

# Section 10. Protection of Health and Safety

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## Section 10. Protection of Health and Safety

Environmental conditions, whether naturally occurring or not, can result in hazards to human life or health and damage or loss of value to property. These environmental conditions or constraints to development may be natural hazards such as flood plains and unstable soils, or hazards that result from human activity including contaminated sites, mine hazards and land affected by noise. These conditions include current hazards as well as future hazards anticipated as a result of climate change. This Plan includes measures to protect people and property from the impacts of these natural and human-made conditions.

In general, development shall be directed away from areas of natural or human-made hazards, where there is an unacceptable risk to health or safety or of property damage, and shall not create new, or aggravate existing, hazards.

### WHAT WE WANT TO ACHIEVE

- 1) Prevent injury, loss of life and property damage
- 2) Minimize incompatible land uses
- 3) Build resiliency to the impacts of extreme heat
- 4) Enhance personal security through design

### 10.1 Prevent injury, loss of life and property damage

#### 10.1.1 Natural Hazards: Flooding Hazards and Erosion Hazards

Lands in the flood plain are subject to regulations under Section 28 of the *Conservation Authorities Act*, Official Plan policies and zoning provisions in the Zoning By-law. Official Plan policies for flood plains also apply to areas where flood plains exist but are not mapped by the conservation authorities or identified as flood plain in the Zoning By-law. Flood plain boundaries are determined in consultation with the Mississippi Valley, Rideau Valley and South Nation Conservation Authorities, with adherence to relevant policies and guidelines. Schedule C15 – Environmental Constraints provides the general location of lands affected by the flood plain, however this schedule does not show all lands affected by the flood plain and should not be used to determine if a lot is affected by the flood plain. For detailed information about lands affected by the flood plain, refer to the Flood Plain Overlay in the Zoning By-law. For areas where no flood plain mapping is available, development proponents may be required to undertake studies as part of the development review and approvals process to delineate the extent of the flood plain.

Erosion hazards are areas that have been or may be subject to the loss of land, due to human or natural processes, and may also be adjacent to river, stream and small inland lake systems. Erosion hazard areas are subject to regulations under Section 28 of the *Conservation Authorities Act*.

- 1) Development and site alteration shall not be permitted in the 1 in 100 year flood plain or in an erosion hazard area.

2) Development and site alteration shall not be permitted within areas that would be rendered inaccessible to people and vehicles during times of flooding hazards, erosion hazards and/or dynamic beach hazards, unless it has been demonstrated that the site has safe access appropriate for the nature of development and the natural hazard.

3) Notwithstanding Policy 1) and 2), some minor development and site alterations may be permitted. Minor development and site alterations are defined as the following:

- a) Facilities which by their nature must locate in the flood plain, such as bridges, flood and/or erosion control works;
- b) Minor additions and/or renovations to existing structures, which do not affect flood flows, meet appropriate floodproofing requirements and are supported by the appropriate conservation authority;
- c) The replacement of a dwelling that was in existence at the date of adoption of this Plan, with a new dwelling where:
  - i) The new dwelling is generally the same gross floor area as the existing dwelling;
  - ii) The new dwelling is in a location on the lot that has lower flood risk than the existing dwelling;
  - iii) The new dwelling, in conjunction with any site alteration does not result in a negative effect on flooding; and
  - iv) The new dwelling and any associated site alteration shall meet the appropriate floodproofing requirements and be supported by the appropriate conservation authority.
- d) Passive open spaces which do not affect flood flows;
- e) Minor site alterations which do not result in a negative effect on flooding and which are supported by the appropriate conservation authority; and .
- f) The severance of a lot containing a surplus farm dwelling as permitted by the provisions of Subsection 9.1.3 provided that safe access to the dwelling or the retained parcel is not eliminated during the regulatory flood event.

4) Revisions to the Flood Plain Overlay in the Zoning By-law, or regulation limits in secondary plans or area-specific policies, may be implemented without the need for an Official Plan amendment, when site-specific geodetic elevation information prepared by an Ontario Land Surveyor has been accepted by the appropriate conservation authority, or when the City is undertaking updates to the Flood Plain Overlay in the Zoning By-law and concurrence from the appropriate conservation authority has been received.

5) A requirement for flood plain studies, in support of a development application will be identified in consultation with the City and the appropriate conservation authority. Flood plain studies, submitted to the City, as part of the development review process, shall be supported by appropriate engineering and environmental studies.

