

NO: R091

COUNCIL DATE: May 30, 2011

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## REGULAR COUNCIL

TO: **Mayor & Council**

DATE: **May 24, 2011**

FROM: **Sustainability Manager  
Deputy City Manager**

FILE: **0512-02**

SUBJECT: **Surrey Sustainability Charter - Progress Report for 2009-2010**

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## RECOMMENDATION

The City Manager's Department recommends that Council receive this report as information.

## BACKGROUND

In September 2008 Council adopted the Surrey Sustainability Charter, which is a comprehensive framework for implementing a progressive 50-year vision for a Sustainable City. The Charter was developed in collaboration with residents, stakeholders, Council and staff. The Charter contains a series of actions that are to be pursued by the City over time. As part of the Charter implementation program, it contains a commitment to carryout annual reporting on the implementation status to highlight the previous year's successes and identify the tasks for the coming year. This report responds to this commitment for 2010.

The City has made considerable progress toward the realization of the vision of the Surrey Sustainability Charter since its adoption in 2008. *The Surrey Sustainability Charter Progress Report for 2009 - 2010 (SC Report)*, a copy of which is attached as **Appendix "A"** to this report, highlights the accomplishments to date in implementing the vision, goals and objectives of the Sustainability Charter and documents intended actions for the next year.

## DISCUSSION

Highlights of the SC Report are reviewed in the following sections.

### Corporate Leadership

As a demonstration of the City's ongoing commitment to sustainability, the following corporate initiatives and projects have been undertaken, among others:

- A Sustainability Office has been established to ensure that there is a continuing on-going focus on the goals and objectives contained in the Charter both within the Corporation as well as in the broader community;

- A Corporate energy and greenhouse gas (GHG) inventory has been completed;
- A Corporate Emissions Action Plan has been developed as the framework for reducing corporate energy consumption and GHG emissions by 20%. To date, energy and cost savings measures have been implemented in building retrofits and green fleet initiatives.
- Pocket farmers markets have been implemented;
- Actions have been taken to significantly reduce solid waste at City Hall including the introduction of an organics waste collection system; and
- Cultural diversity celebrations.

## Community Action

To strategically guide community environmental, economic and socio-cultural sustainability outcomes across the City, two overarching initiatives were completed in 2010 in collaboration with the community. These overarching initiatives were:

- **Development of Sustainability Indicators & Targets:** Eighty-seven (87) indicators and performance targets were developed by a Community Task Force, which will be used to measure progress and pursue specific outcomes in relation to the goals and objectives of the Sustainability Charter;
- **The City's Five Year (2011-2015) Financial Plan has been developed around the 3 Pillars of Sustainability as contained in the Sustainability Charter.** This will be continued into the future.

**The SC Report highlights the following initiatives and accomplishments under each of the three (3) Pillars of the Sustainability Charter:**

- **Economic Pillar:**
  - **Investment & Job Creation:** The Economic Investment Action Plans and Clean Energy Action Plan were developed and the Build Surrey program was approved with the aim of bringing more jobs and investment to Surrey and continuing to enhance the liveability of the community;
  - **Economic Summits:** The Surrey Regional Economic Summit was hosted in each of 2009 and 2010 to build Surrey's profile regionally, provincially and nationally as a place to invest;
  - **Local Farming:** Efforts to support local farming and food security and to raise public awareness of foods grown and/or produced in Surrey included the annual Flavours of Surrey event, the production of a Farm Fresh Guide, as well as improved signage in farming areas directing consumers to local farmers.
- **Environment Pillar:**
  - **Community Energy Manager & District Energy:** A dedicated Community Energy Manager was hired to develop energy and emissions reduction projects with emphasis on developing district energy systems that will provide heating and cooling initially in Surrey City Centre and subsequently in other locations across the City;

- **Official Community Plan Amendments:** A community emissions reduction target of 33% per capita has been included in the Official Community Plan to act as a guide to City planning and land development policies;
- **SolarBC:** The City has become a Solar Community under the SolarBC Program, which obligates the City to encourage homebuilders to install infrastructure in new single family dwellings that will allow for easy conversion to solar energy use;
- **Energy & Emissions Outreach & Training:** The City sponsored Climate Smart training for Surrey businesses in partnership with the Surrey Board of Trade and Metro Vancouver and sponsored with School District #36 and the BC Sustainable Energy Association Climate Change Showdown workshops in 33 elementary schools in Surrey;
- **Waste Reduction:** Waste reduction programs have been introduced including the pilot organics waste collection program for 2000 single family homes in four neighbourhoods, efforts to reduce waste from city-sponsored events, and an organics waste collection program in City Hall and other Civic facilities;
- **New Additions to the City's Tree Canopy & Park Inventory:** The City acquired 110 acres of new park land over 2009 and 2010, 50% of which will be returned to a natural state or retained as natural space. The City also planted over 15,000 new trees in parks, along streets as part of new development projects and in natural areas;
- **Sustainable Development, Green Infrastructure & Ecosystem Management:** Revised standards for sustainable green infrastructure in private development and public realm projects were introduced to infiltrate and treat stormwater runoff. A Sustainable Development checklist for new development projects was also introduced. The City completed the Ecosystem Management Study, which introduced a 'hub and spoke' network of interconnected green spaces and related preservation and environmentally friendly policies. A City Centre Green Network Plan is being developed that will provide a series of walking and cycling paths throughout the City Centre area;
- **Sustainable Transportation:** Significant investment has been made in sustainable transportation facilities including 22 km of new walking trails, bike lanes, multi-purpose ways, and sidewalks. Pedestrian bridges are being built to create new linkages for continuous pedestrian and cyclist routes across Highway No. 1 and Highway No. 99. The City also engaged schools as part of the Safer Schools Program and has achieved up to 28% improvements in children walking and cycling to/from schools. This program also included road safety measures near schools; and
- **Community Stewardship, Environmental Programming & Volunteerism:** Surrey residents have been actively engaged as volunteers for important community events as well as stewardship and education initiatives. The community has been actively engaged as volunteers to support the Surrey Olympic Celebration Site, Canada Day, Fusion Festival, Surrey Nature Centre at Green Timbers, the Environmental Extravaganza, the Surrey Natural Areas Partnership, the Surrey Youth Stewardship Squad, and many other programs and events. Volunteers engaged in events number in thousands donating tens of thousands of hours of volunteer time.

