



A New Urban Design Vision for Cobourg

Presentation by
Citizens for a Sustainable Cobourg (CSC)

December 17, 2008

Official Plan Review Process

- This presentation by the Citizens for a Sustainable Cobourg is to offer our Urban Design Vision for Cobourg.
- The Official Plan Review Work Program calls for input from stakeholders to develop an Urban Design Vision for Cobourg.
- This Urban Design Vision is to be included in a Background Discussion Paper presented to the public for discussion.

Urban Design Objectives

CSC proposes a **New Urban Design Vision** for Cobourg with the following objectives:

1. Significantly reduce material and energy use
2. Significantly reduce pollution and waste
3. Switch to renewable energy supplies
4. Protect all remaining farmland
5. Create sustainable jobs
6. Improve the health of Cobourg residents
7. Improve the beauty and amenity of Cobourg
8. Accommodate future population growth
9. Provide sufficient affordable housing

Places to Grow

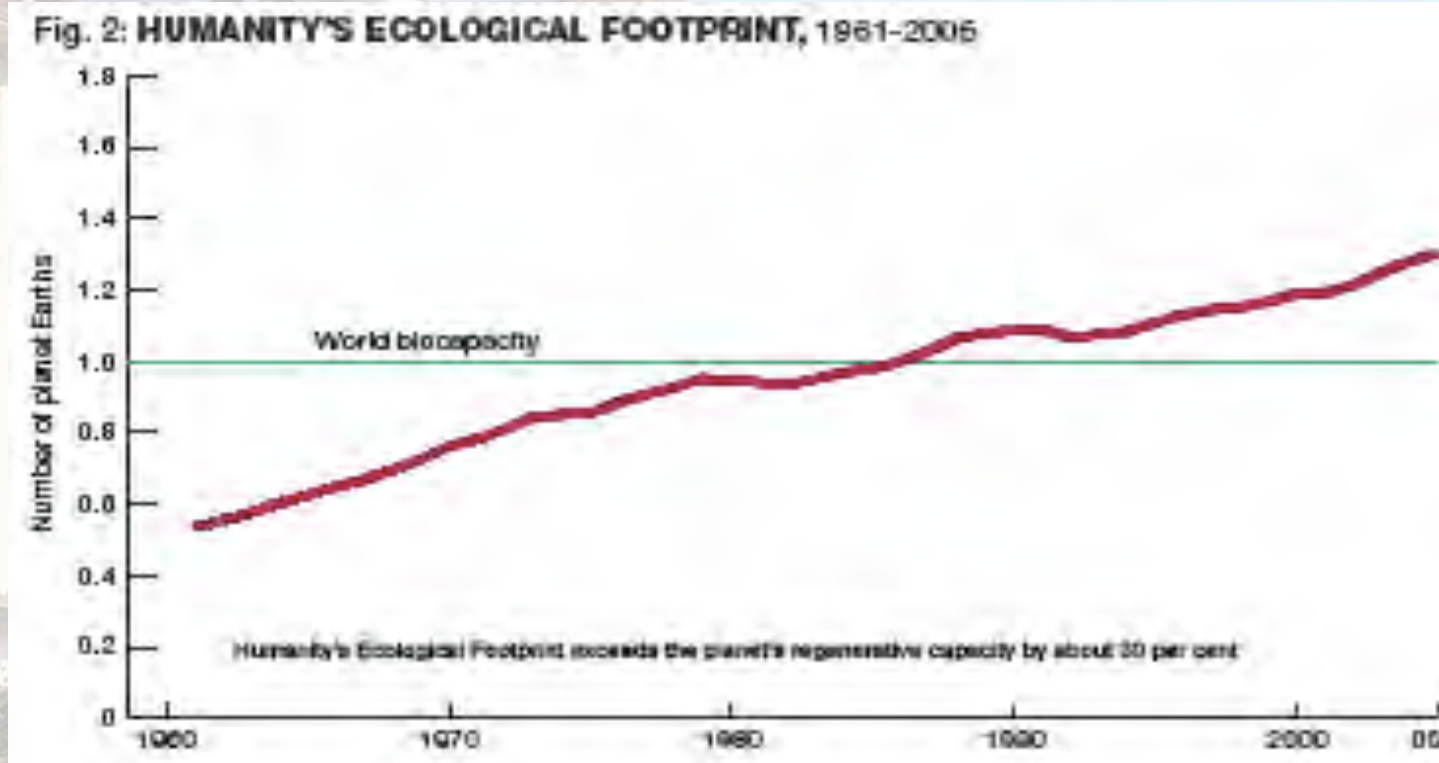
- The **New Urban Design Vision** that CSC is proposing is consistent with the principles and policies in the Province's "Places to Grow" Policy (PTG).
- PTG Principles include:
 - Build compact, vibrant and complete communities.
 - Protect, conserve, enhance and wisely use the valuable natural resources of land, air and water for current and future generations.
 - Optimize the use of existing and new infrastructure to support growth in a compact, efficient form.