### **10.1.2 Two-Zone Flood Plain Areas and Areas of Reduced Flood Risk**

1) Two-Zone Flood Plain Areas are divided into two zones: the floodway and the flood fringe. The floodway is the inner portion of the 1 in 100-year flood plain that is required for the safe passage of flood flow where flood depths and/or velocities pose a threat to life and/or property damage. The flood fringe is the outer portion of the 1 in 100-year flood plain. The use of the two zone concept may allow for some new development within the identified flood fringe areas of the flood plain that can be safely developed with no adverse impacts. Areas of Reduced Flood Risk are areas in the 1 in 100-year flood plain that are

protected by flood control structures but would experience flooding if these structures fail or are overtopped.

2) In Two-Zone Flood Plain Areas, development in a floodway shall be subject to Subsection 10.1.1, Policies 1 through 5 respecting flood plains.

3) In Two-Zone Flood Plain Areas, the floodway shall be subject to the Flood Plain Overlay in the Zoning By-law. The flood fringe and areas of reduced flood risk shall be subject to the area-specific provisions in the Zoning By-law. The provisions for areas of reduced risk will be more restrictive than the provisions that apply in flood fringe areas, due to the depths of flooding that would occur in these areas if a flood control structure fails.

4) Development and site alteration may be permitted in the flood fringe and an area of reduced flood risk, where the risk to public safety is minor, could be mitigated in accordance with provincial standards, and where all of the following are demonstrated and achieved:

- 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) New hazards are not created, and existing hazards are not aggravated;
- d) No adverse environmental impacts will result;
- e) The proposed development is consistent with the policies of this Plan and all other applicable municipal by-laws; and
- f) Where site alterations are supported by the appropriate conservation authority.

5) To avoid an increased risk to life and property, the following shall not be permitted in the flood fringe or in an area of reduced flood risk:

- a) Creation of a new lot, except to allow for separate ownership of a semi-detached, or townhouse dwelling, or a plan of condominium or strata title for an apartment dwelling, where these uses are permitted in the Zoning By-law;
- b) An additional dwelling unit or dwelling unit that is either partially or completely below grade, or a coach house; [Amendment 34, By-law 2024-506, Omnibus 2 item 29, November 13, 2024]
- c) An amendment to, or relief granted from, the zoning by-law that increases the number of dwelling units on a lot;
- d) An institutional use including hospitals, long-term care homes, retirement homes, preschools, school nurseries, day cares and schools;
- e) An essential emergency service such as that provided by fire, police and ambulance stations and electrical substations; or
- f) Uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

6) The designation of Two-Zone Flood Plain Areas is initiated by the City in consultation with the conservation authority as part of a comprehensive land use and watershed-based planning process. This would only be in areas of existing flood-prone development.



### 10.1.3 Areas Vulnerable to Flooding Under Climate Change

A climate change flood vulnerable area is the area between the 1 in 100-year flood plain and the climate change scenario flood limit. For the purposes of these policies the climate change scenario flood limit is the 1 in 350-year flood plain. Provincial policies and regulations provide for limiting or prohibiting development on lands located in the 1 in 100-year flood plain. However, local climate projections indicate increasing trends in climate parameters that influence riverine flooding such as precipitation and temperature. These trends suggest an increased risk of extreme flooding that exceeds the 1 in 100-year flood event. While the magnitude and frequency of future extreme flood events are difficult to predict given the variability of climate conditions and their impacts on the watershed of each riverine system, the following policies protect people and property from the increased risk of extreme flooding events. To address these risks, risk mitigation measures for new development within climate change flood vulnerable areas will be required.

- 1) The City will work with conservation authorities to identify climate change flood vulnerable areas in publicly available maps. This mapping will include identification of areas where the depth of flooding on a roadway exceeds limits for safe access during a climate change scenario flood.
- 2) New secondary plan and area-specific policy areas will evaluate flood risks in climate change flood vulnerable areas and apply mitigation measures to the land use policies and design of the community in order to minimize flood risk for sensitive land uses.
- 3) Where lands located in a climate change flood vulnerable area are subject to site plan control or plan of subdivision applications, flood risk will be evaluated, and mitigation measures will be applied as part of the planning and design of the site. These measures will be determined through the servicing studies required as part of the development approvals process.

