

NO: R096

COUNCIL DATE: May 3, 2010

REGULAR COUNCIL

TO: **Mayor & Council** DATE: **May 3, 2010**

FROM: **General Manager, Planning and Development** FILE: **3900-20-12900**

SUBJECT: **Official Community Plan Amendment - Targets for the Reduction of Greenhouse Gas Emissions**

RECOMMENDATION

The Planning and Development Department recommends that Council:

1. Receive this report as information;
2. Approve interim greenhouse gas reduction targets, policies and actions for the City of Surrey as documented in this report; and
3. Authorize the City Clerk to bring forward for the required readings and to set a date for the related Public Hearing, amendments to Surrey Official Community Plan By-law, 1996, No. 12900, as documented in Appendix I.

INTENT

The purpose of this report is to seek Council approval of an amendment to Surrey Official Community Plan By-law, 1996, No. 12900, (the "OCP By-law"), as documented in Appendix I, to include interim targets, policies and actions for the reduction of greenhouse gas ("GHG") emissions in the City as required by Provincial legislation.

BACKGROUND

In June 2008, the Province enacted Bill 27: *Local Government (Green Communities) Statutes Amendment Act*. Among the amendments to the *Local Government Act* contained in Bill 27 is the requirement that Official Community Plans include targets for the reduction of GHG emissions, and policies and actions to achieve those ends. Local governments are required to have targets, policies and actions in place by May 31, 2010.

On December 14, 2009, Council considered Corporate Report No. Coo7 outlining policy proposals for Phase 2 of the Official Community Plan ("OCP") major review. The report included policy proposals with respect to energy and climate change, including GHG reduction targets. Work on the OCP review is ongoing and is anticipated to continue into the fall of 2010.

To meet the May 31, 2010 deadline set by legislation, it is proposed that interim targets, policies and actions with respect to GHG reduction in Surrey be established and incorporated into the City's current OCP By-law. A comprehensive GHG strategy is to be included in amendments that will result from the OCP major review that is currently underway.

DISCUSSION

The increase in GHG emissions is linked with irreversible climate change unless humanity acts swiftly. The local impacts of climate change may include a higher incidence of extreme weather, including summer droughts and heat waves and increased winter rainfall/snowfall. This will likely result in increased local flooding, increased erosion and higher infrastructure costs. Sea levels are also predicted to rise, threatening development in low lying areas of Surrey and agricultural production in the Serpentine-Nicomekl lowlands and the result will include increased costs for diking and pumping.

The reduction of GHGs is a joint responsibility of all levels of government. While municipalities have limited direct control over many of the determinants of GHG production, such as vehicle tailpipe emission standards, building codes and intensive industrial activities, they can exercise control over some aspects of land use, transportation, buildings, solid waste, and energy. Table 1 outlines areas of local government influence among the GHG emitting sectors.

Table 1 – Sectors and Areas of Local Government Control or Influence

Land Use	
<ul style="list-style-type: none"> • Housing and employment density • Proximity to shopping and services 	<ul style="list-style-type: none"> • Cycling network connectivity • Pedestrian orientation
Transportation	
<ul style="list-style-type: none"> • Transportation Mode • Vehicle kilometres traveled 	<ul style="list-style-type: none"> • Parking provision and regulation • Local transit routes • Support for alternative vehicle fuels
Buildings	
<ul style="list-style-type: none"> • Type and size of buildings • Renewable and district energy systems 	<ul style="list-style-type: none"> • Retrofit incentives • High performance buildings
Solid Waste	
<ul style="list-style-type: none"> • Waste reduction/diversion/recycling 	<ul style="list-style-type: none"> • Construction waste • Composting, WTE and biofuel facilities

Changes to land use patterns and transportation systems are implemented over extended periods of time. Consequently, it is to be expected that GHG reductions from such changes, while significant, will take many years to be realized. On the other hand, actions of local governments with respect to buildings, solid waste and energy supply can achieve more immediate results.

Throughout the Region municipalities have made varying degrees of progress in complying with Bill 27 requirements. Some are relying on a coarse analysis that emulates targets adopted by other jurisdictions, while others are conducting (or have initiated) more nuanced and detailed Community Energy and Emissions Plans. To meet the May 31, 2010 deadline, the Province has advised local governments to adopt, if necessary, preliminary targets, policies and actions using language that will provide the flexibility to refine them at a later date.