- **Socio-Cultural Pillar:**

- **Leadership on Difficult Issues:** The City has played a leadership role and cultivated productive partnerships with the provincial and federal governments to address complex and urgent social issues such as homelessness, crime, elder abuse, and the settlement of government of assisted refugees;
- **Library and Recreation Program Investments:** The City has made an annual operating budget commitment of \$1.5M in new and enhanced recreation and library programs in 2009 and 2010. These operating commitments will continue on an on-going basis into the future;
- **Child & Youth Friendly City:** The City has adopted an innovative Child and Youth Friendly City Strategy which includes 96 recommendations for providing more opportunities for young people to be engaged in civic issues, creating imaginative play areas and promoting healthy activities and fitness;
- **Homelessness & Housing Fund:** The City working with community stakeholders established the Surrey Homelessness and Housing Society and contributed \$9 million to the Society with the focus being to address housing and homelessness issues across the City;
- **Crime Reduction:** The City developed and introduced in collaboration with community stakeholders a Crime Reduction Strategy involving over 100 recommendations in the context of reducing crime and enhancing public safety. Many of the recommendations of the CRS have been introduced or are being acted upon;
- **Arts & Culture:** The City has undertaken several arts and cultural initiatives including the Surrey Art Screen project, and the Earth = Home exhibition at the Art Gallery. The City has also renovated the former Fire Hall No. 10 in Newton as an arts facility; and,
- **Beautification Programs & Grants:** The City has introduced several Beautification initiatives including banner programs, graffiti removal programs, decorative lighting and neighbourhood signage. The City also launched a Community Enhancement Partnership Program to encourage individuals and groups to undertake neighbourhood beautification projects and activities that build community involvement and civic pride.

**Priorities for 2011:**

**The following is a list of the more significant priorities related to sustainability on which the City will focus for the next year:**

- **Community Energy & Emissions Plan:** On the heels of developing the Corporate Emissions Action Plan, staff will be working with the community in developing a Community Energy & Emissions Plan (CEEP). This initiative addresses GHG reduction targets that go beyond the City's own operations to the functioning of the entire community. The CEEP will build on the work the City has already undertaken to reduce community emissions as outlined above. The process will include the engagement of citizens, other stakeholders and businesses in the development of the Plan;

- **Climate Adaption Planning:** A Climate Adaptation Strategy is proposed. The strategy will be focussed on adaptation planning to reduce risks where there are vulnerabilities associated with climate change. Anticipated climate change challenges relate to infrastructure management (caused by rising sea levels and increased precipitation), heat exposure, emergency response, farming, local ecosystems and vegetation, population movements and impacts of vector-borne diseases;
- **Neighbourhood Retrofit Study:** Staff will work with the UBC Design Centre for Sustainability to uncover opportunities for growing more food in older residential neighbourhoods, and reducing GHG emissions from older buildings and transportation sources;
- **Sustainable Food System:** Staff will assess opportunities for developing a local sustainable food system that will look to broaden opportunities for local growing, local processing and local distribution of food in Surrey including appropriate marketing and celebration;
- **Sustainability Reporting:** Staff is developing an online “Sustainability Dashboard” that will provide an engaging interface for reporting on the City’s sustainability indicators and targets. The dashboard will also include an interactive “Sustainability Map” that will provide spatial and visual references to the numerous projects initiated by the City and other parties that relate to the full scope of sustainability. Mapped items will include: Clean Energy demonstration projects, LEED / BOMA certified buildings, community gardens, cycle routes, affordable housing, community facilities, and hatcheries, to name only a few;
- **Ecosystem Management Study (EMS) & Biodiversity Strategy:** Elements of the City’s innovative EMS study will be integrated into the Official Community Plan and will inform the development of a Biodiversity Strategy that is currently being prepared to guide biodiversity management across the City; and,
- **Community, Neighbourhood & Rapid Transit Planning:** Staff is undertaking major community planning initiatives including a major update to the City’s Official Community Plan, the development of a rapid transit plan for Surrey in collaboration with TransLink and Metro Vancouver and the preparation of neighbourhood plans for the West Clayton area and areas with Grandview Heights and South Port Kells. Each of these plans will be subject to planning and design for sustainability.

## SUSTAINABILITY CONSIDERATIONS

The City’s Sustainability Charter identifies ongoing engagement and communications as key strategies for promoting sustainable choices in Surrey and developing broad support for ongoing City and community action. The SC Report and the upcoming Sustainability Dashboard and Map will send a strong message that the City as an organization and Surrey residents, community groups, developers and businesses are actively engaged in creating a sustainable community for future generations.

## CONCLUSION

The Surrey Sustainability Charter Progress Report for 2009 - 2010 highlights progress and accomplishments to date in support of advancing the vision, goals and objectives set out in the City's Sustainability Charter. In partnership with an array of community stakeholders, the City has made considerable progress in each of the three pillars of sustainability over the past two years. A number of significant sustainability initiatives as described in this report are being pursued in 2011 that will build on the successes that have already been achieved.

Peter Russell  
Sustainability Manager

Dan Bottrill  
Deputy City Manager

PR/mc

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**Appendix "A" – The Sustainability Charter Progress Report 2009-2010**



# Sustainability Charter

PROGRESS REPORT  
2009-2010



**The City of Surrey has made considerable progress on the implementation of the Sustainability Charter since its adoption in 2008 and remains committed to building a sustainable city. This Sustainability Charter Progress Report is the first annual report prepared as part of an ongoing commitment to communicating the City's progress on implementing innovative and sustainable initiatives.**

While all departments are responsible for implementing the Charter, the City's Sustainability Manager and the members of the Interdepartmental Sustainability Team play key roles in moving initiatives and actions forward.

This progress report is organized by the pillars of sustainability and begins with a short overview of corporate sustainability initiatives.

The Sustainability Charter is available at [www.surrey.ca/sustainability](http://www.surrey.ca/sustainability).






# Sustainability Charter

## PROGRESS REPORT

### 2009-2010

<b>SUSTAINABILITY CHARTER OVERVIEW .....</b>	<b>4</b>
<b>OUR STARTING POINT: DEMONSTRATING CORPORATE LEADERSHIP.....</b>	<b>6</b>
<b>OUR MAIN FOCUS: COMMUNITY SUSTAINABILITY .....</b>	<b>10</b>
Setting Clear Direction .....	10
Economic Pillar .....	12
Environmental Pillar .....	16
Socio-Cultural Pillar .....	24
<b>LOOKING AHEAD: PRIORITIES FOR 2011 .....</b>	<b>28</b>



**Sustainability in Surrey is about living well but within our means and considering the social, cultural, economic and environmental impacts of everything we do.**

## **SUSTAINABILITY CHARTER OVERVIEW**

In September 2008, Council unanimously adopted the Sustainability Charter, a comprehensive framework for implementing a progressive, 50-year vision for a Sustainable City. The Charter was developed in collaboration with residents, stakeholders, staff and Council. The Charter contains 56 actions, of which 32 were highlighted for immediate action. “Sustainability” in Surrey is about living well but within our means and considering the social, cultural, economic and environmental impacts of everything we do. This means that while we are building a great and livable City, we will promote a high quality of life for our residents and businesses while minimizing negative impacts of development.

