
CHAPTER 6: ENVIRONMENTAL MANAGEMENT

6.1 ENVIRONMENTAL AREAS

Significant environmental areas are highly valued and considered irreplaceable. They provide economic, ecological and social benefits. Collectively they contribute to the conservation of biological diversity and maintenance of quality air, land and water. Interconnections among significant natural areas should be preserved and maintained to preserve the ecological integrity of the landscape, and development in these areas should conserve or enhance the natural features and functions, and protect environmental areas in the Township from incompatible development.

6.1.1 General Policies

- 6.1.1.1 Environmental Areas include Environmental Preservation Areas, Environmentally Sensitive Policy Areas, Provincially Significant Wetlands; fish habitat; significant natural corridors (which include significant valleylands); sensitive groundwater recharge and discharge areas, headwaters and aquifers; Locally Significant Natural Areas; and significant woodlands.
- 6.1.1.2 Where development is proposed on lands that have not been adequately evaluated or classified to identify Environmental Areas, the applicant will be required to prepare a Natural Habitat Network inventory in accordance with Regional Official Policies Plan Policy 4.1.11 and 4.1.12.
- 6.1.1.3 The acquisition of Environmental Areas by the Township or other public agencies will be promoted wherever feasible.

6.1.2 Environmental Preservation Areas

- 6.1.2.1 Environmental Preservation Areas are designated as illustrated on Map 1 of the Regional Official Policies Plan, and identified for information purposes on Map 6A of this Plan. The boundaries of Environmental Preservation Areas may be refined, and areas added or deleted within the Regional Official Policy Plan, without amendment to this Plan. While this Plan will be amended from time to time, to update Map 6A to reflect amendments to Environmental Preservation Area boundaries, the boundaries as established in the Regional Official Policies Plan will be the boundaries used to interpret the policies of this Plan.
- 6.1.2.2 Environmental Preservation Areas shown on Map 6A of this Plan will be designated as Environmental Constraint Areas for land use purposes on Maps 2B, and 2.1 to 2.32 inclusive of this Plan.
- 6.1.2.3 Development is not permitted within Environmental Preservation Areas. Development proposed contiguous to an Environmental Preservation Area is subject to the provisions of Section 4.2 of the Regional Official Policies Plan including the submission of an Environmental Impact Statement for review by the Region.
- 6.1.2.4 Environmental Preservation Areas which are privately owned are not for use by the public, except at the discretion of the owner.
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6.1.3 Provincially Significant Wetlands

- 6.1.3.1 Provincially Significant Wetlands include all Class 1, 2, and 3 Wetlands as identified by the Ministry of Natural Resources. Provincially Significant Wetlands are designated as illustrated on Map 2 of the Regional Official Policies Plan and are identified for information purposes on Map 6A of this Plan. The boundaries of Provincially Significant Wetlands may be refined, and areas added or deleted within the Regional Official Policy Plan, without amendment to this Plan. While this Plan will be amended from time to time, to update Map 6A to reflect amendments to Provincially Significant Wetland boundaries, the boundaries as established in the Regional Official Policies Plan will be the boundaries used to interpret the policies of this Plan.
- 6.1.3.2 Provincially Significant Wetlands are designated as Environmental Constraint areas on Maps 2B and 2.1 to 2.32 inclusive of this Plan.
- 6.1.3.3 Development is not permitted within Provincially Significant Wetlands. Development proposed adjacent to a Provincially Significant Wetland is subject to the provisions of Section 4.4 of the Regional Official Policies Plan including the submission of an Environmental Impact Statement for review by the Grand River Conservation Authority. For the purposes of interpretation of this Policy, adjacent will be defined as lands within 120 metres of the boundary of the Provincially Significant Wetland.
- 6.1.3.4 Provincially Significant Wetlands which are privately owned are not for use by the public, except at the discretion of the owner.