### 10.1.4 Natural Hazards: Unstable soils or bedrock

Unstable soils such as sensitive marine clays and organic soils, and unstable bedrock, associated with karst topography, are potential hazardous sites in Ottawa. In areas with sensitive marine clays, where there are deep valleys or embankments, there is a risk of large-scale retrogressive landslides. Schedule C15 – Environmental Constraints identifies lands affected by unstable slopes and organic soils. The schedule is not exhaustive and does not show all lands characterized by unstable slopes. Development proponents may be required to undertake necessary studies as part of the development review and approvals process to delineate the extent of these natural hazards.

- 1) Development shall generally be directed to areas outside of unstable soils or bedrock as defined as a Hazardous Site in the *Provincial Policy Statement*.
- 2) Development shall not be permitted to locate in areas with unstable soils or unstable bedrock where the use is an institutional use, essential emergency service or is associated with the disposal, manufacture, treatment or storage of hazardous substances as identified in provincial policy or provides outdoor industrial storage.
- 3) Notwithstanding Policies 1 and 2) above, for uses other than those listed in Policy 2), the City shall review all development using the following criteria:

- a) There is sufficient soils and engineering information (obtained using established standards and procedures) to confirm that the site is suitable or can be made suitable for development;
- b) Alterations to the site shall not cause adverse environmental effects, create a new hazard or aggravate an existing hazard elsewhere; and
- c) People and vehicles have a way of safely entering and exiting the area during emergencies or following an erosion event.

### 10.1.5 Natural Hazards: Wildland fire hazard

1) Development shall generally be directed to areas outside of lands that are unsafe for development due to the presence of hazardous forest types for wildland fire. Development may however be permitted within hazardous forest types for wildland fire, if it is demonstrated that the proposed development conforms to provincial wildland fire assessment and mitigation standards.

### 10.1.6 Contaminated sites

The City shall ensure that development only takes place on sites where the environmental conditions are suitable for the proposed use in accordance with provincial legislation and regulations.

- 1) Required environmental site assessments, remedial or risk assessment / risk management activities and associated reports shall be completed in compliance with the applicable regulations and requirements, as amended, and shall be completed, signed and stamped by a Qualified Person as defined by applicable regulation. Where required, the City may use the holding provisions of the *Planning Act* to ensure receipt of satisfactory verification of suitable environmental condition prior to development.
- 2) Phase one environmental site assessment reports shall include the City of Ottawa Historical Land Use Inventory reports and all other required environmental information sources that are reasonably and publicly available through public regulatory bodies and industry standard private environmental databases.
- 3) When contamination is identified in a proposed development property, the contaminants are to be fully delineated and a remedial action plan and/or a risk assessment / risk management plan to address the contamination shall be submitted to the City. A building permit may be issued on a phased basis to allow for the implementation of the plans concurrent with the required demolition and earth work.
- 4) When the filing of a Record of Site Condition is required, a copy of the Record of Site Condition and all supporting documentations along with the Ministry's acceptance shall be submitted to City. The City shall consider a Record of Site Condition as acknowledged by the Ministry when:
  - a) It has been confirmed that the Record of Site Condition has passed the Ministry's audit; or
  - b) It has been confirmed that the Record of Site Condition will not be audited by the Ministry.
- 5) For development proposals to expand or modify buildings on industrial-use properties, where contamination above the Ministry standards has been identified, the applicant shall provide either of the following documents:
  - a) A remediation report to confirm the removal of the contamination within the building footprint during construction; and/or

b) A risk assessment report from a Qualified Person that outlines the risk to construction workers and future occupants and concludes that there will be no unacceptable risks to the on-site receptors if the contaminated material is left in place.

6) Where contamination from the proposed property extends onto City-owned lands, the City may issue a building permit on a phased basis contingent on the execution and implementation of an off-site contamination management agreement that remediates and/or manages contamination in the City's property to the City's satisfaction.

7) Where the City is deeded land for public highways, road widenings, parks, stormwater management, easements or for any other purposes, the City may require, as a condition of transfer, verification to the satisfaction of the City that the proposed land is suitable for the proposed use in accordance with provincial legislation and regulations. This may also include filing a Record of Site Condition by the property owner prior to transfer of ownership to the City.

