency services it could be that they have not been



much engaged in the sustainability discussions so far, or that they are firmly mandated to consider a more limited set of issues.

Short task-based workshops with titles such as “Successful Funding Applications: Adding value with sustainability” or “Making Travel Decisions at Work” might be a way to support staff integrating sustainability thinking into key activities. Fully engaging staff members from all service areas during the OCP update, paying particular attention to those who have not been traditionally involved, should also help.

**e) Removing Barriers** – While most staff did not have suggestions about barriers to sustainability, those who did seemed to focus on environmental issues, especially transportation. About 55 unique responses were registered with some overlap in topics between questions. While some responses were lacking in detail, or may be cryptic to some readers, they are all included<sup>4</sup> in Appendix A so as not to lose any of the effort and thought which staff put into them. The City’s Green Team might be well placed to lead a review of the barriers identified and report on which ones can and should be addressed.

### **3.0 Community Indicator Profile**

Sustainability indicators are not complete measures of community health, nor are they solutions in and of themselves. They can, however, help to scope complex issues and build understanding by reflecting trends over time, comparing different communities and assist in identifying areas where progress is being made and where change may be necessary.

In the analysis being undertaken for the City of North Vancouver, this portion of the initiative is to review external indicators of sustainability, some of which the municipality has a degree of influence over, and others well beyond the impact of local government alone.

The population of the City of North Vancouver (CNV) was 45,165 in 2006, having grown somewhat (2.4% compared to the provincial average of 5.3%) between 2001 and 2006<sup>5</sup>. Like most of BC and the region, the City’s average age is increasing (approx. 40 years) and CNV has a slightly lower number of young people under age 20 (19% compared to Metro’s 23%), a slightly higher number of adults from 21-64 years (68% compared to Metro’s 64%) and an equivalent number of seniors (13% for both.)<sup>6</sup>

Currently, one of every eight Metro and CNV residents is over the age of 65. “By 2031 it is forecast that one out of every four of the region’s residents could be over 65. This demographic change will have dramatic implications on the labour force and economic productivity”.<sup>7</sup> It is against this population backdrop that a high level overview of indicators of sustainability has been undertaken.

#### **a) Aboriginal Non-Aboriginal Relations**

- The census declared Aboriginal population within the boundaries of the City was 925 in 2006 (similar to levels in 1996), representing 0.02% of the population, considerably less than the

<sup>4</sup> Many have been paraphrased to reflect similar concepts submitted by different respondents.

<sup>5</sup> Statistics Canada, 2001, 2006 [www.statcan.gc.ca](http://www.statcan.gc.ca) <http://www12.statcan.ca:80/census-recensement/2006/dp-pd/prof/92-591/details/page.cfm?Lang=E&Geo1=CSD&Code1=5915051&Geo2=PR&Code2=59&Data=Count&SearchText=North%20Vancouver&SearchType=Begins&SearchPR=01&B1=All&Custom=>

<sup>6</sup> Statistics Canada, 2006

<sup>7</sup> Metro Vancouver Sustainable Region Initiative 2006 Census Bulletin #3 Population by Age

provincial average of 4.8%, and earning incomes about double that of the provincial average. (\$35k compared to \$16k).

- Relations between Aboriginal and Non-Aboriginal people are complex and cannot be adequately measured with existing information. However, reporting on the status of the treaty process and other functional operating agreements between orders of government may serve to indicate potential opportunities for community and economic development and levels of co-operation.
  - The Squamish Nation entered the treaty process in December 1993, and is now in Stage three of the six-stage process, having negotiated but not finalized a framework agreement. The Squamish have been concentrating on non-treaty-related matters and the treaty table has not been meeting regularly since 1998.<sup>8</sup>
  - In May 2008, the City and the Squamish Nation signed a landmark Protocol Agreement to formalize their business relationship and bring new community benefits to the North Shore. Under the Protocol Agreement, parties established a working committee and will develop work plans that address areas of mutual interest, including intergovernmental coordination, land use planning and management, culture and heritage protection, economic development and environmental protection. The North Vancouver Aboriginal Education Enhancement Agreement between Squamish Nation, Tsleil-Waututh Nation, North Vancouver School District and the BC Ministry of Education was established to enhance the academic achievement of Aboriginal students from the area.<sup>9</sup> The City and Squamish Nation have also recently jointly developed a portion of the Spirit Trail within the Mission Reserve, linking the Squamish Nation waterfront and City's Lonsdale Quay areas.