The Sustainability Charter remains the City’s overarching policy document. The Charter includes an Action Framework built on:

- **Spheres of Influence:** Corporate Operations, Municipal Jurisdiction; and External organizations.
- **Pillars of Sustainability:** Socio-Cultural, Economic, Environmental Pillars
- **Time Frames for Implementing Sustainability:** Immediate/short-, Medium- and Long-term.

2009-2010 was a period of traction for implementing sustainability policies, practices and programs throughout the City. Through the efforts of Council, the City's numerous departments, an inter-departmental Sustainability Team, and the Sustainability Manager, sustainability initiatives are quickly moving ahead across the organization. High impact projects are highlighted in this section.



## **FIRE HALL #14**

The new state-of-the-art Fire Hall #14 is one of the first civic buildings that visitors will see as they cross the Canada/U.S. border into Surrey on Pacific Highway. The design incorporates art, wood, water, rock and glass and represents a contemporary and sustainable image of Surrey.

The new hall incorporates many sustainability features, including a solar water heating system, reduced flow water fixtures, and energy saving lighting systems. It also includes the City's latest public art display which represents the spirit of the community, depicting two firefighters and four students from Hall's Prairie Elementary School.



## OUR STARTING POINT: Demonstrating Corporate Leadership



**GREEN FLEET:** The City of Surrey is the only municipality in Canada operating a hydrogen fuelling station. The new filling station at the City's Operations Centre is one of two hydrogen fuelling stations in Surrey; the other is located at Powertech Labs. Surrey is also testing two zero emission hydrogen fuel cell vehicles, as part of the City's Green Energy Fleet. The City will be adding up to 21 alternate fuel vehicles to its fleet. These will include new technologies such as hydrogen, electric and compressed natural gas. The City will also add advanced charging stations at the Operations Centre for its electric vehicles once vehicles are procured.

## REDUCING OUR CARBON FOOTPRINT - Corporate Emissions Inventory & Action Plan

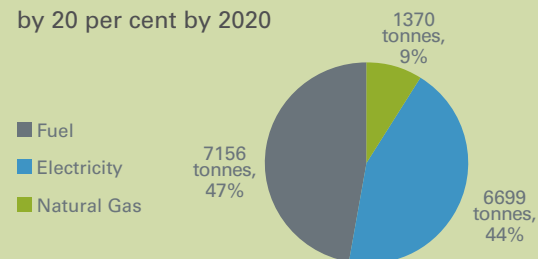
As signatories to the BC Climate Action Charter, the City is committed to carbon neutral City operations by 2012. To meet this requirement, the City completed an energy use and GHG emissions inventory (for 2005 to 2010) and a Corporate Emissions Action Plan. Council endorsed the Plan in October 2010 which calls for reductions to GHG emissions by 20% by 2020. While corporate activities to reduce energy and GHG emissions have been ongoing for a number of years, the plan also includes new strategies and actions for reducing emissions, such as:

- **LEED® Gold City Hall & a District Energy System using Renewable Energy:** 2010 was a year of hard work that led to major sustainable development commitments. Surrey's new City Hall aims to be LEED® Gold certified and will optimize energy use through the BC Hydro New Construction Program. The City is also investing in a geo-exchange energy system that will be a catalyst for the development of Surrey's first District Energy System. Together, these initiatives will place Surrey as a leader in establishing green civic facilities and catalyzing sustainable urbanism in Surrey Centre.
- **Energy-Efficient Buildings:** The City pursued facility upgrades at Newton Wave Pool, South Surrey Indoor Pool and other buildings that will significantly reduce energy consumption and GHGs. The City also installed a solar water heating system for the hot water supply at one of our Fire Halls.
- **Fleet Greening:** Surrey is piloting alternative vehicle technologies and fuels to assess viability as well as promote broader market uptake. New vehicles technologies in the pilot include compressed natural gas, hydrogen fuel cell and electric vehicles. The City installed a hydrogen fuelling station at the Central Works Yard, the only Canadian municipality with such a facility. The City was awarded an E3 Fleet – Gold rating for increasing fleet fuel efficiency, and reducing emissions and operating costs. Surrey's fleet is now one of the greenest in Canada!
- **Trip Reduction:** The City is piloting a program to make the work of bylaw officers more mobile to reduce fuel costs and lower GHGs, by reducing the amount of driving that is required to do the job.

## CORPORATE EMISSIONS ACTION PLAN

In 2009, the City of Surrey consumed a total of 417,079 GJ of energy and emitted 15,225 tonnes of CO<sub>2</sub> equivalent emissions in the delivery of its services. The following chart shows emission sources.

Surrey's Corporate Emissions Action Plan (CEAP) identifies actions to reduce greenhouse gas emissions by 20 per cent by 2020



### BUILDINGS

- Ensure high energy performance of new facilities
- Include alternative energy evaluation in replacement, renovation, and maintenance activities

### FLEET

- Continue implementation of green fleet vehicles
- Establish an alternative vehicle pilot program

### INFRASTRUCTURE

- Investigate potential for use of alternative energy sources
- Evaluate and implement lower energy street-lighting alternatives
- Implement user control lighting and artificial turf for major sports fields

### LEADERSHIP & ENGAGEMENT

- Establish a procurement policy that considers energy and GHG emissions
- Encourage energy conservation behaviours
- Expand energy and emissions monitoring
- Dedicate carbon tax rebate to sustainability activities



**... food scraps in kitchens and eating areas are now collected at City Hall and processed into nutrient rich soil and soil amendment product.**

### **LESS PAPER & ORGANICS COLLECTION - Solid Waste Management**

Several steps have been taken towards reducing waste with the implementation of online paperless employee pay stubs and T4s and automatic duplex printing. Surrey will also no longer be providing return envelopes with utility bills and will be encouraging residents to pay on-line - 24 trees are saved and over 3 tons of CO2 are avoided each time the City does not send out return envelopes! Finally, food scraps in kitchens and eating areas are now collected at City Hall and processed into nutrient rich soil and soil amendment product.

### **POCKET FARMER'S MARKET AT CITY HALL - Supporting Local Food Growers & Suppliers**

Staff collaborated with the Surrey Urban Farmer Market to pilot a pocket farmer's market at City Hall to provide staff at City Hall, the school district, the court house, and the RCMP, with access to fresh produce and local goods. The pilot was a success and will be continued in 2011.

### **CELEBRATING DIVERSITY - Cultural Awareness**

To support inclusion and increase awareness, the City hosts diversity events at City Hall for major cultural and religious celebrations.

