

17.

SERVICES AND UTILITIES

INTRODUCTION

The services dealt with in this Chapter of the Plan include the sanitary sewerage system, both open and closed sanitary landfill sites and other solid waste treatment facilities, stormwater management, water distribution and treatment, electrical services, and other utilities. The planning and provision of these services and utilities is shared among several agencies. The City of London has responsibility for the provision of water distribution, the sewerage system, stormwater management, waste management and electrical services (London Hydro). Provision of these services is also subject to appropriate consultation, regulation and approvals from, or through, agencies such as the Conservation Authorities and the Ministry of the Environment, according to requirements of the Environmental Protection Act, the Environmental Assessment Act, the Conservation Authorities Act, the Ontario Water Resources Act and other provincial regulations.

(Introduction amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Introduction amended by OPA No. 298 - approved 05/01/31)

17.1.

SERVICES AND UTILITIES OBJECTIVES

Service and utilities shall be provided to the residents of London in an orderly and coordinated manner that is consistent with the following objectives:

17.1.1.

GENERAL OBJECTIVES

- i) Provide and encourage the construction and maintenance of services and utilities in an efficient manner while minimizing conflicts with other land uses.
- ii) Provide for the future extension of services by developing sufficient capacity in the distribution, collection and treatment facilities to service the present and future needs of the City.
- iii) Protect the natural environment while providing the required services and utilities.
- iv) Co-operate with other agencies in planning for the multiple use of servicing and utility rights-of-way and corridors wherever possible.
- v) Protect the service and utility from encroachment that would constrain its operation, result in hazard to life and property, and/or increase the cost of its operation.
- vi) Encourage the use of innovative or alternative servicing techniques to allow for greater efficiency provided they are not harmful to the environment and will not encourage incompatible development and

are within the capabilities of the municipality.
(Clause vi) added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

17.1.2.

SANITARY SEWERAGE OBJECTIVES

- i) Provide and maintain sanitary sewers, pumping stations, and sewage treatment plants with sufficient capacity to accommodate the existing and future development of the City, within the financial capability of the Municipality.
- ii) Provide sewage treatment to meet standards for an acceptable quality of effluent discharge to the Thames River and its tributaries.
(Clause ii) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

17.1.3.

SOLID WASTE MANAGEMENT OBJECTIVES

- i) Provide for the disposal of solid waste materials generated or produced by City residents and businesses, at acceptable locations and in a manner which will minimize negative impacts on the environment and surrounding land uses.
(Deferral #9 Under Section 17(10) of the Planning Act)
- ii) Promote the recovery, reduction, re-use, recycling and recovery of materials from solid waste, wherever possible, through the use of innovative means, new technology, conservation measures and public education programs.
(Clause ii) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
- iii) Control development surrounding operating and closed landfill sites which could be adversely affected by the operation of disposal facilities and/or methane gas and leachate.

17.1.4.

STORMWATER MANAGEMENT OBJECTIVES

- i) Prevent loss of life and minimize property damage and health hazards resulting from flooding or other stormwater problems.
- ii) Minimize inconvenience and damage from surface ponding and flooding, either on-site or downstream.
- iii) Protect groundwater recharge and minimize impacts on local groundwater systems.
(Clause iii) replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
- iv) Protect and enhance hydrology, geomorphology, water quality and the quality of aquatic and fish habitat.
(Clause iv) replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
- v) Minimize the effects of erosion, soil loss, and sedimentation from construction activity on sewerage systems and receiving watercourses.
(Clause v) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

- vi) Promote, through efficient stormwater management techniques, orderly development in a cost-effective manner.
- vii) Protect baseflow and regulate water flow levels in receiving watercourses.
(Clause vii) added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

17.1.5.

WATER SERVICES OBJECTIVES

- i) Provide and maintain water storage facilities, pumping stations and watermain distribution systems with sufficient capacity to provide for existing and planned development at a reasonable cost.
- ii) Ensure, in an environmentally sound manner, that high quality drinking water meets or exceeds all regulatory standards.
- iii) Meet or exceed service requirements for supply of water for fire protection.
- iv) Ensure the security of water supply to avoid severe water shortages.
- v) Encourage water conservation and the efficient use of water in the City.
(Subsection 17.1.5 added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
(Subsection 17.1.5 amended by OPA No. 298 - approved 05/01/31)

17.2.

SANITARY SEWERAGE

(Section 17.2 replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

The provision of sanitary sewerage facilities, including sewer lines, pump stations, and sewage treatment plants, is essential for a healthy environment in the City and for the growth and development of the Municipality. The City has undertaken a Sanitary Sewerage Servicing Study to assess its 20 year and 50 year needs for sanitary sewage system improvements and expansions and options for meeting those needs.

The Ministry of the Environment, through the Ontario Water Resources Act, Environmental Protection Act, the Municipal Engineer's Association Class Environmental Assessment for Municipal Water and Wastewater Projects, and the Provincial Policy Statements, is concerned with the development and operation of sewerage systems. Provincial approval is required for any proposed expansions to such systems.

17.2.1. **Sanitary Sewerage Service Study**

- i) The City has prepared a Sanitary Sewerage Servicing Study for input into the determination of how lands likely to be required for long term urban growth will be serviced. The Sanitary Sewerage Servicing Study projected a 50 year servicing boundary and identified the probable servicing solutions for these areas. The second phase of the Sanitary Sewerage Servicing Study provided a more detailed servicing plan and cost estimates for the identified Urban Growth Area.

- ii) The City will promote gravity based sewerage servicing and minimize the transfer of sewage flows across drainage areas by utilizing the existing and future sewershed and subsewershed drainage areas identified in the Sanitary Sewerage Servicing Study.

