

## PART 4

### MUNICIPAL SERVICES AND UTILITIES

	Page	
<b>4.1</b>	<b><u>TRANSPORTATION</u></b>	<b>4 - 2</b>
4.1.1	<u>Road System</u>	4 - 2
4.1.2	<u>Rail Facilities</u>	4 - 5
4.1.3	<u>Harbour Docking Facilities</u>	4 - 6
4.1.4	<u>Transit System</u>	4 - 7
4.1.5	<u>Air Service</u>	4 - 7
4.1.6	<u>Inter-City Bus Service</u>	4 - 7
4.1.7	<u>Parking Facilities</u>	4 - 7
4.1.8	<u>Pedestrian and Bicycle Traffic</u>	4 - 8
<b>4.2</b>	<b><u>PUBLIC USES AND UTILITIES</u></b>	<b>4 - 10</b>
4.2.1	<u>General Policies</u>	4 - 10
4.2.2	<u>Restrictions on Public Uses</u>	4 - 10
4.2.3	<u>Utilities</u>	4 - 11
4.2.4	<u>Electric Power Facilities</u>	4 - 11
<b>4.3</b>	<b><u>MUNICIPAL SERVICES, STORMWATER MANAGEMENT AND WASTE MANAGEMENT SYSTEMS</u></b>	<b>4 - 12</b>
4.3.1	<u>Municipal Services</u>	4 - 12
4.3.2	<u>Storm Water Management</u>	4 - 16
4.3.3	<u>Waste Management Systems</u>	4 - 18

## **4.1 TRANSPORTATION**

It is the policy of the City to provide and maintain efficient, cost-effective and reliable transportation systems that integrate with adjacent systems and those of other jurisdictions to serve the needs of the local population.

### **4.1.1 Road System**

- a) The movement of vehicles on public rights-of-way will be given a high priority in the planning of the transportation system within the City.
- b) The following hierarchy of roads is hereby established:

- Provincial Highways;
- Arterial Roads ;
- Collector Roads;
- Local Roads; and
- Private Local Roads.

#### **4.1.1.1 Provincial Highways**

Provincial Highways 402 and 40 within the City fall under the jurisdiction of the Ministry of Transportation. Both facilities are "controlled access" highways with Hwy. 402 being a freeway and Hwy. 40 being a staged freeway. Access is restricted to interchanges/future interchanges. Both facilities are designed to carry large volumes of traffic over long distances.

Development adjacent to Highway 402 and Highway 40, particularly in the vicinity of interchanges, will be strictly controlled to avoid undesirable land use patterns and to ensure that ease of access to and from Highway 402 and Highway 40 is maintained with a minimum of restrictions on traffic flow.

All development located adjacent to a Provincial Highway or located within the Minister's area of Permit Control will be subject to the safety and geometric requirements of the Ministry of Transportation. Permits must be obtained from the Ministry prior to any grading and/or construction being undertaken.

#### **4.1.1.2 Arterial Roads**

##### **function**

- a) Arterial Roads transport large volumes of traffic between the different areas within the City and through the City. Direct access is usually from other Arterial Roads and Collector Roads. All County Roads will function as Arterial Roads.

##### **access**

- b) Direct access to Arterial Roads from Local Roads and abutting properties is not encouraged, except where local circumstances do not provide alternatives.

**right-of-way width**

- c) The minimum right-of-way width for Arterial Roads, will generally be **26 to 30 metres (86 to 100 feet)**. A greater right-of-way width will be provided for turning lanes at road intersections where required.

**intersection improvements**

- d) In areas which are already developed, existing Arterial Road intersections will be improved as required.

**new intersections**

- e) In areas where new development is proposed, new Arterial Road intersections will be adequately spaced, and will be provided with necessary traffic control equipment and turning lanes, to maintain a safe and desirable movement of vehicular and pedestrian traffic.

**major improvements**

- f) Proposed major improvements to the City road system will be undertaken subject to a needs assessment.

**setbacks**

- g) The Zoning By-law will establish minimum setbacks for buildings along Arterial Roads to ensure room for future road widenings and installation of additional traffic lanes, if required. Arterial Road widenings will not be undertaken until the impact on abutting properties is studied and any negative effects are minimized.

**high traffic land uses**

- h) Land uses which generate high volumes of traffic, including truck traffic, will be encouraged to locate along Arterial Roads.

