Strathcona County

Sustainability Principles and Practices

To achieve a sustainable community, Strathcona County has adopted a process defined by four science-based sustainability principals adapted from the Natural Step Framework.

Principle 1: Move towards, and ultimately achieve, solutions and activities that preserve, enhance and regenerate nature and life-sustaining ecosystems.

In practice we can:
- create more pedestrian and bicycle-oriented development
- build developments that are heated and powered by renewable energy
- expand the use of public transit
- utilize alternative fuels to power our vehicles

Principle 2: Move towards, and ultimately achieve, solutions and activities that free us from our dependence on substances that are extracted from the earth's crust and accumulate in nature.

In practice we can:
- build healthier buildings using non-toxic materials
- use alternative practices that reduce or eliminate the use of pesticides and herbicides
- utilize waste as a resource or biomass fuel source

Principle 3: Move towards, and ultimately achieve, cradle-to-cradle solutions and activities in design, manufacturing and consumption such that substances produced by society do not accumulate in nature.

In practice we can:
- redevelop existing sites and buildings
- retain green spaces and place human elements within the green spaces in ways that will reduce the human footprint
- integrate ecological features such as green infrastructure into developments
- create well-defined edges to natural areas such as the High Priority Environmental Management Areas in the Beaver Hills Moraine

Principle 4: Move towards, and ultimately achieve, social solutions and activities that allow every person to meet basic human needs and achieve their potential in life, now and in the future.

In practice we can:
- build more diverse forms of housing
- grow food locally as well as introducing and expanding locally based food production
- build more eco-industrial developments
- designing buildings and amenities to promote social and inter-generational interaction

The Municipal Development Plan reflects the land use and settlement pattern decisions from our past and projects the desires of the community and decision makers as we move into the future to realize Strathcona County's Strategic Vision and Plan.

Additional information
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4 PRINCIPLES FOR GUIDING SUSTAINABLE DEVELOPMENT

- Do no harm now or in the future -

Principle #1

Reduce and ultimately eliminate our dependence on fossil fuels and on extracted metals & minerals that are scarce and accumulate in nature.

Application to Sustainable Development

This means adopting social, economic and environmental design choices and system solutions that reduce our dependence on fossil fuels, metals and minerals that are toxic, persistent in nature. and detrimental to our health. It also means substituting essential but scarce minerals and metals with others that are more abundant and using all mined materials more efficiently and effectively.

Types of Practices

Pedestrian & bicycle oriented development; development heated and powered by renewable energy; intensification; mixed-use development; public transit; alternatively fuelled fleets; incentives for organic agriculture that minimizes phosphorus and petrochemical fertilizers and herbicides; etc.

Principle #2

Reduce and ultimately eliminate our dependence on synthetic chemicals and other manufactured substances that accumulate in nature.

Application to Sustainable Development

This means adopting social, economic and environmental design choices and system solutions that reduce our dependence on unnatural, persistent, and toxic compounds and products by substituting them with ones that are natural, abundant and break down more easily in nature. When such compounds and products are essential, they must be confined in perpetual technical loops through 'cradle-to-cradle' design that allows for their continuous recycling and reuse.

Types of Practices

Healthy building design and construction that reduces or eliminates use of toxic building materials; landscape design maintenance that uses alternatives to chemical pesticides and herbicides; purchasing guidelines that encourage low or non-chemical product use; utilizing waste as a resource: etc.

Principle #3

Reduce and ultimately eliminate activities that encroach on nature and harm life-sustaining ecosystems

Application to Sustainable Development

This means adopting social, economic and environmental design choices and system solutions that move us towards a future where there is no longer a net physical encroachment on natural areas i.e. sustainable land development. It also means exercising caution in all kinds of modifications of nature due to the harvesting of natural resources and the introduction of exotic, invasive species. It means harvesting natural resources only well-managed, sustainable eco-systems.

Types of Practices

Redeveloping existing sites and buildings before building new ones; integrate ecological features to serve as green infrastructure elements; creating a well-defined "edge" of natural space and agricultural lands; reducing water use and recycle waste water; biological sewage treatment; etc.

Principle #4

Reduce and ultimately eliminate activities that affect other's ability to meet basic human needs now and in the future.

Application to Sustainable Development

This means adopting social, economic and environmental design choices and system solutions that enable all people, including those not yet born, to meet basic human needs such as subsistence, security, participation, leisure, identity, etc. both now and in the future. It means adopting strategies that enable and enhance well-being and social interactions in the built environment and foster a sustainable lifestyle that is easy, attractive and affordable.

Types of Practices

Diverse housing types; affordable housing for a diversity of residents; locally based business and food production; eco-industrial development; participatory community planning and decision making; celebrate cultural heritage; design buildings and amenities to promote social interaction; etc.

12 THEMES FOR EVALUATING SUSTAINABLE DEVELOPMENT

- Carbon
- Transport
- Materials
- Waste
- Water
- Natural Habitat
- Well-being
- Equity
- Land Use
- Economy
- Food
- Culture