(Ministry Modification No. 6 to OPA No. 88)

- iii) To provide a consistent basis for future planning of sanitary sewerage servicing, the City will utilize the recommended servicing strategy for each sewershed regardless of growth and development timing.

- iv) The Sanitary Sewerage Servicing Study will be monitored on an on-going basis and updated at appropriate intervals.

(Clause iv) amended by OPA No. 298 - approved 05/01/31

- v) The City will establish a program to implement recommendations of the Sanitary Sewerage Servicing Study. Identified priority works will be undertaken at the earliest opportunity, including:

- (a) Southside Sewage Treatment Plant environmental assessment; and

- (b) optimization studies to accommodate growth and address problems in existing systems.

- vi) The Sanitary Sewerage Servicing Study identifies systems with deficiencies which require flow capacity improvements to service new development. Where it is not practical to implement such improvements under an agreement, the City may establish an area rating charge to recover the growth-related capital costs of these works.

17.2.2. Servicing Hierarchy

- i) The following hierarchy of sanitary sewerage servicing options will be used to evaluate any development applications in the City. The feasibility of options will be considered in the following priority:

- (a) the extension of servicing from one of the centralized municipal Sewage Treatment Plants; including the Adelaide, Greenway, Oxford, Pottersburg, Vauxhall or proposed Southside Sewage Treatment Plant; and collection systems;

- (b) the extension of servicing from the Westminster and Southland Sanitary Sewage Treatment Plants and collection systems;

- (c) the development of a new temporary sanitary sewerage system; and

- (d) an individual on-site wastewater treatment system. For the purposes of this Plan an individual on-site wastewater treatment system means an individual, autonomous sewage disposal system for a new development that is owned, operated and managed by the owner of the property upon which the system is located and which does not serve more than five residential units/lots.
(OPA #438 – July 13, 2011)
- ii) Where it is feasible to provide sanitary sewerage services from a higher priority option, no other option shall be permitted.
- iii) Notwithstanding the above provisions for the consideration of servicing options, the following limitations will apply:
 - (a) The proposed development to be serviced by the temporary sanitary sewerage system represents a logical extension of the urban area, provides for an efficient utilization of land and does not set a precedent for or contribute to a new scattered or "leap-frog" development pattern.
 - (b) Temporary systems for the treatment of industrial wastewater will not be permitted.
 - (c) Residential subdivision development, residential development on more than five associated lots created through severance and multi-family residential development on individual wastewater treatment systems will be discouraged.
- iv) The evaluation of the feasibility of proposed servicing options shall have regard for the following:
 - (a) the physical or environmental constraints to the provision of higher priority servicing options, in particular the servicing recommended in the Sanitary Sewerage Servicing Study;
 - (b) the potential cumulative impacts on ground and surface water resources;
 - (c) an analysis of the costs and benefits of the proposed servicing option in comparison to the higher priority servicing options including the costs associated with planning, construction, start-up, operation, maintenance, financing and replacement of the system or its components;
 - (d) a financial impact analysis having regard for the City's growth financing strategy; and

- (e) an analysis of the implications for the physical and financial viability of the future provision of municipal services to the surrounding area in keeping with the Sanitary Sewerage Servicing Study.
- v) Where a private developer proposes a servicing option other than the extension of servicing from one of the municipal sewage treatment systems, the City shall require the submission of documentation and studies necessary for a complete analysis of the feasibility of the proposed servicing option.

**17.2.3.
Municipal
Sanitary
Sewerage
Services**

The City will not extend municipal sanitary sewerage services beyond the limits of the Urban Growth Area except for:

- i) the provision of services to areas of existing development that are experiencing health hazards related to their private wastewater treatment systems or significant environmental problems; or,
- ii) the provision of services to areas within an adjoining municipality as provided for under an agreement between the City and the benefiting municipality.

**17.2.4.
Temporary
Sanitary
Sewerage
Systems**

In general, the City of London does not support the use of temporary sanitary sewage systems and would like to discourage and restrict their usage in the City. However, it is possible that circumstances may occur in future where it may become a public benefit to consider temporary or interim sanitary sewerage systems. Examples include, but are not limited to, the replacement of existing on-site individual treatment systems which are failing on a widespread basis with new temporary services to address health concerns where the ultimate servicing for the area is not readily available or is not cost effective. These cases shall only be considered on a case-by-case basis subject to full evaluation, based on the following criteria:

(OPA #438 – July 13, 2011)

- i) Where a temporary sanitary sewerage system is proposed by a private developer, the cost related to the feasibility studies, environmental assessment, design, construction and start-up, operation and maintenance and the ultimate removal of the system and the eventual integration of the system with the permanent servicing system when it is extended to the area, will be the responsibility of the developer. The City has ultimate responsibility for the design, construction, ownership and operation of all temporary sanitary sewerage systems.
(Ministry Modification No. 7 to OPA No. 88)
- ii) The City may permit temporary sanitary sewerage systems where the proponent can demonstrate, to the City's satisfaction, that:
 - (a) The proposed development to be serviced by the

temporary sanitary sewerage systems represents a logical extension of the urban area, provides for an efficient utilization of land and does not set a precedent for or contribute to a scattered or "leap-frog" development pattern.

