Creating a More Sustainable Vancouver
A continuing, dynamic plan for a better future

AUGUST 25, 2009
The City of Vancouver acknowledges and thanks the members of the Green Ribbon Panel, supporting City staff, neighborhood associations, businesses and citizens for their time, interest, involvement and contributions. Your efforts have made the creation and development of the Sustainable Vancouver Plan possible. Your continuing commitment will carry us forward as we strive to reach our shared community objectives for a healthy environment, high quality of life and vital economy.
ACKNOWLEDGMENTS

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- **Appendix A**: Recommended Specific Goals and Strategies Suggested for Future Consideration
- **Appendix A-1**: Recommended Specific Goals and Strategies with Criteria Suggested for Future Consideration
- **Appendix B**: City of Vancouver Corporate Greenhouse Gas (GHG) Inventory
  - Mayors Climate Protection Agreement
EXECUTIVE SUMMARY

Sustainable communities are generally defined as towns and cities that have taken steps to remain healthy over the long term. Sustainable communities have a strong sense of place. They have a vision that is embraced and actively promoted by all of the key sectors of society, including businesses, disadvantaged groups, environmentalists, civic associations, government agencies, and religious organizations. They are places that build on their assets and dare to be innovative. These communities value healthy ecosystems, use resources efficiently, and actively seek to retain and enhance a locally based economy. There is a pervasive volunteer spirit that is rewarded by concrete results. Partnerships between and among government, the business sector and nonprofit organizations are common in sustainable communities.

In 2008, the City of Vancouver adopted a Strategic Plan that included among its major goals a “Healthy, Livable, and Sustainable Vancouver.” The City of Vancouver’s Sustainability Plan aims to provide a foundation or roadmap for creating a sustainable Vancouver. It is not intended to replace or replicate the Strategic Plan or the many other planning processes or business plans incorporated in City operations and planning. The Sustainability Plan, in fact, builds upon or integrates many of those efforts already underway within the City of Vancouver.

In late 2008, leaders from an array of businesses, agencies, organizations and neighborhoods throughout the community were charged with helping the City of Vancouver forge a plan to address sustainability in both City operations and Vancouver community strategies. The resulting Green Ribbon Panel, made up of these appointed citizen representatives and key City directors, met from October 2007 through January 2009, aided by involved City managers and staff and other interested citizen contributors.

The Green Ribbon Panel established a working vision, mission and guiding principles, which are listed in this Sustainability Plan. In addition, the Plan sets out nine major goal areas: Climate Change; Environment and Public Health; Resource Conservation; Transportation; Economic Development; Land Use; the Built Environment; Social Equity; and Civic Engagement. Each of these areas is represented in the plan by a graphic icon and key indicators. With adoption, this Plan is intended to be a “living” document, changing and evolving just as information, technological, environmental, economic, and societal and community factors change and evolve.

The Plan also provides identified specific goals and strategies that include indicators and variables for consideration, such as costs, savings, sustainability benefits and feasibility. These are ranked subjectively on a scale from one to four and are intended to provide possible areas of focus and consideration for future sustainability efforts. To begin to move the overall effort forward, the Sustainability Plan also provides general cost-effective goals for 2009 -2010.

Most importantly, the Plan and its creation reflects an important belief held by the Green Ribbon Panel and that is, no matter the global and local challenges, sustainability is best served by active participation and feedback, challenge and encouragement, fluid strategies and bold efforts.
INTRODUCTION

The City of Vancouver has embarked on creating a more sustainable future. This policy guidance and direction has been born out of the leadership of Vancouver’s Mayor, City Council and City Manager. Responsible Sustainability – a term intended to reflect shared objectives for a healthy environment, quality of life and economic vitality – has been included in the Vancouver City Manager's goals for the City since 2007. The City of Vancouver Strategic Plan, adopted in 2008, also establishes sustainability as a major goal, specifically a “Healthy, Livable, and Sustainable Vancouver.” The City of Vancouver is also signatory to the U.S. Mayors Climate Protection Agreement and participates in a number of organizations that support sustainable communities.

The City of Vancouver Sustainability Plan is intended to be a living document that continually evolves with new information, technological advances, environmental factors, progress and feedback from a wide range of shareholders. The Plan is intended to inform other City planning processes; set goals and strategies and measurements for the City and larger community; and identify opportunities for change and progress. Though it will serve to help shape future City planning activities and goals, it is not intended to supersede other planning efforts or documents. This plan aims to flow from the direction set forth in the City’s Strategic plan and not conflict with specific strategies in that plan. Most importantly, this plan aspires to encourage all of us, as a community, to participate in a nonpartisan way to help create a more sustainable Vancouver and a strong future.

BACKGROUND

In order to develop a comprehensive approach to sustainability, the City of Vancouver appointed an ad hoc task force, called the Green Ribbon Panel, charged with creating a policy and plan to address sustainability in both City operations and the greater Vancouver community. The Sustainability Plan will serve as a tool and roadmap for helping the City coordinate efforts, track progress and focus energies on the highest priorities. These policies and strategies are expected to be presented to the City Council for formal consideration in 2009. Certain practices or actions identified early in the process have been or will be put into effect immediately when applicable.

Green Ribbon Panel

To incorporate the perspectives of City and community leadership, the Green Ribbon Panel was made up of key citizen leaders and stakeholders working with the City of Vancouver directors and other City staff. The panel first convened in late 2007. (See membership list at end of this report.) The Green Ribbon Panel generally met monthly to review and inform on a variety of sustainability topics and principles. These topics included climate change and greenhouse gases; peak oil; agriculture and food; biomimicry; energy; transportation; natural resources; land use; natural capitalism; economic development; the built environment; social equity and civic engagement. The Panel’s meetings continued through January 2009, and were regularly attended by various elected officials and members of the public, including school groups on occasion. To assist in the Panel’s efforts, the City also embarked on its own baseline greenhouse gas inventory
for city operations and the community during this time. The inventory serves to identify and position the City for opportunities to reduce greenhouse gas emissions, as well as conserve natural resources. This inventory has since become a State of Washington reporting requirement. To set the stage for overall successful sustainability planning, the Green Ribbon Panel chose the Natural Step as an underpinning and framework.

The Natural Step as a Foundation

The Natural Step (TNS) was founded in the 1980s by Dr. Karl Henrik-Robèrt, a pediatric oncologist and leading cancer researcher in Sweden. Dr. Robèrt observed that all cells in nature have similar basic requirements for sustaining and propagating life, but some of these requirements were being systematically eroded by industrial activity. He also noted that when faced with a crisis, people showed amazing depths of compassion, courage and willingness to sacrifice for others.