8) Where a gas station site is being redeveloped and there is no change in use to a more sensitive use, the City shall require confirmation from the Technical Standards and Safety Authority that the facility complies with the Technical Standards and Safety Authority regulations and shall provide the following documentation:

- a) An up-to-date facility's license issued by Technical Standards and Safety Authority; and
- b) Where required, an up-to-date contaminant management plan and the associated groundwater monitoring report prepared in accordance with the Technical Standards and Safety Authority Environmental Management Protocol for Fuel Handling Sites in Ontario (2012, as amended).

### 10.1.7 Waste disposal sites

Operating waste disposal sites are landfills, dumps, incinerators and any other facilities providing for the long-term storage or destruction of municipal solid waste. Composting, recycling and transfer facilities are considered processing operations. In addition to operating its own facilities, the City has jurisdiction over enacted consents for private waste disposal facilities. The City's criteria in granting consents for these facilities include an assessment of the impact from waste types and quantities, landfill capacity in Ottawa and consistency with the City's Solid Waste Master Plan.

1) Operating Solid Waste Disposal Sites are identified on Schedule B8 in order to recognize their function and their potential impact on surrounding land uses.

2) The City shall require an Official Plan amendment for the establishment of any new Solid Waste Disposal Site.

3) Footprint expansion of operating Solid Waste Disposal Sites shall require a Zoning By-law amendment.

4) Land within three kilometres of an operating Solid Waste Disposal Site boundary is considered to be within the influence area of the site. New lot creation within this zone will require a notice on title to ensure the impacts of the operating Solid Waste Disposal Site (i.e. noise, dust, odours and haul route) are provided.

- 5) Development within the influence area of an operating Solid Waste Disposal Site shall demonstrate that the Solid Waste Disposal Site shall not have any unacceptable adverse effects on the proposed development and will not pose any risks to human health and safety.
- 6) Notwithstanding the requirements of Policy 5 above, the following uses may not require a study provided that the Solid Waste Disposal Site water table is not affected and excavations shall not result in landfill gas migration or removal of a visual screen buffering of the landfill from the public view: utilities, waste-processing facilities, above-grade transportation routes, forestry activities and gravel pits, quarries and other mining activities.
- 7) Notwithstanding Polices 5 and 6, no new land use shall be permitted within 30 metres of the licensed perimeter of an operating Solid Waste Disposal Site.
- 8) No development is permitted on land or land covered by water which has been used for the disposal of waste unless:
  - a) Twenty-five years have elapsed from the point the lands ceased to be an operating waste disposal site; or
  - b) The approval of the Minister of the Environment, Conservation, and Parks (or its successor) has been given for the proposed use.
- 9) Development on a non-operating waste disposal site that satisfies Policy 8) above, or within 250 metres of a non-operating waste disposal site (e.g., old closed landfills) is subject to the requirements stipulated in Subsection 10.1.6. Development within 500 metres of a non-operating waste disposal site shall also demonstrate that there is no risk to human health and safety from landfill gas.

### **10.1.8 Snow Disposal Facilities**

Ottawa is a winter city, resulting in the need for public and private, permanent and temporary snow disposal sites. Such disposal facilities include only those lands on which snow is placed after being brought to the site from elsewhere and not areas in which snow is simply moved to one portion of a site after being cleared from the rest of the site.

- 1) New snow disposal facility sites will require a site-specific zoning by-law amendment and site plan approval.
- 2) New sites shall be designed to meet the Ministry of Environment, Conservation and Parks guidelines and all other applicable guidelines, policies and directives.

### **10.1.9 Gas pipelines**

- 1) TransCanada Pipelines Limited operates high-pressure natural gas pipelines within rights of way across the City. The Zoning By-law shall identify the route of the TransCanada Pipeline and establish minimum setbacks from the limits of the pipelines rights of way for all permanent structures and excavations. The following policies apply to development proposals in proximity to pipelines and associated facilities:
  - a) Proponents of any development within 200 metres of a TransCanada Pipeline right of way or within 750 metres of a TransCanada Pipeline compressor station are required to pre-consult with TransCanada



- Pipelines and advise and consult with TransCanada Pipelines when undertaking the technical review of any such development that requires approval under the *Planning Act*;
- b) Development within 750 metres of a TransCanada Pipeline compressor station shall not be approved unless it is demonstrated that provincial guidelines for noise and vibration can be achieved; and
  - c) Any recommendations or mitigation measures identified by noise and vibration studies undertaken by TransCanada Pipeline, to determine if the provincial guidelines can be achieved, may be included by the City as conditions of development approval.