- (b) The temporary alternative does not detract from the viability of the servicing anticipated in the City's Sanitary Sewerage Servicing Study.
 - (c) The temporary system is designed to maximize its suitability for eventual integration into the municipal sanitary sewerage treatment system.
 - (d) The developer will deposit sufficient securities to the satisfaction of the City to cover all the cost of the operation and maintenance of the facility for a period to be determined by the City and to cover all the costs of ultimate removal of the system and the integration of the system with the permanent servicing system, prior to developments being initiated.
 - (e) The developer will contribute to the financing of the long term servicing solution through lawful municipal contribution schemes applicable to the development of sanitary sewage systems in the City.
 - (f) Where the temporary use of an existing sewerage collection system is proposed by a developer, the existing system being utilized will not be adversely affected over the period of the temporary usage. The City may require the developer to provide improvements to the existing system if necessary.
 - (g) The temporary system shall be integrated with the municipal sewerage system at such time as the municipal system becomes available.
- iii) The City may prepare guidelines for the development and operation of temporary wastewater treatment systems.

**17.2.5.
Interim Sanitary
Servicing**

Interim services are defined as works or a phase of a work that provides a level of service or quantity of service that is adequate for the immediate future and that meets all City and Provincial standards, guidelines, objectives and targets, but is not the ultimate facility envisioned to be required in the future. The City may utilize interim servicing works to make efficient use of existing infrastructure or defer the cost of the future infrastructure where:

- i) the interim work does not detract from the viability of the servicing anticipated in the City's Sanitary Sewage Servicing Study,

Transportation Master Plan, Stormwater Drainage Plan or related Environmental Assessment; and

ii) the interim solution is supported by an acceptable financial impact analysis having regard for the City's growth financing strategy.

(OPA #438 – July 13, 2011)

**17.2.6.
Individual
Wastewater
Treatment
Systems**

i) Individual on-site wastewater treatment systems will continue to provide the primary means of sanitary sewerage treatment in the portions of the City outside of the Urban Growth Area.

ii) Within the Urban Growth Area, the City may permit individual on-site wastewater treatment systems in the following circumstances:

(a) for commercial and industrial development on lands that were designated for commercial or industrial growth before they were annexed to the City on January 1, 1993, provided that:

1. The development of individual, on-site services will not detract from the viability of providing municipal services in conformity with the City's long term servicing and financing strategies.
2. The proposed use is of a "dry" nature. Dry commercial and industrial uses do not involve significant number of employees, do not need significant amounts of water in their operations, and do not produce significant amounts of effluent.
3. There are no viable options for a connection to a municipal sanitary sewer and municipal services planned for the area will not be available within a reasonable time frame.
4. The proposed wastewater treatment system can meet all applicable requirements for approval.
5. The proponent agrees to connect the proposed use to the municipal sanitary sewerage system, at no cost to the municipality, at such time as sewers are extended to the area, and to contribute to the cost of the long term servicing.

(b) Subject to policy 17.2.2 (iii) (b), for the development of a residential dwelling provided that:

1. municipal servicing is not available within approximately 150 metres of the property;

2. there are no other viable options for a connection to a municipal sanitary sewer and municipal services for the area will not be available within a reasonable time frame;
 3. the proposed wastewater treatment system can meet all applicable requirements for approval; and
 4. the owner agrees to connect to a municipal sanitary sewer, if available, at no cost to the municipality, when replacement of the system becomes necessary.
- iii) For any development applications proposing the use of individual on-site wastewater treatment systems, the proponent shall obtain the approval to the use of same from the authority having jurisdiction.
 - iv) Development applications proposing the use of individual wastewater treatment systems for effluent in quantities greater than 4,500 litres per day must be supported by a hydrogeological study that demonstrates such system can operate satisfactorily on the site.
 - v) The City will consider the use of innovative individual wastewater treatment systems as permitted in accordance with the other policies of this Plan, subject to the approval of the Ministry of the Environment.

(Section 17.2.6. renumbered by OPA 438 Dec. 17/09)

**17.2.7.
Servicing
Requirements**

- i) With respect to sanitary sewerage servicing, all new development in the City shall comply with the requirements of the Ministry of the Environment, the *Environmental Protection Act*, *Ontario Water Resources Act* and other provincial and municipal requirements as applicable.
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|---|--|
| Size of Sewers | ii) Sanitary and storm sewers will be sized according to the ultimate development anticipated by the City in respective drainage areas. In some cases, this will require the installation of sewer lines with capacity in excess of that required for the initial development. |
| Combined Sewers | iii) Combined sanitary and storm sewers will not be permitted in any new development area. |
| Weeping Tile/
Downspout
Connections | iv) Weeping tile or downspout connections to the sanitary sewers will not be permitted in any new development area. |
| Design of System | v) The design of sanitary sewers should avoid the need for sewage pumping stations wherever possible. |

(Section 17.2.7. renumbered by OPA 438 Dec. 17/09)

