

13.0 SUSTAINABLE DEVELOPMENT

13.1 Introduction

It is a major intention of the Official Plan to support sustainability, energy conservation and efficiency, improved air quality, and adaptation to climate change through measures to promote the wise management and conservation of resources.

Sustainable development is defined as development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development is achieved by simultaneously considering environmental, social, cultural, and economic factors as the basis for making decisions. As such, many sections and principles embedded in this Plan contribute to the long-term sustainability of the City of Cornwall, including:

- Land use policies that call for compact, mixed-use and higher density growth patterns to reduce overall transportation needs by minimizing the total number and length of automobile trips and making public and active transportation more feasible and make it easier to protect the natural environment.
- Transportation policies that encourage the use of transit and active modes of transportation including through providing infrastructure;
- Economic development policies that foster economic growth and promote arts and culture;
- Policies that support social development and inclusiveness such as through encouraging affordable housing and accessible design;
- Stormwater management practices that minimize negative impacts of development on water quality and quantity; and,
- Conservation measures that protect cultural heritage, natural heritage, agricultural, water and other resources for the long term.

One key goal of sustainable planning is to mainstream climate change mitigation and adaptation into municipal decision-making. Mitigating climate change through cutting or capturing emissions of greenhouse gases can involve developing and managing greenhouse gas (GHG) inventories, carbon management policy/policy development, and planning for carbon neutrality.

Climate change is already increasing the frequency and severity of extreme weather events, meaning that adapting to climate change is also a key priority. Even when greenhouse gas levels are reduced, the effects of climate change are expected to continue. Impacts of climate change can include:

- Extreme rainfall and storm surge events, overwhelming infrastructure and increasing flooding;
- Reduced winter cover on lakes, lower water levels and increased evaporation rate;
- Changing water temperatures;
- Reduction of water supply due to extended drought conditions;
- Higher temperatures with more frequent and longer dry spells; and,
- Changes in insect/pest and disease patterns.

Cornwall must prepare for these changes now, and over the long term, with an understanding that land use planning can contribute to adaptive and mitigative solutions to climate change.

There are many avenues through which the City can promote sustainability and one of these is land use planning.

13.2 Sustainable Development Goals

The major goals of the Official Plan with respect to sustainability are to:

1. Balance environmental, social, cultural and economic factors when making land use decisions.
2. Reduce the greenhouse gas emissions of the Corporation of the City of Cornwall, and those of the city as a whole.
3. Prepare for the impacts of climate change so that Cornwall is resilient and adaptable to change over time.
4. Encourage new development to be designed and built according to sustainability and climate resilience measures or standards.

13.3 Sustainable Development Policies

In order to achieve these sustainability goals, it will be the intention of the City to:

1. Take a leadership role in reduction of greenhouse gas emissions including through municipal demonstration projects and corporate procurement.
2. Promote and support measures taken by developers and citizens to reduce greenhouse gas emissions.
3. Design and plan infrastructure in accordance with the anticipated changes associated with climate change.
4. Encourage low impact development to maximize the amount of vegetation and porous surfaces within the settlement area reduce heat island effect and minimize the impacts of storm events.
5. Consider climate change when assessing the risks associated with natural hazards.
6. Encourage the use of sustainable design standards such as Leadership in Energy and Environmental Design for development, and incorporation of sustainable development forms, technologies and techniques. The City, at its sole discretion, may use incentives to encourage sustainable design.
7. Incorporate sustainability criteria into the subdivision design manual.
8. Promote an orderly and compact urban development pattern maintaining a convenient commuting distance to the Business Districts and other employment areas such as the Industrial Park.
9. Encourage medium and high density development on appropriate sites (e.g. by intensification on suitable vacant parcels).
10. Identify ways of increasing the overall density of new subdivisions while still maintaining a relative low density development character.
11. Intensify development within the Downtown and Le Village B.D.'s and encourage the creation of appropriate sub-centres in suburban locations.
12. Encourage greater use of the public transit system (See Chapter 12).
13. Investigate and encourage greater use of walkways and recreational trails/bike paths wherever appropriate and encourage such continued

connected green corridors in the form of walking, cycling routes and trails, for example.

14. Investigate ways in which the City's Zoning By-law, subdivision standards and other planning related legislation or requirements can be amended to encourage energy conservation. Consider granting of minor variances for energy conserving innovations.
15. As part of the Subdivision Design Manual, provide guidelines on development of passive solar oriented subdivisions including guidelines on lot, street, and house orientation and use of landscaping for climate control.
16. Investigate ways of increasing public information and understanding of energy conservation and use a citizen task force on energy conservation or similar approaches.
17. Examine ways of encouraging energy retrofitting of existing buildings.
18. Work closely with local groups and associations in improving building standards relative to energy conservation.
19. Participate in appropriate Government energy conservation programs which may be of use to Cornwall.
20. Undertake such studies and secondary plans that are necessary to implement the intent of this section and make necessary amendments to this Plan where appropriate.
21. Consider appropriate options for the utilization of alternative and renewable energy systems/techniques when reviewing development and redevelopment, proposals/projects while ensuring applicable approvals for such options are achievable and do not negatively impact on surrounding land use(s)".
22. Consider how the proposed development/redevelopment may be contributing to the mitigation of climate change by utilizing appropriate systems/techniques and adaptation considerations including but not limited to:
 - i. the reduction of greenhouse emissions
 - ii. the improvement of air quality
 - iii. the promotion of compact development form
 - iv. the orientation of development to increase exposure to sun
 - v. the amount of impervious landscape being proposed and its potential impact on stormwater runoff

- vi. the promotion of green infrastructure
 - vii. the promotion of design and orientation which
 - maximizes energy efficiency and conservation, and considers the mitigating effects of vegetation;
 - maximizes opportunities for the use of renewable energy systems and alternative energy systems, as shown in the Ministry proposed wording.
23. Encourage the use of natural building materials with noteable energy retention and thermal mass properties.
24. Develop a built environment encompassing sound construction principles and techniques meeting or exceeding the legislative code standards of the Province.