



Health of the Environment- Interim Report

Environmental Health in a Healthy Community

Environmental Health is a rapidly evolving field of science and information that links the health of individuals and their communities with the health of the environment. The environment includes human-made and natural substances. Environmental health includes the relationship between the presence of nature or green spaces and human physical, emotional, psychological and spiritual well-being. It looks at the ecology of the places where we go about our day-to-day lives. It examines our collective behaviour and how our behaviour affects our water, air, soil and the living systems that depend on these fundamental systems.

Human bodies are not separate from the environment; we breathe air, drink water, and eat food and the environment that is outside of us becomes our internal environment. The state of our external environment determines the state of our health: this is why we chose the “Health of the Environment” as one of our measured “Determinants of Health”⁽¹⁾.

Fort Erie and the Environment

Located on the shores of Lake Erie, at the mouth of the Niagara River, Fort Erie lies within the heart of Canada’s Carolinian Forest zone. The Town, as a whole, possesses a large percentage of natural areas ranging from regenerating thickets and mature woodlands of old and ancient growth specimens, to extensive wetlands and magnificent shorelines.

The concern over the preservation of the Town’s natural areas, and the

resulting rural community character and lifestyle, has been strongly voiced by the residents of Fort Erie. Accordingly, in preparing a New Official Plan for the Town, a Natural Areas Inventory was undertaken to document and characterize Fort Erie’s Natural Heritage.

Natural Areas Inventory

Not surprisingly, it was quickly discovered that Fort Erie’s natural areas represent a wide diversity of landforms, plants, and wildlife. Wetlands, composed of marshes and swamps, account for 30% of the available natural and semi-natural cover, combined forests and swamps account for over 50% of the available natural and semi-natural cover, and upland forests account for approximately 20% of the available cover⁽²⁾.

Fort Erie’s Natural Areas Inventory Highlights:

- total of **454 vascular plant species** were recorded in the inventory, 37 of these species are considered to be Federally or Provincially rare
- **125 different bird species**, with 28 species considered to be significant
- **22 species of amphibians and reptiles** were recorded with 6 species recognized to be “species at risk” in Ontario and Canada
- 47 of the 117 habitat blocks identified in the inventory contain significant wildlife species representing almost 39% of all blocks surveyed⁽³⁾.



(compared to 9356 tonnes in 2001). The community also improved its residential diversion rate from 31% in 2001, to 39% in 2002. Diversion includes solid waste diverted from landfills by composting, blue box programs, or other re-use and recycling programs. In 2002, 1571 tonnes of material was diverted by using the blue box program: a slight increase from the 1530 tonnes diverted in 2001. Using blue boxes, (especially for soda cans) is an area where the average citizen could easily become involved and decrease pressures on our landfills; therefore, it is recommended that we identify and support factors that would facilitate increased usage of Fort Erie’s recycling programs.

Table 2: Niagara Region’s Solid Waste Diversion Rate Profile (Residential 2002).

Niagara Municipality	Annual Diversion Rate (%)
Grimsby	47.5
Port Colborne	41.3
Welland	39.3
Fort Erie	39.1
St. Catharines	38.7
Niagara-on-the-Lake	35.2
West Lincoln	26.5

3) Preservation of Agriculture and Existing Forest Cover

It is recommended that the Town of Fort Erie’s Official Plan incorporates measures to protect existing agricultural lands and forest areas. Forested areas assist in trapping greenhouse gases, which benefit air quality and the natural environment,

reducing our ecological footprint. Similarly, responsible stewardship of agricultural lands also helps to reduce our footprint. Designation of these natural heritage features in the municipal official plan will ensure that these areas are protected and maintain for future generations.

4) Air Quality Concerns- Border Crossing

The scientific evidence is clear: diesel exhaust is a complex mixture comprised of hazardous particles and vapours, some of which are known carcinogens and others, probable carcinogens⁽⁴⁾. Diesel exposure poses a significant and avoidable increase in human health risks. In the recently completed ecological footprint, the highest contributor to Fort Erie’s footprint was directly related to CO₂ production and other air-borne particulate matter by vehicles; part of the measurements came from the 2002 Air Emissions Reduction Program⁽⁵⁾ completed two years ago. Since then, there has been a significant increase in the number of tractor-trailers idling on the Queen Elizabeth Way, within the municipal limits. A recommendation by this team is to undertake an organized assessment of the scope and impact of this situation in Fort Erie. Concrete measured data is needed in order to guide an intervention that will reduce the impact of diesel exhaust on our health and the health of the environment, thereby reducing our ecological footprint.

5) Planting Strategies

It is recommended that Fort Erie promotes/encourages landscaping of private and public yards to help increase the amount of carbon sequestration by