- 17.2.8. Cost of Services** The development industry shall contribute to the cost of trunk sewer and treatment facilities. The cost of local services within a subdivision shall be borne entirely by the developer as part of the subdivision process.
(Section 17.2.8. renumbered by OPA 438 Dec. 17/09)
- 17.2.9. Environmental Protection** Sewage treatment facilities will be provided to accommodate existing and future development contemplated by the City, having due regard for the need to protect and enhance water quality and hydrology.
- Additional Treatment Capacity i) Where additional treatment capacity is required or anticipated, studies will be undertaken to determine whether the additional capacity is best provided through upgrading or expanding existing facilities, or through the provision of new treatment facilities.
- Water Quality ii) Should the assimilative capacity of the receiving water body be at, or near, maximum levels, investigations may be undertaken to determine environmentally effective and cost efficient means of maintaining or improving water quality of the receiving waters.
(Section 17.2.9. renumbered by OPA 438 Dec. 17/09)
- 17.2.10. Development Adjacent to Sewage Treatment Plants** To reduce the potential problems from development occurring in close proximity to sewage treatment plants, Council will prepare and adopt regulations to direct development in areas adjacent to sewage treatment facilities.
- Separation Distances i) Regulations may consist of minimum separation distances for residential and other sensitive uses from the perimeter of existing or anticipated future treatment facilities. Appropriate separation distances shall be determined in accordance with Provincial Policy.
- Preferred Adjacent Land Uses ii) Open space or recreational uses and industrial uses that predominantly involve large areas of open storage or similar types of low intensity activity, will be the preferred land uses within minimum separation distances around sewage treatment facilities.
- Expansion of Adjacent Land Uses iii) The expansion of existing uses within the minimum separation distances which are not compatible with a sewage treatment plant, will be discouraged.
(Section 17.2.10. renumbered by OPA 438 Dec. 17/09)
- 17.2.11. Older Services and Facilities** The City will continue an ongoing program for the upgrading, maintenance and/or replacement of older sanitary sewerage facilities as required. Where practical, existing combined sanitary and storm sewers shall be separated as a part of an redevelopment or upgrading of sanitary facilities.
(Section 17.2.11. renumbered by OPA 438 Dec. 17/09)
- 17.2.12. Sewer Use By-Law** Sanitary sewerage from non-residential sources may be regulated by the City through a Sewer Use By-law.
(Section 17.2 replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
(Section 17.2.12. renumbered by OPA 438 Dec. 17/09)
- 17.2.13.** i) Partial services are defined to include areas that area served by

Partial Services

municipal sewage services and individual on-site water services; or, municipal water services and individual on-site sewage services.

- ii) Partial services shall only be permitted where they are necessary to address failed individual on-site sewage and individual on-site water services in existing developments where no other alternatives exist and where site conditions are suitable for the long-term provision of such services.

(OPA #438 – July 13, 2011)

17.3.

LIQUID WASTE MANAGEMENT

In addition to sewage, other liquid wastes are generated, transported, processed, or disposed of by private industries and businesses. Such wastes may include toxic or hazardous industrial substances, household wastes such as paints and chemicals, and other liquid materials.

(Section 17.3 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

17.3.1. Other Liquid Wastes

The location and operation of liquid industrial waste transfer stations, storage areas or processing plants shall:

- | | |
|----------------------|---|
| Location | i) be permitted only on lands which are designated General Industrial and which are separated from residential areas; |
| Zoning | ii) require an amendment to the Zoning By-law; |
| Ministerial Approval | iii) require the approval of the Ministry of the Environment, including certification under the appropriate section of the <i>Environmental Protection Act</i> ; and |
| Compatibility | iv) be planned, designed, operated and maintained in such a way as to promote compatibility with adjacent existing and future land uses, and to minimize adverse impacts on the natural environment and surrounding area. |

17.3.2. Waste Discharge

All liquid waste discharges from industries shall comply with the City's Waste Management By-law WM-2 and all provincial regulations as applicable.

(Subsection 17.3.2 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

17.4.

OPERATING AND CLOSED LANDFILL SITES

At present, the only active landfill site for the City of London is Site W12A located on Manning Drive. It is currently expected that this site will reach capacity by about the year 2025. Within the City are several closed landfill sites and other sites which, although possibly not landfill sites, have been identified as sites which could or do produce gases similar to landfill areas. Their status and locations are identified and recorded on maps by the City's Environmental Services Department. Development around such areas requires careful consideration. Factors which must be considered near landfill sites include problems associated with methane gas,

leachate, surface run-off, ground settlement, visual impact, and soil contamination. The policies of this Section are intended to minimize such potential problems.

(Section 17.4 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Section 17.4 amended by OPA No. 298 - approved 05/01/31)

**17.4.1.
Existing Landfill
Sites**

Council, subject to the requirement of the *Environmental Protection Act*, will consider potential uses for the City's existing sanitary landfill site after it has reached its capacity.

(Subsection 17.4.1 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

**17.4.2.
Future Sites**

Prior to the existing landfill site reaching capacity, Council may undertake studies to assess the social, economic, and environmental impact of alternative potential sites in accordance with the requirements of the Ministry of the Environment, the *Environmental Assessment Act*, and the *Environmental Protection Act*.

Designation

- i) Any future landfill sites located within the Urban Growth Boundary of the city will be designated General Industrial. Any future or expanded landfill sites located within the Agricultural area of the City shall be consistent with section 9.2.15 of the Plan. (OPA #462)

Ministerial
Approval

- ii) Any future landfill sites located within the City will require the approval of the Ministry of the Environment under the *Environmental Assessment Act* and the *Environmental Protection Act*.

(Clause ii) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

**17.4.3.
Development in
the Vicinity of
Landfill Sites**

Notwithstanding the land uses designated on Schedule "A" of this Plan and any associated policies, future development will not be permitted on or in the vicinity of operating landfill sites, closed landfill sites and other sites which produce gases similar to those found in landfill areas, unless it is determined that the development satisfies the provisions of the *Environmental Protection Act*, and the development complies with any other provincial and municipal guidelines, as applicable.