See www.placestogrow.ca

Places to Grow

- PTG Policies include:
 - Shorten trip lengths
 - Encourage walking, cycling, and transit
 - Create mixed land uses within each neighbourhood, offering easy access to local stores
 - Create pedestrian-friendly streets
 - Design towns with a “compact urban form”

Reduce material and energy use (1)



Source: *Living Planet Report 2008*, World Wildlife Fund

Human consumption of material and energy significantly exceeds the biocapacity of the planet by approximately 30%.

Reduce material and energy use (2)

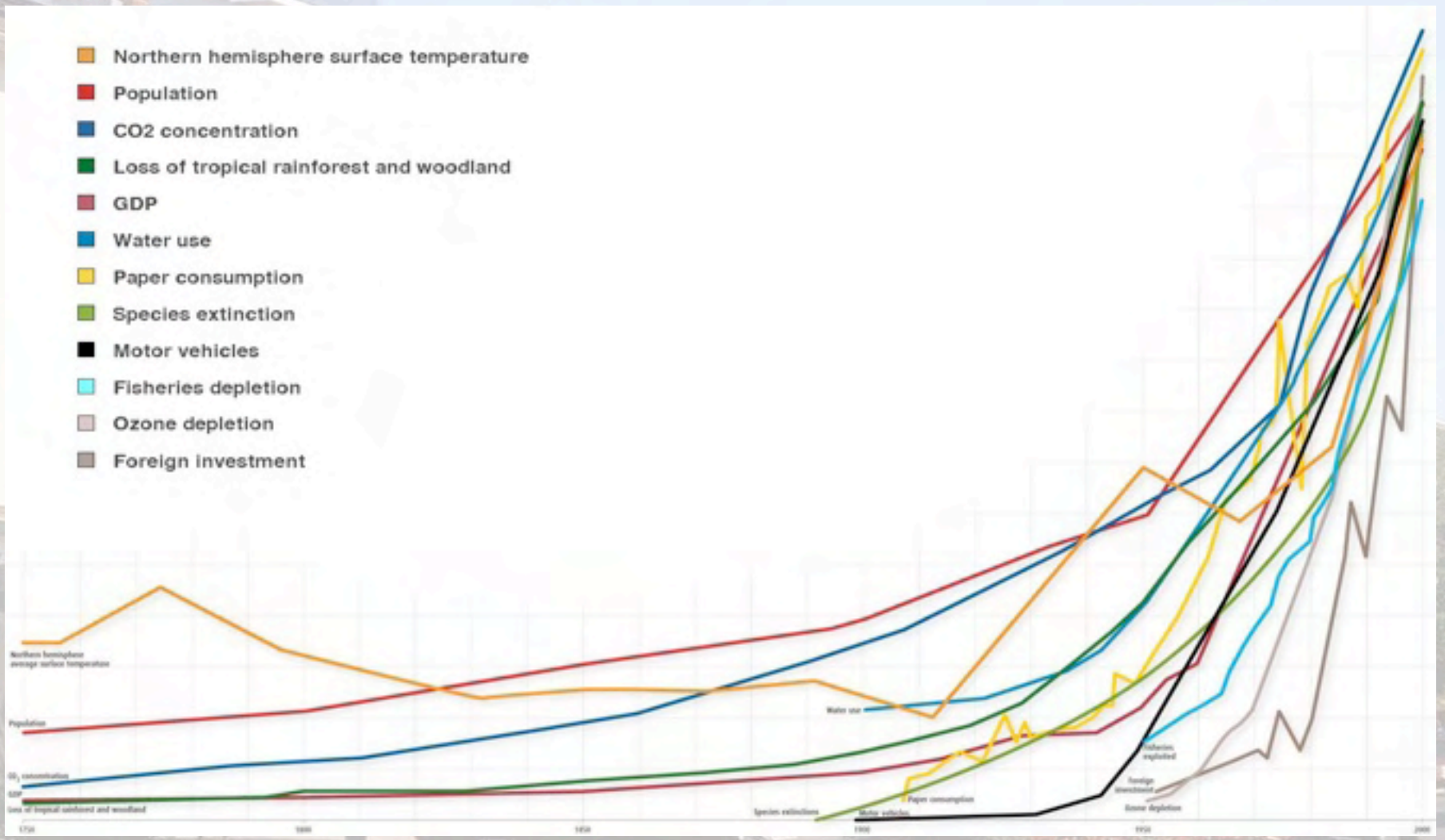
Table 1: 2005 Ecological Footprints (hectares/person)