**trucks**

- i) The movement of truck traffic through the City will be encouraged on Arterial Roads rather than Collector Roads or Local Roads. Truck routes will be identified in a by-law passed under the Municipal Act.

### **4.1.1.3 Collector Roads**

**function**

- a) Collector Roads carry traffic volumes to and from major traffic generators or within or between residential neighbourhoods.

**access**

- b) Direct driveway access to Collector Roads from low density residential uses will generally be discouraged, wherever possible.

**right-of-way width**

- c) Collector Roads will have a minimum right-of-way width of **20 metres (66 feet)** in urban areas and **26 metres (86 feet)** in rural areas. Preferred right-of-way widths in rural areas will be **30 metres (100 feet)** where there are roadside ditches.

**intersection improvements**

- d) Collector Road intersections will be adequately spaced to ensure the safe and desirable movement of traffic and pedestrians and to minimize the infiltration of through traffic onto Local Roads in residential neighbourhoods.

**location and design**

- e) Collector Roads will be located and designed to discourage through vehicular traffic from other residential areas. Where possible, reverse frontages will be used for residential lots adjacent to collector roads.

#### **4.1.1.4 Local Roads**

**function and access**

- a) Local Roads provide unrestricted access from abutting properties to the municipal road system.

**right-of-way width**

- b) Local Roads will generally have a minimum right-of-way width of **20 metres (66 feet)**. A minimum width of **15 metres (50 feet)** in areas where alternative development standards are deemed appropriate by the City will be considered (e.g. short cul de sac streets).

#### **4.1.1.5 Private Local Roads**

- a) Private Roads are found primarily in the Lake Huron area where they serve areas originally developed for cottage use. They are also found in private residential community parks and in condominium developments.
- b) Since many properties, especially along the lake front are accessible only by private roads, these roads will be recognized in the City Zoning By-law and some additional development will be permitted on Private Roads. New development will be permitted, on existing vacant lots and new lots created by severance as well as expansions to existing uses. Development will also be permitted on private roads in properly planned mobile home parks, private residential community parks, and condominium developments.
- c) The City will not accept Private Roads as municipal roads unless such roads are developed to a standard acceptable to the City.

- d) The owners of the private roads shall ensure adequate snow removal, maintenance of paving, and surface drainage.

#### **4.1.1.6 General Road Policies**

##### **land acquisition for roads purposes**

- 4.1.1.6.1** As a condition to the approval of a plan of subdivision or land severance, the City may require the dedication of new roads. In addition, land dedication for road widenings or intersection improvements for a plan of subdivision, or land severance, may be required where the road right-of-way width is less than that required by this Plan.

##### **development applications & road widening**

- 4.1.1.6.2** Road widening, as a condition to the approval of new development, may be required in accordance with the Site Plan Control policies of this Plan.
- 4.1.1.6.3** New development will be prohibited on private roads, except within approved Plans of Condominium, on existing and newly severed lots fronting onto an existing private road or in properly planned mobile home parks and retirement community parks. The City must be satisfied as to the adequacy of the private road to accommodate anticipated traffic.
- 4.1.1.6.4** Land will be conveyed to the City for municipal road widenings as a condition of severances, plans of subdivision, or as a consequence of new development, changes in use that generate significant traffic volumes, additions that substantially increase the size or usability of buildings or structures, where the subject lands front on municipal roads. For lands fronting on County or Provincial roads, development proponents are encouraged to consult with the appropriate County or Provincial road authority.
- 4.1.1.6.5** Unequal widenings may be taken where topographic features, federal land ownership, historic buildings or other cultural heritage resources, significant environmental concerns or other unique conditions necessitate taking a greater widening or the total widening on one side of an existing municipal road right-of-way.
- 4.1.1.6.6** Right-of-way width requirements for a specific section of roadway may be reduced where special circumstances warrant and long-term requirements will not be affected.

#### **4.1.2 Rail Facilities**

- 4.1.2.1** The Municipality will work with the Federal and Provincial Governments and railway companies to reduce the number of at-grade rail/road intersections, and will encourage new spurs in industrial areas.
- 4.1.2.2** New residential development and other sensitive land uses which require a rezoning will not be permitted within **300 metres** of a rail yard.