In an effort to move beyond the endless and confusing environmental debate between interest groups and instead focus on the systemic causes of environmental degradation and increasing human illness, Dr. Robèrt set out to define the guiding principles for a sustainable society. In collaboration with 50 colleagues, rigorously debating through 21 drafts, the scientists agreed on the fundamental principles necessary for a truly sustainable and full-functioning society and economy. Based on the laws of thermodynamics, these system conditions are as follows:

In a sustainable society, nature is not subject to systemically increasing:

1. concentrations of substances extracted from the Earth’s crust (e.g. fossil fuels, major metals, mined minerals and radioactive elements);
2. concentrations of substances produced by society (i.e. bioaccumulative persistent toxins aka PBTs);
3. degradation by physical means (or depletion of eco-system services such as water, soil, forest, fisheries, etc.);
   and in that society…
4. people are not subject to conditions that systemically undermine their capacity to meet their needs.

Today, society and our communities are operating outside the framework set by these conditions, and as a result, running towards increasing economic problems as fresh and non-polluting diminish. This is often referred to as the funnel of declining resources and increasing demand:

A sustainability plan requires bold steps that recognize the diminishing opportunities presented in this metaphor of the funnel. At the same time, it acknowledges that the planet is a complex system where everything and every action are interconnected at some level.
Over the years, The Natural Step framework has successfully developed into an education, training package and compass – an effective strategic planning tool for decision makers.

The Natural Step (TNS) uses “backcasting” as the primary method for planning, also known as the A-B-C-D process. The first step (A) is sharing the framework to build general awareness and a shared language. The second step (B) invites the group to do a baseline analysis of current practices based on the four system conditions to see where they are potentially being violated. For the third step (C), the group brainstorms to envision a sustainable future that honors the four system conditions. During the fourth step (D), the group considers new and specific strategies to reach that sustainable future, keeping in mind three questions:

1. Does this take us in the right direction?
2. Is it a flexible platform, where future innovations are possible?
3. What is the long-term cost vs. benefit?

The Natural Step has been embraced by numerous organizations and municipalities in the United States and in ten other countries from Australia to Canada to the United Kingdom, in developing sustainability plans.

Studies and Resources Reviewed and Considered by the Green Ribbon Panel

Several studies, books and articles were reviewed by the Green Ribbon Panel, including the availability of a lending library on various topics related to sustainability. (A complete listing of these resources is available from the Sustainability Coordinator upon request.)

Definition of Sustainability

The Green Ribbon Panel considered many different definitions of sustainability. The most commonly quoted definition of sustainability is from the United Nations 1987 publication, *Our Common Future*, known as the Bruntland Report, which states: “Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.”

Other definitions refer to the triple bottom line or where a sustainable society must support the economy, while protecting the environment and promoting social equity. This has also been referred to as people, planet and profit or commerce, community and climate.

Vision, Mission and Guiding Principles

The Green Ribbon Panel spent considerable time developing and embracing a Vision Statement, Mission Statement and Guiding Principles. (See Page 4)

The vision, mission and guiding principles were developed by the Green Ribbon Panel to help guide and inform the establishment of the goals of the plan.
The nine major goal areas set forth by the Green Ribbon Panel include:

Climate Change    Environment and Public Health    Resource Conservation

Transportation    Economic Development    Land Use

Built Environment    Social Equity    Civic Engagement

Note: Indicators on “Sustainability Gauges” above have been placed at random and are for purposes of illustration only in this report.

Plan for City Operations and the Community: Lead By Example

Vancouver’s Sustainability Plan considers measures that City operations could take to improve conditions for the environment, economy and social equity. While many of these relate to how the City does its day-to-day business of providing public services, they also go further, recognizing that the City needs to lead by example. As a result, the Plan also envisions strategies that move the community, businesses, other agencies and the public in concert together toward a more sustainable future and encourages neighboring jurisdictions to do the same.

Need for Strategic Alliances: Sustainability Cannot be Accomplished Alone

Additionally, the City recognizes that many of the goals and strategies needed to create a more sustainable future cannot be accomplished alone. Strategic alliances with business, industry, energy providers, developers, neighborhood associations, state and federal agencies, nonprofit
groups, education and others are needed for the Sustainability Plan to be successful. The Plan also calls upon City leaders to promote changes at state and federal levels through innovations, incentives and rules.

Climate Change

In considering the many issues related to sustainability, climate change can be addressed as a distinct, important and related topic. The City is a signatory to the U.S. Mayor’s Climate Protection Agreement. (See appendix for Greenhouse Gas Inventory.) As such, the City has pledged to meet the Kyoto Treaty requirements and is working to reduce its greenhouse gas emissions 7 percent below its 1990 levels, according to the commitment laid out in that agreement.

While there has been some community disagreement of over the extent of climate change or the causes of climate change; there is a consensus that remedies necessary to reduce impacts from greenhouse gas emissions are consistent with actions necessary to conserve resources and ensure a thriving community for future generations, thereby making sense on their own merit.

The goals in this area should be consistent with U.S. and State of Washington goals and requirements. The Washington State Legislature has enacted legislation addressing Climate Change (RCW 70.235.020) and (RCW 47.01.440) and the Governor has issued Executive Order 09-05, Washington’s Leadership on Climate Change, which directly impact the operation of the City of Vancouver. The federal government is currently developing climate change legislation that is likely to impact the city, as well.

Reaching the goals of the U.S. Mayors Climate Protection Agreement is complicated by the fact that the City has substantially grown and annexed additional area since 1990. In addition, accurate, sufficient data on City and community activities do not adequately exist to allow an in-depth baseline analysis for 1990. Instead, the City has identified years 2006 and 2007 as its baseline for measurement. (See appendix for City of Vancouver Greenhouse Gas Inventory.) Those years were selected as a result of best and most accurate data and will assist in striving for the goals in the agreement and state and national requirements.

The City recognizes that goals and strategies in this sustainability plan will support a reduction in greenhouse gas emissions and move the community toward meeting its goals.
VISION FOR A SUSTAINABLE VANCOUVER

Vancouver is a healthy and engaged community. We are sensitive to balance between our wants and needs and those of future generations.

MISSION FOR A SUSTAINABLE VANCOUVER

Vancouver – City and citizens in partnership – promotes social equity, protects and restores the natural environment, and provides for a vibrant economy, while inspiring all communities to make a similar commitment.

GUIDING PRINCIPLES

Vancouver recognizes the long-term, critical interconnection between the social, environmental and economic health of our community. As such, we agree that:

1. Social and cultural equity and diversity contribute to a thriving and vibrant economy and environment;
2. Our ability to sustain and restore natural resources informs the way we produce, trade and consume;
3. The consequences of unlimited growth and physical development on society and the environment demand careful consideration in community planning and governance; and
4. The quality of environmental, economic and social health requires the full engagement and involvement of the community.
5. Strategies for creating a sustainable community should include an evaluation of the costs and benefits of proposed actions and preference given to actions that produce the greatest long-term benefit for the least cost.
MAJOR GOALS BY INDICATOR

The Sustainable Vancouver Plan includes the following indicators for sustainability. It is intended that whenever possible reported data come from existing City programs or other plans and reports (e.g., annual accomplishments, performance reports, departmental snapshots and business plans) and minimize the increase in new reporting requirements unless there is a justifiable purpose for collecting the additional data.