#### **b) Agriculture & Food**

- There is no land designated within the Agricultural Land Reserve within the City of North Vancouver. Currently, BC farmers produce 48% of all food consumed in BC and 56% of food consumed that can be economically grown in BC on only 5% of the province's land mass.<sup>10</sup> It is being suggested that urban areas like the CNV therefore, bear some ownership for the challenges in food supply. In the interest of advancing food awareness, a new initiative by the City has two large community gardens offering the opportunity to grow food locally for residents living in higher density neighbourhoods. The City also recently began a five year urban agriculture pilot farming project in conjunction with the University of British Columbia (UBC).

#### **c) Air Quality**

- In the Lower Mainland region, the most significant air pollutants are Particulate Matter smaller than 2.5 microns in diameter (PM<sub>2.5</sub>) and Ground Level Ozone, which reacts with other pollutants and atmospheric chemicals to form smog. PM<sub>2.5</sub> has a significant impact on human health because the very small particles are inhaled deep into the lungs. PM<sub>2.5</sub> has been shown to cause childhood asthma, low birth weight and premature births. The most significant sources of PM<sub>2.5</sub> in the Lower Mainland region include emissions from household heating, farm and recreational vehicles, and marine vessels. Between 2000 and 2008, PM<sub>2.5</sub> levels were below the

<sup>8</sup> Government of BC, Ministry of Aboriginal Relations and Reconciliation, 2010  
<http://www.gov.bc.ca/arr/firstnation/squamish/default.html>

<sup>9</sup> Aboriginal Engagement Enhancement Agreement 2006.

<sup>10</sup> Barry Smith. Planning for Agriculture (Resource Materials p. I-5). The author originally used 1996 Statistics Canada data and updated the figures with 2001 Statistics Canada data.

[www.alc.gov.bc.ca/publications/planning/pfa\\_main.htm](http://www.alc.gov.bc.ca/publications/planning/pfa_main.htm).



Canada Wide Standard<sup>11</sup> and fell in both Burnaby and Vancouver the two closest reporting stations to CNV.

#### d) Biodiversity

- As of 2008, the Lower Mainland supported 327 of the province's red- and blue-listed species.<sup>12</sup> Almost 70% of these species were vascular plants, lichens and mosses. Another 12% were bird species; less than 6% were mammal species.<sup>1</sup> The City of North Vancouver has no provincially protected areas but has designated approximately 14% of the City for Parks, Recreation and Open Space.<sup>13</sup>
- Supported by an Environmental Protection Program that includes monitoring, the Benthic Index of Biologic Integrity of local creeks notes no significant increase or decrease in the last seven years.
- The City of North Vancouver has a Risk Management Plan in place, however, due to proximity to the ocean and steep slopes, the effects of climate change may include: more sensitive recreation and water resources, higher rainfall, fire risk in forested areas, threats to fragile salmon habitat and riparian ecosystems and surge sea impacts in low-lying shoreline areas. In a proactive response to such threats, the City has prepared a paper to begin to assess possible climate change adaptation and resiliency measures for the waterfront and creek edges.

#### e) Business & Economy

- The City has a 68.4% employment rate, above the BC average of 65%. The ratio of jobs to residents in the CNV is approximately 1:1 which is quite positive and reflects a balance between working age residents and available jobs. The City of North Vancouver has maintained an employed labour force working within the City of approximately 30% for the last decade, somewhat below the average for the region (42%).<sup>14</sup> It is notable that in approximately the same timeframe the City has seen a steady increase in the number of home based businesses (362 in 1996 to 492 in 2005 to 603 in 2008) and an increase in the number of people working from home (from 6.6% in 1996 to 8.4% in 2006)<sup>14</sup> reflecting a choice to live and work in same community.
- The number of LEED certified buildings can also reflect a broader community commitment to sustainability. Three new buildings have been constructed and certified since 2004 (mixed use & institutional).
  - The average family income in 2006 was \$61,827, compared to that of BC at \$62,346.<sup>15</sup> The average City family income while comparable to the average family income for the Province is somewhat lower than the averages in Metro Vancouver, the Districts of North and West Vancouver. The prevalence of low income (after tax) families in 2005

<sup>11</sup> The annual PM<sub>2.5</sub> Canada-Wide Standard is based on daily average concentrations and is calculated from the 98<sup>th</sup> percentile (approximately the 7<sup>th</sup> highest daily average concentration) averaged over three consecutive years. As it is averaged over a three-year period, the CWS is a longer-term measure, which shows a smoothed trend line and does not reflect daily fluctuations in PM<sub>2.5</sub> concentration or the highest concentration recorded at each site.