These initiatives are great examples of how the City has embraced its commitment to sustainability. The City is seeing payback for its efforts as evidenced by a growing list of innovative staff-initiated sustainability practices, policies and programs.





**LEED® GOLD CITY HALL & A DISTRICT ENERGY SYSTEM USING RENEWABLE ENERGY:** Surrey's new City Hall will be LEED® Gold certified and will optimize energy use through the BC Hydro New Construction Program. The City is also investing in a geo-exchange energy system that will be a catalyst for the development of Surrey's first District Energy Utility in City Centre. Together, these initiatives will place Surrey as a leader in establishing green civic facilities and catalyzing sustainable urbanism in Surrey City Centre.

# COMMUNITY SUSTAINABILITY: Setting Clear Direction

The City's ultimate aim is to create a sustainable Surrey. Critical steps were taken this year to position the City for success in achieving its vision for sustainability.





## LONG TERM DIRECTION - Setting Targets & Tracking our Performance

A key tool for achieving the City's sustainability vision includes targets and measurable indicators (to measure ongoing progress). Accordingly, the City established a Sustainability Indicators Task Force in 2009. Task Force members included citizens and City Advisory Committee representatives. The dedicated team met for one year to advise the City on indicators and establish targets.

In total, 87 indicators organized under the three pillars of the Sustainability Charter were developed. Of the 87, the City has direct influence over 32 with the remaining 55 being influenced by other levels of government or other forces such as the market, the local economy and the environment. For each indicator, both a long-term and 'stage' target was developed. Long term targets relate to Surrey's 50-year sustainability vision; "stage" targets establish the pace at which the City intends to move towards its vision. Council received the indicators and targets in December 2010. In 2011, the City will be developing an on-line sustainability dashboard as a visually engaging and interactive reporting format.

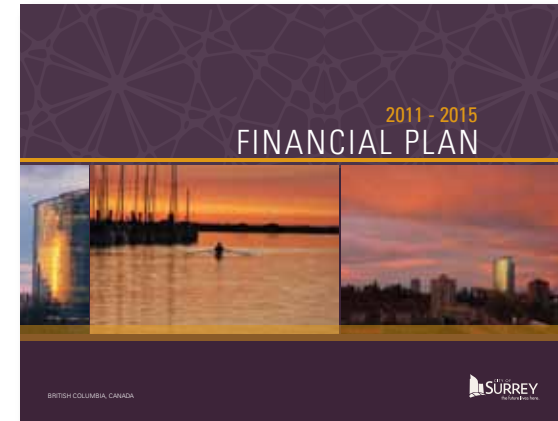
## RESOURCING OUR VISION - 5-year Financial Plan Built around the Charter

To reinforce the City's commitment to becoming a sustainable community, the City aligned its Five-Year Financial Plan under the Charter's economic, environmental and socio-cultural pillars. This underscores the importance of the Charter as the City's overarching vision and, most importantly, ensures that financial resources are in place for City departments to implement initiatives identified in the Charter.

A Sustainability Indicators Task Force, that included dedicated citizens and Surrey Advisory Committee representatives, met over a period of one year to advise the City on relevant indicators and to establish short and long term targets for each.

To view the list of Surrey's sustainability indicators and targets, please search 'sustainability indicators' at [www.surrey.ca](http://www.surrey.ca).

... the City aligned its Five-Year Financial Plan, for the first time ever, with the Charter's economic, environmental and socio-cultural pillars.



# ECONOMIC PILLAR



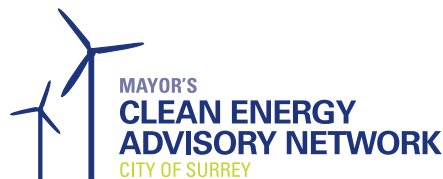
The Charter contains a number of actions that aim to spur investment and business development in Surrey. Efforts in this area support a more diverse and robust tax base and local employment opportunities which will reduce long commutes.



## ECONOMIC INVESTMENT ACTION PLAN

The Economic Investment Action Plan Phase I focused on developing new and innovative initiatives to attract investment, create jobs, invigorate the economy, streamline approvals and build healthier communities. Phase 2 was launched in 2010 to foster strong economic growth through capital investment mainly in the clean energy sector. 2010 highlights included:

- **Clean Energy Action Plan (CEAP).** The CEAP will position Surrey as a leader in green technology and clean energy companies. Specific initiatives included:
  - **Clean Energy Business Incentives:** Building permit fee reductions and eliminating property taxes for 3 years.
  - **Collaboration to Build a Surrey-based Clean Energy Sector:** The City signed a Letter of Intent with BC Hydro, Simon Fraser University (SFU) and Powertech Labs to work together to develop a clean energy business sector in Surrey, grow the green economy and implement projects that reduce the City's GHGs. The collaboration will focus on establishing a "clean energy" industry hub, introducing energy engineering education in Surrey, incubating clean energy businesses, and moving specific clean energy projects forward.
  - **Demonstration Projects:** A major component of the CEAP is to roll out an array of demonstration projects to catalyze investment and showcase technologies. Demonstration projects themes include: Power generation and conservation projects; a Clean Energy Hub; an Accelerator Centre; and clean energy vehicles.
  - **Economic Investment Zones:** Originally introduced in 2009, the City expanded the program in 2010 through to March 31, 2011 for each of the City Centre and Bridgeview/South Westminster areas. Area-specific incentives applied but generally included property tax exemptions, reduced or deferred development cost charges and reduced building permit fees.



# ECONOMIC PILLAR



## **BUILD SURREY**

Investment was made in each of the City's Town Centres so that residents could enjoy improved access to recreation and fitness, transportation, police services and green spaces. These efforts deliver on the City's vision to becoming a truly liveable and sustainable city and attracting local jobs. In 2010, \$168.4M was invested in roads; water, drainage and sewer systems; and park improvements.

## **SURREY REGIONAL ECONOMIC SUMMITS**

Since its inception in 2008, the Surrey Regional Economic Summit has grown to become the most significant business and economic conference of its kind in BC. To provide Surrey businesses with unique and global perspectives, the City has hosted Tony Blair, Rudy Giuliani, Steve Forbes, Kishore Mahbubani, the former President of the UN Security Council, and economic writers and anchors such as Pam Woodall of The Economist and Rico Hizon of BBC World News. In 2011, the Summit will feature Bill Clinton and George W. Bush in partnership with the Business Council of BC.