6.1.4 Environmentally Sensitive Policy Areas

- 6.1.4.1 Environmentally Sensitive Policy Areas are designated as illustrated on Map 1 of the Regional Official Policies Plan and are identified for information purposes on Map 6A of this Plan. The boundaries of Environmentally Sensitive Policy Areas may be refined, and areas added or deleted within the Regional Official Policy Plan, without amendment to this Plan. While this Plan will be amended from time to time, to update Map 6A to reflect amendments to Environmentally Sensitive Policy Area boundaries, the boundaries as established in the Regional Official Policies Plan will be the boundaries used to interpret the policies of this Plan.
- 6.1.4.2 Environmentally Sensitive Policy Areas are designated as Environmental Constraint Areas on Maps 2A and 2.1 to 2.32 inclusive of this Plan.
- 6.1.4.3 All development proposed within or contiguous to an Environmentally Sensitive Policy Area is subject to the provisions of Section 4.3 of the Regional Official Policies Plan, including the submission of an Environmental Impact Statement to the Region.
- 6.1.4.4 Environmentally Sensitive Policy Areas which are privately owned are not for use by the public, except at the discretion of the owner.

6.1.5 Fish Habitat

- 6.1.5.1 Fish Habitat will be as identified by the Grand River Conservation Authority or the Ministry of Natural Resources.
- 6.1.5.2 Any development proposed contiguous to designated fish habitat area will require the preparation of an Environmental Impact Statement to the satisfaction of the Grand River Conservation Authority in accordance with the policies of Section 6.2 of this Plan.
- 6.1.5.3 The Township may permit development contiguous to designated fish habitat where it is demonstrated to the satisfaction of the Ministry of Natural Resources through the submission of an Environmental Impact Statement that the proposed development will not harmfully alter, disrupt or destroy fish habitat.
- 6.1.5.4 The Township will support the objective of achieving a net gain in the productive capacity of fish habitats. This may be achieved through such measures as enhancing or rehabilitating watercourses and creating or recreating fish habitat as opportunities arise.
- 6.1.5.5 Where it is demonstrated by the Environmental Impact Statement required by Policy 6.1.5.3, that any development could result in negative impacts to fish habitat or in a net loss of the productive capacity of fish habitats, such development will be prohibited, unless it can be compensated for and authorized by the Federal Minister of Fisheries and Oceans.
- 6.1.5.6 Watershed studies will be used to determine appropriate means to implement fishery policy and the specification of protective mitigative measures.

6.1.6 Significant Natural Corridors

- 6.1.6.1 The Township will participate in a study with the Region, the Ministry of Natural Resources, the Grand River Conservation Authority, and other Area Municipalities, and in consultation with affected landowners, to address as part of the Natural Heritage Framework and Strategy the following:
- a) establishment of a definition of "significant natural corridors"; and,
 - b) identification of Significant Natural Corridors.
- 6.1.6.2 Significant Corridors identified by the Grand River Conservation Authority or through a Watershed study will be designated by amendment to Map 6B of this Plan and will be designated as Environmental Constraint Areas on Maps 2B and 2.1 to 2.32 inclusive.

6.1.7 Sensitive Groundwater Areas, Recharge Areas, Discharge Areas, and Headwaters

- 6.1.7.1 Sensitive Groundwater Areas related to potable water supply will be designated by amendment to Map 6B and are subject to the provisions of Section 5.2 of the Regional Official Policies Plan.
- 6.1.7.2 Where Sensitive Groundwater Recharge Areas, Discharge Areas or Headwaters are identified through the completion of a watershed study, such areas will be protected from

development in accordance with the policies as contained in the approved watershed study (see Section 6.4 of this Plan for watershed requirements).

- 6.1.7.3 Where a Sensitive Groundwater Recharge/Discharge or Headwater area is identified through the completion of the Natural Habitat Inventory, or appropriate field study as required by Policy 4.1.11 of the Regional Official Policies Plan, the submission of an Environmental Impact Statement will be required to determine areas where no development will be permitted, and areas where development may be permitted subject to appropriate mitigation measures.

6.1.8 Locally Significant Natural Areas

- 6.1.8.1 Locally Significant Natural Areas are designated as shown on Map 6B of this Plan and are designated as Environmental Constraint Areas on Maps 2A and 2.1 to 2.32 inclusive of this Plan.