Those areas of data which are not already collected and reported in the City’s Strategic Plan, City of Vancouver’s Comprehensive Plan Implementation Monitoring Report, or new state or federal reporting requirements are noted by each indicator.

Indicators work best when decision makers who have the power to create policies and programs are actively involved in creating the vision, researching the data and collaborating to help one another understand the meaning of trends.

Please note: Indicators by themselves do not drive policy; they simply provide information and feedback to monitor the status of the objects/goals.
Outcome:
Greenhouse gas emissions meet existing and emerging state and federal requirements.

*Please Note: The Vancouver Sustainability Plan does not include a formal Climate Action Plan due to emerging new state and federal policies with varying standards, though considerable related discussion is afforded in Vancouver’s greenhouse gas (GHG) inventory discussed elsewhere in this report.*

**Key Indicators:**

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<th>INDICATOR</th>
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<tbody>
<tr>
<td>Greenhouse gas emissions for the City and community on a per capita basis for Scopes 1 and 2, plus waste reduction and trip commute reduction</td>
<td>Downward Trend</td>
</tr>
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</table>
Outcome:
Environmental health is protected or improved by minimizing and where possible, eliminating:

1. The use of hazardous or toxic materials by residents, businesses and City operations.
2. The levels of pollutants entering the air, soil and water.
3. The risks that environmental problems pose to human and ecological health.

No one geographic or socioeconomic group in the City is being unfairly or disproportionately impacted by environmental pollution.

Consumption of fresh, locally produced, organic produce and foods increases to promote public health and to minimize resource consumption and negative environmental impacts.

Key Indicators:

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<tr>
<td>Reported improved changes in air quality per Southwest Clean Air Agency Reports</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Reported improved water quality changes in lakes and streams per the Washington State Department of Ecology</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Clean drinking water – percent of citizens rating drinking water quality as good or excellent</td>
<td>Upward Trend i</td>
</tr>
<tr>
<td>Per cent of residential locations that are connected to city sewer service and decommissioned septic tanks</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Change in per consumption and purchase of fresh, locally produced food</td>
<td>Upward Trend ii</td>
</tr>
<tr>
<td>Change in childhood obesity rates for city residents</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Change in smoking habits per capita</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Increase in dental health for City residents</td>
<td>Upward Trend</td>
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Outcome:
City and community consumption - specifically consumption on non-local, non-renewable, non-recyclable and non-recycled materials, water, energy and fuels - decrease. City takes a leadership role in encouraging sustainable or green procurement, and considers ways to become a zero waste city over the long term.

The use of local, non-polluting, renewable and recycled resources is encouraged.

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<tr>
<td>Energy use per city employee per year</td>
<td>Downward Trend</td>
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<tr>
<td>Energy use in City owned or operated buildings</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Water use per household within served by City water system</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Percent of City purchases from environmentally responsible or sustainable source</td>
<td>Upward Trend iii</td>
</tr>
<tr>
<td>Percent of waste diverted from the landfill</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Percent of City vendors who have sustainability efforts underway</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Fuel use (diesel and gasoline) use per employee per year</td>
<td>Downward Trend</td>
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</table>
Outcome:
A multi-modal transportation system exists that minimizes and, where possible, eliminates pollution and motor vehicle congestion while ensuring safe mobility and access for all without compromising our ability to protect public health and safety.

Auto dependency is reduced and affordable alternative, sustainable modes of travel are increased.

**Key Indicators:**

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<td>Travel Times by Car. Change in peak hour commuter travel time on the City’s two major corridors</td>
<td>Downward Trend</td>
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<tr>
<td>Seriousness of Congestion. Percent of residents who rate traffic congestion as a top three community challenge</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Mass Transit Use – Annual bus ridership (C-Tran)</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Increase in multi-modal transportation</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Connectivity through Paths and Walkways. Total miles of bike, walking and hiking trails</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Street Maintenance Conditions – Percent of lanes miles in satisfactory or better condition using PAVR evaluation system</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Trip commute mileage reduction</td>
<td>Increase in the number of miles in the program</td>
</tr>
</tbody>
</table>
**Outcome:**
Vancouver has a diverse, vibrant, stable, local economy that supports the basic needs of all segments of the community.

Businesses, organizations and non-profits within the city work with the City of Vancouver to increase efficient use of resources through sustainable business practices.

Sustainable or “green” businesses are encouraged to locate in the City of Vancouver.

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<tr>
<td>Percent of businesses or nonprofits that have adopted sustainability plans or practices</td>
<td>Upward Trend</td>
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<tr>
<td>Number of new businesses that locate in Vancouver</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Number of employees that work and live in Vancouver</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Number of new start up or existing businesses that are sustainable or have adopted sustainable business practices</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>The number of people who live below the poverty level in Clark County</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Resident Median Income Change – Clark County median family income</td>
<td>Upward Trend</td>
</tr>
</tbody>
</table>
Outcome:
A sufficient open-space system is developed and maintained so that it is diverse in uses and opportunities and includes natural functions/wildlife habitat, as well as passive and active recreation with equitable distribution of parks, trees, pathways throughout the City.

Land use and transportation planning and policies create compact, mixed-use projects, forming urban villages designed to maximize affordable housing and encourage walking, bicycling and the use of existing or future public transit options.

Residents recognize that we all share the local ecosystem with other living things that warrant respect and responsible stewardship. Vancouver uses land efficiently in order to minimize the need to expand the urban footprint to accommodate growth.

All development meets the 2030 Challenge in urban growth areas. Clark County and cities have an integrated approach to achieving sustainability.

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<td>Improving Tree Canopy – Percent of City covered by trees</td>
<td>Upward Trend iv</td>
</tr>
<tr>
<td>Preserving Open Space – City has acquired sufficient park and natural spaces to meet city residents’ state needs</td>
<td>Upward Trend v</td>
</tr>
<tr>
<td>Percent change in the number of housing units per acre, and ratio of single family to multi-family units</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Conversion of existing high maintenance landscaping, such as lawns, to native and climate friendly landscaping</td>
<td>Upward Trend vi</td>
</tr>
</tbody>
</table>
**Outcome:**
A mix of affordable, livable and green housing types is achieved and maintained throughout the City of Vancouver for people of all socio-economic/cultural/household groups, including seniors, singles and the disabled.

LEED-certified or equivalent commercial new buildings are encouraged and promoted.

**Key Indicators:**

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<tr>
<td>Number of new homes and commercial/industrial facilities built to LEED or other sustainability development standards</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Percent of existing homes or commercial/industrial facilities retrofitted for energy efficiency or sustainability standards</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Percent of residents residing in affordable housing (percent of rent or mortgage not over 30 percent of annual income)</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Percent of residents with special needs or other cultural groups residing in affordable housing</td>
<td>Upward Trend</td>
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</tbody>
</table>
**Social Equity**

**Outcome:**  
All residents of Vancouver are able to meet their basic needs and are empowered to enhance their quality of life.