United States	9.4	(4.5 Earths)
Canada	7.1	(3.4 Earths)
Sweden	5.1	(2.4 Earths)
World	2.7	(1.3 Earths)
Brazil	2.4	(1.1 Earths)
China	2.1	(1.0 Earth)
<i>Global Sustainable Level</i>	2.1	
India	0.9	(0.4 Earths)
Indonesia	0.9	(0.4 Earths)

Source: *Living Planet Report 2008*, World Wildlife Fund

Canada's 2005 ecological footprint per capita was 3.4 times the Earth's biocapacity per capita and continues to rise

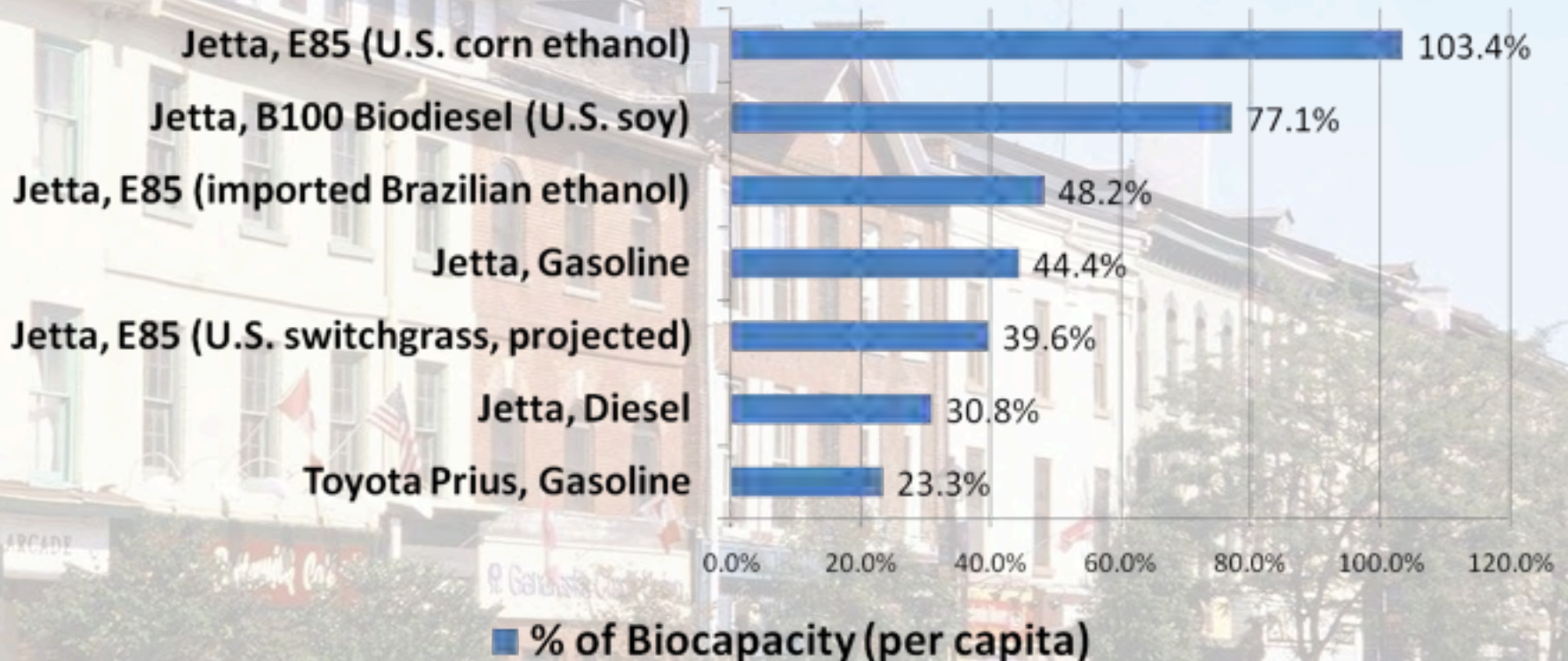
Overconsumption Profile



Source: *New Scientist*, Oct. 18, 2008, p.40-41

Car Footprint

Est. Ecological Footprint of Fuel for Car Travel



Ecological Footprint for car fuel consumption using various fuels, for a 2006 Volkswagen Jetta (and a Toyota Prius using gasoline), driving 20,116 kilometres (12,500 miles). Does not include the Ecological Footprint of the production and maintenance of the car. Per capita light vehicle registration statistics are from Statistics Canada, 2007

Sources: Jorgen Vos, *The Ecological Footprint of Biofuels*; Statistics Canada; *Living Planet Report 2008*, World Wildlife Fund

Environmental Ranking

Canada's ranking vs. other OECD nations

(PER CAPITA)

- **AIR POLLUTION**
- Sulphur Oxides (kilograms), 27th out of 28
- Nitrogen Oxides (kilograms), 25th out of 28
- Volatile Organic Compounds (kilograms), 25th out of 26
- **CLIMATE CHANGE**
- Greenhouse Gas Emissions (tonnes of CO₂), 27th out of 29