## AGRICULTURE & FOOD

The Charter includes actions related to food security and farming, including protection of the City's Agricultural Land Reserve (ALR) base, productivity enhancements, and promotion of Surrey's agricultural products. In 2009 and 2010, a number of programs were delivered to fulfill these tasks, including:

- **Flavours of Surrey:** Flavours of Surrey, held in 2009 and 2010, is a festival hosted by the City's Agricultural Advisory Committee that showcases local food items and highlights the importance of local agriculture and food systems in Surrey.
- **Fruit Trees:** Fruit trees were planted in partnership with the Hazelnut Meadows Community Garden to improve access to fresh produce in the community.
- **Farm Fresh Guide:** The Farm Fresh Guide as well as improved farm signage supports local food growing and jobs.

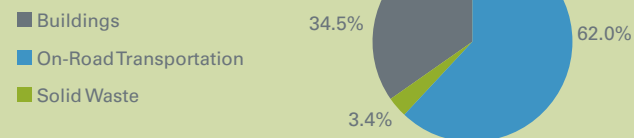


# ENVIRONMENTAL PILLAR



The Province's latest greenhouse gas emissions inventory for Surrey, completed in 2007, indicated that the community produced 2,292,905 tonnes of CO<sub>2</sub> equivalent emissions. The city adopted a target to reduce community emissions by 33% per capita by 2020 (from 2007 levels) and by 80% by 2050. Strategies and actions to achieve these targets will be the focus of a Community Energy & Emissions Plan in 2011.

## 2007 GHG EMISSIONS SOURCES



## COMMUNITY ENERGY AND EMISSIONS REDUCTION INITIATIVES

A number of projects were completed in 2009 and 2010 to address and reduce Surrey's overall community energy use and greenhouse gas emissions:

- **Community GHG Reduction Targets:** The Official Community Plan was amended to include a target for reducing GHG emissions by 33% per capita by 2020 (from 2007 levels) and by 80% by 2050. Strategies and actions to achieve these targets will be the focus of a Community Energy & Emissions Plan being developed in 2011.
- **Community Energy Manager:** In partnership with BC Hydro, a Community Energy Manager was hired to identify district energy opportunities and promote PowerSmart incentives to residents and businesses.
- **District Energy in City Centre:** A district energy system is being designed to provide heating and cooling for development in City Centre including both the new Central Library and City Hall. As development increases in the area, the system will be expanded to meet growing demand for energy in both private and public buildings.
- **"Energy Efficient Business" Training Program:** In partnership with Metro Vancouver and the Surrey Board of Trade, Surrey sponsored training for 13 businesses to undertake GHG emission inventories and to develop cost savings and energy efficiency improvements.
- **Student Climate Change Outreach & Education:** The City partnered with the BC Sustainable Energy Association to deliver 33 "Climate Change Showdown" workshops in 10 elementary schools across Surrey. Morgan Elementary was recognized by Mayor and Council in July 2010 for their efforts.
- **Surrey is a Solar Community:** The City became a Solar Community under the SolarBC Program. This program provides a grant to selected communities to assist the City in transforming the market to solar hot water systems.

## WASTE REDUCTION

A number of important actions were undertaken in 2009 and 2010 to reduce waste in Surrey:

- **Residential Pilot Organics Collection Program:** 65% of the City's garbage that currently goes to landfill is made up of organic waste which is comprised of food scraps and other divertible organic materials. Organic material is a renewable waste source which can either be composted or processed into zero emission fuel. The City initiated a cart-based collection pilot program in select areas to better understand customer concerns, waste diversion potential and costs. Outcomes of the pilot will guide a City-wide program in 2012.
- **Sustainable City Events:** The City hosted an environmental "sustainability zone" at each of several major public events this past year with participation from environment groups, BC Hydro, City programs like SHaRP, and other organizations. Waste reduction initiatives were rolled out in 2010 at the Winterfest, Fusion Festival and 2010 Games events as well. These waste reduction initiatives included:
  - Recycling stations to help event goers sort waste. Compostable and recyclable utensils, plates and napkins and water refill stations helped reduced waste.
  - The City partnered with Surrey Urban Mission staff and residents to sort and collect refundable bottles and cans at events.



# ENVIRONMENTAL PILLAR



## SUSTAINABLE DEVELOPMENT & GREEN INFRASTRUCTURE

The Charter contains actions to enhance the public realm, and implement sustainable engineering standards and development practices. The following projects have been completed:

- **Sustainable Development Checklist:** A Sustainable Development Checklist has been developed and will be applied in the review of major development applications. It addresses, among other things, energy and water conservation, accessibility, and use of sustainable materials.
- **City Centre Green Network Plan:** This Plan identifies green streets and greenways that will increase the desirability and convenience of walking and cycling in City Centre. The Plan also identifies rain garden and habitat opportunities in City Centre.
- **Integrated Stormwater Management:** The City introduced standards for absorbent top soil cover (300mm) on private yards to soak up rainwater in new development and rainwater infiltration systems in city boulevards in select areas to reduce the impact of storm runoff on the natural environment.
- **Ecosystem Management Study:** The City completed the ground work for and engaged the public in the development of this innovative study. The study mapped the City's green infrastructure features and identified strategies to raise awareness about the ecological value of the City's green network; protect remaining natural areas in sufficient scale; prioritize the protection and/or restoration of aquatic and wildlife corridors; develop neighbourhood tree canopies; encourage 'naturescaping'; and, work co-operatively with farmers to maintain connections between natural areas in farmlands. The purpose of the study is to preserve, protect, and enhance the natural environment in Surrey.





## TREE CANOPY & NEW PARKS

Properly managed trees and urban forests bring clean air and water, reduce heat stress, save energy and contribute to higher property values in Surrey. As a growing community, Surrey's challenge is to balance tree loss from new development with the planting of new trees. To achieve this objective the City:

- Required at least one tree to be planted for each new single family residential unit, with some sites requiring up to three trees. If a site cannot accommodate a new tree, a contribution must be made to the City's Green City Fund.
- Planted trees in new medians and along the boulevards where arterial road widening has been carried out. Older subdivisions which did not receive street trees at the time of development are now being planted under the Green City Program. Old asphalt medians are being renovated to accommodate street trees. In total, approximately 3,500 street trees are planted annually.
- Planted 1,500 trees in parks and naturalized areas and 6,500 native trees and shrubs as part of ongoing reforestation efforts.

Surrey invested \$32.7M in 2009 and \$24.5M in 2010 to add 125 acres of parkland as part of ongoing work to improve recreational opportunities and access to nature. The City also includes 1,400 acres of provincial parks, wildlife areas and regional parks. For new parkland, a target of retaining or enhancing sites to be 50% naturalized is maintained. The City has over 6,500 acres (10 sq. miles) of parkland throughout Surrey.