Community members have access to housing, health and social services, education, economic opportunity, and cultural and recreational resources.

There is respect and appreciation of the value added to the community by differences among its members in race, religion, gender, age, economic status, sexual orientation, disabilities, immigration status and other special needs.

**Key Indicators:**

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<tr>
<td>Percentage of residents/households with income below the poverty level</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Percent change in homeless individuals and families</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Percent change in individuals or families seeking social and health services</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Amount of charitable giving per capita</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Change in juvenile and adult crime rates</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Percent of school children participating in free or reduced lunch programs</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Percent change in families seeking assistance from food banks or food stamp programs</td>
<td>Downward Trend</td>
</tr>
<tr>
<td>Community feels safe walking in their neighborhoods</td>
<td>Upward Trend vii</td>
</tr>
</tbody>
</table>
CIVIC ENGAGEMENT

Outcome:
Community members of all ages participate actively and effectively in civic affairs and community improvement efforts.

Community members of all ages and cultures understand the basic principles of sustainability and use them to guide their decisions and actions, personally and collectively.

An actively engaged community helps the City of Vancouver to carry out and improve Vancouver’s Sustainability Plan.

Key Indicators:

<table>
<thead>
<tr>
<th>INDICATOR</th>
<th>INDICATOR TARGET</th>
</tr>
</thead>
<tbody>
<tr>
<td>Neighborhoods are active – percent of neighborhood associations that meet at least quarterly</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Number of events sponsored by the City</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Residents feel they belong and welcome – residents who report they feel like part of the community</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Community Center Activity - annual number of visits to Vancouver community centers</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Volunteering – self-reported hours per month volunteered outside the home</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Residents participating in government – number of applications for commissions and boards annually</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Voting - percent of eligible voters who voted in the last election</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Percentage of city residents who are aware of the sustainability efforts for Vancouver</td>
<td>Upward Trend</td>
</tr>
<tr>
<td>Number of community and stakeholder groups involved in sustainability efforts</td>
<td>Upward Trend</td>
</tr>
</tbody>
</table>
WHERE WE ARE TODAY

CLIMATE

The Vancouver Sustainability Plan does not include a formal Climate Action Plan, though considerable related discussion is afforded in Vancouver’s greenhouse gas (GHG) inventory, discussed below. The Sustainability Plan purposely avoids setting forth a Climate Action Plan due to emerging new state and federal polices with varying standards. Though the validity of climate change may continue to be contentious to some, all government agencies and major scientific bodies have concluded that climate change is real and largely impacted by humans. This recognition has spurred coming state and federal policies, which are expected to bring significant new regulations, risks and opportunities. The City of Vancouver has elected to allow state, regional and national climate goals to become more clearly defined before setting forth its own climate goals. However, it is expected those same strategies which would address climate change are inherent in many of the recommendations within the Plan, such as increasing the efficiency of City operations; promoting new efficient building practices; reducing our fuel usage; and saving taxpayer dollars. Additionally, if carbon becomes regulated in regional or national regulations, there will likely be those entities and organizations that will benefit and those that might be penalized by such actions. The city can work to help our businesses and others to be on the winning side of the carbon ledger.

Greenhouse Gas Inventory

In anticipation of new climate regulations and potential emerging regional climate cap-and-trade markets or the pricing of carbon, the City conducted a very robust greenhouse gas inventory to establish a baseline of emissions. This greenhouse gas (GHG) inventory documented the major emissions from City government operations for the City of Vancouver using established methods. For those emissions sources that the City will be most likely required to report, based on the State of Washington’s HB 2815, (Scope I and II emissions as defined by The Climate Registry), the study measured approximately 13,928 metric tons (MT) of carbon dioxide equivalent (CO2e) greenhouse gas emissions for the 2007 calendar year. In 2006, emissions totaled 13,282 MT CO2e. This is an increase of approximately 4.9 percent.

When the boundaries of the inventory are expanded to include additional emissions sources such as emissions from landfilled solid waste, employee commute and embodied emissions within purchased goods (Scope III as defined by The Climate Registry), the full carbon footprint for the City of Vancouver comes to approximately 39,980 MT CO2e for 2007 and 41,133 MT CO2e for 2006. This fully documented analysis describes all major sources of emissions and explains how the information can inform the City’s thinking and planning as it moves to reduce, offset and address these emissions.

Based on information available in early February 2009, current and pending legislation will likely require the City to report and reduce emissions from Scopes I and II. Reporting and reduction of Scope III emissions will likely be voluntary from a regulatory point of view. Documentation of Scope III emissions is important to understand a complete picture of the City’s carbon footprint. Taking action to reduce Scope III emissions will reduce the City’s risk.
associated with a cost of carbon imposed by emerging regulatory frameworks at the state and/or national levels.

**Methodology**

Data was available in most categories from calendar year 2002 through 2007, but to avoid gaps and ensure consistencies, 2006 was chosen as the baseline year for this GHG report. Once the data was collected, GHG emissions were calculated using the methodology outlined by The Climate Registry’s General Reporting Protocol, Version 1.0, March 2008. Additionally, data was entered into ICLEI’s Clean Air and Climate Protection software, developed jointly by the State and Territorial Air Pollution Program Administrators and the Association of Local Air Pollution Control Officials (STAPPA/ALAPCO), ICLEI and Torrie Smith Associates.

**Boundaries**

Any inventory must define its boundaries—those emissions that it documents and those emissions that it excludes. The boundaries used in this report follow Scopes I, II and III as defined by the World Resources Institute and World Business Council for Sustainable Development:

- **Scope I**: Direct sources of greenhouse gas emissions that originate from equipment and facilities owned or operated by the City of Vancouver.
- **Scope II**: Indirect GHG emissions from imported electricity, heat or steam.
- **Scope III**: All other indirect sources of GHG emissions that may result from the activities of the institution but occur from sources owned or controlled by another company or entity, such as: business air travel; embodied emissions in material goods purchased by the institution; emissions from landfilled solid waste; and the institution’s employee commuting habits.