- 4.1.2.3** All new residential development and other sensitive land uses located between **300 metres** and **1000 metres** from a rail yard which require a rezoning will be required to undertake a noise study to the satisfaction of the City, the Ministry of the Environment and the appropriate railway to support its feasibility of development and if feasible, shall undertake appropriate measures to mitigate any adverse effects from noise that were identified.
- 4.1.2.4** All proposed development within **300 metres** of a railway corridor may be required to undertake noise studies, to the satisfaction of the City and the Ministry of the Environment in consultation with the appropriate railway, and shall undertake appropriate measures to mitigate any adverse effects from noise that were identified.
- 4.1.2.5** All proposed development within **75 metres** of a railway corridor may be required to undertake vibration studies, to the satisfaction of the City and the Ministry of the Environment in consultation with the appropriate railway, and shall undertake appropriate measures to mitigate any adverse effects from vibration that were identified.
- 4.1.2.6** All proposed development adjacent to either a rail yard or a railway corridor shall ensure that appropriate safety measures such as setbacks, berms and security fencing are provided, to the satisfaction of the City in consultation with the appropriate railway.
- 4.1.2.7** The City has an interest to acquire discontinued or abandoned railway lines or other railway lands which have a potential use as a future transportation, utility or recreational corridor. The City will co-operate with the railway and other agencies to purchase, lease, obtain easements, or enter into other appropriate agreements as means of acquisition. Where the City does not indicate an interest in acquiring discontinued or abandoned railway lines or other railway lands which become surplus to the needs of the railway, the City will co-operate with the railway or purchasers of such lands to encourage appropriate re-use of the lands.
- 4.1.2.8** The City supports the use of passenger rail service as an alternative to highway travel, and encourages market-responsive, convenient and efficient train scheduling.

### **4.1.3 Harbour Docking Facilities**

- 4.1.3.1** The City undertakes to work with the private sector to:
- a) provide within the Waterfront designation shown on Schedule "A", adequate and appropriately designed docking facilities;
  - b) encourage the maintenance and improvement of marine support services and facilities for commercial users; and
  - c) facilitate the integration of docking facilities with other transportation systems and infrastructure whenever possible.

## **4.1.4 Transit System**

**4.1.4.1** The City encourages the development and maintenance of a municipal transit system which provides safe, convenient, efficient and cost effective service to all residents of the urban area including persons with disabilities.

**4.1.4.2** The City encourages increased use of the transit system by a variety of means including but not limited to:

- a) the careful placement and design of high intensity uses;
- b) appropriate design of roads to accommodate transit vehicles; and
- c) adequate and appropriate pick-up and drop-off points including the provision of benches and bus shelters.

## **4.1.5 Air Service**

**4.1.5.1** The City encourages the maintenance of air passenger and freight service to and from Sarnia.

**4.1.5.2** The City promotes the upgrading of the facilities and level of service available at the Sarnia Chris Hadfield Airport.

## **4.1.6 Inter-City Bus Service**

**4.1.6.1** The City supports the maintenance of bus passenger and freight service to and from Sarnia.

**4.1.6.2** The City intends to work with private carriers in any consideration of the location, relocation, or expansion of bus station facilities to ensure the convenience of City and area users of bus services.

## **4.1.7 Parking Facilities**

### **minimum standards**

**4.1.7.1** The Zoning By-law will establish minimum off-street parking standards for all appropriate land uses and forms of development. These minimum parking standards will be related to the amount of traffic generated by individual uses.

**4.1.7.2** There shall be no parking requirements for permitted uses within the Downtown Designation, except for multiple use apartments.

**4.1.7.3** There shall be no on site parking requirements for permitted uses within the Mitton Village and East Street (between Maple Avenue and Kathleen Avenue) commercial

districts. These areas will be delineated in the municipal Zoning By-law.

**accessible to handicapped**

**4.1.7.4** The City will ensure the development of off-street parking facilities, whether public or private, in such a manner as to be accessible to handicapped persons.

**parking provided on same lot**

**4.1.7.5** Off-street parking, loading and truck storage facilities will generally be provided on the same lot as the land use that the parking facilities serve. However, off site locations may be permitted if a long term commitment for the provision of parking, which is acceptable to the City, can be provided.

**cash in lieu**

**4.1.7.6** The City may accept cash in lieu of parking spaces subject to the following provision:

- a) Cash in lieu of parking will not be acceptable for operations that provide short term accommodation (e.g. motels, bed and breakfasts).

## **4.1.8 Pedestrian and Bicycle Traffic**

**sidewalks and walkways**

**4.1.8.1** Adequate provision will be made for sidewalks and walkways to enhance the convenience and safety of pedestrians.