Although sector targets are encouraged, staff has learned that one measurable, community-wide target would be acceptable. Given the short timeline that remains to the deadline, it is proposed that interim targets, policies and actions be established with the intention of revisiting them through detailed analysis as part of the ongoing OCP major review, including a more comprehensive program of public consultation.

A compelling reason for Surrey to adopt GHG reduction targets and associated policies and actions by the Province's May 31, 2010 deadline is that it will allow the City to move forward with local transit planning initiatives and will guarantee continued, seamless access to Provincial infrastructure grant funding.

Subsequent detailed analysis conducted as part of the OCP major review may result in the establishment of sector targets. This approach will set ambitious, but achievable targets that are linked to specific actions and their potential impacts on GHG reductions. Policies and actions identified through this activity will likely take advantage of the new powers made available to local governments by Bill 27, including the authority to designate development permit areas for the promotion of energy and water conservation, and the reduction of greenhouse gases.

Target Setting

Surrey's population is growing rapidly. According to Metro Vancouver estimates, Surrey will be among the fastest growing municipalities in the Region over the next three decades with by far the largest absolute growth in population. This growth makes it much more challenging for Surrey to achieve aggregate GHG reductions than for a community with stable or slow population growth. Therefore, per capita GHG reductions are more appropriate and realistic for Surrey. Staff has confirmed that per capita targets are permitted under the Provincial legislation.

Surrey's rapid growth does have a positive aspect in regard to achieving GHG reductions. New development is subject to contemporary building codes and equipped with higher efficiency furnaces and appliances. Development in Surrey's new neighbourhoods and redevelopment in Town Centres is typically higher in density and closer to services than earlier development, making public transit and alternative (to the automobile) transportation modes more viable.

With approximately 45% of the region's remaining vacant industrial land, Surrey is anticipating a dramatic increase in its economic development base through the development of its industrial designated lands. When setting targets and policies it is important to keep in mind that local governments have limited authority to control GHG emissions from industrial activities. This is also the case for agricultural which covers for approximately one third of Surrey's land base, although there may be opportunities for innovative practices in the future.

The Province's Climate Action Plan commits BC to reducing its GHG emissions below 2007 levels by 33% by the year 2020 and by 80% by the year 2050. The Community Energy and Emissions Inventory (CEEI) is a Provincial tool devised to track and report annual community-wide energy consumption and GHG emissions. Emissions estimates are made in three primary sectors:

- on-road transportation;
- buildings; and
- solid waste.

The CEEI serves to establish a 2007 emissions baseline for the purpose of developing targets, policies and actions for compliance with Bill 27.

The CEEI baseline (2007) GHG emissions estimates for Surrey are:

<u>Sector</u>	<u>Aggregate GHG emissions</u>	<u>Per capita emissions</u>	<u>%</u>
Transportation:	1,180,087 tons CO ₂ equivalent	2.63 t	53.9%
Buildings	903,199 tons CO ₂ equivalent	2.01 t	41.2%
Solid Waste	107,470 tons CO ₂ equivalent	0.24 t	4.9%
Total	2,190,756 tons CO₂ equivalent	4.90 t	100%

It is proposed that, until a more detailed and comprehensive GHG strategy is completed as part of the OCP major review, Surrey match the Provincial targets with the following provisos:

- Targets are based on per capita emissions; and
- Targets exclude emissions from agricultural and industrial uses.

The Targets

Given the 2007 CEEI estimates for Surrey, the resulting interim GHG emission targets are:

- 3.29 tons CO₂ equivalent per capita by 2020; and
- less than 0.98 t CO₂ equivalent by 2050.

Supporting Policies and Actions

The current OCP By-law contains many policies in support of the reduction of GHG emissions in Surrey. These include policies related to compact and complete communities, environmentally responsible development, energy efficient communities, increased transportation choice and transit-oriented development.

