10. **Ontario's Living Legacy**

Council recognizes the intent of Ontario's Living Legacy program to establish and conserve natural features of ecological, recreational or other values to the residents of Ontario. Council intends to work with provincial agencies in the process leading to the formal designation or recognition of such natural feature as the White Lake Conservation Reserve, including the associated. This Conservation Reserve is shown on the **Land Use Schedule**. The intent of Council is to recognize the designation and conservation of this feature for uses set out in the Ministry's land use category.

8.0 NATURAL AND HUMAN-MADE HAZARDS

8.1 Environmental Protection Area - Flood Plains

8.1.1 Definitions

Established Standards and Procedures means the following:

- ***Floodproofing Standard*** means the combination of measures incorporated into the basic design and/or construction of buildings, structures, or properties to reduce or eliminate flooding along ***river and stream systems***.
- ***Protection Works Standard*** means the combination of non-structural or structural works and allowances for slope stability and flooding/erosion to reduce the damage caused by flooding, erosion and other water related hazards and to allow for safe access for their maintenance and repair.

Protection Works means the combination of non-structural or structural works and allowances for slope stability and flooding/erosion to reduce damages caused by flooding and other water related hazards and to allow access for their maintenance and repair.

Access Standard means a method or procedure to ensure safe vehicular and pedestrian movement, and access for the maintenance and repair of protection works during times of flooding.

Flood Plain means the area, usually low lands adjoining a water body or water course which has been or may be subject to ***flooding hazards***.

Flooding Hazards means the inundation of areas adjacent to a shoreline or a ***river or stream system*** and not ordinarily covered by water, specifically, the ***one hundred year***

flood.

Floodway, where the one zone concept is used, means the entire ***flood plain***. This Plan utilizes the one-zone concept.

One Hundred Year Flood means that flood, based on an analysis of precipitation, snow melt, or a combination thereof, having a return period of 100 years on average, or having a 1 % chance of occurring or being exceeded in any given year.

River and Stream Systems means all watercourses, rivers, streams and small inland lakes or water bodies that have a measurable or predictable response to a single runoff event**.**

8.1.2 Policies - Flood Plains

1. The following are recognized as representing the ***one hundred year flood*** (One-Zone Concept) in the Planning Area where flood plain mapping has been prepared or flood elevations have been established:

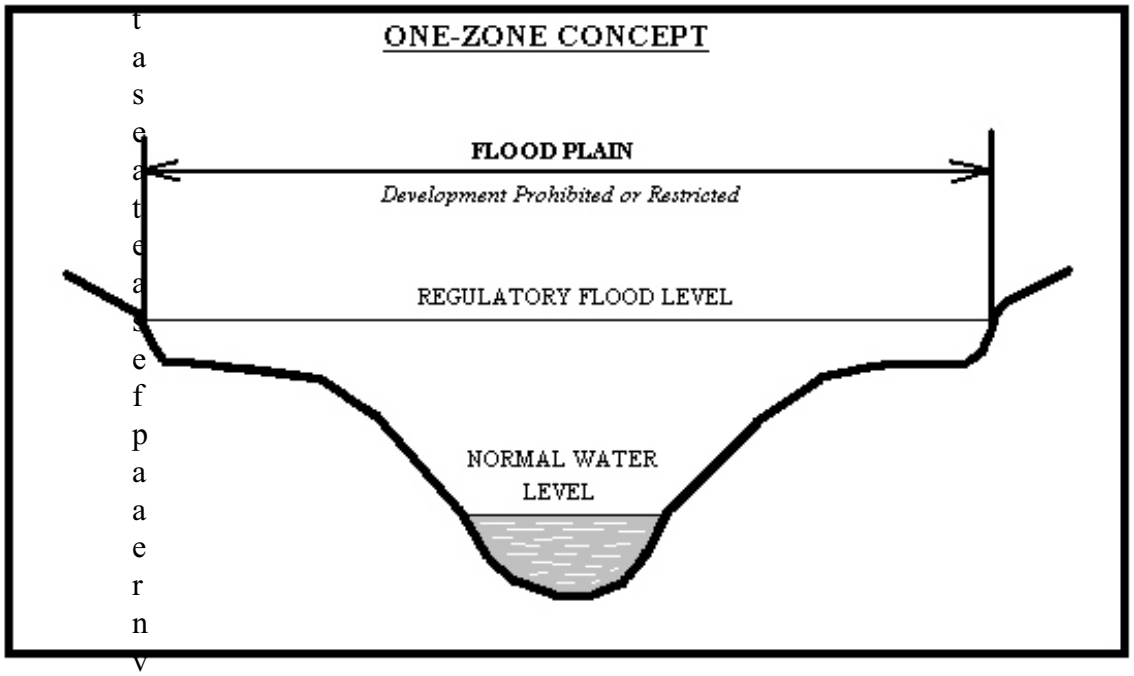
   (see illustration for one zone concept)