**4.1.8.2** Sidewalks will generally be provided within Urban Residential and Commercial Areas, along both sides of Arterial Roads and along at least one side of Collector Roads and Local Roads, where warranted by vehicular or pedestrian traffic volumes.

**4.1.8.3** Facilities for the safe movement of pedestrians, including access and on-site movement, will be provided in all new developments, including the redevelopment of land.

**4.1.8.4** Pedestrian walkways and sidewalks will be provided within residential subdivisions to minimize walking distances between dwellings and schools, parks, transit stops and local commercial uses.

**4.1.8.5** Sidewalks will be separated from road pavement by boulevards in all new residential subdivisions, wherever possible.

**bicycle ways**

**4.1.8.6** Bicycle ways within parks and between residential areas and schools, parks and commercial facilities will be provided wherever feasible.

**4.1.8.7** Bicycle rights-of-way along municipal roads may be provided wherever sufficient volumes of bicycle traffic are in evidence, wherever feasible.

**4.1.8.8** During most times of the year, the bicycle is a viable alternative to other modes of transportation, is environmentally sound, and supports active, healthy lifestyles. Wherever feasible, the City will promote and initiate improvements to enhance bicycling as a means of transportation.

**bicycle master plan**

**4.1.8.9** Where appropriate, the City will prepare and implement a master plan for the development of a bicycle route system addressing such matters as location, design, education, enforcement and encouragement. Parts of this system will be located within the public open space network so that the safety and enjoyment of its users will be enhanced. Parts of the system will also be aligned along existing roads where necessary to provide linkages to major activity centres, employment nodes and commercial areas.

Consideration will be given to the potential for linking the City's bicycle routes with those of neighbouring municipalities.

**4.1.8.10** Consideration will be given to the provision of bicycle routes in the preparation and review of Official Plan policies, plans of subdivision and land severances, where such routes will contribute to the development of linkages or extensions to existing routes.

**integration of bicycles with road system**

**4.1.8.11** Where appropriate, the City will provide properly designed and maintained, safe and convenient roads for bicycle travel according to the following criteria:

- a) the provision of on-road bicycling routes will be required on strategically planned municipal roads serving the main community, civic, service, recreational, institutional and cultural destinations within the City; the City will also support the construction of exclusive on-road bicycle lanes and widened curb lanes on designated municipal roads that serve the main destinations within the City; the expansion of off-road paths through open space areas and corridors will be supported where such facilities will not adversely impact significant environmental features or functions;
- b) where bicycle lanes are incorporated into the paved roadway surface, the City will ensure that grating and on-street facilities are designed and oriented in a manner that will not create a safety hazard; and
- c) where possible, the bicycle system will be located to take advantage of existing and potential road and rail signalized crossings.

**separation of pedestrian and bicycle networks**

**4.1.8.12** Wherever possible within the open space system, bicycle and pedestrian networks will be separated from each other by distinct grade changes, landscaping or berming. The City will promote the use of appropriate signage, symbols or distinct surface treatments to distinguish the different networks.

**lead by example**

**4.1.8.13** Where appropriate, the City will provide accessible and sufficient bicycle parking areas at City owned and operated facilities in order to promote the use of the bicycle as an alternative to motor vehicles.

## **4.2 PUBLIC USES AND UTILITIES**

### **4.2.1 General Policies**

Except as provided for in Section 4.2.2, the following public services and facilities are permitted in all land use categories, subject to the development policies of this Plan:

- a) transportation, communication, and electric power transmission corridors, and associated facilities subject to applicable laws and regulations under Province of Ontario Statutes;
- b) water supply, sewage treatment, storm drainage facilities, and utility services;
- c) municipal government buildings and facilities;
- d) the re-use of abandoned utility and/or transportation corridors for public purposes;
- e) public open space; and
- f) natural gas pipelines and accessory works.

### **4.2.2 Restrictions on Public Uses**

**compatibility with residential areas**

**4.2.2.1** In Residential Areas the public services and facilities listed in Section 4.2.1 will be designed and constructed so that they are compatible with the surrounding residential area.

**agricultural land**

**4.2.2.2** Where public services and facilities are proposed on high capability agricultural land (Canada Land Inventory Class 1 to 3), the need must be documented, as must the reasons why lower capability or marginal land cannot be used.