<sup>12</sup> Red-listed species include any indigenous species or subspecies that is extirpated, endangered, or threatened in British Columbia. Blue-listed species include any indigenous species or subspecies that are considered to be of special concern in British Columbia.

<sup>13</sup> City of North Vancouver staff information

<sup>14</sup> Sustainable Region Initiative 2006 Census Bulletin #10, November 2008

<sup>15</sup> Stats Canada, <http://www12.statcan.ca:80/census-recensement/2006/dp-pd/prof/92-591/details/page.cfm?Lang=E&Geo1=CSD&Code1=5915051&Geo2=PR&Code2=59&Data=Count&SearchText=North%20Vancouver&SearchType=Begin&SearchPR=01&B1=All&Custom=>



was approximately 8% of the City's population, while the provincial average is nearly 10%.<sup>16</sup>

#### **f) Children & Education**

- Educational attainment levels in "North Vancouver" (all of CNV plus District of North Vancouver, including reporting from parts of Squamish and Tsleil-Waututh First Nations) are high - 4<sup>th</sup> highest<sup>17</sup> in the Vancouver Coastal Health area (after West Vancouver-Bowen, Vancouver West and Vancouver City Centre) Educational attainment is associated with almost every measure of population health.
- This same area has "North Vancouver" reporting the highest levels of overall employment rates and female employment rates of parents with children at home<sup>18</sup> in the Vancouver Coastal Health area, as well as being home to the second highest total number of children (after Vancouver) in 2008.
- The percentage of Vulnerable Children (representing the Percentage of children vulnerable on at least one Early Developmental scale measure of children's development across five areas deemed necessary to lay the foundations of scholastic achievement and adult success in all aspects of life) by area in "North Vancouver" is low (24.4% compared to an average 39% for the VCH area in 2007).

#### **g) Community Engagement**

- The City has developed a "Targets, Indicators and Monitoring System (TIMS)" to help track the City's progress in achieving the over 200 goals and objectives set out by the OCP, which could prove to be an excellent engagement tool for the public in better understanding a broad set of sustainability indicators. That document notes that public events in the City average approximately 70 per year in 2008, attracting 92,000 participants.

#### **h) Consumption & Waste**

- Solid waste disposal, recycling and diversion figures could not be located for the City. Within Metro Vancouver each person produces 1.6 tons of garbage per year. Subtracting waste related to construction and demolition but including retail, the per capita volume is 1.05 tons. Per capita to landfill or incineration is 0.58 tons (excluding demolition and land clearing). Recycling rates have been improving steadily since the 1990s, to a rate of 0.46 tons per capita.<sup>19</sup>
- Since 1999 annual water consumption in the City has decreased 60 cubic meters per capita. This consumption rate (167 cubic metres per capita)<sup>20</sup> is among the lowest in Metro Vancouver.<sup>21</sup> Across Metro average per capita water consumption for all categories (residential to industrial) decreased from 728 litres/day in 1986 to 559 litres/day in 2006 and 519 litres/day (185 cubic metres/year) in 2007. Metro attributes some of that reduction to the installation of low flow toilets, water efficient appliances and residential fixtures, lawn sprinkling restrictions and public education<sup>22</sup>.

<sup>16</sup> BC Stats 2006 Census Profile

<sup>17</sup> Population Health & Prevention Early Childhood March 2009 Vancouver Coastal Health  
[http://www.vch.ca/population/docs/VCH\\_Early\\_Childhood\\_Profile2009.pdf](http://www.vch.ca/population/docs/VCH_Early_Childhood_Profile2009.pdf)

<sup>18</sup> Population Health & Prevention Early Childhood March 2009 Vancouver Coastal Health

<sup>19</sup> <http://www.granvilleonline.ca/gr/living/2009/05/05/family-friendly-workshop-recycling-epic-2009#ixzz0cWH9Se8T>

<sup>20</sup> Environment Canada, Municipal Water and Wastewater Survey 2004

BC Stats - Municipal Population Estimates 2004

<sup>21</sup> City of North Vancouver 2009 Community Profile Release 1 - Data Inventory

