

Excerpt The London Plan Chapter 7 Environmental Policies

(Proposed Amendments underlined or struck out)

> MODIFICATIONS TO LANDS IDENTIFIED AS FLOOD PLAIN (CUT-FILL BALANCE)

1452A_ Though not the preferred method, changes to the floodplain may be permitted where all of the below criteria have been met, as determined by the City in collaboration with the conservation authority having jurisdiction. Modifications may be in the form of grading changes, defined as ‘cut-fill balance’ where soil is ‘cut’ from one part of the development area and ‘fill(ed)’ into another part, which results in no net volume change of the floodplain. Grading changes (cut/fill) may be permitted where:

- 1. The floodplain lands meet low flood risk conditions, are low hazard having limited flood depth and velocity, and meet the criteria for a flood fringe in a two-zone concept.**
- 2. A detailed study demonstrates that efficient cut and fill balance approach will not contribute to upstream or downstream flooding or increase peak flows under the regulator event.**
- 3. Safe access to existing and proposed uses is provided. This may be achieved through fill placement, excavation and/or grade modifications associated with existing access and driveways.**
- 4. The fill lands are not within any Significant Natural Heritage Features.**

1452B If the above criteria are satisfied, a holding provision will be applied. The holding provision will be removed when the cut and fill site alteration works have been completed to the satisfaction of the City. Floodplain amendments will then also be applied to Map 6.

1452C_ Fill may be placed in the flood plain without an equivalent cut volume, provided that a municipally led subwatershed study, regional infrastructure servicing study, environmental assessment, or detailed and comprehensive assessment has been completed demonstrating that there are no adverse impacts from fill placement.

1452D_ Modifications to lands identified as flood plain will only occur through a zoning by-law amendment application associated with a plan of subdivision or a site plan.

> TWO-ZONE FLOODWAY - FLOOD FRINGE CONCEPT

1458_ In keeping with provincial policies, the City of London has adopted a two-zone (floodway-flood fringe) concept to allow **development, infill development and redevelopment of permitted use for identified areas along the Thames River and its tributaries where the depths and velocities of flooding are generally less severe, or where a flood fringe has been delineated through hydraulic floodway analysis. Flood fringe areas may be identified and added to Map 6 by amendment to this Plan.**

1459_ In these areas where the two-zone concept is applied, the flood plain is divided into the floodway and the flood fringe. The use of the two-zone concept may allow for some new development within the flood fringe areas of the flood plain that can be safely developed with no adverse impacts.

1460_ Under the two-zone concept, the floodway and the flood fringe shall be defined as follows:

- 1. Floodway - the contiguous inner portion of the flood plain, representing the area required for the safe passage of flood flow and/or the area where flood depths and/or velocities are considered to be such that they pose a potential threat to life and/or property damage. In some circumstances the floodway may**

be further delineated by depth and velocity parameters as provided for by provincial flood plain management policies.

2. Flood fringe - the portion of the flood plain between the floodway and the flooding hazard limit, where flood depth and velocity are generally less severe. The extent of the flood fringe is defined by depth and velocity parameters as provided for by provincial flood plain management policies. The delineation of the floodway and the flood fringe will be approved by the City, in collaboration with the conservation authority having jurisdiction, and may require submission of geodetic survey information and/or a hydraulic floodway analysis by the applicant.

3. Flood proofing - the combination of measures incorporated into the basic design and/or construction of buildings and structures or properties to reduce or eliminate flood hazards along the watercourses.

1461_ The precise delineation of the floodway will be approved by the City, in collaboration with the conservation authority having jurisdiction.

1462_ The zoning of flood plain lands shall be subject to the following conditions:

1. The floodway - the zoning of lands in the floodway will be consistent with the One-Zone Flood Plain policies, and will prohibit development and site alteration.
2. The flood fringe - the zoning of lands in the flood fringe may utilize **an overlay** ~~a holding zone~~ to provide direction as to future permitted uses and to ensure that conditions of floodproofing and safe access are met or achieved prior to development.

1463_ Unless otherwise provided for under the Special Policy Area policies below, development within the flood plain will be restricted in accordance with the following conditions:

1. The floodway - the development of lands in the floodway will be consistent with the One-Zone Flood Plain policies.
2. The flood fringe - conditional development may occur subject to undertaking any necessary studies, meeting flood proofing and access requirements.
3. All new development or structures within the flood plain may require a permit from the conservation authority having jurisdiction in accordance with the *Conservation Authorities Act*.
4. Within the flood plain, minor renovations, alterations, or additions to existing buildings may be permitted subject to the approval of the City in cooperation with the Upper Thames River Conservation Authority.

> FLOOD FRINGE PERMISSIONS AND REQUIREMENTS

1463A_ Within the flood fringe and subject to other provisions of this Plan, permitted uses are those allowed in the underlying Place Type where it has been demonstrated that such development can occur safely and with no adverse impacts, consistent with the following:

- a) Development and site alteration are carried out in accordance with applicable floodproofing standards, protection works standards and access standards;
- b) Safe access is available during a Regulatory flood event in the flood fringe;
- c) Identify and assess the upstream and downstream impacts and ensure no existing hazards are aggravated or new hazards created;
- d) No adverse environmental impacts will result; and
- e) The proposed development is consistent with the policies of this Plan and all other applicable municipal by-laws.

1463B_ Flood proofing standards to allow development, construction and site alteration may be permitted in the flood fringe where all of the following are demonstrated and achieved:

- a) all new buildings and structures, and new dwelling units are floodproofed, including all habitable floor space and building services such as mechanical or electrical equipment, to a minimum of the Regulatory Flood Elevation plus 0.3m vertical freeboard;
- b) ingress and egress to a building or structure is safe;
- c) safety factors, such as a vertical free board;
- d) no basement is proposed;
- e) notwithstanding 1463B_d), if the building contains multiple units, the basement must be floodproofed to the Regulatory Flood Elevation and may provide below grade, non-habitable, common amenity areas. Examples of non-habitable common amenity areas include foyers, recreation rooms, communal storage areas, and other uninhabitable floor space that are normally associated with multi-unit residential development but not parking.

1463C_Subject to 1463A_ being met, conversions of non-residential buildings in the flood fringe to residential use may be permitted and will require that all residential floor space be located at or above the elevation of the Regulatory Flood. Separate electrical and heating services will be required for ground floor non-residential and upper floor residential conversions.

An assessment by a qualified professional engineer of the structural integrity of the building to withstand flood and hydro-static pressures may be required by the City and the conservation authority having jurisdiction.

1463D_The following land uses will not be permitted within flood fringe lands:

- a) an institutional land use associated with hospitals, nursing homes, pre-school, school nurseries, day care and schools, where there is a threat to the safe evacuation of the sick, the elderly, persons with disabilities or the young during an emergency as a result of flooding, failure of floodproofing standards or protection works standards, or erosion;
- b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations, which would be unacceptably impaired during an emergency as a result of flooding, the failure of floodproofing standards or protection works standards, or erosion;
- c) land uses associated with the outdoor storage of any materials, either temporary or permanent; and
- d) land uses associated with the disposal, manufacture, treatment or storage of hazardous chemicals and/or substances.