



Unionville Special Policy Area Boundary Review

Justification Report for
Ministry of Municipal Affairs and Housing and
Ministry of Northern Development, Mines, Natural
Resources and Forestry

Prepared by

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&
Toronto & Region Conservation Authority

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1.0 Background

Special Policy Areas are a land use planning tool to recognize and support historic communities that were developed along rivers and within flood plains. The City's Unionville Special Policy Area (SPA) was established to recognize the heritage community of Unionville and associated development within the Unionville Core Area that was developed before a Flood Plain Management Program was introduced by the Province. Special Policy Area status allows properties in Unionville the opportunity to remain viable by supporting new development in the form of compatible redevelopment and additions. Unionville is one of several heritage communities in the City of Markham and is located near Kennedy Road and Highway 7.

In 1990, Markham Council adopted an Official Plan Amendment to establish the Unionville Special Policy Area. Since 1990, two updates have been completed to the Special Policy Area as follows:

- Modification of the SPA boundaries through Official Plan Amendment 153 to the Official Plan (Revised 1987), as amended – adopted by Markham Council in 2006 and approved by York Region in 2008
- Modification of the SPA policies through the Official Plan 2014 – adopted by Markham Council in 2013. The SPA policies were brought into force and effect by the Ontario Municipal Board in 2016.

1.1 2019 Update of Flood Plain Mapping

In May 2019, the Toronto and Region Conservation Authority (TRCA) released new updated 2D hydraulic flood plain mapping for the Unionville Special Policy Area within the Rouge Watershed. Given that the flood plain changes are within the Unionville Special Policy Area, it is necessary to undertake a Special Policy Area boundary review – see Figure 1.

The Unionville flood plain mapping update undertaken by the TRCA utilizes a 2D model (MIKE FLOOD computer model) which is considered to provide a more realistic prediction of flood depths and velocities where complex hydraulic conditions exist. Unionville meets the criteria for a complex condition given the poorly confined watercourse conditions which increase risk of spill out of watercourse banks. The project was funded in part through Canada's National Disaster Mitigation Program.

The details of the flood modelling program were forwarded to the Ministry of Natural Resources and Forestry for approval as part of the SPA process. In April 2020, the Ministry confirmed that they were satisfied with the flood plain model and that the City could proceed with the Special Policy Area boundary update.

1.2 Scope of Unionville Special Policy Area Review

The current update of the Unionville Special Policy Area is scoped to a boundary review. During the 2014 update of the Unionville Special Policy Area, a comprehensive review and update of the SPA policies were completed to ensure consistency with the 2014 Provincial Policy Statement (PPS). The new 2020 Provincial Policy Statement has maintained the natural hazard policies of the 2014 PPS. As such, no updates to the Unionville SPA policies are necessary. See section 2.0 below for an overview of the Unionville SPA policies in the 2014 Official Plan. Appendix A includes the current SPA policies.

The Province reviews Special Policy Areas under the 2009 Procedures for Approval of New Special Policy Areas and Modifications to Existing SPAs under the Provincial Policy Statement, 2005. The boundary change proposed by Markham staff are to be reviewed under *Section 2.3 – Major additions due to flood plain enlargement*, since the overall area of SPA addition is under 10 hectares or 25% of the existing SPA. This justification report is intended to provide all the necessary information for the Province as per the procedures manual.

This justification report includes five sections:

1. Background
2. Current Official Plan policies: outlines the current in-force Official Plan and zoning provisions for Special Policy Area lands. No changes to these policies are proposed through this SPA update process.
3. Proposed Special Policy Area Boundaries: outlines the rationale and process for identification of the City's recommended Special Policy Area boundaries. A population analysis was completed to document the existing population and the future population at the 2031 planning horizon and at full build-out.
4. Ongoing and Future Planning Studies: summarizes other ongoing and future planning studies within or adjacent to the Special Policy Area.
5. Flood Plain Technical Information: summarizes information on flood depths/velocities/risk, development standards, ice jam frequency, flood remediation opportunities and emergency response within the SPA.