   - Lanark Village - Clyde River
   - Cedardale - Clyde River
   - Dalhousie Lake - Dalhousie township: Flood elevation 158.0 m (518.3 ft.) a.s.l.

   Lands at or below the flood plain as shown on the **Land Use Plan** or below the designated flood plain elevation are designated as an **Environmental Protection Area** and are subject to flooding

2. Council's intent is to prohibit the construction of new buildings for human or animal habitation which may be in a flood plain and/or abut a water body and are susceptible to flooding.

3. New buildings or structures that may be permitted to be constructed within the flood plain include flood control structures, low impact buildings or structures such as a gazebo, wharf or dock, boat slip, boat house or a marine structure. Other public and private activities including the construction of roads, or new structures necessary for the conservation, public recreation (recreational trails), water supply or waste water management out falls, may be permitted in the flood plain subject to the approval of Council and the Mississippi Valley Conservation Authority and where deemed necessary, shall meet a ***flood proofing*** and ***access standard***. (See reference documents). The applicable access standard is one in which governs the ability of private and emergency vehicles and pedestrians to enter and leave an area experiencing an emergency situation (e.g. flooding, erosion, wave action). For the purposes of this Plan, the standard will be such that ignition and/or electrical systems and the exhaust system or private sewage disposal area and emergency vehicles shall be able to function normally and properly during the emergency station and pedestrians should be able to walk to safety along the path of egress.



Reference documents: Building Code, Section 2.1.1.13 sets out the requirements for building standards in flood plains. "Buildings constructed on flood plains shall (a) be designed and constructed in accordance with good engineering practice to withstand anticipated vertical and horizontal hydrostatic pressures acting on the structure, and (b) incorporate floodproofing measures that will preserve the integrity of exits and means of egress during times of flooding."

Ministry of Natural Resources, Natural Hazards Training Manual, Public Health and Safety Policies 3.1, 1997...sets out a flood proofing and access standard.

Mississippi Valley Conservation Authority, access standard.

4. No use, building or structure which involves the storage of hazardous or toxic materials e.g. ignitible, corrosive, reactive, radioactive or pathological materials and sewage facilities, nor any institutional use shall be permitted to be constructed, enlarged or expanded in a flood plain.

5. Existing buildings, structures or private sanitary sewage disposal systems which are damaged or destroyed by flooding may only be repaired or reconstructed if approved flood proofing techniques (see reference documents) are used to the satisfaction of the public body having jurisdiction or Council. Council will strongly encourage proponents to relocate such buildings or structures outside of the flood plain, particularly where land is available for such relocation.

6. In areas (i.e. within the prescribed fill and construction lines) where 'Fill, Construction and Alteration to Waterways' regulations have been established under the *Conservation Authorities Act*, a permit shall be required for:

   A. The construction, reconstruction, erection or placing of a building or structure of any kind.
   B. Any change of use to a building or structure that would have the effect of altering the use or potential use of the building or structure, increasing the size of the building or structure or increasing the number of dwelling units in the building or structure.
   C. Site grading, or
   D. The temporary or permanent placing, dumping, or removal of any material, originating on the site from elsewhere.

Such permit shall also be required for changing the channel of any water body or diverting a water course. The permit shall be obtained from and to the satisfaction of the Mississippi Valley Conservation Authority, if applicable in addition to any permits which may be required from the Township of Lanark Highlands. Further permits may also be required from the Ministry of Natural Resources or the Department of Fisheries and Oceans. In general, development of any kind which limits the flood capacity or the flood way, or obstructs the flood way within any prescribed fill and construction lines shall be discouraged or prohibited.