(Subsection 17.4.3 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

Guideline
Document

- i) Operating landfill sites, closed landfill sites and other sites which produce gases, leachate, dust, odour or noise impacts similar to those found in landfill areas will be mapped and identified in a guideline document, as provided for in Section 19.2.2. of the Plan. This guideline document will be developed in consultation with the Province, affected agencies, and the public, and will include:
 - (a) the location of all known waste disposal sites together with their potential influence areas;
 - (b) minimum separation distances and buffering measures which may be required between a landfill area and future development;
 - (c) criteria which may be satisfied in order to allow for a

reduction in separation distances;

- (d) the content of studies required to indicate how a site is secure, or can be made secure from contamination by hazardous levels of leachate, methane, and/or other soil gases;
- (e) guidelines for monitoring and/or remediating leachate seepage, methane gas and other emissions on an ongoing basis;
- (f) the role of the City, the Province, and other affected agencies in reviewing applications which may be affected by hazardous levels of leachate, methane and/or other soil gases; and
- (g) other relevant information, as applicable.
(Clause i) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

Consultation with
Ministry of the
Environment

- ii) Development proposals will be circulated to the Ministry of the Environment, and any other applicable agency, to ensure that development proposed in the vicinity of operating and closed landfill sites, and other sites which produce gases, leachate, dust, odour or noise impacts similar to those found in landfill areas, will comply with the provisions of the *Environmental Protection Act* and provincial guidelines for land use around closed and operating landfill sites.
(Clause ii) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

Zoning of
Adjacent Areas

- iii) The City's Zoning By-law may place a holding provision or restrictive zoning on areas which have been identified as being impacted by landfill sites and other sites which produce gases, leachate, dust, odour or noise impacts similar to those found in landfill areas. The holding provision will be removed when the landowner has satisfied the City and the Ministry of the Environment that an adequate separation distance and/or control measures have been included in the development.
(Clause iii) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

17.5.

OTHER WASTE FACILITIES

(Title amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

In addition to the disposal of solid wastes in landfill sites, some wastes may also be processed for treatment, recycling or resource recovery.

17.5.1. Alternative Waste Treatments

Council will encourage cost-effective alternative methods of disposing of, or utilizing, solid waste, including recycling, reduction, recovery, and re-use.

In addition to the municipal waste management and resource recovery facility, Council will support the adequate provision of lands for solid waste recycling and resource recovery within the industrial land use designation.

(Subsection amended by OPA 296 on June 22, 2004)
(deleted and replaced by OPA #462)

**17.5.2.
Industrial
Treatment
Facilities**

Solid waste treatment and processing facilities serving a plant on the same site are permitted in the General Industrial designation, subject to receipt of a Certificate of Approval issued by the Ministry of the Environment.

**17.5.3.
Other Waste
Management
Facilities**

The location of waste transfer stations or storage areas, and facilities for storing hazardous waste will:

(Subsection 17.5.3 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
(Subsection further amended by OPA 296 approved 04/06/22)

- | | |
|----------------------|---|
| Location | i) Be permitted only on lands designated General Industrial and lands within the Waste Management and Resource Recovery Area. (OPA #462) |
| Zoning | ii) require an amendment to the Zoning By-law; |
| Ministerial Approval | iii) require the approval of the Ministry of the Environment, including certification under the <i>Environmental Protection Act</i> ; and |
| Compatibility | iv) be planned, designed, operated, and maintained in such a way as to promote compatibility with adjacent, existing and future land uses, and to minimize any adverse impacts on the natural environment and surrounding area. |

**17.5.4.
Composting and
Recycling**

The location of composting facilities and recycling facilities will require an amendment to the Zoning By-law. If the proposed operation requires a Certificate of Approval from the Ministry of the Environment, such Certificate shall be applied for concurrent with the application for Zoning By-law Amendment such that the public process and Council consideration will have the opportunity of providing input into the conditions of the Certificate of Approval. Final reading of the Zoning By-law Amendment will be withheld or a holding provision may be applied to required the Certificate of Approval process as a pre-condition. Such facilities must be planned, designed, operated and maintained in such a way as to promote compatibility with adjacent, existing and future land uses, and to minimize any adverse impacts on the natural environment.

(Subsection 17.5.4. added by OPA 296 on 04/06/22)

**17.5.5.
Hazardous
Waste**

The City shall review all development proposals which may potentially generate or store hazardous waste to ensure that the location and operation of such developments will not adversely affect the health and safety of the public and the natural environment. The proponent shall be responsible for obtaining all necessary approvals from the appropriate authorities.

(Subsection 17.5.4 added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
(Subsection 17.5.5. changed from Subsection 17.5.4. by OPA 296 on 04/06/22)

17.6. STORMWATER MANAGEMENT

Effective control of stormwater run-off is required to adequately protect property from flooding damage and to protect the environment. The proper conveyance of stormwater flows and reduction of peak stormwater flows through various measures provides considerable protection against such occurrences, and can reduce capital costs for trunk storm sewers and other flood control structures. Effective storm drainage and stormwater management should provide protection against surface flooding, basement flooding and erosion; sediment control during construction; and should provide for appropriately designed street systems and receiving watercourses capable of handling projected stormwater flows. Stormwater control requires the construction of works and facilities by both the Municipality and developers, and concerted efforts should be made to minimize the capital, operating, and maintenance expenditures required for such facilities. Successful and cost-effective management of stormwater can be best achieved through a co-ordinated approach to, and use of, different water control techniques.

The Subwatershed Planning Studies have addressed water resources management that includes storm drainage and stormwater management from an ecosystem perspective for ten subwatersheds and three sections of the Thames River valley in the City. They have identified storm drainage and stormwater management issues, development criteria and stormwater targets which should be addressed on a subcatchment or tributary basis.

To address storm drainage and stormwater management issues in more detail, the City will require the preparation of Storm Drainage and Stormwater Management Plans. Storm Drainage and Stormwater Management Plans will be prepared on a subcatchment, tributary or drainage area basis in accordance with the requirements of the City, and will detail measures which can and should be undertaken, in conjunction with development, to provide erosion control while protecting baseflows and water quality. The Plans provide a comprehensive and co-ordinated strategy to determine appropriate storm drainage and stormwater management measures, and at the same time, provide opportunities for protecting and enhancing the Natural Heritage System, and for open space planning as a part of the stormwater management process.