### **10.1.10 Abandoned mineral and mineral aggregate mining operations, and abandoned petroleum resource operations**

When mining operations have ceased, lands that are abandoned or not fully rehabilitated may create a situation that could cause injury and impact health. It is the intent of the City that hazards from former mines be mitigated through mechanisms under the *Mining Act* or the *Aggregate Resources Act*. Prior to development on lands adjacent to hazards from mining it shall be required to identify, address and mitigate known or suspected hazards.

- 1) The City shall require applicants for development to identify if lands have been mined for minerals, petroleum or mineral aggregates.
- 2) Where development is proposed where a mine hazard, or abandoned pit or quarry exists, the proposal shall:
  - a) Evaluate the potential risks to human health and property;
  - b) Establish measures to address and mitigate known or suspected risks; and
  - c) Demonstrate that the site can be rehabilitated to support the proposed land use.
- 3) Development shall not be permitted within 300 metres of a mine hazard, or abandoned pit or quarry unless measures to address and mitigate known or suspected risks to human health and property are provided.
- 4) No development or site alteration should occur within a minimum 75 metres of an abandoned petroleum resource operation.

## **10.2 Minimize incompatible land uses**



### **10.2.1 Environmental noise control**

Environmental noise is characteristic of many human activities, and the proliferation of this noise has potential to negatively affect quality of life and human health.

The goal of environmental noise control is to provide guidance between land uses that are noise sensitive and land uses that are sources of noise such as roads, railways, employment areas and equipment for building facilities.



The objective of environmental noise control is to provide for improved and more liveable and healthy environments in the planning of new neighbourhoods, in development and intensification of older neighbourhoods.

- 1) All development shall comply with the City's Environmental Noise Control Guidelines which are based on the applicable Provincial noise guidelines [currently NPC – 300, MOEE 2013].
- 2) All noise studies prepared in support of development shall be consistent with the City's Environmental Noise Control Guidelines and shall include noise mitigation and a warning clause where necessary, as a condition of approval.
- 3) Development proposals for a new or expanded noise sensitive land-use shall require a noise feasibility study and/or detailed noise study pursuant to the Environmental Noise Control Guidelines in the following locations:
  - a) Within 100 metres of:
    - i) The right of way of an existing or proposed arterial road or collector or major Collector Street identified on Schedules C4; or
    - ii) The right-of-way of a rapid transit or transit priority corridor identified on Schedule C2; or
    - iii) Lands designated as Industrial and Logistics or Mixed Industrial identified on the B-series of schedules, or lands zoned for industrial use; or
    - iv) from an existing stationary noise source described in provincial certificate of approval under the *Environmental Protection Act*.
  - b) Within 250 metres of:
    - i) The right-of-way of an existing or proposed provincial highway, of Ottawa Highway 174, or of a secondary main railway line.
  - c) Within 300 metres of a pit licensed under the *Aggregate Resources Act* or lands with a Sand and Gravel Resource Overlay; and
  - d) Within 500 metres from the right-of-way of:
    - i) A 400-series Provincial highway; or
    - ii) A Principal Main railway line; or
    - iii) A quarry licensed under the *Aggregate Resources Act*; or
    - iv) Lands with a Bedrock Resource Overlay.

#### **Class 4 stationary noise areas**

- 4) Approved Class 4 stationary noise areas shall be identified within the Environmental Noise Control Guideline, consistent with provincial guidelines.
- 5) Where new development is proposed within the Urban area or a Village in proximity to an existing stationary noise source, Council, at its discretion, may amend the Environmental Noise Control Guidelines to identify additional Class 4 stationary noise areas.
- 6) The identification of Class 4 stationary noise areas may not be applied retroactively to existing development.

7) If the stationary noise source(s) for which a Class 4 stationary noise area has been identified ceases, the identification will be deemed to no longer apply.

### **Stationary noise sources**

8) Development proposals that introduce new sources of stationary noise in proximity to existing noise sensitive land uses shall require a noise feasibility study and/or noise control detailed study if within the following proximities of noise sensitive land uses:

- a) 100 metres for:
  - i) New stationary noise sources; and
  - ii) Lands to be zoned for a new industrial use;
- b) 300 metres for a pit to be licensed under the *Aggregate Resources Act*; and
- c) 500 metres for a quarry to be licensed under the *Aggregate Resources Act*; and in this case noise mitigation where necessary shall be required as a condition of approval.