- **WATER**
- Water Consumption (cubic metres), 28th out of 29
- **ENERGY USE**
- Energy Consumption (tonnes of oil equivalent), 27th out of 29
- Energy Efficiency (tonnes of oil equivalent /\$1000 U.S. GDP), 28th out of 29
- **WASTE**
- Municipal Waste (kilograms), 18th out of 29
- Hazardous Waste (kilograms), 24th out of 27
- Nuclear Waste (kilograms), 28th out of 28
- **TRANSPORTATION**
- Distance Traveled (road distance traveled), 26th out of 29

Source: Sustainability Within a Generation, David Suzuki Foundation

Reduce material and energy use (3)

The Urban Design of Cobourg can help reduce our consumption of material and energy through:

- Shifting travel to walking, biking, transit, and car sharing, and by reducing trip length
- Increasing the efficiency of land use and building design
- Increasing the efficiency of its infrastructure



Bike Rental System
Toronto

Reduce pollution and waste

- The Urban Design of Cobourg can reduce pollution and waste through:
 - Reducing air pollution and greenhouse gas (GHG) emissions by reducing automobile travel and other fossil fuel consumption
 - Reducing and improving the treatment and disposal of sewage sludge
 - Reducing solid waste e.g. plastic bags, water bottles, etc.
 - Reducing water pollution from road and parking lot runoff, sewage treatment plant outflows, and air pollution.