(Section 17.6 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Sec. 17.6. amended by OPA 438 Dec. 17/09)

**17.6.1.
General
Provisions**

- i) The City will require conveyance of stormwater flows and stormwater quality, quantity/flood protection and erosion control management for all proposed developments in accordance with Provincial policies and guidelines, the City's Subwatershed Studies, the City's Design Standards and Requirements, and in accordance with the policies of this Plan.
- ii) The City shall encourage minimizing the number of stormwater management facilities. Where feasible, the City will encourage the use of regional stormwater management facilities.
- iii) Stormwater management facilities may be permitted within or

adjacent to the Natural Heritage System subject to the policies in Section 15.3.3. of this Plan.

(Clause iii) amended by OPA 438 Dec. 17/09)

- iv) Best Management Practices may be permitted in floodplain areas where it can be demonstrated, through an Environmental and/or Environmental Impact Study approved by the City, that any negative impacts on natural features and ecological functions will be avoided, or mitigated and any hazard constraints will be addressed to the satisfaction of the City. Such Best Management Practices will also be subject to the approval of the appropriate agencies.

(Subsection 17.6.1. added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Clause iv) amended by OPA 438 Dec. 17/09)

**17.6.2.
Stormwater
Management
Plans**

It is the intent of Council to require effective storm drainage and stormwater management systems to control flooding, erosion, contaminant and sediment discharges into water courses from development, and to enhance the water quality and the environmental, aesthetic and recreational potential of the City's watercourses.

(Subsection 17.6.2 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Section 17.6.2. amended by OPA 438 Dec. 17/09)

Area Studies

- i) Secondary Plans shall include the preparation of a Storm Drainage and Stormwater Management Plan in accordance with the City's General Storm Drainage and Stormwater Management Master Plan, addressing storm drainage and stormwater management issues, best management practices and the applicable Subwatershed Planning Study and including, but not limited to:

(Clause I) replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Clause i) amended by OPA 438 Dec. 17/09)

- (a) provisions to prevent loss of life and reduce property damage;
- (b) provisions to mitigate the impact of proposed development on the environment and on existing overland stormwater flows;
- (c) provisions to control erosion, sedimentation, and pollution likely to result from development projects;
- (d) provisions to reduce on-site and downstream surface ponding and flooding;
- (e) provisions to protect and enhance water quality and baseflow in receiving watercourses;

(Subclause (e) replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

- (f) provisions to protect groundwater recharge/discharge areas;

(Subclause (f) added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

- (g) provisions to reduce the total cost of a stormwater drainage system and its related works;
 - (h) provisions to consider the integration of stormwater retention, detention or other management facilities into public park and open space areas, provided the overall function of the park or open space area is protected; and
 - (i) any other criteria or guidelines which, in the opinion of Council, may be required to regulate development in order to achieve effective stormwater management in the subcatchment or tributary.
(Subclause (i) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
- ii) Storm Drainage and Stormwater Management Plans shall be prepared on the basis of tributary areas identified in the Subwatershed Planning Studies or as determined by the City in consultation with the appropriate agencies.
(Clause ii) added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23
(Clause ii) amended by OPA 438 Dec. 17/09)
- Subdivision Applications
- iii) Applicants for approval of draft plans of subdivision within areas for which an Area Study and Municipal Class Environmental Assessment Study has been prepared, shall demonstrate how the proposed development would address storm drainage and stormwater management servicing, in accordance with the Storm Drainage Stormwater Management Plan.
(Clause iii) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23
(Clause iii) amended by OPA 438 Dec. 17/09)
- Zoning, Building Permit and Site Plan Applications
- iv) Applicants for zoning, building permit and/or site plan approval within areas for which an Secondary Plan and a Municipal Class Environmental Assessment Study has been prepared, may be required to prepare and submit a Storm Drainage and Stormwater Management Plan which demonstrates how the proposed development would provide for the management of storm drainage conveyance and stormwater in accordance with the Storm Drainage and Stormwater Management Plan.
(Clause iv) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23
(Clause iv) amended by OPA 438 Dec. 17/09)
- Area Rating Surcharge
- v) For areas where the City has determined that it is not practical to initially implement stormwater management measures due to constraints such as small lot sizes, small-scale developments, site conditions or fragmented land ownership, the City may undertake the development of stormwater management plans and/or facilitate establishment of an area rating charge to recover the costs of such works.
(Clause v) added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
- Temporary Stormwater Management
- vi) In general, the City of London does not support the use of temporary stormwater management facilities and/or systems. However, future circumstances may demonstrate that a temporary

Facilities stormwater facility or system will provide a public benefit. Examples include, but are not limited to, the creation of a new facility while an existing facility is being emptied, decontaminated or regraded due to service issues; or, to address health concerns. Ultimately, the permanent facility may be brought back into service. These cases shall only be considered on a case-by-case basis subject to a full evaluation of the proposed system, as identified under Section 17.6.2.