- 6.1.8.2 It is the intent of the Township to preserve, protect and, where appropriate, enhance Locally Significant Natural Areas. Any development within or adjacent to a Locally Significant Natural Area must have regard for the conservation and enhancement of the significant features and functions of the Locally Significant Natural Area in accordance with the policies of this Plan.

- 6.1.8.3 A Locally Significant Natural Area is a natural area not warranting designation as an Environmental Protection Area, Environmentally Sensitive Policy Area or Provincially Significant Wetland which:

- a) is identified by the Ministry of Natural Resources as a Locally Significant Wetland (including all Class 4 to 7 Wetlands identified by the Ministry of Natural Resources); or,
- b) is identified as a significant woodland in the woodland strategy to be completed pursuant to Policy 4.1.8 of the Regional Official Policies Plan; or,
- c) is identified as a Locally Significant Natural Corridor by a study completed in accordance with Policy 6.1.6.1; or,
- d) is identified by the Ministry of Natural Resources as significant wildlife habitat; or,
- e) is identified by the Grand River Conservation Authority as a cold or warm water fishery; or,
- f) provides a connection or acts as a buffer or supporting area to other designated natural areas, thus maintaining ecological connection between communities; or,
- g) performs vital hydrogeological functions, such as serving as headwaters of a stream, groundwater recharge and Local Environmentally Significant Discharge Areas; or,

- h) fulfils at least three of the following criteria:
 - i) is a good quality, representative example of a particular type of ecosystem native to the Township;
 - ii) contains uncommon or rare ecological communities such as old growth forests, savannas, prairies, bogs, fens, meadows and so on;
 - iii) is a natural area of over 1 hectare (2.5 acres);
 - iv) supports a moderate to high diversity of native species and ecological communities due to varied topography, microclimates, soils, and/or drainage;
 - v) contains nationally, provincially, or regionally significant species;
 - vi) contains 'special' physical features (e.g. landforms, springs, fossils);
 - vii) is important or has the potential for ecological research, education and/or passive recreation due to location or features; or,
 - viii) has a high aesthetic or scenic value in the Township.

6.1.8.4 The submission of an Environmental Impact Statement for review by the Township in consultation with the Region and the Grand River Conservation Authority will be required for all development proposed within or adjacent to a Locally Significant Natural Area. For the purposes of interpretation of this policy, adjacent will be defined as lands within 50 metres of the boundary of the Locally Significant Natural Area.

6.1.8.5 Where an Environmental Impact Statement demonstrates that the proposed development will not have significant negative impacts upon the significant features and functions of the Locally Significant Natural Area, the Township may, subject to appropriate conditions, approve or recommend approval of the application without amendment to this Plan.

6.1.8.6 Where an Environmental Impact Statement, submitted in accordance with Policy 6.5.1, demonstrates that a development may have an adverse environmental impact upon the environmentally significant features and functions of the Locally Significant Natural Area, the Township will undertake one of the following:

- a) negotiate an agreement with the owner of the land requiring conditions of approval, or dedication of land to protect lands supporting the environmentally significant features and functions of the Locally Significant Natural Area;
- b) request the Province, the Region, or the Grand River Conservation Authority to use powers within their jurisdiction to enable acquisition of the Locally Significant Natural Area;
- c) encourage public and/or private agencies to acquire all or the affected portion of the Locally Significant Natural Area;

- d) require a Conservation Easement; or,
- e) refuse the application.

- 6.1.8.7 The interpretation and definition of the limits of a Locally Significant Natural Area and adjacent lands will be the responsibility of the Township in consultation with the Region and the Grand River Conservation Authority;
- 6.1.8.8 Locally Significant Natural Areas which are privately owned are not for use by the public, except at the discretion of the owner.
- 6.1.8.9 Where a Locally Significant Natural Area is subsequently designated by the Region as an Environmental Preservation Area, Environmentally Sensitive Policy Area, Provincially Significant Wetland, or Regionally Significant Natural Corridor, the provisions of Sections 6.1.2, 6.1.3, 6.1.4 and 6.1.6 will apply respectively.
- 6.1.8.10 Where lands are identified through a watershed or other appropriate field study as fulfilling the criteria for a Locally Significant Natural Area designation in accordance with Policy 6.1.8.3, an amendment to this Plan will be considered to designate such lands as a Locally Significant Natural Area.