The following additional policies related to energy supply, building performance, solid waste and municipal operations are proposed to accompany the interim GHG reduction targets, in line with the City's Sustainability Charter:

- Explore designating parts of the City as development permit areas for the purpose of promoting district energy, energy efficiency or low-impact, renewable energy, including the use of building orientation to maximize solar gain;
- Examine the use of density bonus incentives for developments that incorporate energy efficiency, or low-impact or renewable energy sources;
- Examine means to encourage the construction of high performance (LEED certified or better) buildings;
- Promote the reduction of solid waste (through recycling, composting and reducing consumption), thereby diverting it from landfills, which are significant greenhouse gas emitters;

- Enact measures to reduce GHG emissions from municipal operations, including municipal facilities and fleet vehicles;
- Engage senior levels of government in working together in areas of GHG reduction that are beyond municipal control;
- Review Surrey's GHG reduction targets as part of the ongoing major review of the OCP. Establish meaningful targets that are ambitious, but which are based on achievable actions. Develop further policies and actions that support the realization of targets; and
- Consider developing a Community Energy and Emissions Plan that rigorously addresses Surrey's GHG emission sources and potential for reduction.

Consultation

The *Local Government Act* requires local governments to consult with affected persons, organizations and authorities, and consider whether consultation should be early and ongoing. Specifically, the City must consider whether consultation is required with Metro Vancouver, adjacent municipalities (the Corporation of Delta, the Township of Langley and the City of Langley), the Semiahmoo First Nation, Surrey School District No. 36, and the Provincial and Federal governments.

It is the opinion of the Planning and Development Department that additional consultation with respect to the proposed OCP amendment is not necessary for the following reasons:

- The proposed OCP amendment is brought forward in order to comply with the Province's Bill 27 requirements;
- The proposed targets are in line with the Province's targets as outlined in the Climate Action Plan;
- The proposed targets are in-line with Metro Vancouver's targets as outlined in the draft Regional Growth Strategy; and
- GHG and climate action policies that are more comprehensive in nature will be developed as part of the ongoing OCP major review (for which opportunities for consultation will be provided).

Subject to Council consideration and approval of the recommendations of this report, a copy of this report will be forwarded as information to the jurisdictions noted above.

The public open houses held in 2009 on the OCP major review, which included presentations and discussion on climate action and energy reductions, along with the required Public Hearing on the amendments proposed in this report are sufficient to meet the public consultation requirements set out in the *Local Government Act*. Additional public open houses and a public hearing will be held in conjunction with consideration of the OCP major review later in 2010.

SUSTAINABILITY CONSIDERATIONS

Setting targets is the first step towards achieving GHG emission reductions and combating climate change. This is in line with many of the environmental goals outlined in the City's Sustainability Charter, which address (among other issues):

- The stability of the global atmosphere;
- Energy and resource consumption in the built environment;
- Reduction of solid waste; and
- Guidelines and practices that create green buildings.

While innovative new practices and technologies will be required to achieve targets, Surrey is working towards becoming a leader in green business and clean technology. In this way there are potential economic benefits to be realized through the City's GHG reduction efforts, contributing to Surrey's economic growth and vitality.

CONCLUSION

Bill 27 requires local governments in BC to include GHG reduction targets and supporting policies in their OCPs by May 31, 2010. Although more detailed targets and policies will be developed as part of the ongoing major review of the City's OCP, which is expected to be completed later this year it is necessary to establish interim GHG reduction targets in the current OCP to comply with legislation and to ensure Surrey's continued access to Provincial government grants and participation in joint initiatives.

Based on the above discussion, it is recommended that Council:

- Approve interim GHG reduction targets, policies and actions for the City of Surrey as documented in this report; and
- Authorize the City Clerk to bring forward for the required readings and to set a date for the related Public Hearing, amendments to the OCP By-law, as documented in Appendix I.

Original signed by
Jean Lamontagne
General Manager
Planning and Development

AD/kms/saw

Attachment:

Appendix I Proposed Amendments to City of Surrey Official Community Plan By-Law, 1996, No. 12900, as amended

**Proposed Amendments to Surrey Official Community Plan
By-law, 1996, No. 12900, as amended**

The following amendments are proposed to Surrey Official Community Plan By-law, 1996, No. 12900, as amended:

1. Amend *Section 2.2, C. Build Complete Communities, Key Future Direction* by inserting after *C-7 Live/Work Communities* the following:

"C-8 Reduce Community Greenhouse Gas Emissions

The City will combat global climate change through the reduction of community greenhouse gases."