CHANGES TO THE UNIONVILLE FLOODPLAIN

- TRCA Floodline (2014 Official Plan)
- New TRCA Floodline
- Unionville Special Policy Area (2014 Official Plan)
- Floodline Expansion
- Floodline Reduction

Q:\Geomatics\Resources\TRCA\TRCA Unionville Flood Plain Data June 2019\Figure 2 Changes to the Unionville Floodplain.mxd

DATE: 28/08/2019

FIGURE No. 1

2.0 Current Special Policy Area Policies

2.1 Official Plan

The City's Official Plan was adopted by Council in December 2013, approved by York Region in June 2014 and subsequently appealed to the Ontario Municipal Board. The Official Plan has been approved in parts and the Special Policy Area policies were approved by the Local Planning Appeals Tribunal on May 26, 2016.

The SPA policies are current and a review of the policies is not required at this time. A review by staff confirms that the policies are consistent with the 2020 Provincial Policy Statement. Specifically, the SPA aims to manage risk to life and property in the Special Policy Area through the implementation of the following policies:

- Sensitive institutional uses, emergency services and uses associated with hazardous substances are prohibited in the SPA (s. 3.4.1.2)
- Lot creation is prohibited (s. 3.4.1.5 & 3.4.1.17)
- Safe access is demonstrated (s. 3.4.1.6 & 3.4.1.12)
- No new habitable living space is below the regulatory flood elevation (s.3.4.1.6)
- The development will not create an unacceptable risk to life or property; can be flood proofed; and will not have adverse impacts on upstream or downstream properties (s.3.4.1.10)
- Floodproofing shall be provided to the greatest extent possible and shall not be lower than the 1:350 year flood elevation (s.3.4.1.14)

The Special Policy Area policies are contained in Section 3.4 of the Official Plan and are provided in Appendix 'A'.

2.2 Zoning By-law

A number of parent zoning by-laws apply to lands within the Special Policy Area. The zoning by-laws regulate land uses in the Special Policy Area through provisions to prohibit sensitive institutional uses, emergency services and uses associated with hazardous substances including motor vehicle body shops, repair garages and gas stations. Staff have not identified any necessary changes to the zoning by-law provisions. Each zoning by-law contains a schedule to depict the Special Policy Area boundary and the schedules will be amended to reflect the new boundary.

3.0 Proposed Special Policy Area Boundaries

Markham and TRCA staff have undertaken the review of the SPA boundary following the flowchart shown in Figure 2 and described in further detail below.

Each property in the flood plain and the existing Special Policy Area was reviewed.