# ENVIRONMENTAL PILLAR



## SUSTAINABLE TRANSPORTATION: ACTIVE & SAFER CONNECTIONS

New trails, multi-purpose pathways and bikeways were added to increase options for how resident's travel. Surrey's 255km network received the following additions in 2010:

- 5km of new multi-purpose paths, with 4km more planned in 2011 and 20km in 2012-2016.
- 4km of new park paths and trails, with 4km more to be added in 2011 and 20km in 2012-2016.
- 13km on-street bikeways, with 19.5km to be added in 2011 and 60km in 2012-2016.  
The City has invested \$10.7M in new cycling facilities including bridges in 2009-2010.

The City has also implemented new cycling and walking infrastructure and improved the safety and efficiency of streets that will collectively help reduce GHG emissions, make people healthier and improve road safety. Highlights include:

- **Safer Schools Program:** Surrey has been working with parents, teachers and students to increase walking and cycling to schools and improve road safety. Specifically, the City reviewed the streets around 100 school sites and began implementing road safety measures within 26 School Safety Zones including installing red-light cameras at 28 intersections. City and stakeholder efforts are delivering results! In-depth work at three participating schools indicated on average a 28% increase in walking and cycling!
- **Walking Plan:** Surrey's new Walking Plan aims to expand walking as a safe and convenient transportation choice by developing a continuous and connected network of walking routes that will connect people to services, goods, schools, jobs, and recreation. Surrey will also integrate walking with land-use planning to reduce the need to use a vehicle, and create a pedestrian environment that is safe, comfortable, and interesting.
- **Road Efficiency:** 40 intersections are now monitored from a central traffic control centre so the City can reduce delays and keep traffic moving by adjusting traffic signal timing on a remote basis.

## SURREY NATURE CENTRE AT GREEN TIMBERS

Now in its third year of operation, the Centre offers a range of nature discovery programs for schools and the public. Program offerings and participation expanded in 2010, as did the involvement of volunteers. Highlights included:

- 3353 elementary school children (over 150 classes) participated in curriculum-based school field trips.
- 2300 people participated in free drop-in special events including Eco Easter Egg Hunt, Nature Tea Party for Mother's Day and Halloween in the Forest.
- Volunteerism increased by 53%.
- New programs in 2010 included Preschool field trips and Explore! programs for Guides and Scouts.



# ENVIRONMENTAL PILLAR



## EVENTS & COMMUNITY VOLUNTEERISM

The Charter identifies the need to engage the community in community stewardship. 2010 highlights included:

- The 13th Environmental Extravaganza included 63 free events and 15 school programs. The Extravaganza increases environmental awareness and raises the profile of the non-profit and volunteer groups in Surrey.
- 2681 volunteers contributed over 15,000 hours of service to environmental education and stewardship programs including Releaf tree planting, Surrey Nature Centre programs and events, Friends of the Forest and Eco Rangers.
- The Surrey Natural Areas Partnership (SNAP) marked its 10th anniversary as a partnership between the City and three local non-profit groups. SNAP hired a team of 15 post-secondary students and engaged 75 active volunteers to carry out habitat restoration, environmental education and outreach.
- The Surrey Youth Stewardship Squad (SYSS) includes 110 youth volunteers from Surrey's secondary schools. Members planted trees, removed invasive plants from natural areas and assisted with special events and community education.





**REDUCING COMMUNITY GREENHOUSE GAS EMISSIONS BY INCREASING VIABLE TRANSPORTATION OPTIONS:** The recently completed North Creek Bridge provides an important linkage between the north half of North Cloverdale and Adams Road Elementary School and the adjacent park. It also connects over 6 km of continuous pedestrian and cyclist routes (Cloverdale Greenway, Fraser Greenway and Clayton Greenway). This bridge is one of three pedestrian/cycle bridges being introduced in the City in 2010/2011. Crossings of Highway #1 and Highway #99 are also under construction with planned openings in June/July of 2011.

# SOCIO-CULTURAL PILLAR



Much of the Charter's Socio-Cultural pillar is addressed in the City's Social Well-Being Plan and the Crime Reduction Strategy, implemented and monitored by the Social Planning Division and the Crime Reduction Strategy Manager, respectively. The Community and Leisure Services Division of the Parks, Recreation and Culture Department also plays a major role in addressing socio-cultural issues in Surrey.

## CRIME REDUCTION

Through the Crime Reduction Section, work continues on implementing the recommendations in the City's Crime Reduction Strategy (CRS). A full report can be found on the City's website. Highlights include:

- Closed Circuit TV, at the Scott Road SkyTrain park and ride lot, was completed; a review of the pilot project will be provided in 2011.
- Complete rewrite of the crime reduction website, including new links to Surrey RCMP crime statistics and fresh content on a weekly basis.
- Working with crime prevention officers to deal with commercial crime and safety issues.
- City Watch, a voluntary program between the City of Surrey, CUPE Local 402 and the RCMP was launched. Under the program, municipal staff are trained to recognize and report suspicious activity they witness while carrying out their normal duties. Employees do not become directly involved with apprehending offenders, but rather are an extra set of "eyes and ears," reporting their observations to the Surrey RCMP.
- Community Safety Officers provide CPTED\* review for businesses in Surrey as requested.

\* *Crime Prevention Through Environmental Design (CPTED) is based on three principles: natural surveillance, access control & territoriality. When Applied, these can lead to a reduction in fear, incidents in crime, and an improvement in quality of life.*



## SOCIAL WELL-BEING

The City's Social Well Being Annual Report for 2010 is posted on the City's website. Areas of focus for the Social Well-being Plan include: children and youth; age-friendly community for seniors; community development and inclusion and homelessness and housing. While there are many great accomplishments to date, the City is most proud of the following initiatives:

- **Cultivating Partnerships:** The City played a leadership role or cultivated productive partnerships with the provincial and federal governments and community groups to address complex and urgent social issues such as homelessness, crime, elder abuse, and the settlement of government assisted refugees.
- **Expanded Programming:** \$1.5M was invested in 2009 & 2010 in new and enhanced recreation and library programs. These will continue into the future.
- **Child & Youth Friendly City:** An innovative Child and Youth Friendly City Strategy was adopted which includes 96 recommendations for providing more opportunities for young people to be engaged in civic issues, creating imaginative play areas, promoting walking and cycling to schools, among many other initiatives.
- **Addressing Homelessness:** The City worked with the community to establish the Surrey Homelessness and Housing Society and contributed \$9M to act as startup funding in support of initiatives supported by the Society.
- **Increasing Awareness:** To support increased awareness, the Surrey 2010 Celebration Site and the 2010 Canada Day featured a social sustainability "Community Centre" tent hosting local community groups on issues such as housing, food, seniors and early childhood development.
- **Youth Park in City Centre:** The City is proud of the Chuck Bailey Covered Youth Park, Surrey's first 'green' youth park, incorporating rain gardens, public art and gathering space. This youth park is under construction with completion scheduled for 2011.