7. Extensions or enlargements to existing habitable or other buildings located in the flood plain (other than an institutional use) may be permitted where it is clearly demonstrated to Council and the Mississippi Valley Conservation Authority through engineering or other studies, that the flood hazard can be overcome. Such measures may include ***flood proofing*** (see reference documents) of a building and ensuring that any openings are located above the flood elevation and ensuring safe access is available in the event of a flood.

8. Where land which is designated as an **Environmental Protection Area** is under private ownership, this Plan does not indicate that this land will necessarily remain as such indefinitely, nor shall it be construed as implying that such areas are free and open to the general public or will be purchased by the municipality or other public agency. An application for the redesignation of lands designated **Environmental Protection Area** for other purposes may be given due consideration by Council after taking into account:

   - the existing environmental and/or physical hazards;
   - the potential impacts of these hazards;
   - the proposed methods by which these impacts may be overcome in a manner consistent with accepted engineering hazards.

   There is no public obligation, however, either to redesignate by amendment to this Plan, or purchase any land if there is an existing or potential hazard that would be difficult or costly to overcome

9. Where new development is proposed on a site, part of which has physical or environmental constraints, such land shall not necessarily be acceptable for parkland dedication under *Section 43* of the *Planning Act*. All lands conveyed to the municipality shall be in a physical condition satisfactory to Council.

10. In the implementing zoning by-law, existing uses in the ***flood plain*** shall be recognized as conforming uses despite their designation as **Environmental Protection Area.**

In the preparation of the zoning by-law, Council shall consult with the Mississippi Valley Conservation Authority to ensure that 'Fill, Construction and Alteration to Waterway' regulations are adequately reflected in zoning standards and in governing the issuance of building permits. The Schedules to the zoning by-law shall illustrate the areas affected by flooding and the fill and construction regulations.

11. Council may use ***site plan control*** for any land use in the **Environmental Protection Area** designation.

8.2 Organic Soils and Steep or Unstable Slopes

8.2.1 Policies

1. For the purposes of this Plan, organic soils are described as those soils normally formed in a water saturated environment (e.g. wetland) where the soil is not exposed to the air for a sufficient enough time to permit the break down of vegetative material. As a result, these soils may not contain sufficient strength to support a building or structure.

2. Organic soils, as shown on the land use plan, shall be considered as a ***constraint*** to development and no development shall be permitted including the installation of sewage disposal systems in organic soils unless the hazard can be overcome using acceptable engineering techniques and where applicable, the standards set out in the *Building Code* can be met.

3. Development on steep or unstable slopes shall be restricted. No development shall be permitted including the installation of sewage disposal systems on steep or unstable slopes unless the hazard can be overcome using acceptable engineering techniques and where applicable, the standards set out in the *Building Code* can be met.

8.3 Contaminated Sites

8.3.1 Policies - Site Decommissioning and Clean-up

1. Potentially contaminated sites include lands where contaminants may be present due to previous industrial, transportation, utility or similar uses. Sources of site contamination can include disposal of waste materials, raw material storage, residues left in containers, maintenance activities and spills. Some commercial uses such as gasoline stations and automotive repair garages have a similar potential. Known contaminated sites are shown on the **Land Use Schedules** with

a symbol.

It is a policy to ensure the proper decommissioning and clean-up of contaminated sites prior to their redevelopment or reuse. Measures to be taken by Council and/or the approval authority and the proponent include the following:

A. The identification and inventory of sites by the municipality of where existing and past uses may have contributed to the presence of contaminants.

B. Applications for the development or redevelopment of sites that are identified as being contaminated or potentially contaminated shall be accompanied by a Ministry of the Environment acknowledged Record of Site Condition, and if necessary, a site remediation plan prepared in accordance with the "Guidelines for Use at Contaminated Sites in Ontario".

C. Where the Record of Site Condition indicates that remediation work is necessary, the approval authority shall require as a condition of approval of development or redevelopment that appropriate action is taken to implement the components of the site remediation plan.

D. Council may supervise the excavation and soil handling activities during site clean-up.

E. Site plan control may be used as a measure to enhance site decommissioning and remediation. (See **Section 10.11.10**).