9) Where an existing stationary noise source is proposed to expand, or a change of use is proposed, which could result in increased noise, an acoustic audit noise study may be required.

10) A noise control detailed study shall be required where the widening or construction of an Arterial, Major Collector or a Rapid Transit network as identified in this Plan.

11) Where noise sensitive development exists adjacent to a public road or existing rapid transit infrastructure as identified in this Plan, and where noise guidelines have been exceeded; the City may implement noise mitigation measures consistent with the Environmental Noise Control Guidelines and the local improvement policy.

12) Owners of land abutting directly on the local improvement mentioned in Policy 8 above may contribute towards the costs incurred by the City if a sufficient number of affected landowners agree to the work and if the work is approved by Council.

13) The City shall consider noise attenuation in the design of neighbourhoods to improve the quality of the public realm as described in the Environmental Noise Control Guidelines.

14) Acoustic barriers may only be used where all other noise attenuation methods, including the placement of taller buildings along and fronting onto an arterial, are confirmed by the City as not feasible. The need for an acoustic barrier shall be demonstrated by the proponent and approved by the City consistent with the Environmental Noise Control Guidelines.

### **Vibration**

15) The City may require a vibration study for development within 75 metres of a railway right of way or an existing or proposed light rail transit corridor and shall require vibration mitigation and a warning clause where necessary as a condition of approval.

### 10.2.2 Protection of airport and aircraft operations

- 1) Development inside the Airport Vicinity Development Zone, as shown on Schedule C14, shall be consistent with applicable City, provincial and federal guidelines and regulations. In the event of a variation between City, provincial or federal guidelines, the most restrictive provisions shall be applied.
- 2) A noise control study consistent with the Council-approved Environmental Noise Control Guidelines is required as part of a complete application for any development proposal within the 25 Line (Composite of 25 NEF/NEP), as shown on Schedule C14.
- 3) Development of new noise-sensitive land uses shall not be approved inside the 35 Line (Composite of 35 NEF/NEP), as shown on Schedule C14.
- 4) New development between the 35 Line and the boundary of the Airport Operating Influence Zone shall not be approved unless the following conditions are met:
  - a) Development of an existing noise-sensitive land use may be permitted if:
    - i) The lands front on an existing public road that is maintained year-round;
    - ii) The lands consist of a lot that was created under the *Planning Act* prior to May 14, 2003;
    - iii) The land use is permitted in the Zoning By-law; and
    - iv) Appropriate warning clause(s) are included on title to advise purchasers or occupants of ongoing aircraft operations, potential impacts of noise levels on normal activities and sleep and the necessity of installing and maintaining recommended noise control measures.
  - b) Residential infill is proposed and:
    - i) The development is for a single detached dwelling(s) on a lot(s) created by severance;
    - ii) A noise control study is prepared detailing necessary architectural measures that implement provincial noise guidelines for interior spaces;
    - iii) The infill development fronts on an existing public road that is maintained year-round;
    - iv) Meets the requirements of the Zoning By-law and all provisions of this Plan;
    - v) Appropriate warning clause(s) be included on title to advise purchasers or occupants of expected noise levels and the necessity of installing and maintaining noise control measures; and
    - vi) The development does not require a Zoning By-law amendment to create the lot(s).
- 5) Within the Airport Vicinity Development Zone, noise-sensitive uses may be permitted between the 25 Line and the Airport Operating Influence Zone.
- 6) Development shall comply with the Ottawa Macdonald-Cartier International Airport Zoning Regulations as enacted under the federal *Aeronautics Act*.
- 7) Development conditions and best practices may be required to reduce the risk of wildlife conflict with airport operations. Proposed land uses, municipal infrastructure projects and activities in the vicinity of the Ottawa International Airport shall have regard to the Ottawa MacDonald-Cartier International Airport Authority Wildlife Management Plan.
- 8) Within the Airport Vicinity Development Zone, the creation of open water habitat areas is prohibited.

9) Throughout the City, land uses, activities and the use of building materials with potential to interfere with the safe operation of aircraft, the performance of navigation aids or telecommunication, are prohibited.

### **Lands Outside the Boundary of the Airport Vicinity Development Zone**

The Ottawa Macdonald-Cartier International Airport Zoning Regulations also apply to lands outside of the Airport Vicinity Development Zone where these are within the runway approach surfaces. Mapping is available from the Ottawa International Airport Authority to determine the precise location of affected areas.