**significant natural areas**

- 4.2.2.3** The public services and facilities listed in Section 4.2.1 will be prohibited in significant natural areas unless they are authorized under an environmental assessment process, or subject to the Drainage Act.

**4.2.3 Utilities**

**underground lines required**

- 4.2.3.1** Underground utilities, including electric power lines and telephone lines, will be required in all new developments within Residential Areas and in other areas where feasible.
- 4.2.3.2** With the approval of the local utility authorities, both public and private, all overhead wiring will be encouraged to be re-installed underground.

**multiple uses of rights-of-way**

- 4.2.3.3** The City will encourage the multiple-use of electric power utility rights-of-way to accommodate drainage or service corridors, parking areas, parkland, agricultural operations and natural gas, oil and petrochemical pipelines, in accordance with the land use policies and designations of this Plan.
- 4.2.3.4** Natural gas, oil and petrochemical commercial delivery pipelines will be installed within existing rights-of-way wherever feasible and practical.

**4.2.4 Electric Power Facilities**

**electric power facilities permitted in any designation**

- 4.2.4.1** All existing power facilities and the development of any new electric power facilities that operate at 50 kilovolts and above, or facilities that transform from above 50 kilovolts to less than 50 kilovolts including all works as defined in The Power Corporation Act and succeeding legislation, (such as transmission lines, transformer stations and distributing stations) will be permitted in any land use designation without an amendment to the Plan provided that such development satisfies the provisions of The Environmental Assessment Act, including regulations made under the Act, and any other relevant statutes. The electric power utility will be required to consult with the City regarding the location of new electric power facilities.

**other electric facilities**

- 4.2.4.2** Other electric power facilities including buildings, structures and uses not used directly for the generation and supply of power, will comply with the provisions of this Plan and the Zoning By-law.

- 4.2.4.3** The above policies do not preclude the City's right to participate in discussions on the location criteria of new electric power facilities.

**secondary uses**

- 4.2.4.4** Secondary land uses, which conform to this Plan and the Zoning By-law, will be encouraged on the electric power utility lands where deemed by Council to be compatible with adjacent land uses and by agreement with the electric power utility.

## **4.3 MUNICIPAL SERVICES, STORMWATER MANAGEMENT AND WASTE MANAGEMENT SYSTEMS**

### **4.3.1 Municipal Services**

The following policies shall apply to the initiation, installation and extension of municipal watermains, sanitary sewers, storm drainage systems and all related facilities in the City.

#### **4.3.1.1 General Policies**

- 4.3.1.1.1** Proponents of land development shall bear the capital cost of municipal services both on-site and off-site as required.

- 4.3.1.1.2** Minimum requirements for municipal services may be established by the City from time to time and all future development shall conform to such requirements.

- 4.3.1.1.3** The Local Improvement Act, as amended, may be implemented wherever appropriate to permit the installation of water, sanitary sewer, storm drainage or road systems in the City as required and as local conditions dictate.

- 4.3.1.1.4** Development in an area shall not be approved until the City is satisfied that sufficient capacity for municipal services (i.e. storm sewers, sanitary sewers, water supply) is available for each such development area. Where capacity constraints have been identified, Secondary Plans shall incorporate appropriate design criteria and restrictive policies to recognize such constraints. Where capacity constraints have been identified, the City may in addition to other means require that development proceed on a phased basis and may require the approval of each phase to be conditional upon a detailed engineering review of the then available capacity.

#### **4.3.1.2 Sanitary Sewerage**

This section outlines the City's requirements for sanitary sewage collection, treatment and disposal systems.

#### 4.3.1.2.1 Policies

- a) A municipal sanitary sewage system shall be established only in the Urban Areas of the City, either by the City or by developers of land.
- b) Rural and Suburban Residential Areas will not be provided with municipal sanitary sewers. Private sanitary sewage disposal systems shall be approved by the Ministry of the Environment, or its designated agent.
- c) All development within the sanitary sewer service area will be serviced by sewer facilities. When development is proposed in the sanitary sewer service area and the necessary lines are not yet installed, the developer will be responsible for the provision of necessary extensions. The City will pass a By-law pursuant to the Municipal Act defining areas where sewer system connections are mandatory.

##### special industrial servicing

- d) Industrial Areas within the sanitary sewer service area may, at the discretion of the City in consultation with the Province or its designated agent, be permitted to develop on individual services where specialized treatment related to industrial processes is required. Council will pass a By-law outlining such services. Dry industrial uses on private sewage systems will not be permitted in a municipal sewer service area.