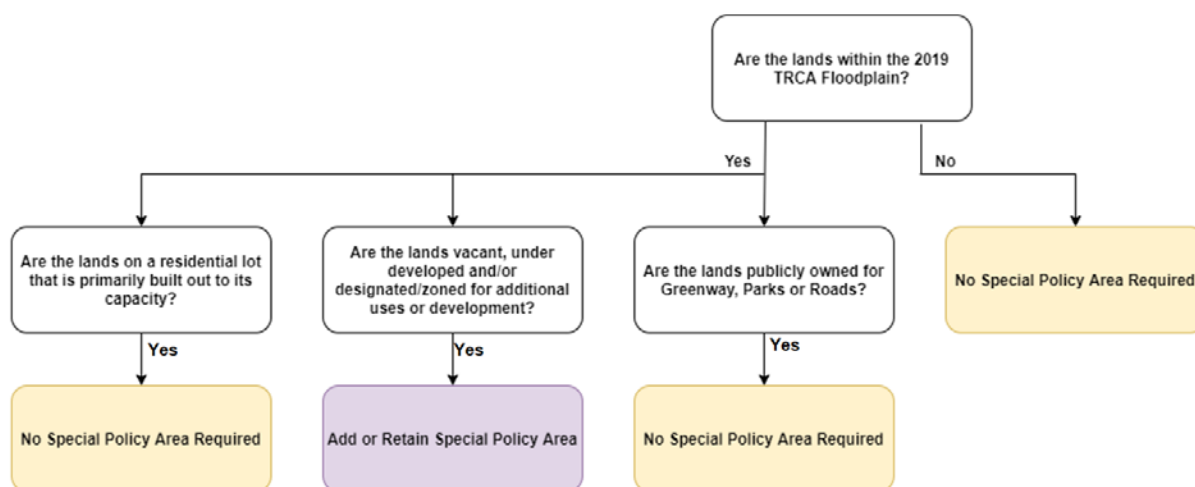


Figure 2: Criteria for the Review of the Special Policy Area Boundary

Lands within the 2019 TRCA Flood Plain

Approximately 80 properties are now included in the updated flood plain. Lands that were added to the flood plain were reviewed to determine whether a Special Policy Area designation is necessary. Staff recommend that a Special Policy Area be provided to properties that are vacant or under-developed, i.e., the lands are currently designated/zoned for additional uses or development. It is important to note that no changes to the underlying land use designation are proposed and that no intensification is being proposed within the flood plain or Special Policy Area.

Based on staff's review, there were low rise residential areas which are considered to have very limited possibilities for building expansion. These are generally small residential lots with large dwellings. Staff recommend that a Special Policy Area designation not be applied in such locations. These lands would be subject to the TRCA's One-Zone Regulatory Flood Plain Policies. Under these policies, additions up to 50% of the original gross floor area may be permitted which is considered to be sufficient to meet future development needs. An example of this are the houses on Denby Court (northwest corner of Hwy 7 and Kennedy Road) where staff are not recommending that a Special Policy Area be applied.

Through the review, staff also noted that there are publicly owned (City/TRCA) lands within the existing SPA and flood plain. Staff are recommending that all non-developable, publicly owned lands within the flood plain (conservation/valley lands, parks and roads) be excluded from the SPA.

Lands within the SPA were also reviewed by TRCA staff to assess flood risk. Areas subject to unacceptably high flood depths or velocities and/or where floodproofing to the 1:350 storm event is not feasible were excluded from the Special Policy Area.

Lands outside of the 2019 TRCA Flood Plain

Approximately 100 properties that are in the current Special Policy Area boundary were removed from the flood plain. All lands removed from the flood plain are proposed to be removed from the Special Policy Area.

Review of Natural Heritage and Erosion Hazard Constraints

Natural Heritage and erosion hazards were considered in the review of the Special Policy Area boundary. The SPA boundaries were overlaid on top of available information on natural heritage and erosion hazard constraints, including:

- Markham Natural Heritage Network, including natural heritage and hydrologic features and the minimum vegetation protection zones (Map 4, Official Plan)
- TRCA estimated crest of slope
- TRCA estimated meander belt

Both the Markham Official Plan and the TRCA's regulation contain policies to prohibit development within natural heritage features and erosion hazards. The identification of a SPA for non-developable lands is not supported by staff as it could imply that development permissions are provided. Non-developable lands were excluded from the Special Policy Area.

3.1 Proposed Changes to the Area of the Special Policy Area

Figure 3 below illustrates the proposed changes to the area of the Special Policy Area. The total area of the proposed SPA is 19.6 ha which represents an overall reduction of 26.7 ha from the existing SPA (46.3 ha currently). There is approximately 5.1 ha of new SPA lands and 31.8 ha identified to be removed from the existing SPA. The boundary change proposed by Markham staff are to be reviewed under *Section 2.3 – Major additions due to flood plain enlargement* of the Province's SPA procedures manual, since the overall area of SPA addition is under 10 hectares or 25% of the existing SPA.