<sup>22</sup> Vancouver Sun June 7, 2008

#### i) Energy & Emissions

- Total Community greenhouse gas emissions have increased since 2005 from 190,000 tonnes (t) to 225,763t in 2008<sup>23</sup>. Per capita emissions in 2008 were 4.7tonnes/person and combined emissions per residents and employment were approximately 3 tonnes/person, one of the 3 lowest in the lower mainland. Emissions from vehicles and buildings (the two largest sources on average across BC) are roughly equal. Corporate municipal emissions have remained steady from 2005 to 2008 in spite of the addition of new facilities. A 2010 target of 20% lower than 1995 baseline is laudable.
- With approximately half of the emissions generated from transportation, and more broadly reflective of a host of sustainability measures such as land use mix, density and health, travel patterns are important. City residents have the shortest median work commute distance in Metro Vancouver. The usual place of work for half of the employed labour force is within the City (27%), District of North Vancouver (14%) or West Vancouver (9%). An additional 31% commute to Vancouver. Unfortunately most residents drive to work although car ownership has remained relatively steady at about 25,190 to 25,590 over last 3 years, in spite of increasing per capita ownership in Metro Vancouver. See more on transportation trends under land use.
- From an energy use perspective, energy consumption within the City is comparatively lower than other municipalities in Metro Vancouver. The Provincial Community Energy and Greenhouse Gas Emissions Inventory (CEEI) of 2007 indicates that energy use from all buildings and transportation (residential and employment) is approximately 105 GJ per capita, down from 107 GJ in 1995. Energy use from buildings represents approximately 70% of the community profile, the remaining 30% from transportation.
- In terms of advancing energy self-reliance, in 2004 the City created the Lonsdale Energy Corporation to provide a district energy service using a series of boiler mini-plants to circulate hot water and heat the buildings that are connected to the LEC system. This system now serves over 1500 users, from City Hall to the Pinnacle Hotel, as well as most new residential units in the City.

#### j) Health

- Average life expectancies in North Vancouver increased by 3.4% in the period between 2002 and 2006, to 82 years of age. Within metro Vancouver in same the period life expectancies ranged between 79 and 84, depending on location within the region. Life expectancies have increased over the past decade in all areas of the region.<sup>24</sup>
- Approximately 16% of British Columbians age 12 and older are daily smokers, and when compared to the Canadian average of 21.5%, B.C. has the lowest smoking rate<sup>25</sup>. A health regions study further quantified that among all 139 statistical health regions in the country, the North Shore has the lowest smoking rates at 9.5%.<sup>26</sup>
- The City of North Vancouver is reported (Wikipedia) to have the highest level of fitness of any city in Canada.<sup>27</sup>

<sup>23</sup> BC Ministry of Environment Community Energy and Greenhouse Gas Emissions Inventory (CEEI) 2007

<sup>24</sup> Life Expectancies in Metro Vancouver by Local Health Area, 1992-96 to 2002-06

<sup>25</sup> Statistics Canada's 2000/01 *Canadian Community Health Survey*.

<sup>26</sup> District of North Vancouver Report to Council August 4, 2009

<sup>27</sup> Wikipedia, City of North Vancouver, January 2010



#### **k) Housing & Land Use**

- Over 52% of households in North Vancouver are renters compared to 39% in Metro Vancouver. The relative amount of rental housing is decreasing, however, compared to ownership.
- Between 2001 and 2006 there was an increase in the amount of ground oriented housing (from 21% to 22.7% of housing stock). During the same time the percent of Single Family Dwellings reduced (20% to 16%) and Apartments over 5 stories increased (15% to 17.6%).
- Housing affordability is seen to be an issue. Using income data from the 2001 Census, a May 2006 Affordable Housing analysis showed that only 1,900 (or approximately 1 in 5) renter households across the City of North Vancouver would have sufficient income to move into entry level ownership.
- The Metro Vancouver Homeless Count found that the adult homeless population in the combined City and District of North Vancouver has increased from 33 in 2002 to 123 in 2008. It is unknown how much of this increase is due to improved survey and enumeration techniques or new facilities created to better support the homeless.<sup>28</sup>
- As mentioned previously, CNV has a balanced employment to resident ratio, which can be somewhat reflective of a good mix of land uses. From a mobility perspective, the mix and density of land use within the City appears to support the use of transit, walking and cycling as modes of travel to work, with combined levels of use of those modes of travel in North Vancouver (31%) considerably higher than the average in Metro Vancouver (24%).

