

12.0 Protecting Public Health and Safety

12.1 Background

A key element of land use planning is to ensure that development does not occur in locations that is not appropriate due to the risk of public health and safety and property damage/loss. These areas fall within two categories – natural hazards and human made hazards.

Natural hazards include hazardous lands, hazardous sites and hazardous forest types for wildland fire. These hazard types are influenced by climate change.

- The PPS defines hazardous lands as property or lands that could be unsafe for development due to naturally occurring processes. Along the shorelines of the Great Lakes – St. Lawrence River System this means the land, including that covered by water, between the international boundary, where applicable, and the furthest landward limit of the flooding hazard, erosion hazard or dynamic beach limits. Along river systems, this means the land, including that covered by water, to the furthest landward limit of the flooding hazard or erosion hazard.
- The PPS defines a hazardous site as property or lands that could be unsafe for development and site alteration due to naturally occurring hazards. These may include unstable soils or unstable bedrock.
- The PPS defines hazardous forest types for wildland fire as forest types assessed as being associated with the risk of high to extreme wildland fire using risk assessment tools established by the province and amended from time to time.

Human made hazards are those places where human activity on the landscape has occurred and the activity has created a risk to further development. Human made hazards include mine hazards, oil, gas and salt hazards, or former mineral mining operations, mineral aggregate operations or petroleum resource operations.

- The PPS defines a mine hazard as any feature of a mine defined under the Mining Act, or any related disturbance of the ground that has not been rehabilitated.
- The PPS defines a mineral aggregate operation as lands under license or permit, other than wayside pits and quarries, issued in accordance with the Aggregate Resources Act, and associated facilities used in extraction, transport, beneficiation, processing or recycling of mineral aggregate resources and derived products or the production of secondary related projects.

Given its location along the St. Lawrence and Gananoque Rivers, its geology and geomorphology and past land uses, several natural and human hazards have been identified in Gananoque. This includes hazardous lands along the St. Lawrence and Gananoque Rivers, hazardous sites associated with organic soils, and as described above, two former mineral aggregate operations that have been identified through the provincial abandoned mine information system database.

12.2 The Planning Framework

12.2.1 Planning Act

The Planning Act requires that planning authorities have regard to the protection of public health

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and safety when exercising their authority under the Act.

12.2.2 Provincial Policy Statement

Policy 1.1.1 e) recognizes that healthy, liveable and safe communities are sustained by avoiding development and land use patterns which may cause environmental or public health and safety concerns.

Policy 3.1.1 states that development shall generally be directed, in accordance with guidance developed by the Province (as amended from time to time) to areas outside of hazardous lands adjacent to the shoreline of the Great Lakes – St. Lawrence River System which area impacted by flooding hazards, erosion hazards and/or dynamic beach hazards; hazardous lands adjacent to river systems which are impacted by flooding and/or erosion hazards; and hazardous sites.

The PPS defines a flooding hazard as the inundation, under the conditions specified below, of areas adjacent to a shoreline of a river or stream system not ordinarily covered by water: along the shorelines of the Great Lakes-St. Lawrence River System, the flooding hazard is based on the one hundred year flood level plus an allowance for wave uprush and other water related hazards; along river systems, the flooding hazard is the greater of the flood resulting form a regional storm event (e.g. Hurricane Hazel), the one hundred year flood or a flood that is greater than the regional storm or one-hundred year flood that occurred as a result of ice jams and has been approved by the province.

The PPS defines erosion hazard as the loss of land, due to human or natural processes, that poses a threat to life and property. The erosion hazard limit is determined using considerations that include the 100 year erosion rate, an allowance for slope stability, and an erosion/erosion access allowance.

The PPS defines a dynamic beach hazard as areas of inherently unstable accumulations of shoreline sediments along the Great Lakes-St. Lawrence River System, as identified by provincial standards as amended from time to time. The dynamic beach hazard limit consists of the flooding hazard limit plus a dynamic beach allowance.

Policy 3.1.2 states that development and site alteration shall not be permitted within the dynamic beach hazard, defined portions of the flooding hazard along connection channels such as the St. Lawrence River System, 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 the development and the natural hazard) and a floodway.

Policy 3.1.3 states that planning authorities shall prepare for the impacts of a changing climate that may increase the risk associated with natural hazards.

Policy 3.1.4 states that despite policy 3.1.2, development and site alteration may be permitted in certain areas associated with the flooding hazard along a river system in those exception situations where a Special Policy Area has been approved or where development is limited to uses, which by their nature, must locate within the floodway, including flood and/or erosion control works or minor additions or passive non-structural uses which do not affect flood flows.

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Policy 3.1.5 states that development shall not be permitted to locate in hazardous lands and hazardous sites where the use is an institutional use, an essential emergency service or use associated with the disposal, manufacture, treatment or storage of hazardous substances.

Policy 3.1.7 states that except as prohibited by policies 3.1.2 and 3.1.5, development and site alteration may be permitted in those portions of hazardous lands and hazardous sites where the effects and risk to public health and safety are minor, could be mitigated in accordance with provincial standards, and where all of the following area demonstrated and achieved: development and site alteration is carried out in accordance with floodproofing standards, protection works standards and access standards; vehicles and people have a way of safely entering and exiting the area during times of flooding, erosion and other emergencies; new hazards are not created and existing hazards are not aggravated; and no adverse environmental impact will result.

Policy 3.18 states that 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 be permitted with there risk is mitigated in accordance with wildland fire assessment and mitigation standards.

Policy 3.2.1 states that development on, abutting or adjacent to lands affected by mine hazards or former mineral aggregate operations may be permitted only if rehabilitation or other measures to address and mitigate known or suspected hazards are under way or have been completed.

Policy 3.2.2 states that sites with contaminants in land or water shall be assessed and remediated as necessary prior to any activity occurring on the site associated with the proposed use such that there will be no adverse effects.

12.3 Official Plan

The Official Plan defines and includes policies for hazardous lands, hazardous sites and human made hazards, including flooding and/or unstable slopes along the St. Lawrence and Gananoque Rivers and organic soils. The Official Plan recognizes that there may be additional hazardous land or hazardous sites that have not been identified in the community. The Plan also includes policies that speak to contaminated sites and site decommissioning and clean up.

12.4 Conclusion

The Official Plan policies relating to public health and safety should be reviewed and expanded to include the full range of hazards identified in the PPS (e.g. allowances for wave uprush or other water related hazards along the St. Lawrence River) and to reflect the requirements for brownfield redevelopment that came into effect after the Official Plan came into effect. Consideration should also be given to how to address climate change related considerations and their influence on natural hazards, as well as new provincial requirements relating to wildland fire.