6.1.9 Significant Woodlands

- 6.1.9.1 The Township will participate in a study with the Region, the Ministry of Natural Resources, the Grand River Conservation Authority, and other Area Municipalities, and in consultation with affected landowners, to address the following:
- a) establishment of a definition for "significant woodlands";
 - b) identification of Significant Woodlands;
 - c) recommendation of lands for designation as Environmentally Sensitive Policy Areas by amendment to the Regional Official Policies Plan; and,
 - d) recognition of lands for designation as Locally Significant Natural Areas by their inclusion in this Plan.
- 6.1.9.2 Significant Woodlands identified by the Grand River Conservation Authority or through a Watershed study will be incorporated on Map 6B by amendment to this Plan.

6.2 HAZARD LANDS

Hazard Lands possess physical characteristics which could cause severe property damage or loss of life. This section is intended to prevent the loss of life and minimize property damage and social disruption through the restriction of land use activities on lands susceptible to erosion or flooding, while permitting limited development on lands where it is determined to be appropriate and safe. Lands identified as Hazard Lands are intended primarily for the preservation and conservation of the land and environment.

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- 6.2.1 Hazard Lands are shown on Map 6C of this Plan and include those lands having inherent physical and environmental constraints such as steep slopes, flood susceptibility, organic soils, erosion susceptibility, permanent water holding areas, other geophysical limitations and associated buffers and setbacks which place constraints on the possibility of development. Hazard Lands may contain various Environmental Areas identified in Section 6.1.
- 6.2.2 Lands identified on Map 6C as being within Hazard Lands will be designated as Environmental Constraint Area as illustrated on Map 2B of this Plan, and zoned in the Township Zoning By-Law to prohibit buildings or structures. Building setbacks from lands shown as Hazard Lands will be established and/or modified where appropriate, in consultation with the Grand River Conservation Authority.
- 6.2.3 Where Hazard Lands contain all or a portion of an Environmental Area identified in Section 6.1, the more restrictive policies will apply.
- 6.2.4 Within Hazard Lands, no development will be permitted except:
- a) through a Township Zoning By-law amendment where development is proposed within the buffer or setback area and a study of the hazard has demonstrated to the satisfaction of the Grand River conservation Authority that the hazardous condition for which the land has been designated can be mitigated through accepted and permanent engineering practices;
 - b) buildings or structures intended for erosion control, normally associated with management of the natural environment, or operated by a public authority. All such buildings and structures must be approved by the Grand River Conservation Authority, the Township and where appropriate, the Region; and,
 - c) the creation of lots which extend into Hazard Land areas provided that the Township Zoning By-law prohibits the establishment of structures or outdoor storage on that portion of the lot located within the Hazard Land area, provided that the lot creation will not result in subsequent demand for development which would negatively impact the Hazard Land.
- 6.2.5 Where development is proposed that would result in a change in use or expansion of an existing building or structure within a Hazard Land, the following uses will not be permitted:
- a) institutional uses such as hospitals, nursing homes, senior citizens residences, schools for the education of children or persons with physical/mental challenges, day care centres, residential care facilities or other similar uses which would pose a threat to the safety of the inhabitants in an emergency situation;
 - b) the provision of essential services such as police, fire, ambulance, major electrical substations, or telephone substations;
 - c) the manufacture, use or storage of substances of a chemical, hazardous or toxic nature, which could pose a threat to public safety if damaged as a result of flooding or failure of flood protection measures;
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- d) fully enclosed underground parking facilities; and,
 - e) private sewage disposal systems.
- 6.2.6 Structures which are replaced or reconstructed as a result of fire or other unusual loss will be constructed and/or flood proofed to the satisfaction of the Grand River Conservation Authority.
- 6.2.7 Subject to Policy 6.2.5, minor expansions and alterations may be made to existing buildings and structures located within that portion of the Hazard Lands identified by the Grand River Conservation Authority as Regulatory Flood Plain, provided that:
- a) it is approved by the Grand River Conservation Authority;
 - b) it has received appropriate fill permits;
 - c) no new dwelling units or buildings are constructed or created;
 - d) no new floor space is created below the elevation of the first floor, including new basements; and,
 - e) the renovations, additions, and/or alterations are flood proofed in accordance with the requirements of the Grand River Conservation Authority.
- 6.2.8 Outdoor industrial storage is prohibited within that portion of the Hazard Lands identified by the Grand River Conservation Authority as Regulatory Flood Plain.
- 6.2.9 The placing or removing of fill of any kind, whether originating on the site or elsewhere, will not be permitted within lands defined by schedule under the Conservation Authorities Act, unless approved by the Grand River Conservation Authority.
- 6.2.10 An application to amend this Plan to remove or revise the Hazard Land designation will be given due consideration by the Township in consultation with the public, the Grand River Conservation Authority, the Region and other relevant agencies, taking into account:
- a) existing environmental and/or physical hazards;
 - b) potential impacts of these hazards on existing and proposed development;
 - c) proposed methods by which these impacts will be overcome in a manner consistent with accepted engineering techniques and resource management practices; and,
 - d) the monetary, social, and biological costs and benefits of proposed engineering work and/or resource management practices needed to overcome these impacts.
- 6.2.11 The acquisition of Hazard Lands by the Township or other public agencies will be promoted wherever feasible.
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6.3 BIODIVERSITY