For municipalities, these definitions result in somewhat unclear and controversial boundaries that demand deeper analysis. The City’s responsibility for and ability to control emission sources are reflected in a discussion on boundaries in the full report, which is available at www.cityofvancouver.us/sustainability.
Greenhouse Gas Emission results

**Figure 1: City of Vancouver, WA GHG Inventory Results for 2006 and 2007**

<table>
<thead>
<tr>
<th>Emissions Source, by World Resources Institute (WRI) / The Climate Registry Category</th>
<th>MT CO2e</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope I</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vehicle Fleet</td>
<td></td>
<td>4,200</td>
<td>4,628</td>
</tr>
<tr>
<td>Natural Gas</td>
<td></td>
<td>1,008</td>
<td>1,102</td>
</tr>
<tr>
<td>Diesel, Stationary</td>
<td></td>
<td>399</td>
<td>486</td>
</tr>
<tr>
<td>Refrigerants</td>
<td></td>
<td>unknown</td>
<td>&gt;46</td>
</tr>
<tr>
<td><strong>Scope I Subtotal</strong></td>
<td></td>
<td>5,607</td>
<td>6,261</td>
</tr>
<tr>
<td><strong>Scope II</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Electricity</td>
<td></td>
<td>7,675</td>
<td>7,666</td>
</tr>
<tr>
<td><strong>Scope II Subtotal</strong></td>
<td></td>
<td>7,675</td>
<td>7,666</td>
</tr>
<tr>
<td><strong>Scopes I and II Total</strong></td>
<td></td>
<td>13,282</td>
<td>13,928</td>
</tr>
<tr>
<td><strong>Scope III</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solid Waste</td>
<td></td>
<td>51</td>
<td>53</td>
</tr>
<tr>
<td>Estimated Employee Commute</td>
<td></td>
<td>4,800</td>
<td>5,000</td>
</tr>
<tr>
<td>Estimated Embodied Emissions in Purchases</td>
<td></td>
<td>23,000</td>
<td>21,000</td>
</tr>
<tr>
<td><strong>Scope III Subtotal</strong></td>
<td></td>
<td>27,851</td>
<td>26,053</td>
</tr>
<tr>
<td><strong>Scopes I, II and III Grand Total</strong></td>
<td></td>
<td>41,133</td>
<td>39,980</td>
</tr>
</tbody>
</table>

**Figure 2: Comparison of City of Vancouver, WA GHG Emissions by Scope, 2007**
Corporate and Community Inventories

When a municipality decides to conduct a greenhouse gas inventory, there are two different types of inventories to consider: corporate (city operations) and community inventories. Both offer valuable information for informing decision-making, risk management and community development. The difference between the two types of inventories has to do with which boundaries, or which emissions sources, are included.

In a **Corporate Inventory**, the greenhouse gas emissions from the City government’s internal operations are measured. Often this includes direct emissions from any fossil fuels burned on site, indirect emissions from energy sources imported for business use such as electricity or steam, and indirect emissions resulting from mission-critical activities such as business air travel, employee commuting or waste generation. These emissions are not tied to a geographic location, but instead to the scope of an organization’s internal operations. This is the focus of the report completed for the City of Vancouver.

In a **Community Inventory**, boundaries are drawn around a set geographic region. The City of Vancouver’s Community Inventory is expected to be completed by March 2009. Protocols for Community Inventories of cities have not been fully developed, but are based on the protocol developed by the United Nations Framework Convention on Climate Change for nations. There are many challenges associated with setting boundaries around a geographic region such as a city, due to the fact that a city is a part of a larger economy. First, there may be activities demanded by the population that cause emissions outside the city’s geographic boundaries, such as emissions from electricity-generating power plants. Conversely, there may be city-owned infrastructure such as airports or wastewater treatment facilities inside the geographic boundary that serves a greater population than just those that exist within city limits. The Vancouver Community Inventory will provide details on methods for treating GHG-emitting activities with ambiguous geographical boundaries.
This Community Inventory is a voluntary and proactive effort by the City of Vancouver to quantify and report greenhouse gas emissions from municipal government operations. While previously no laws required the City to regularly account for and report its emissions, this has changed with the passage of the House Bill 2815, discussed below. Furthermore, this inventory seeks to prepare the City for other emerging policy frameworks that will require both emissions reporting and climate action.

Climate policies are currently being developed simultaneously at the state, regional and national levels. The two frameworks most likely to directly impact the City of Vancouver in the immediate future are state regulations developed in accordance with the state of Washington House Bill (HB) 2815 and regulations developed as part of the Western Climate Initiative, of which Washington is a founding member. HB 2815 will begin requiring GHG reporting by public and private entities above a certain scale as of fiscal year 2010, beginning with fiscal year 2009. The set threshold is far below the City’s total emissions, based on Vancouver’s completed Corporate Inventory. Detailed rules are anticipated from the Washington State Department of Ecology.

To the extent possible, the City’s GHG inventory attempted to follow all existing and likely future protocols to ensure maximum consistency and comparability with future inventory efforts. Beyond all current and future statutory obligations that the City of Vancouver will face, this inventory attempts to take the broadest feasible view of greenhouse gas emissions from activities and services on which the City relies and provides, in order to provide the strongest base for understanding obstacles and achieving future goals.

**Implications for Planning**

First, the City should consider prioritizing efforts based on a few major concerns:

- Focus on major emissions sources by size
- Focus on opportunities for control
- Leverage opportunities for influence and collaboration even where total control does not exist.

In other words, the City must focus primarily on those emissions sources that are largest and over which it has the most control. However, City efforts must also draw in a vast array of partners – employees, utility providers, vendors and others – to reduce those shared emissions in Scopes II and III. At the same time, the City should integrate GHG concerns into expansion plans and facilities management, including:

- Construction and major renovation practices
- On-going maintenance, such as retro-commissioning of buildings
- Purchasing practices, especially energy-using equipment
- Siting/locations, such as long-term transportation implications of site selection

Additionally, given the substantial indirect supply chain emissions, the City should refine its understanding of the GHG implications of alternative purchasing patterns.
Importantly, all sustainability actions must involve citizens and businesses, helping them address their goals, risks and related costs. Additional insight in this area is provided in the community GHG inventory for the City of Vancouver.

ENERGY EFFICIENCY

A complete inventory of energy use of every City of Vancouver building and activity has been identified and sourced through a State of Washington General Administration contract for energy service companies. Working with the City of Vancouver Facilities, Risk and Property Services Department, the contract with McKinstry Engineering will provide detailed energy audits for the buildings operating systems. The resulting audits will be used to make modifications and upgrades to the operating systems that have a guaranteed payback period through utility savings.

As of February 2009, work had begun in three City facilities: Firstenburg Community Center, Marshall Community Center and the Water Resources Education Center.

In addition to saving City energy and taxpayer dollars, at a more regional level, this program promotes jobs such as in the mechanical engineering fields and allows additional energy to be offered to other sectors to meet peak challenges in the near future. It is expected that a portion of any retrofit costs might also be paid for through programs administered by local energy providers or on behalf of the Bonneville Power Administration. Future efforts should include a possible centralized monitoring system of energy for all or multiple city facilities that may also include safety, lighting and other factors.

SUSTAINABLE BUILDINGS

The City of Vancouver, in partnership with Clark County and funded by a Washington Department of Trade and Community and Economic Development grant, has undertaken a study of regulatory barriers to extremely high standards for residential “green” buildings – or the Living Building Challenge (LBC). This study, conducted by the Cascadia Region of the United States Green Building Council, looked at six actual residential projects, similar to developments that might be proposed in the City. Using those projects’ base plans, City and County planners considered the obstacles or issues that prevent them from meeting standards of the LBC, which promotes construction of homes that generate their own power, treat water on-site and provide restorative environmental impacts.