10) Development within runway approach surfaces is subject to the overall building height provisions of the approved Ottawa Macdonald-Cartier International Airport Zoning Regulations.

### **General Aviation and Local Airports**

11) Proposed development in the vicinity of Carp and Rockcliffe airports shall comply with current Transport Canada guidelines.

12) Noise-sensitive development is not permitted within the 30 NEF/NEP contour lines at the Carp or Rockcliffe airports.

### **10.2.3 Protection of Major Facilities and Sensitive Land Uses**



1) To avoid adverse effects on sensitive uses and to protect the long term economic viability of industrial uses and major facilities, the Province's Land Use Compatibility Guidelines shall be applied to the development of major facilities and/or sensitive land uses in proximity of a major facilities as outlined in the guidelines in any designation.

### **10.3 Build resiliency to the impacts of extreme heat**



With climate change, the number of very hot days (days where the temperature is greater than 30°C) in Ottawa is projected to increase from an average of 11 days per year to as many as 43 days per year by the 2050s, and even more towards the end of the century. This will result in more frequent and prolonged heat waves.

Extreme heat can be a health hazard. It can cause dehydration, heat exhaustion, heat stroke and even death. High temperatures can put everyone at risk, but health risks are greatest for older adults, infants and young children, people with chronic illness, outdoor workers and athletes, people experiencing homelessness, people taking certain prescription medications and those with lower incomes. Heat illnesses can be prevented by taking steps to stay hydrated, avoiding the heat and finding ways to stay cool.

The urban heat island effect is created in built-up areas, as the built environments in these areas retain the heat longer and become hotter than nearby urban greenspaces or rural areas. The annual mean air temperature of a city with 1 million people or more can be 1 to 3°C warmer than its surroundings. In the evening, the difference can be as high as 12°C.





The built environment should be developed to provide protection against extreme heat, reduce the urban heat island effect, build climate resiliency and safe outdoor recreation and active transportation.

- 1) Trees will be retained and planted to provide shade and cooling by:
  - a) Applying the urban tree canopy policies in Subsection 4.8 and other sections of the plan;
  - b) Prioritizing them in the design, and operation of parks and the pedestrian and cycling networks and at transit stops and stations for users wherever possible; and
  - c) Encouraging and supporting maintenance and growth of the urban tree canopy on residential, commercial and private property.
  
- 2) For transit stops where the planting of trees is not feasible, shade structures should be considered subject to funding and available space in the right-of-way in order to provide shelter from the sun as to ensure comfort and transit mobility during extreme heat conditions.
  
- 3) Office buildings, commercial shopping centres, large-format retailers, industrial uses and large-scale institutions and facilities, shall incorporate heat mitigation measures.

#### 10.4 Enhance personal security through design

Everyone in Ottawa should feel safe and be safe in Ottawa's public spaces, whether they are taking an evening stroll in their neighbourhood, parking in a large parking structure or cycling along a pathway. The City uses the principles of Crime Prevention Through Environmental Design in its review of development to enhance personal security in the design of spaces that are accessible to the public. The physical environment can be designed and managed to reduce the incidence and fear of crime. Also, community safety audits by community associations and other groups can supplement the safety assessments of specific locations and provide guidance to improvements by the City and property owners. Safety and accessibility are central concerns of gender-equitable planning. Incorporating these in the planning of built form, parks and streetscapes are important for women and children and for other target groups.

- 1) When reviewing development, the City will consider measures to enhance safety and security through such means as:
  - a) Provision of outdoor lighting in spaces intended for public use after dark that is sufficient to support the activities planned for that space;
  - b) An overall pattern of design that avoids creation of enclosed areas or areas such as narrow recesses between buildings that could be used to entrap persons passing through a space;
  - c) Preservation of unobstructed sight lines for persons passing through public spaces and opportunities for public spaces to be overlooked by people in adjacent buildings or other public spaces;
  - d) Provision of a mix of uses on corridors that promotes activity and social interaction at various times of the day and night and are served by transit routes; and
  - e) Where there are overpasses and tunnels, provide alternative routes at grade, where possible; and
  - f) Provision of pedestrian and cycling connections between neighbourhoods and across barriers shall be designed for passive supervision and wayfinding, where possible.