F. Contaminated sites may be placed in a holding zone in the municipality's zoning by-law. Where a holding zone is used, the "H" may be removed when the site has been acceptably decommissioned or cleaned up to the satisfaction of the municipality and in accordance with a site remediation plan and subject further, to the submission to the municipality of a Ministry of the Environment acknowledged Record of Site Condition.

8.4 Noise and Vibration

8.4.1 Policies

1. All applications for development of a ***sensitive land use*** (e.g. residential use, daycare, education or health care facility) in proximity to a Provincial Highway (i.e. 100-500 m: 328 - 1640 ft.) should be accompanied by a noise feasibility study prepared by a qualified consultant and to the satisfaction of the municipality. The

study shall demonstrate whether noise and vibrations levels can be reduced to meet provincial standards.

2. All applications for development of a ***sensitive land use*** (e.g. residential use, daycare, education or health care facility) in proximity to a Provincial Highway (i.e. 100-500 m: 328 - 1640 ft.) should be accompanied by an acoustical study prepared by a qualified consultant and to the satisfaction of the municipality. The study shall demonstrate that noise and vibrations levels can be reduced to meet provincial standards. The conclusions and recommendations of this study shall be implemented through conditions of the development approval.

9.0 WATER QUALITY AND WATER QUANTITY

9.1 Introduction

Water is a precious resource and is vital to all life. Wise management of the quality and quantity of our water resources is required to ensure a sustainable resource for human and livestock consumption; for sustaining terrestrial and aquatic resources; and for industrial, agricultural, domestic and recreational uses. Within Lanark Highlands, water is a key asset to the community, since the many lakes and rivers are an attraction to development and support a sport fishery as well as many other aquatic activities.

Water is also a finite resource. Within a given watershed the movement of water occurs within a hydrologic cycle, but the quantity within this cycle is relatively constant. The components of the cycle include surface and ground water**,** evapotranspiration and precipitation. Managing the resource requires that consideration be given to this cycle.

The intent of Council is to ensure that the land use policies of this Plan provide for the protection and enhancement of the quality and quantity of ground water and surface water. Council also recognizes that the stewardship of water resources is dependent on a cooperative approach. This includes water users, a variety of other agencies whose mandates vary as well as the municipality itself.

9.2 Policies for Water Quality and Water Quantity

Council will undertake to manage water quality and quantity through such measures as:

1. Establishing setbacks for various land use activities to protect the shoreline or lakes and rivers in their natural state as much as is possible. This is intended to prevent erosion and minimize the discharge of contaminants (i.e. phosphorus, herbicides, sediments) into these water courses.

2. Identifying aquifers, groundwater recharge and discharge areas, and natural springs and providing for their protection. This is expected to occur through the review of Planning applications or undertaking of studies.

3. Controlling discharges to surface and ground water through the application of Best Management Practices for stormwater runoff and land drainage. In general, drainage outfalls into lakes and rivers will not be permitted. This is expected to occur through the review of Planning applications and the requirements for site plan control.

4. Promoting conservation practices in the use of water (e.g. water efficient

plumbing fixtures)

5. Lake development planning including the setting of development capacities to protect inland lakes and through the upgrading of sewage disposal systems as a condition of approving seasonal-to-permanent conversions.

6. Monitoring the water quality of inland lakes and rivers. Data collection and monitoring activities may be undertaken by the municipality itself, a provincial agency, a conservation authority, a cottager's association or a combination of these agencies, while Council will assume responsibility for the data base being maintained.

7. Requiring residents to regularly pump-out septic tanks where required.

8. Supporting the use of the latest technologies in sewage disposal systems for minimizing phosphorus discharge.

9. Requiring conformity with Ontario Regulation 903 with respect to the construction of wells.

10. Requiring that new docks, wharves and boat slips be constructed using non-toxic materials.

11. Requiring hydrogeological studies and/or a terrain analysis for major development.

12. Monitoring municipal waste management facilities for leachate migration.

13. Identifying contaminated sites and requiring their clean-up as a condition of redevelopment.

14. Providing for the safe storage of fuels, chemicals and other toxic contaminants as a condition of site plan control.

15. Disposing of snow in an environmentally responsible manner [see **Section 4.5.3 (12)**].

16. Providing for wellhead protection, notably for a municipal or communal water source, through the setback or separation of hazardous materials e.g. petroleum products, dry cleaning chemicals, commercial fertilizers, nutrients (phosphorus) etc.