Identifying these barriers allows the City to identify solutions to help builders and developers achieve higher building standards through the regulatory process. The City of Vancouver, with help from a grant obtained by Clark County, proposes to further build on this work by partnering with other small cities considering how to create incentives for a higher standard of green development.
INFORMATION TECHNOLOGY

The City’s Information Technology (IT) Department is moving forward on reducing energy usage over the next two to four years through four significant projects. These are as follows:

**Mobile Computing**

The IT Department is currently working with departments to provide mobile technology to employees that work primarily in the field. These include Operations Center staff, Building inspectors, Fire Department staff, Police Department school resource officers and others.

IT is using a combination of broadband cellular network cards (air cards), network encryption and security software, and virtual application software to provide mobile staff with the ability to remotely access all their applications from the field. This provides multiple benefits:

- Employee travel time and fuel costs are reduced and more time can be spent working on the job site when real time information is available or employees have the ability to enter the status of an inspection or work order while in the field.
- With access to real-time data in the field and the ability to update information from a vehicle or job site, the requirement for a stationary computer workstation decreases. This opens up the possibility to work out of smaller shared spaces or potentially eliminate some office space altogether. Reducing space requirements reduces the need for heating, cooling, power utilization and other facility resources.

**Telecommuting**

Using the same encryption and security software and virtual application software that supports mobile computing, employees that have City laptops and either an air card or home broadband connection can gain access to all their city applications and data from home or any other telework location. Telecommuting provides benefits similar to mobile computing:

- Where this is an appropriate and effective for the City, telecommuting can save travel time and fuel consumption, and help Vancouver achieve its computer trip reduction (CTR) goals. This also provides emergency preparedness and ability to continue to serve the public in case of severe inclement weather or emergencies.
- Employees working from home may be able to work from a smaller or shared workspace within a City office. A smaller space requirement reduces the need for heating, cooling, power utilization and other facility environmental factors.

**Server Virtualization**

Server virtualization is the process of examining current physical server hardware use and determining if it is under utilized. Many applications that run on servers specify that they require a dedicated server so as to not conflict with other applications. This often results in servers being under utilized. Virtualization takes many physical servers and moves them to individual virtual
servers running on a single physical server. Applications on virtual servers “believe” they are the only application running on the server. This avoids conflicts between applications.

Benefits are seen when by consolidating physical servers into virtual servers; the City is able to reduce the overall number of physical servers in the data center. This results in less space, energy and cooling required to run the same number of City sever-based applications.

**Computer Power Management**

City computers have typically been left on for 24-hours so that security updates and virus patches can be applied during non-work hours. Although the computer processing unit remains on, all monitors are programmed to turn off automatically after 20 minutes of inactivity. The City’s IT Department is looking at mechanisms to automatically control the power off and power on of the CPU portion of computers to allow for continued security patching. The technology that allows this remote automated capability called “Wake on LAN,” means that computers on the network (LAN) can be remotely “awakened” or continue to “sleep.” As the City looks at the migration to Microsoft Vista, which has this capability but is resource intensive and may not be compatible with some existing systems, the “wake on LAN” functionality will be an important part of the implementation. The benefits are energy savings.

**PUBLIC WORKS**

**Fuel Usage**

The Public Works Department has made major strides in reducing fuel usage in city owned vehicles. A recently enacted anti-idling policy has been mandated for Public Works employees. Within the Operations Division of Public Works, a concerted sustainability effort and friendly competition between work groups was conducted to reduce fuel in fleet vehicles. Between July and November 2008 alone, increased efficiencies in equipment and an anti-idling effort by Operations employees led to a reduction of 7,500 gallons of fuel, saving energy and tax dollars and improving air quality. These two strategies are worth continuing and considering applying to all city operated vehicles.

**Increasing Urban Tree Canopy, Reducing Runoff**

Vancouver was named *Tree City USA* for the 19th year and received the *Tree City USA Growth Award* for the third year in 2008 for achieving notable improvements in the Urban Forestry Programs over the past year. Urban Forestry’s partnership with the Home Depot Foundation and Friends of Trees allowed for an AmeriCorps staff, which led to increasing neighborhood planting participation by 250 percent in 2008. Urban Forestry partnerships with neighborhood associations have also resulted in an additional 385 street and yard trees in more than 18 neighborhoods. Urban Forestry is continuing to increase tree canopy throughout the city, reducing erosion, improving air quality and increasing livability and neighborhood sustainability. A citywide program to educate the community about proper tree pruning began in spring 2009.
Volunteerism and Sustainability Outreach

With support from the City, the Vancouver Watersheds Council officially became a new non-profit organization, launched with the mission to bring together and engage the community to protect and enhance the natural environment of Vancouver watersheds. For 2008, programs that benefit and improve the watersheds that exist within the city included: Martin Luther King Jr, Day (Jan 21), Down By the Riverside (May 17), and Can U Dig It (Oct 25) Planting/Clean-Up Events, hosted with a number of partner organizations. These efforts are expected to continue in 2009, expanding opportunities for citizens to take ownership of our community’s environment.

In 2008, more than 5,500 people of all ages visited the Water Center and nearly 800 hours of volunteer service were provided in 2008. During the 2007-2008 school year, the Water Center’s school programs served 4,666 students, including 160 students who participated in Service Learning Projects. For 2009, exhibit improvements are planned that will further educate people of all ages on how to care for and make wise decisions about water resources.

More than 2,698 donated hours were spent on Urban Forestry projects in 2008. The Urban Forestry Program’s achievements in creating partnerships and engaging the community in hands-on sustainability offer a successful model for other sustainability programs in Vancouver.

Reducing, Reusing and Recycling

In 2008, a Resource Conservation Challenge was initiated to encourage neighborhoods to make their annual cleanups more sustainable by rewarding and recognizing the implementation of innovative strategies. Twenty-four neighborhoods, more than half of the neighbors participating in cleanups, accepted the challenge.

Vancouver also coordinated with Clark County and other cities to complete a pilot assessment of cart-based curbside recycling as an option to increase the volume of recovered materials, potentially by 20 percent. In 2009, Solid Waste Services negotiated with contractor Waste Connections Inc. on customer rates and collection frequency, leading to a change from residential recycling bin system to roll cart program, poised to begin in late 2009.

A pilot commercial recycling project began in September 2008 in the Fourth Plain Corridor area to evaluate whether container, including glass, and paper recycling services could be improved to these customers. As many as 500 businesses are targeted for participation and 100 had already signed up by late November 2008.

Solid Waste Services staff prepared for the transition of the 6 year old CREAM computer reuse/recycling program to continuing operations as a non-profit focused on “upgrading the community” through providing technology access and training reusing recovered electronic materials. A new industry funded statewide program starting in January 2009 is providing a new infrastructure for recycling residential computers and televisions.
Native Vegetation and Greenway Improvements

In 2008, the Sensitive Lands Team was involved with more than 10,600 trees and shrubs planted in areas adjacent to Burnt Bridge Creek. Plant survivability was increased on City greenway areas by using mulch around plantings to decrease weeds in planting areas. More than 2,000 cubic yards of mulch was placed in 2008. Cost-saving measures continue to be achieved by changing irrigation systems from traditional irrigation heads to drip systems.