(Clause vi) added by OPA 438 Dec. 17/09)

**17.6.3.
Storm Drainage
and Stormwater
Management
Report**

For areas where no Storm Drainage and Stormwater Management Plan has been prepared but where the City has determined that storm drainage and stormwater management measures may be required, an applicant for a plan of subdivision or site plan approval, may be required to submit a Storm Drainage and Stormwater Management Report containing any or all of the following information in support of such application:

(Subsection 17.6.3 amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Section 17.6.3. amended by OPA 438 Dec. 17/09)

Subwatershed
Planning Studies

i) an assessment of how the proposed development will address water resource management issues including, but not limited to storm drainage and stormwater management water balance, best management practices, development criteria and stormwater targets identified in the applicable Subwatershed Planning Study;

(Clause i) added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Clause i) amended by OPA 438 Dec. 17/09)

Storm Drainage

ii) a scheme for the provision of stormwater drainage facilities to accommodate the proposed development;

Erosion Control

iii) a plan for the control of erosion to minimize the impact of the proposed development on any watercourse;

(Clause iii) amended by OPA 438 Dec. 17/09)

Erosion Sediment
Control

iv) an Erosion/Sediment Control Plan for the control of erosion and sedimentation during construction activities to minimize the impact of any proposed development on any watercourse;

(Clause iv) added by OPA 438 Dec. 17/09)

Water Pollution

v) the applicant's proposals for complying with Provincial and Federal water quality objectives and fishery requirements and mitigating any water pollution likely to result from the proposed development; and

(Clause v) renumbered and amended by OPA 438 Dec. 17/09)

Grading

vi) a grading plan for the proposed development.

(Clause vi) renumbered by OPA 438 Dec. 17/09)

**17.6.4.
Stormwater
Management
Technical
Guidelines**

The City may adopt technical guidelines to assist in the development of stormwater management plans or reports and the design of effective stormwater control measures. Such guideline documents may include, among other things:

- Stormwater Runoff Methods i) methods and standards for designing, accommodating and controlling stormwater runoff through the minor drainage systems, consisting of building drainage, street gutters and storm sewers, and major drainage systems, consisting of streams and valleys, drainage channels, streets, and man-made ponds;
(Clause i) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)
- Site Plans ii) information and details to be shown on site plans, including land uses and layouts, elevations and grades, system and facilities design, and overland flow routes;
- Anticipated Flow iii) tables to be used to illustrate anticipated water flows, pollutant levels, hydrographs and discharge rates for stormwater management facilities; and
(Clause iii) amended by OPA 438 Dec. 17/09)
- Low Impact Development iv) methods to reduce volumes of stormwater such as low impact development.
(Clause iv) added by OPA 438 Dec. 17/09)

17.6.5. Stormwater Facility Design Standards The Site Plan Control By-law may contain standards and requirements for the provision of stormwater management measures and facilities as part of the site plan approval process.

17.6.6. Control of Erosion and Sedimentation Council has adopted erosion and sediment control requirements to minimize the sediment discharge during the various construction phases of new development, and to prevent or minimize the deposition of sediment in adjacent or downstream watercourses and/or drainage networks. These requirements have been designed to:
(Sec. 17.6.6. amended by OPA 438 Dec. 17/09)

- Surface Protection i) control erosion by protecting exposed surfaces through the use of such measures as seeding, mulching, sodding, rip-rap, aggregate cover, nets and matting, and other means; and
- Sedimentation ii) control runoff discharge in order to minimize sedimentation through the use of vegetative buffer strips, filters, dams and sediment traps.

17.7. WATER SERVICES

(Section 17.7 replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

The City is responsible for distribution of water services through much of the City; however, many rural residents are serviced by private wells. In urban areas of the City, water servicing is available through the municipal water distribution grid. Supply of water to the City is under the jurisdiction of the Joint Lake Huron and Joint Elgin Area Water Boards. The City of London is the administering municipality for each of these Joint Boards. The Joint Boards will, at five year intervals, review water supply needs and available supply in order to assess long term needs.

(Section 17.7 amended by OPA No. 298 - approved 05/01/31)

17.7.1. Water The City has prepared a Distribution Master Plan which outlines the system requirements to service long term urban growth. The City will

**Distribution System/
Waterworks for Growth Update**

implement the recommended strategies in the Waterworks for Growth Master Plan to service the identified Urban Growth Area. The City will monitor on an on-going basis the Water Distribution Study and update it at appropriate intervals. The City will consider amendments to this Plan as required to establish appropriate policies resulting from updates to the Water Distribution Studies.

(Section 17.7.1 amended by OPA No. 298 - approved 05/01/31)

**17.7.2.
Water Servicing**

- i) All the development within the Urban Growth Area shall be serviced by the City of London water supply system for its potable water supply and fire protection.

Private Wells

- ii) Prior to approving development applications serviced by private wells, the City may require the proponent to demonstrate that the site can provide a natural supply of water which meets or exceeds the Ontario Drinking Water Standards to the satisfaction of the Middlesex-London Medical Officer of Health without affecting the quality and quantity of water in active wells operating in the general vicinity.

(Clause ii) amended by OPA No. 298 - approved 05/01/31)

Emergency Municipal Wells

- iii) The City of London maintains a small number of stand-by municipal water wells for use during times of emergency. Emergency municipal well locations are identified on Schedule "B2". Water quantity and quality will be protected by restricting or prohibiting high risk land use and development activity, within the wellhead protection area of emergency municipal wells.

(Clause iii) added by OPA 438 Dec. 17/09)

**17.7.3.
Well-Head Protection**

- i) Where a draft plan of subdivision, consent and/or Zoning By-law amendment is proposed in the vicinity of an existing well the application will be required to demonstrate, to the satisfaction of the City, that the proposed development will not have a negative impact on groundwater quantity and quality. It is the responsibility of the application to identify the location of wells in the vicinity of a development site.

(Clause i) added by OPA 438 Dec. 17/09)

Abandoned Wells

- ii) As a condition of development approval, the applicant will be required to decommission and permanently cap any abandoned wells, in accordance with current Provincial legislation, regulations and standards. It is the responsibility of the applicant to determine if any abandoned wells exist within a development site.