##### reallocation of capacity

- e) The City may reallocate sewage capacity when the City deems that allocated sewage capacity is not being utilized by existing approved draft plans of subdivision subject to the time period outlined in the draft approval. Reallocation will occur only when the specified time limit has expired and no appeal has been filed.

##### phasing of development

- f) The City will make no commitment or approve any development that would cause the capacity of a sewage treatment plant to be exceeded. In certain cases improvements to the sanitary sewer system may be required before development may proceed. Such improvements may include the provision of a new pumping station and/or sewer line extensions.
- g) It is a policy of this Plan that expenditures on improvements to existing sewage treatment facilities will be undertaken in accordance with a comprehensive program of servicing improvements which address areas of established need. Council will continue to establish priorities for sewage treatment facility improvements/upgrades on an annual basis, as well as establish longer range plans in the five year capital budget.

**individual sanitary sewage treatment and disposal systems**

- h) New development, located outside the sewer service area and requiring individual systems, will be permitted if the proposed site can accommodate an individual sanitary sewage treatment and disposal system based on the following criteria:
  - i) the lot area will comply with the requirements of the Province or its designated agent and be large enough for the type of development proposed and the system(s) to be used;
  - ii) a Certificate of Approval for an individual sanitary sewage treatment and disposal system is to be obtained; and
  - iii) the proponent of a development or expansion of any use obtains a Certificate of Approval for the expansion or alteration of an existing sewage system. No redevelopment or expansion should create or aggravate a pollution problem.
- i) Limited new development within the sanitary sewer service area will also be permitted on private sewage disposal systems, provided it is located in an area of the City where private services predominate, and a limited number of undeveloped lots exist.
- j) Any development which is not serviced by full municipal services must be supported by studies which include as a minimum, evaluations of soil percolation rates, impacts on ground water resources, ground water mounding and adjacent watercourses. Reserve areas for replacement septic systems will be required for each lot. The Approval Authority will also consider the use of communal systems and secondary treatment systems where appropriate. Where new multi-lot clusters are proposed, proponents will be required to submit soil and hydrological studies completed by qualified soil engineers with recognized expertise in on-site sewage system design.
- k) New residential developments and other sensitive land uses will not be permitted within **100 metres** of any existing sewage lagoons within the City or an adjoining Municipality, in order to provide an odour buffer.

**4.3.1.3 Water Service**

This section outlines the City's requirements for water supply systems.

**4.3.1.3.1 Policies**

- a) Local water distribution systems shall be installed as required throughout the City, either by the Municipality or by private developers, as determined by studies initiated from time to time by the City.

**municipal service area**

- b) All development within the water service area will be serviced by municipal piped water facilities. When development is proposed in the water service area and the necessary lines are not yet installed, the developer will be responsible for the provision of necessary extensions. The City will pass a By-law pursuant to the Municipal Act defining areas where water system connections are mandatory.

**private water supply**

- c) Development may be permitted on private water systems, where municipal piped water is not available and an extension of services is not economically feasible, subject to proof that water quality and quantity are adequate.
- d) The most efficient and economical methods of providing water supply throughout the City shall be utilized, and future extensions of the water distribution system shall be undertaken only in conformity with the policies of the Plan.
- e) Parts of the Rural Area may be provided with a piped municipal water supply where it can be shown that such will not create a financial burden for the City or where looping is required. Extension of piped municipal water shall not be construed as an endorsement of urban development in the Rural Area.

**industrial process use**

- f) The City may serve industrial needs for process or cooling water from the municipal system. As an option, industrial uses may provide their own water supply system, subject to municipal approval and subject to the approval of the Province.

**high volume industrial users**

- g) High volume industrial users using the municipal water supply system may be required to enter into an agreement with the City whereby the industrial user will provide its own system and cease use of the municipal system in the event that the capacity taken by the industrial use is needed for other purposes, subject to sufficient notice as defined in the agreement. Depending upon the volume of groundwater or surface water required, a Permit To Take Water under the Water Resources Act may be required.
- h) All new commercial, industrial and institutional development in all areas of the City except the Rural Areas shall be connected to a piped municipal water supply.