Waste Treatment

Wastewater treatment infrastructure and facilities around the country are experiencing an increase in maintenance and operations due to increasing presence of materials – diapers, wipes, towels, etc. – entering the sanitary sewer system. The City of Vancouver’s Public Works divisions in Engineering, Operations and Environmental Resources have teamed to develop public education and outreach around the appropriate use of the waste treatment system (i.e., not using drains and toilets to dispose of pharmaceuticals, grease, diapers, wipes, etc.). Initial contacts with other agencies, including the Clark Regional Wastewater District and Clark County, indicate strong potential for a regional partnership to assist in this effort, which the City expects to launch in 2009.

Efficient Technologies for City Equipment

The City of Vancouver’s Public Works is continuing the replacement/retrofitting of remaining less-efficient incandescent lamps with new LED (light emitting diodes) lamps in traffic signals. In total, this overall retrofit will generate approximately 75 percent in energy savings that help the city keep pace with increasing needs at a time of decreasing budget resources. The City has also launched a Street Light Lamp Recycling Program.

Several projects have been undertaken to increase efficiencies of the City’s sanitary sewer infrastructure and water reclamation (wastewater) facilities. Cured-in-place pipe trenchless technology has allowed Public Works to line 3,484 feet of 24-inch main, 1,398 feet of 18-inch main, 286 feet of 10-inch main, and 3,391 feet of 8-inch main. This technology to reline old clay mains reduces maintenance needs and prolongs life at a fraction of the costs and impacts of replacing the mains, and is far less disruptive to neighborhoods and the environment. Other examples of new wastewater efficiencies include: upgrades of pumps at the Orchards and Andresen pump stations, programmable logic controller at the Westside treatment facility, a capital project designed in 2008 that will allow decommissioning of the old Chateau Crest Pump Station. These are expected to reduce energy and maintenance costs while increasing reliability.

CITY PLANNING EFFORTS

Many City Departments are preparing planning updates, such as Community Planning, Parks, Transportation, Economic Development and others. Several meetings have been held with key departments and we are working to imbed sustainability strategies and goals within updated city planning efforts and business plans.
ADDITIONAL PUBLIC OUTREACH

Several dozen meetings have been held various community organizations, neighborhood organizations, Clark College, Washington State University – Vancouver, University of Oregon – Portland Branch and others to present the City of Vancouver’s proposed Sustainability Plan. More than 250 residents have been reached through a panel of sustainability experts from Clark Public Utilities, City Solid Waste, City Sustainability Coordinator, Leonard Bauhs, of the NW Neighborhood Association, to engage citizens in the topic of sustainability to seek feedback and provide additional information.

Additionally, the City of Vancouver hosted a very successful Second Annual Sustainability Conference in July 2008. More than 350 people attended the full conference and another 700 attended the keynote address by Robert F. Kennedy Jr. A participant survey produced good feedback with much support for specific, targeted workshops such as green buildings, climate change information, energy conservation, environmentally responsible procurement. As such, the City has embarked on a number of partnerships to provide focused workshops, which are revenue neutral, and address the topics requested by the community. A good example of this is the recent Sustainability Breakfast Series for Businesses sponsored by ShoreBank Pacific and the City of Vancouver.

The goal of public outreach is to continue to reach out to various constituencies and community members through a variety of mechanisms to continually engage the public; so that the plan becomes dynamic and evolves as situations, circumstances, environment and technology change over time.

GREEN ECONOMIC DEVELOPMENT AND GREEN JOBS

Vancouver’s Economic Development Office and the City’s Sustainability Coordinator, working with the Columbia River Economic Development Council (CREDC), have been promoting and encouraging sustainable businesses and industries to relocate to Southwest Washington. In addition, efforts are underway to reach out to existing businesses to assist them on adopting sustainable practices and improving their bottom line. This will likely result in the creation of a Vancouver Sustainable Business Council, comprised of local businesses working to support each other in these efforts. Also under way is consideration of Green Industrial Park or Sustainable Business Incubator of start-up businesses that need assistance in bringing new “green” or sustainable technologies to the marketplace.

Separately, but similarly, the City supports the efforts of a “buy local” campaign for sustainable businesses located in the City of Vancouver and surrounding areas. A key number of local businesses working in concert with the Vancouver Downtown Association are creating a local chapter of BALLE – Business Alliance for a Local Living Economy; organized under the name of Lower Columbia Alliance for Living Sustainably (LOCALS).
City leadership has agreed that those sustainable practices or strategies should be implemented immediately when and where appropriate. Therefore, the City has begun work on sustainability efforts, prior to completion of the planning process, where costs and substantial return on investment or sustainable impact made sense to do so- as noted in the Where We Are Today section of this Plan.

However, a more deliberative implementation of the plan is necessary. The changing regulatory and policy environment at federal and state levels; the extreme fluctuation in oil prices from a high in June 2008 to low in November 2008 with prices likely to rise yet again; changing downward economic situation, here and globally; all require a more strategic investment of time and resources. In other words, we should pursue those strategies where immediate savings can be realized or limited and identified resources can produce ongoing savings revenue to the City and its taxpayers given the current economy.

1. **Continue the efforts of the Green Ribbon Panel, changing membership to reflect citizen representation only.**

Throughout much of 2008, the Green Ribbon Panel has been meeting monthly and providing input and education in developing the first Sustainable Vancouver Plan. In addition to the appointed citizen Panel members and key City directors and department heads, participants in the meetings have included elected officials, city staff, interested community members, visiting students and media.

The City should consider transitioning the Green Ribbon Panel to an appointed advisory group for Sustainability Efforts. Suggestions are as follows:

Existing members, or at least four existing members, who wish to remain, should be considered, for inclusion in the new committee and new members would be invited and should include representation from existing constituencies, plus K-12 and utility representatives. The Green Ribbon panel would include no more than 12 member’s total.

Terms of service for the Green Ribbon Panel will be two years or until the panel is terminated by the City Manager’s Office.

Duties of the Green Ribbon Panel will include:

- Upon initial formation, meet with the City Manager and staff of the City Green Team to review City Manager’s proposed sustainability work plan for the start up and make recommendations regarding the plan’s ability to meet the intent of the plan,

- Submit a written evaluation to the City Manager’s Office annually on progress towards implementation of the plan,
• Make recommendations to the Sustainability Coordinator and City officials on communitywide sustainability efforts for which the City has no direct control or accountability but are contained in the Sustainability Plan.

• Meet semi-annually with City Green Team to review progress and help evaluate progress based upon annual sustainability scorecard.