Using this limited set of indicators, it is apparent that the overall health and livability of City of North Vancouver is very good.

#### **4.0 Conclusions**

This review has revealed the City of North Vancouver to be:

- A positive workplace with a fairly open attitude to change and willingness to consider sustainability initiatives, and one that has attracted staff because of this reputation
- A leader in developing documents that comprehensively address sustainability,
- A community with a comparatively healthy footprint and population, relative to other municipalities in the region and Province.

Deeply ingraining integrated, sustainable approaches to decision-making, planning, building and development processes which include measurement of results and adaptive opportunities for improvement could further minimize the community footprint and result in significant continued improvement of the overall health and livability of the City of North Vancouver. Ongoing development of the City's wide variety of feedback loops to measure and report on progress and challenges should continue to connect people's behaviour to their community and its health.

Suggestions found throughout the report are summarized in Table 2 below.

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<sup>28</sup> City of North Vancouver 2009 Community Profile Release 1 - Data Inventory



**Table 2**

<b>SUMMARY OF RECOMMENDATIONS</b>	
Reflect the topics of Water, Marine Ecosystem, Food Security, Urban Forests, Solid Waste, Climate Change and Adaptation in guiding documents and programs.	Integrate sustainability concepts into as many guiding documents, programs, and activities as possible.
Develop a natural asset database & assign value to ecological services.	Provide networking and cross-appointment opportunities for Advisory Committee members.
Provide information to staff about sustainability and their work. Check learning format preferences before designing events. <sup>29</sup>	Consider the need for an economic issues advisory committee.
Capitalize on staff's willingness to interpret how the community "Vision" relates to their work when designing learning events for staff.	Make special efforts to engage non-City Hall staff contingents (e.g. Fire and Rescue, Police services) in dialogue about sustainability and in the OCP process.
Help staff move onwards from the visual image of a "3-legged stool" when thinking of sustainability.	Deepen connections with First Nations communities.
Review list of barriers to sustainability provided by staff during staff survey and consider actions.	Use a sustainability "lens" on all decision-making occasions via report format or checklist.
	Revive the original aspirations of the TIMS for public access and transparency. Investigate the ability to link to mapping.

<sup>29</sup> Online survey response numbers too low to provide reliable city-wide results

## APPENDIX A

### Barriers to Achieving City Sustainability Goals (Combined in-person interviews and on-line survey results)

1. Can you think of any regulations, bylaws, policies or procedures that might be preventing you or other City staff from helping to achieve a City sustainability goal in your work? (Please describe)

#### General

- Limitations of municipal budgeting powers
- Resident understanding and NIMBY effect
- Yes, but not willing to discuss
- Sometimes, the increased resources required to "going green" (2)

#### City Operations

- Work at home, telecommuting and/or flextime required (2)
- Confusion over directions in strategic plans
- Resistance to change in general
- Internal resistance to telecommuting
- Free employee parking (2)
- Management (3)
- Collective agreement provisions – needs to be negotiated
- Time - often in a rush to have projects delivered "on time" when alternative options may take longer to explore / research / test
- Existing policies that encourage "consistency" in processes and "status quo"

#### Specific

- City has no authority to turn down business licences as rules are now
- We cannot limit amount of impervious surface area
- Engineering requirements for roads, drainage, bike lanes
- Regional Context Statement & Regional Classification of Lonsdale Avenue - As the spine of the City Lonsdale sidewalks should be wider, separated bike lanes should be provided and other forms of transportation ought to be considered.
- Plumbing and Building codes (4)
- Min lot sizes in zoning bylaw are too large
- Parking standards may still be too high (5)
- printing documents, paper copies vs. digital, single-sided copying for some documents (although most is duplex now)
- Legislation limiting tax policy
- Lack of ability to raise revenues
- financial - low emission vehicles are expensive & we can't replace them all at once

2. Are you aware of any bylaws or other City barriers that might prevent Citizens from living more sustainably?

#### General

- Policy tends to exclude unproven options, often difficult to get approval for "different" approaches (not always bad)
- Greener proposals aren't fast tracked