## **4.3.2 Stormwater Management**

The traditional approach to managing stormwater has been to remove runoff from parking lots, roads and lots as quickly as possible and channel it to nearby watercourses through a system of subsurface drains. This approach has a number of drawbacks including water pollution, excessive loading of sewage treatment plants where storm sewers connect with sanitary sewers, lowered water tables, erosion and increased dependence upon costly public drainage works infrastructure.

The current direction in managing stormwater is to utilize the natural absorption and infiltration qualities of the ground to induce ground water recharge and to filter out various impurities. The principles of natural stormwater management fit into the larger concept of watershed and sub-watershed planning.

The City will consider programs, regulations and new technology that enhance the natural ability of the environment to reduce the rate of stormwater runoff, and to improve the quality of stormwater conveyed to watercourses.

### **4.3.2.1 Policies**

#### **retention and detention**

- a) Development proponents will be encouraged to employ Best Management Practices as the preferred strategy for the management of stormwater. The following methods should be encouraged:
  - i) the use of greenspace for detention/retention ponds;
  - ii) the integration of detention/retention ponds into the municipal open space system;
  - iii) the use of cisterns or drywells on site which capture water for non-potable uses (lawn watering, car washing);
  - iv) the use of infiltration trenches;
  - v) processes such as man-made wetlands and permeable surfaces to absorb and distribute stormwater and recharge groundwater; and
  - vi) the use of oil grit separators.

#### **management principles**

- b) In order to achieve no overall increase in the peak level and volume of stormwater runoff, all new development will be required to provide suitable site grading and outlet facilities for storm drainage. Development will be guided by the following principles:

- i) the flow of water resulting from a stormwater facility(s) is not to create or contribute to an erosion problem and/or water quality impairment;
- ii) a stormwater facility is not to contribute to a drainage problem on other lands where such lands are intended to be developed, utilized for agricultural purposes or utilized for active recreational open space;
- iii) a stormwater facility is to be designed in accordance with accepted engineering standards;
- iv) a stormwater facility is not to adversely affect the hydrology of environmentally sensitive areas;
- v) the City may consult the local Conservation Authority, and the Province when considering all multiple land severances and plans of subdivision; and
- vi) storm water management facilities require the issuance of a Certificate of Approval under the Ontario Water Resources Act.

**separation of stormwater from sanitary sewers**

- c) The City will encourage the separation of stormwater inflow and infiltration from municipal sanitary waste water flows. The City will also continue a program to require the disconnection of rooftop leaders from sanitary sewers and eliminate other factors that add stormwater to sewers.

**municipal and agricultural drains**

- d) The principles of natural channel design will be utilized in the construction or rehabilitation of drains. This may include the following:
  - i) grassed slopes and other forms of plantings, or other suitable erosion control methods should be introduced and maintained on the banks of drains to add to the stability of the drainage channel;
  - ii) tile outlets should be constructed to minimize erosion along watercourses;
  - iii) tree planting or other buffer measures should be installed where appropriate to act as a windbreak, protect drain banks, and to restrict cultivation near drain banks; and
  - iv) ponding areas should be incorporated in drains to reduce the speed and volume of flow, to act as settling areas for water borne particulates, to enhance evaporation and to serve as water storage areas.

**M.T.O. review and approval**

- e) All stormwater management plans/reports shall be forwarded to the Ministry of Transportation for their review and approval for all developments where stormwater would impact a provincial highway.

### 4.3.3 Waste Management Systems

**definition**

- a) Waste Management Systems include sites and facilities to accommodate solid waste from one or more municipalities and includes landfill sites, recycling facilities, transfer stations, processing sites and hazardous waste depots.

**development on or in vicinity**

- b) Schedule "A" identifies the location of all known active and former waste disposal sites (as of the date of approval of this Plan). Any new development, or change of use, on or within **500 metres** of the perimeter of an active or closed waste disposal site located in this or an adjoining Municipality will be subject to consultation with the Province before any Zoning By-law, Zoning By-law amendment, Official Plan amendment or other Planning Act approval is adopted or granted for such lands. A study may be required to be undertaken by a qualified professional that evaluates the presence and effect of environmental contaminants including but not necessarily limited to methane gas and leachate. The study will address the feasibility of mitigation measures.
- c) Where necessary, development or redevelopment proposals will incorporate measures, including technical controls, buffering or rehabilitation, as required by the Province to prevent any adverse environmental effects originating from a former waste disposal site.
- d) The designation or establishment of a private landfill site shall be prohibited.