(Clause ii) added by OPA 438 Dec. 17/09)

**17.7.4.
Servicing Requirements**

With respect to water servicing, all new development in the City shall comply with the requirements of the Ministry of Environment, the *Environmental Protection Act* and other provincial and municipal requirements, as applicable.

(Section 17.7.3 amended by OPA No. 298 - OMB Order No. 0177 - approved 05/01/31)

(Section 17.7.4. renumbered by OPA 438 Dec. 17/09)

**17.7.5.
Large Water**

Industries requiring large volumes of water will be encouraged to:

Users (Section 17.7.5. renumbered by OPA 438 Dec. 17/09)

Location i) locate in areas of the City where there is sufficient capacity in the water distribution network to accommodate such uses; and

Water Efficiency ii) use water efficiency procedures to reduce the demand for water, and lower the volume of waste water discharges flowing to sewage treatment facilities.

17.7.6. Extension of Water Services The City will not extend water services beyond the limits of the Urban Growth Area except for:

i) the provision of services to areas of existing development that are experiencing health hazards related to their private water systems or significant environmental problems; or,

ii) the provision of services to an area in an adjoining municipality as previously approved by the appropriate Joint Water Supply Board and provided for under an agreement between the City and the benefiting municipality.

(Section 17.7 replaced by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

(Section 17.7.5 amended by OPA No. 298 - OMB Order No. 0177 - approved 05/01/31)

(Section 17.7.6. renumbered and amended by OPA 438 Dec. 17/09)

17.7.7. Temporary Water Servicing Where a temporary water servicing system is proposed by a private developer, such as a booster station or a pumping station, the cost related to the feasibility studies, environmental assessment, design, construction and start-up, operation and maintenance, removal and decommissioning, and integration of the system with the permanent servicing solution will be the responsibility of the developer.

The City has ultimate responsibility for the design, construction, ownership and operation of all temporary water servicing systems. The standards to which temporary facilities are to be constructed must meet the requirements of and be approved by the City of London.

(Section 17.7.6 added by OPA No. 298 - OMB Order No. 0177 - approved 05/01/31)

(Section 17.7.7. renumbered by OPA 438 Dec. 17/09)

17.8. ELECTRICAL SERVICES

(Section 17.8 added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

The London Hydro-Electric Commission is responsible for the supply and distribution of electrical services to many areas of the City; however, large portions of the City are serviced by Hydro One.

(Section 17.8 amended by OPA No. 298 - OMB Order No. 0177 - approved 05/01/31)

17.8.1. Liaison Council will cooperate in the planning, construction and operation of networks for the adequate supply and distribution of electrical services for the City. Such services shall be provided in an appropriately timed and cost-effective manner.

(Section 17.8 added by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

17.9. OTHER UTILITIES

Other energy and communication utilities and services are provided by private companies such as the gas, telephone and cable television companies, or government agencies such as Hydro One. Although these services are not the responsibility of the City, the manner and locations in which they are provided may have certain impacts on the surrounding areas. Local utilities are, for the most part, installed at the time development takes place. Effective co-ordination can minimize disruption to established uses and activity patterns, and can increase the efficiency of the construction program. Regional and provincial utility lines within major corridors occupy significant amounts of land in both developed and undeveloped areas, and consequently affect land use planning. The following policies are intended to assist in the provision of utility services in a manner which promotes the efficient use of land and provides for a high level of service to the community.

(Section 17.9 amended by OPA No. 298 - OMB Order No. 0177 - approved 05/01/31)

**17.9.1.
Availability**

Council will endeavour, through discussions with public and private utility agencies, to ensure that utility services are available to all developments at the time required. Wherever possible, services and utilities will be located to ensure the integration of utilities in future subdivision designs.

**17.9.2.
Underground
Services and
Utilities**

Council will encourage the appropriate public or private agencies to place electric power lines, telephone lines, multi-use cables and other such utility services, underground, in accordance with the following guidelines:

Areas of New
Development

i) in areas where new development occurs, underground utilities shall be installed, where feasible, in cooperation with the developer and prior to the actual construction of buildings;

Areas of
Redevelopment

ii) in areas of redevelopment, underground services shall be installed when, and if, it is reasonable and economical, in cooperation with the developer; and

Overhead
Replacement

iii) overhead utility services may be replaced by underground facilities at such time as major street improvements are undertaken and if it is reasonable and economical.

(Clause iii) amended by OPA No. 88 - OMB Order No. 2314 - approved 99/12/23)

**17.9.3.
Integration of
Utilities**

Council will participate with other agencies in the planning of future transmission routes, easements, and utility services, and their integration with the established and/or anticipated pattern of development.

**17.9.4.
Multiple Use of
Corridors**

Council will encourage the multiple use of major electric transmission and other utility corridors wherever appropriate. This may include open space and certain recreational uses in residential areas, and parking lots, outdoor storage areas and other similar uses in other areas.

**17.9.5.
Impact of**

The construction of major electric power lines, gas or oil pipelines, and other utility lines or services, should be located so as to minimize their

Utilities

impact on people, adjacent land uses, and the environment.

**17.9.6.
Hydro One**

All existing electric power facilities and the development of any undertakings of Hydro One, but not including buildings or land used for executive, administrative or retail purposes, or held under lease or licence from Hydro One, are permitted in all land use designations without amendment to this Plan. However, prior to carrying out or authorizing an undertaking that will directly affect the Municipality, Hydro One shall consult with the Municipality and have regard for the policies of this Plan.

(Sub-Section 17.9.6. amended by OPA No. 298 - OMB Order No. 0177 - approved 05/01/31)