Addressing Climate Change (1)

- The biggest pollution issue facing society is the build-up of carbon dioxide in the atmosphere
- President Elect Barak Obama proposes 2050 GHG reductions of 80% below 1990 levels, consistent with the IPCC 2050 target
- Canada will need to meet this same 2050 GHG target, a reduction of approximately 85% from today's level
- Accounting for population increases, this will require in Canada an average annual GHG reduction of approximately 4%

Climate Change Implications (1)

- The need to reduce GHG will require profound changes in the way we plan and design Cobourg.
- Every activity will need to be evaluated and modified to reduce its carbon content.
- Cobourg must be designed to reduce fossil fuel consumption by over 90% and to switch to renewable energy.
- The Official Plan must be modified to reflect these concerns.

Climate Change Implications (2)

- Reducing fossil fuel consumption in Cobourg will require, as examples:
 - Walking, biking, transit, and car sharing
 - Neighbourhoods becoming “net zero” energy consumers, i.e. producing locally as much renewable energy as is needed for heat and power
 - Businesses retrofitting to significantly reduce energy use and switch to renewable sources
 - Producing within Cobourg’s boundaries a significant percentage of food consumed

Switch to Renewable Energy

- The Urban Design of Cobourg affects the use and availability of renewable energy through:
 - Orienting streets and lots for passive and active solar energy capture
 - Designing Town plant and infrastructure for conservation and renewable energy production
 - Designating land use for renewable energy projects



Protect Farmland (1)

Some statistics regarding loss of farmland:

- Only 5% of Canada's total land base is classified as prime agricultural land (Class 1 to 3)
- Ontario has just over one half of all of Canada's Class 1 farmland (Green Ontario, 2002).
- In 1996, 19% of the Class 1 agricultural land in Canada was occupied by urban development (Statistics Canada, 2002).
- Each year, Canadian urban centers cumulatively consume a land area equal to the size of Hamilton, Ontario (Oliver, 1999).

Source: Protecting Southern Ontario's Farmland, Challenges and Opportunities, 2003

Protect Farmland (2)

- The Urban Design of Cobourg can protect existing farmland through:
 - Eliminating low density urban sprawl
 - Stopping the annexation of existing farmland for development, which will discourage speculation on farmland at urban boundaries and political pressure for future development
 - Avoiding premature location and over sizing of sewers, water supply, and roadways

Create Sustainable Jobs

- A sustainable employment strategy can be built around the urban design vision we are proposing. Some elements of this employment strategy include:
 - Retrofitting buildings to reduce GHG emissions and energy consumption.
 - Developing renewable energy projects where heat and power is produced and consumed locally.
 - Re-localizing the regional economy, including agriculture and retail.
 - Redesigning the regional plastics industry based on “Green Chemistry” principles.
 - Creating “virtual office centres” where people can work locally through teleconferencing and office support services.
 - Creating a bicycle tourism industry in Northumberland County with Cobourg as the centre; creating a “Northumberland Bike Train”.
 - Creating health care, wellness, and science jobs
 - Promoting local arts and culture

Improve the health of Cobourg residents

- The Urban Design of Cobourg can improve health by encouraging active communities through:
 - Compact urban form with sufficient population density to reduce trip length
 - Street connectivity to allow direct travel by foot and bike
 - Beautiful and pedestrian friendly streetscapes
 - A transportation system favouring walking and biking
 - Diverse land uses within neighbourhoods with walkable trip lengths for meeting daily needs
 - Parklands and Trails
 - Pedestrian and cycling lanes and linkages to destinations
 - Cleaner air and water

Improve the beauty and amenity of Cobourg

- Urban design guidelines are needed to create beautiful and enjoyable streetscapes. Features creating such streetscapes include:
 - Streets framed by buildings creating “outdoor rooms”
 - Lanes for bikes on main streets
 - Wide sidewalks for pedestrians
 - Trees and plantings
 - Short blocks with a “porous” street pattern creating many points of access
 - Streets that generally go in one direction (not serpentine), providing orientation for the traveler
 - Narrower streets with reduced and slower car traffic