2. Establish a City Staff Green Team.

The Green Ribbon Panel recommends the City Manager appoint a “Green Team” consisting of volunteer staff from several City departments. This will be responsible for developing and coordinating sustainability strategies, and for reporting on the City’s progress toward sustainability goals and targets contained in the approved Sustainable Vancouver Plan. The Sustainability Coordinator will be charged with implementing the plan and coordinating the efforts of the Green Team. The Sustainability Coordinator will also support the efforts of the Green Ribbon Panel and assist in community-wide strategies. Additionally, the city should establish an internal intranet discussion and idea forum for city operations that help move the city to a more sustainable future and save energy and dollars.

The Green Team’s mission shall include an emphasis on in-house education and outreach with a specific focus on implementing the plan as it pertains to City operations. These activities will be tempered by available local resources; possibly funded through savings achieved through sustainable strategies; and available grants from state or federal agencies.

Duties of the Green Team shall include:

• Implementing the goals and recommended actions that the City is charged with completing in the Council approved Sustainability Plan and by the City Managers Office; and for which resources are available,

• Assist the Sustainability Coordinator in preparing an Annual Sustainability Scorecard and related reports,

• Assist in providing in-house public education and outreach on City-related sustainability issues,

• Lead through example by demonstrating commitment to sustainable practices within City operations.

3. Continue to provide training to City employees on Sustainability issues and practices.

A great deal of success has already been realized by efforts of employees in the City’s 4400 building through the self-guided study courses provided by the Northwest Earth Institute. These employees, with limited assistance from the Sustainability Coordinator, have embarked on a self-study program on their own time and own expense. This grassroots involvement initiative has received high reviews by the participating employees. There are
six subject areas: Global Warming, Changing Course; Choices for Sustainable Living; Menu for the Future; Voluntary Simplicity; Healthy Children – Healthy Planet; and Exploring Deep Economy.

It is recommended that these same or similar self-guided study programs be offered to other work areas on their own time, such as lunch hours. The Sustainability Coordinator and volunteers from the 4400 building have offered to help host and organize these discussions.

4. **Continue providing targeted community and sector specific workshops on various topics of sustainability, including a major keynote speaker to the community at large.**

Feedback from the Southwest Washington Sustainability Conference (July 2008) recommended that specific workshops for key community sectors be offered for more hands-on or specific guidance on how to effectively and efficiently incorporate sustainability. Already, some workshops have been offered including, with sponsorship from ShoreBank Pacific and others, Buying Local and Sustainable Business Breakfast Series, etc. Future workshops could include Green Buildings; Low-Impact Development; Green Jobs and Green Economic Development; New Carbon Markets and opportunities; Community Gardens, etc.

Additionally, the City should consider, hosting a national keynote lecturer each year, much like the Marshall Lecture, but focused on topics of Sustainability. All of these events would need to identify funding resources outside of City funding.

5. **Establish a green or environmentally responsible procurement policy for all city purchases.**

The City should grow on efforts recently begun by establishing procurement policies that encourage and increase the use of environmentally preferable products and services. By including environmental consideration in purchasing decisions, the City can promote practices that improve public and worker health, conserve natural resources, and reward environmentally conscious manufacturers, while remaining fiscally responsible. Where legally allowable and appropriate, the City should also support local businesses in purchasing supplies and services.

6. **Continue identifying barriers to green or sustainable development. Develop recommendations for incentives or other mechanisms that increase green residential and commercial development.**

The City of Vancouver in partnership with Clark County has embarked on a study with the U.S. Green Building Council to identify code barriers to constructing a variety of residential types to the Living Building Challenge. The final deliverable of this study is due in March 2009. In the final report to be published in 2009, recommendations will be provided on how to convert these barriers to incentives. While there is limited opportunity to change federal and state codes, and low likelihood for future funding of similar opportunities, creative incentives could be crafted from this study to advance the practice of green buildings.
Additionally, the City of Vancouver should consider linking infrastructure investment in partnership with the private sector to require sustainable development practices in our major developments, such as the waterfront and elsewhere.

7. **Continue efforts at fuel use reduction by City vehicles. Expand on the efforts of Public Works to other service areas.**

    Significant voluntary strides have been made to reduce fuel use in city operated vehicles, especially the employees of Public Works – Operations Center. Strategies and goals should be developed for all city operated vehicles (including Police and Fire), including anti-idling policies for all city vehicles.

8. **Maximize use of the new U.S. Department of Energy Efficiency and Conservation Block Grant (EECGB) and other sustainability related federal stimulus dollars to bring energy efficiency opportunities and funding to the City of Vancouver.**

    The City Department of Facilities, Risk, and Property Management have undertaken energy audits of selected City owned facilities and are embarking on conservation improvements and capital improvements through ESCO agreements where it is cost effective. These efforts should continue and consider acceleration, especially with measures that have short pay-back periods. In addition to reducing City expenses these efforts will help us meet our targeted reductions in greenhouse gas emissions.

9. **Continue work with other local governments, K-12, WSU-V, Clark College and the Skills Center, Clark Public Utilities, businesses, neighborhood associations and others to develop a regional approach for sustainability in Southwest Washington.**

    The City of Vancouver has been working regionally with Clark County and small cities within Southwest Washington to promote sustainable business practices. There are also numerous other examples of regional cooperation around sustainability, such as solid waste and recycling efforts. The City should continue in these and other efforts that develop a consistent message and regulatory environment, save tax payer resources, and recognize we share in the same bio-region. Additionally, the efforts contemplated under this plan cannot be completed alone and need to be coordinated.

10. **Consider increasing the renewable portfolio (wind, solar, etc.) of energy use consumed by the City operations.**

    Where cost effective and where energy price stabilization may be foreseeable, the City of Vancouver should work in partnership with Clark Public Utilities to increase the portfolio of renewable energy in the energy we purchase. Not only does this help move our country off foreign oil, it offers potential to reduce our future energy price increases and reduce our greenhouse gas impacts. Additionally, it signals the region and potential commercial and industrial businesses we are supporting a “green” region.
11. Work to increase the number of community gardens in City parks; other publicly owned land, and residences. In partnership with other organizations help educate homeowners and residents in sustainable gardening techniques and practices.

In many community meetings and neighborhood association meetings, citizens and residents have consistently called for the increase in the number of community gardens. Not only does this increase the availability of locally grown and organic food, but it helps build community and reduce household costs.

12. Begin the electrification of our transportation system.

This region likely will become the hub for the manufacture and initial promotion of electric plug-in hybrid vehicles and electric cars. Working with Clark Public Utilities and corporate sponsors; start developing an infrastructure that supports plug-in options and set aside a percentage or specific parking for plug-in hybrids and all electric vehicles.

Endnotes

i At least 70% Benchmark for regional average
ii At least 70% Benchmark for regional average
iii Work with procurement to examine cost of tracking this data
iv Greater 26% - national average
v 6.0 acres per 1,000 residents
vi Research available indicators
vii Set base goal, research available indicators
viii 50% or more