# SOCIO-CULTURAL PILLAR



## ARTS AND CULTURE

The Sustainability Charter reflects the importance of cultural awareness in the community, as an essential tool in understanding the values, shared meaning and goals of residents within the community. The Charter includes tasks to incorporate public art in each of Surrey's six Town Centres, promoting awareness of arts and culture in a manner that celebrates diversity, and to support initiatives that recognize the importance of digital technology to youth. Recent initiatives include:

- **Earth = Home:** In 2009, the City promoted sustainability in the arts, including through the Surrey Art Gallery's exhibition program, Main Stage productions (such as Earth = Home presented in March 2009) and the City's permanent collection, many pieces of which reflect on issues related to the human impact on the environment.
- **Art Events:** The Surrey Arts Centre presented an exhibition of Ian Johnston: Transnational Absolute that relates to the effects of globalization on the environment, and Eagle Transforming: the Prints of Robert Davidson, which looked at the role of the animal world in helping us better understand nature and creation.
- **Surrey Urban Screen:** The City launched the Surrey Urban Screen which allows SkyTrain commuters and residents to experience (see and hear) animated images and sounds. Digitally projected images are activated by passing trains, and the imagery references the diversity of those travelling by transit in the Lower Mainland. Unlike other large outdoor screens, Surrey's Urban Screen presents a soundtrack for its imagery which can be heard at FM 89.9 near the project site.

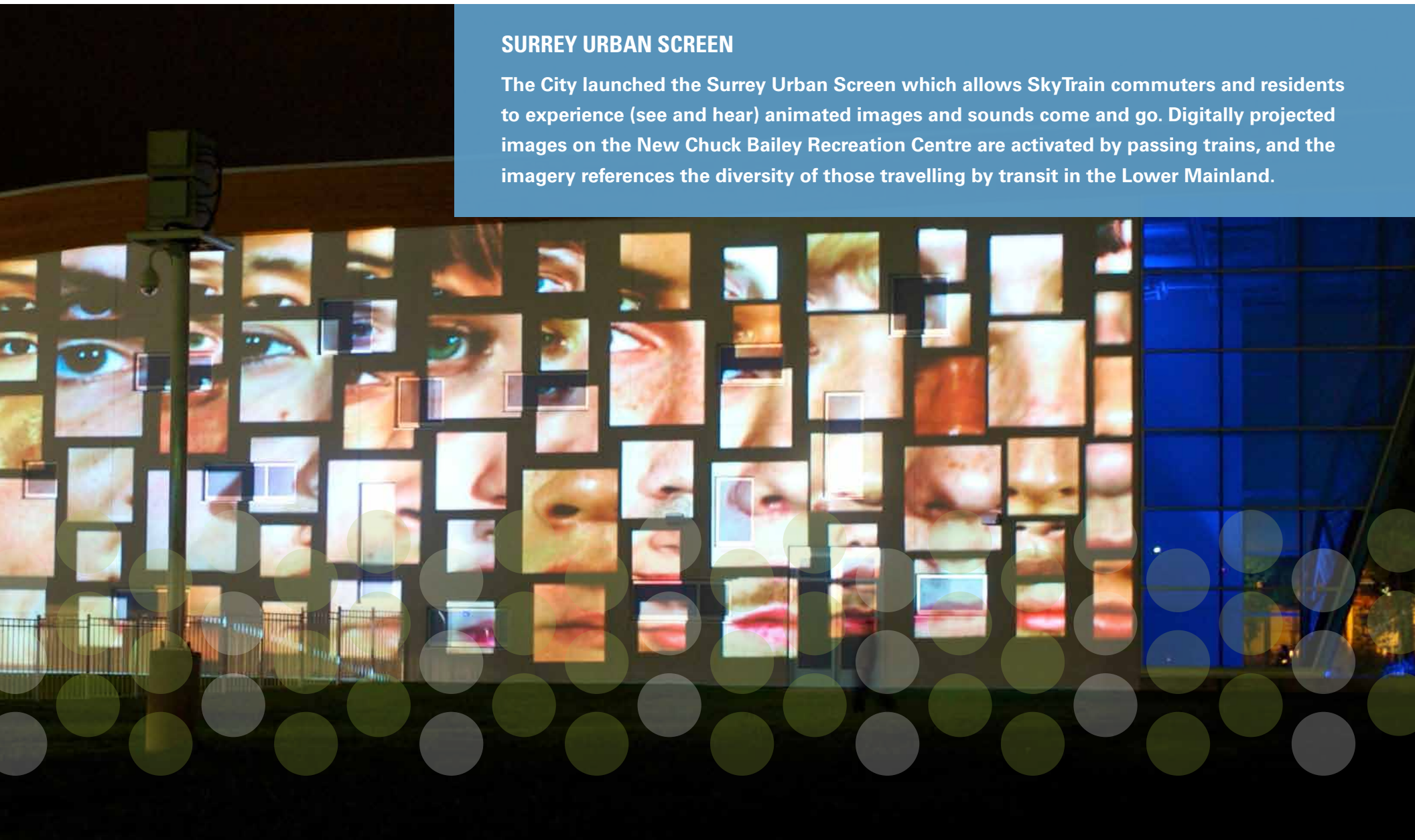
## CITY BEAUTIFICATION

The City also launched a Community Enhancement Partnership Grant Program in 2010 through the City's Beautification program, which offers matching grants for community and volunteer projects that are focused on beautifying the community.



## SURREY URBAN SCREEN

The City launched the Surrey Urban Screen which allows SkyTrain commuters and residents to experience (see and hear) animated images and sounds come and go. Digitally projected images on the New Chuck Bailey Recreation Centre are activated by passing trains, and the imagery references the diversity of those travelling by transit in the Lower Mainland.





## LOOKING AHEAD: PRIORITIES FOR 2011

The Sustainable Charter Update highlights accomplishments and achievements to date in support of advancing the vision and goals set out in the Surrey Sustainability Charter. In partnership with community stakeholders, the City has made considerable progress in each of the three pillars of sustainability and looks forward to building on those successes in 2011. Priorities for 2011 include:

- **Ecosystem Management Study (EMS) & Biodiversity Conservation Strategy:** The City's innovative green infrastructure mapping and management study, that was a significant initiative of 2010, will be referenced in completing a major review of the Official Community Plan in 2011; in particular as it relates to ecological sensitive areas and green infrastructure services. The EMS will also inform the development of a Biodiversity Strategy in 2011 to guide biodiversity management across the City.
- **Revised Official Community Plan:** As a guiding document for the City, the Official Community Plan (OCP) offers a vision and master planning framework for Surrey's future, and will guide growth and development over the next 30 years. The updated plan will incorporate recent policy directions from the Sustainability Charter, the Transportation Strategic Plan, the Parks, Recreation and Culture Strategic Plan, the Economic Development Strategy and other major policy initiatives since the last major update in 2002.
- **Creating More Sustainable Neighbourhoods:** The City will work with the UBC Design Centre for Sustainability to identify opportunities for growing more food and reducing GHG emissions that come from buildings and transportation sources in older residential neighbourhoods. The City will also undertake planning processes for new development in the West Clayton area as well as areas within Grandview Heights and South Port Kells. Each of these plans will be subject to planning and design for sustainability.
- **Local Food System:** The City will be working with Kwantlen Polytechnic University to assess opportunities for developing a local sustainable food system that will aim to broaden opportunities for food growing, processing, distribution and celebrating food grown in Surrey. The City will also be completing an agriculture plan to better understand the City's role in developing a strong local agriculture economy.