The Township highly values its rich natural biodiversity which arises from its location on the boundary between the Great Lakes-St. Lawrence and the Carolinian Life Zone. The Township will encourage the conservation and enhancement of the native diversity of the natural environment in North Dumfries.

- 6.3.1 The Township will co-operate with the Region in the development and maintenance of an environmental database to document the occurrence and distribution of significant species and other features.
- 6.3.2 The Township will encourage the use of native species appropriate to the Township and will discourage the use of non-native or invasive species in accordance with the Regional list of Native Trees and Shrubs and Non-Native Species, when planning within or contiguous to Environmental Areas.
- 6.3.3 The Township will, where feasible, promote the use of native species of trees, shrubs and prairie vegetation for plantings along Township Roads.

6.4 WATERSHED PLANNING

The Township recognizes the direct relationship between human activities and impacts on water and other natural resources. Watershed studies help assess the nature of impacts from development on ecosystem features and functions by assessing the interconnections between human activities and environmental resources. They also provide recommendations concerning land use planning actions and conditions of development approval the Township can implement to prevent or minimize those impacts.

6.4.1 General policies

- 6.4.1.1 The Township will participate in co-operation with other municipalities, the public, landowners, the Grand River Conservation Authority, the Region, the Provincial Ministries and other interested agencies in the completion of watershed studies for watersheds within the Township as identified on Map 7 of this Plan.
- 6.4.1.2 Priorities and guidelines for the completion of publicly funded watershed studies will be determined in accordance with Section 3.1 of the Regional Official Policies Plan.
- 6.4.1.3 The Township will consider amendments to this Plan to implement appropriate recommendations from watershed studies.
- 6.4.1.4 The Township will consider applicable recommendations of watershed studies not implemented through amendment to this Plan, during the development approval process.
- 6.4.1.5 Watershed studies will be used to identify potential impacts of change on:
- a) water budget;
 - b) peak run off flows;
 - c) run off volumes;

- d) time distribution of stormwater run off;
- e) flood levels and velocities;
- f) floodplain storage;
- g) existing storm water management facilities;
- h) capacities of existing downstream works;
- i) floodplain buildings and structures;
- j) erosion and sedimentation of stream systems;
- k) surface water quality;
- l) groundwater quantity and quality;
- m) water supply aquifer;
- n) infiltration, recharge, discharge;
- o) baseflow;
- p) wetlands;
- q) significant woodlands and other ecosystems;
- r) significant flora and fauna, including rare, endangered, and threatened species and associated habitat;
- s) aquatic habitat and fisheries;
- t) recreation;
- u) consideration and recommendation of rehabilitation measures for a system which is already impacted; and,
- v) other environmental aspects determined by the watershed study.

6.4.1.6 Terms of reference for watershed studies will include the delineation of detailed targets and objectives for resource management, environmental protection, stormwater management practices, and monitoring, and identification of significant natural features, including identification of Environmental Areas, and the determination of areas where no development will be permitted or where more detailed Environmental Impact Statements may be required to assess development proposals.