Accommodate future population growth (1)

- Cobourg grew by approximately 1,800 people over the last 5 years. The Cobourg Official Plan estimates Cobourg will grow to 30,070 people, an increase of approximately 11,000 people between 2001 and 2031.
- Cobourg's estimated growth would be 69% of the projected County growth from 2001 to 2031 (16,000) as estimated by Places to Grow, or 34% of the projected County growth from 2001 to 2031 (31,196) as estimated by the Official Plans of the 7 County municipalities (Lower Growth estimate).
- From 2001 to 2006, Cobourg's estimated growth (1,832) was 38% of the County's estimated growth.

Accommodate future population growth (2)

- Cobourg has the potential to accommodate all future residential and employment growth to 2031 within its built-up boundaries.
- Northumberland County's Oct. 8, 2008 Growth Management Strategy report indicates that there is enough vacant and underdeveloped residential land (60.6 hectares) in Cobourg's built-up area to accommodate approximately 3,000 additional residents, i.e. 11 years of growth.
- Other forms of intensification in built-up areas (e.g. redevelopment, brownfield sites, infill, raising density limits, and expansion or conversion of existing buildings) can meet population growth for an additional 8,000 more residents.

Sufficient affordable housing

- More affordable housing needs to be built in Cobourg, and a stronger affordable housing policy is needed in the Official Plan. Here are some quick facts:
 - CMHC surveys found vacancy rates below 3%, a tight rental market
 - No additional rent-geared-to-income (RGI) units have been built since 1995; wait time for RGI units is 3–6 years
 - 93% of families on the social housing wait list have incomes less than \$20,000
 - Building activity has been high but most new units are expensive and there is no new rental housing being developed
 - No new houses are priced below \$150,000, yet half of the households in Northumberland County cannot afford to pay \$150,000 or more for housing
 - House prices in Cobourg increased by 97% from 2000–2006
 - Prices for condominiums over \$200,000 increased by 25%, 2006–2007

Source: Affordable Housing in Northumberland County, by Gerry Daly, Jan. 2008

Diverse Lands Uses

- Diverse and mixed land uses means providing housing, stores, businesses, office space, open space, institutions, and professional space, all in the same neighbourhood.
- This diversity means that most of our daily needs can be met without traveling long distances. This encourages walking and bicycling, reduces trip length, promotes social interaction, and builds active communities.

Adequate Density

- Sufficient density in Cobourg, designed for livability, is necessary to achieve the following:
 - Farmland protection
 - Efficient use of resources and infrastructure
 - Reduced GHG emissions
 - Viable and convenient public transit
 - Walkable and bikeable communities
 - Reduced trip length and more compact communities
 - “Active communities”, promoting health and fitness
 - Car sharing

Intensification

- The many benefits of adequate density can be created through a process of intensification within the existing built-up area of Cobourg. There are many methods for intensification. These include:
 - Developing undeveloped parcels
 - Re-developing greyfield and brownfield sites
 - Re-developing shopping malls, strip malls, and parking lots
 - Revising zoning requirements to allow narrower lot widths and reduced setback requirements for new development
 - Infill developments on underutilized parcels.
 - Expansion or conversion of existing buildings
 - Setting minimum density limits
 - Creating secondary suites in houses



Examples of Good Urban Design in Cobourg

Mixed Uses, Diversity



Mixed Uses, Diversity



Mixed Uses, Diversity



Mixed Uses, Diversity



Intensification



Intensification



Intensification



Intensification



“Tannery” Site: Example of Potential Brownfield Development Site

Intensification



Mid-Town Mall: Example of Potential Greyfield Development Site

Intensification



Former Brownfield site, now redeveloped

Streetscapes



Streetscapes



Streetscapes



Renewable Energy



Conclusions

- **For Cobourg to become a sustainable community will require a New Urban Design Vision.**
- **CSC's proposed New Urban Design Vision for Cobourg is consistent with Places to Grow and will begin to strongly address the many environmental and social issues facing us.**