2. Amend *Section 2.2, C. Build Complete Communities, Background* by inserting after the third paragraph the following:

"Reduction of Greenhouse gas emissions	The Local Government Act requires that Official Community Plans include targets for the reduction of community greenhouse gas emissions. As responsibility for the reduction of greenhouse gas emissions is shared by all levels of government, Surrey's targets relate to reductions in areas of municipal influence."
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3. Amend *Section 2.2, C. Build Complete Communities, Issues and Policies* by inserting after *C-7 Live/Work Communities* the following:

"C-8 Reduce Community Greenhouse Gas Emissions

Greenhouse gases contribute to global warming by trapping solar radiation in the Earth's atmosphere. The City supports the reduction of community greenhouse gases in areas of municipal influence.

Issues:

Policies:

C-8.1 Commit to Community Greenhouse Gas Reduction Targets

Greenhouse gas reduction targets to combat global warming

The City commits to interim greenhouse gas reduction targets which are in-line with the Provincial targets as outlined in the Climate Action Plan. The City will strive to achieve greenhouse gas reductions of 33% from 2007 levels by the year 2020 and 80% from 2007 levels by the year 2050, subject to the following conditions:

- Targets are based on per capita emissions, and
- Targets exclude emissions from agricultural and industrial uses."

4. Amend *Section 2.2, C. Build Complete Communities, Implementation measures, C-6 Build Energy Efficient Communities* by inserting after the fifth bullet the following:

- Explore designating parts of the City as development permit areas for the purpose of promoting district energy, energy efficiency or low-impact, renewable energy, including the use of building orientation to maximize solar gain.
- Examine the use of density bonus incentives for developments that incorporate energy efficiency, or low-impact or renewable energy sources."

5. Amend *Section 2.2, C. Build Complete Communities, Implementation measures* by inserting after *C-7 Live/Work Areas* the following:

"C-8 Reduce Community Greenhouse Gas Emissions

- Investigate ways to encourage the construction of high performance (LEED certified or better) buildings.
- Promote the reduction of solid waste (through recycling, composting and reducing consumption), thereby diverting it from landfills which are significant greenhouse gas emitters.
- Enact measures to reduce greenhouse gas emissions from municipal operations, including municipal facilities and fleet.
- Engage senior levels of government so as to work together in areas of greenhouse gas reduction that are beyond municipal control.
- Review Surrey's greenhouse gas reduction targets as part of the next major review of this plan. Establish meaningful targets that are ambitious, but which are based on achievable actions. Develop policy and actions that support the realization of targets.
- Consider developing a Community Energy and Emissions Plan that rigorously addresses Surrey's greenhouse gas emission sources and potential for reduction."

6. Amend *Section 2.2, C. Build Complete Communities, Quality of community indicators* by inserting after *C-7 Live/Work Areas* the following:

"C-8 Reduce Community Greenhouse Gas Emissions

- Per capita greenhouse gas emissions excluding industrial and agricultural sources.
- Number of high performance (LEED certified or better) buildings."

7. Amend *Section 2.2, C. Build Complete Communities, Relationship to land use strategy* by inserting after *C-7 Live/Work Areas* the following:

"C-8 Reduce Community Greenhouse Gas Emissions

- Efficient land use that increases housing and employment density and reduces vehicle kilometres traveled supports the reduction of greenhouse gas emissions."

8. Amend *Section 2.2, E. Increase Transportation Choice, Key Future Direction* by deleting *E-2 Improve and Balance Travel Alternatives for People* in full and replacing it with the following:

"E-2 Improve and Balance Travel Alternatives for People

The City promotes forms of development and new ways to communicate that reduce the need to travel. It encourages access to a wide range of transportation modes to reduce dependency on the automobile, including bicycles and pedestrians, and to alleviate congestion, reduce vehicle kilometres traveled, reduce greenhouse gas emissions and permit convenient transfer between different types of transportation."

9. Amend *Section 2.2, Summary of Policies, C. Build Complete Communities* by inserting after *C-8 Live / Work Communities* the following:

"C-8 Reduce Community Greenhouse Gas Emissions

C-8.1 Commit to Community Greenhouse Gas Reduction Targets"