6.4.2 Blair, Bechtel, and Bauman Creeks Watershed

Policies relating to this watershed study will be considered by future amendment to this Plan.

6.4.3 Mill Creek Watershed

Policies relating to this watershed study will be considered by future amendment to this Plan.

6.4.4 Moffat Creek Watershed

Policies relating to this watershed study will be considered by future amendment to this Plan.

6.5 ENVIRONMENTAL IMPACT STATEMENTS**6.5.1 General Policies**

6.5.1.1 Environmental Impact Statements will be required in accordance with the policies of this Plan and the Regional Official Policies Plan, to identify and evaluate the potential effects of proposed development on Environmental Areas. An Environmental Impact Statement will identify the nature and extent of potential impacts; recommend methods for preventing, minimizing or mitigating impacts; opportunities for enhancing Environmental Areas; specify required modifications to a proposal; and determine appropriate buffer zones. The need for, scope and adequacy of Environmental Impact Statements will be determined by:

- a) the Ministry of Natural Resources for development applications potentially affecting Provincially Significant Wetlands or fish habitat;
- b) the Region, for development applications potentially affecting Environmental Preservation Areas, Environmentally Sensitive Policy Areas, or Regionally Significant Natural Corridors; and,
- c) the Township in consultation with the Grand River Conservation Authority and the Region for development applications potentially affecting other Environmental Areas identified as Locally Significant Natural Areas including Locally Significant Wetlands, Locally Significant Woodlands and areas of significant wildlife habitat.

6.5.1.2 The Township may require the submission of a Comprehensive Environmental Impact Statement where:

- a) the proposed development may affect a variety of Environmental Areas as described in Section 6.1;
 - b) multiple contiguous properties containing Environmental Areas are proposed for development;
 - c) a Community Plan is being undertaken; or,
 - d) Environmental Studies are required to support the expansion of the Ayr Urban Area, Industrial/Commercial Settlement Area, or Residential Settlement Area boundaries.
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6.5.1.3 The submission of an Environmental Impact Statement will not be required by the Township where an Environmental Assessment or alternative environmental review is being undertaken as part of a comprehensive planning process, provided the Environmental Assessment or alternative environmental review fulfils the requirements of an Environmental Impact Statement.

6.5.2 Environmental Impact Statements for Locally Significant Natural Areas

6.5.2.1 Where an Environmental Impact Statement is required for Locally Significant Natural Areas in accordance with Policy 6.1.8.4, it will be prepared by a qualified professional and submitted with the development application to the Township for review in consultation with the Region. Where the Locally Significant Natural Area is a locally significant wetland, the Township will consult with the Grand River Conservation Authority.

6.5.2.2 Environmental Impact Statements for development affecting Locally Significant Natural Areas will be prepared in accordance with the Regional Implementation Guideline on the preparation of Environmental Impact Statements.

6.5.2.3 Where the Township, in consultation with Region and the Grand River Conservation Authority determines that the preparation of an Environmental Impact Statement, for development proposed in or adjacent to a Locally Significant Natural Area, would serve no useful purpose, it may waive the requirement to complete such a study, subject to terms and conditions of approval that the Township may deem appropriate to conserve natural features.

6.5.3 Environmental Impact Statements for Fish Habitat

6.5.3.1 Any development proposed contiguous to designated fish habitat, identified by the Grand River Conservation Authority, will require the preparation and submission of an Environmental Impact Statement for review by the Ministry of Natural Resources in accordance with Section 6.1.5 of this Plan.

6.5.3.2 In addition to the submission requirements outlined in section 6.5.1.1 of this Plan, the submission of an Environmental Impact Statement for development contiguous to designated fish habitat will specify compensation for loss of fish habitat through near site replacement of habitat, off-site replacement of habitat or on-site increase in habitat capacity. Such compensation proposals will be reviewed by the Ministry of Natural Resources and authorized by the Federal Ministry of Fisheries and Oceans.

6.5.3.3 Any requirements imposed through an Environmental Impact Statement must be implemented by the proponent to the satisfaction of the Ministry of Natural Resources.