#### Specific

- Need for permits for hot water heating systems
- Building Code (restricts alternate methods, systems)
- Engineering requirements to connect to standard systems for development
- Single family zoning/exclusionary zoning (2)
- Parking requirements too high
- Free on-street parking (2)
- Getting a bike up Lonsdale is a barrier
- No cycling on sidewalk
- Zoning of the harbour side area (?)
- Bylaw prohibits construction on Sunday vs. District allows homeowner to work on projects up to 500 sq ft



- Nuisance Abatement Bylaw 1986 No 5659
- Enforcing grass mowing requirement. We should encourage wild and/or butterfly gardens instead.
- Minimum lot sizes
- Zoning allows houses to be larger than necessary
- No community collection of soft plastics so use Pacific Mobile 1x/mo.
- Recycling pickup should be 2x/wk, larger bins
- 2 bin garbage collection doesn't promote conservation
- Collect garden waste year round
- Non-metered water doesn't promote conservation
- Some streets are too dark to feel safe at night.

3. Two questions combined: Do you know of any City regulations, bylaws or goals which conflict with each other when put into practice? (Please tell us about them) and 4. Are there things the City does now which appear to go against its own goals or sustainability principles? (Please tell us about them)

#### General

- Some environmental goals hard to achieve in such a densely developed city
- Constructing new vs. rehabilitating old

#### City Operations

- Tough to be seen as a leader by community when city hall parking issue so contentious
- Collective agreement re flex time & commuting
- Would like to show the GHG implications of new energy technologies and have them considered along with up-front costs. Might help make case for more than first financial considerations.
- Requiring staff to provide a vehicle instead of allowing them to choose alternative methods
- Providing vehicle allowances rather than promoting pool vehicle use
- Lack of staff TDM program
- Gas powered leaf blowers
- Civic Plaza is an ocean of concrete
- Funding projects that don't reduce GHG emissions instead of ones that do (e.g. baseball fields vs. bike lanes/sidewalks)
- Not allowing 4 door trucks
- City needs mandatory recycling
- City should go even more paperless
- Doing too many studies instead of using the money to implement solutions
- Some goals don't have needed resources allocated

#### Specific

- Plumbing code conflicts with policy direction on rainwater management (on site)
- Plumbing code doesn't readily support stormwater mgmt. objectives
- Plumbing code doesn't allow for greywater systems
- Plumbing code insists on double walled heat exchangers which adds to the cost of that energy saving technology. Single family home owners can't afford a Professional Engineer to sign off. We should have incentives instead.
- Building code and zoning bylaw conflicts over suites
- Electrical code requires even outbuildings to be "on grid"
- BC Tax Act requires all tax bills be sent by postal service. Does not allow for electronic delivery
- Park rules limit use of park space for urban agriculture (for profit?)
- One bylaw may prevent feeding birds in backyard
- Zoning bylaw vs. policy on 2ndary suites in duplexes
- Sustainable transport vs. parking provisions (2)
- We promote solar but solar access rights not protected in BC – could become source of conflict.
- Motion-sensor light and equipment shut offs needed
- Road width & standards vs. stormwater mgmt.
- Provision of bike lanes vs. increased vehicle capacity

## Appendix B

“Thinking about your work with the City, does the concept (or principles of) sustainability come up when you...”

(Online and paper survey only)

	1	2	3	4	5	6
Ranked by column 6	Activity	Not applicable (I don't do this type of activity)	Not sure	never	sometimes	Frequently
A	Talk with other City staff about work topics or projects	1	2	2	18	21
F	Design things or projects, or develop programs	11	0	5	10	17
B	Communicate with the public in the course of your work	11	0	5	13	15
C	Communicate with Council & advisory committees	14	0	3	13	14
M	Review applications from the public & business	16	0	6	6	14
D	Make purchasing decisions (including hiring contractors)	14	1	3	13	13
I	Make travel decisions	10	1	6	12	13
H	Make decisions about disposing of materials/waste	16	0	3	11	13
N	Review internal documents, project proposals, capital works designs, etc.	12	0	3	14	12
K	Meet or work with other agencies (non profits, institutions, other governments, etc.)	14	2	3	14	10
J	Apply for funding	19	0	5	10	10
G	Build, install or construct something	25	0	3	6	9
E	Make maintenance decisions (including horticultural)	26	1	3	5	8
L	Allocate funds and plan budgets	20	0	4	14	5