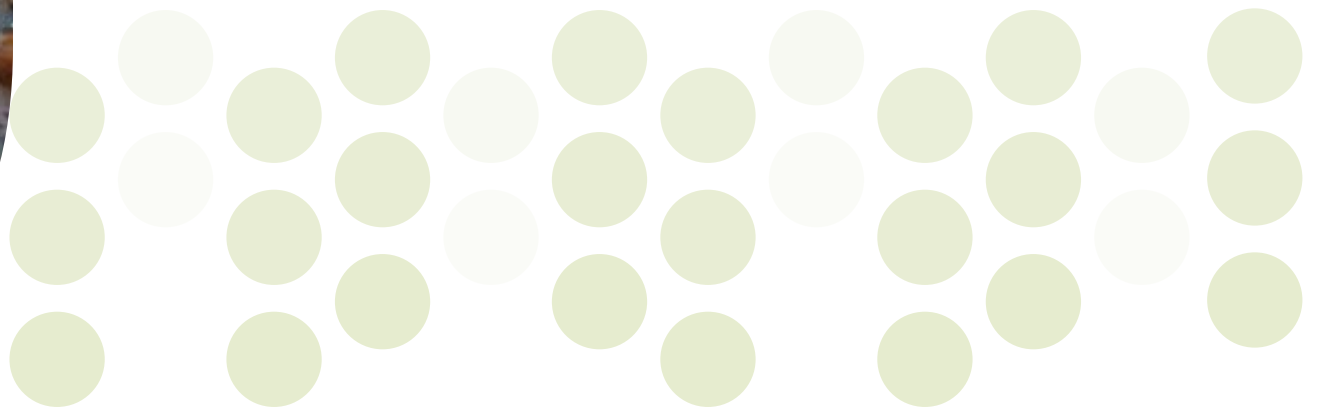




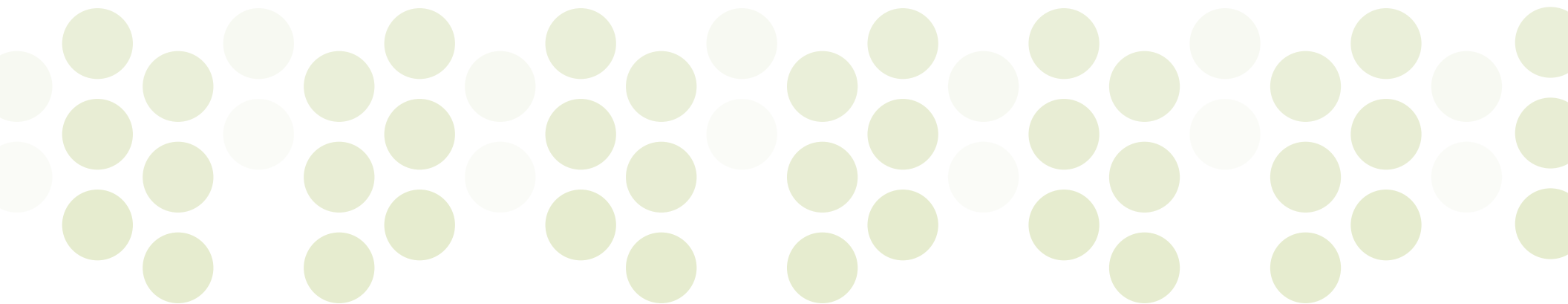
- **Reducing Community Energy Consumption & GHG Emissions:** On the heels of developing the Corporate Emissions Action Plan, the City will develop a Community Energy & Emissions Plan, that will address GHG reduction targets that go beyond the City's own operations to the entire community and develop actions and strategies to deliver on the City's commitment to reducing emissions as outlined in the OCP. The process will include the engagement of citizens, other stakeholders and businesses in the development of the Plan.
- **Adapting to Climate Change:** A Climate Adaptation Strategy is proposed. The strategy will be focused on adaptation planning to reduce risks where there are vulnerabilities associated with climate change. Anticipated climate change challenges relate to infrastructure management (caused by rising sea levels and increased precipitation), heat exposure, emergency response, farming, local ecosystems and vegetation, population movements and impacts of vector-borne diseases.
- **Sustainability Performance Reporting:** Staff is developing an online "Sustainability Dashboard" that will provide an engaging interface for reporting on the City's sustainability indicators and targets. The dashboard will also include an interactive "Sustainability Map" that will provide spatial and visual references to the numerous projects initiated by the City and other parties that relate to the full scope of sustainability. Mapped items will include: Clean Energy demonstration projects, LEED / BOMA certified buildings, community gardens, cycle routes, affordable housing, community facilities, and hatcheries, to name only a few.



- **Surrey Economic Summit:** The 2011 Surrey Regional Economic Summit on October 20th will feature a special conversation with President William J. Clinton and President George W. Bush, two individuals who have, by any measure, played major roles in shaping domestic and international events over the past 20 years. The two former Presidents will share their invaluable perspectives on the new realities facing North America and the world's major economies.
- **Party for the Planet:** Inspired by the success of 2010 Games Celebration site, the City launched a major 'Party for the Planet' event in April to celebrate Earth Day. The entirely new festival showcased the community's long list of achievements and Surrey's growing leadership in creating a sustainable community.
- **Rapid Transit Planning:** TransLink and the Province of B.C. have been leading the Surrey Rapid Transit Study in partnership with Metro Vancouver, the City of Surrey and the City of Langley since 2009. Extensive consultation was carried out in 2010 to develop a viable rapid transit system in Surrey. A range of network alternatives and technologies are being explored with a decision anticipated in late 2011 / early 2012 detailing preferred routes and technologies.



For more information or to learn about how you can get involved, please contact the City's Sustainability Manager at 604-598-5833, [sustainability@surrey.ca](mailto:sustainability@surrey.ca), or [www.surrey.ca/sustainability](http://www.surrey.ca/sustainability)



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