Table 1: Area of the Proposed Special Policy Area

	Area
Existing Special Policy Area (2014)	46.3 ha
Lands added to the Special Policy Area	+ 5.1 ha
Lands deleted from the Special Policy Area	- 31.8 ha
Proposed Special Policy Area (2021)	19.6 ha

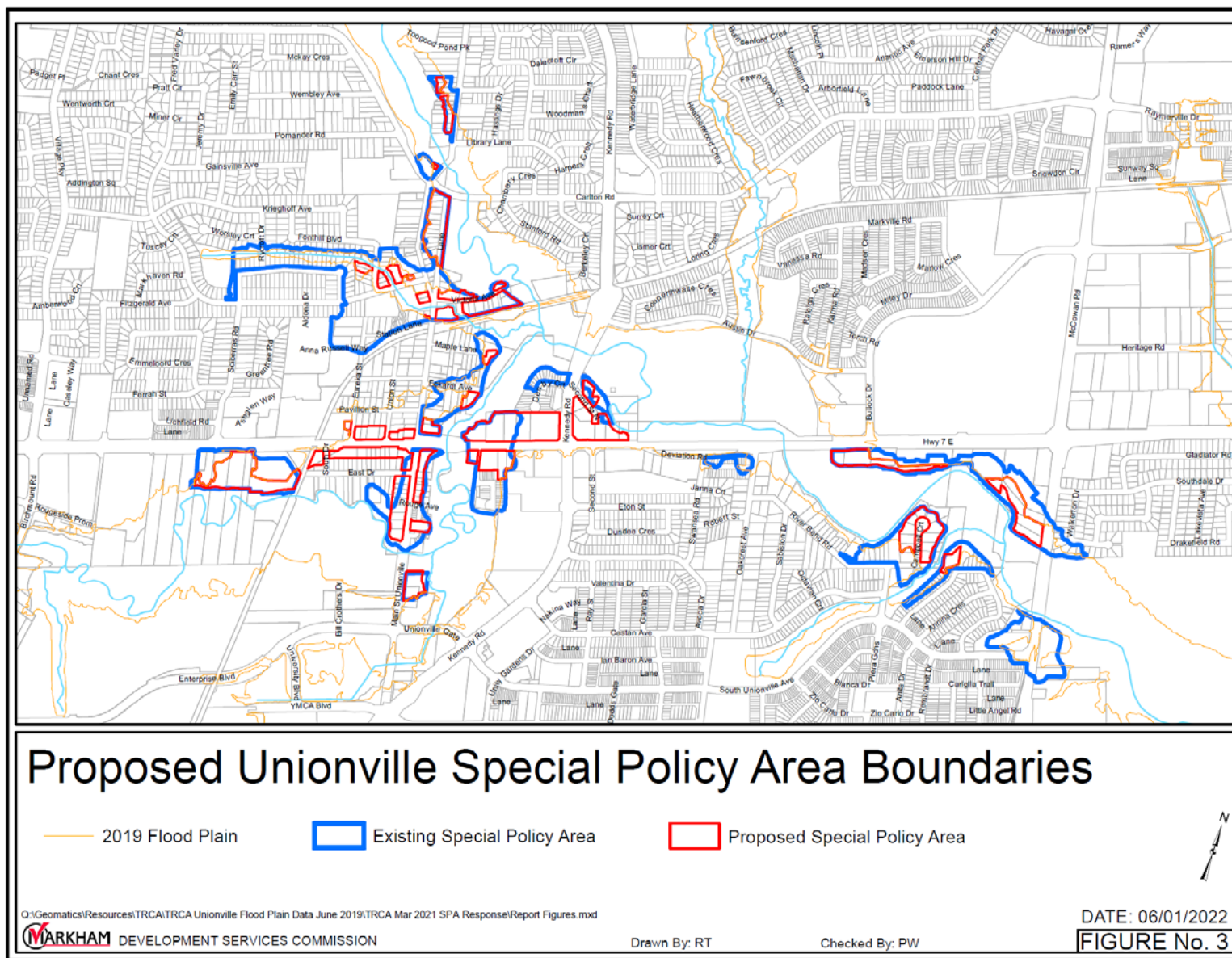


Figure 3: Proposed Unionville Special Policy Area Boundary

3.2 Land Use and Zoning within the Special Policy Area

Official Plan

Lands within the proposed Unionville Special Policy Area are designated:

- Residential Low Rise (2014 Official Plan)
- Mixed Use Low Rise (2014 Official Plan)
- Mixed Use Mid Rise (2014 Official Plan)
- Mixed Use Heritage Main Street (2014 Official Plan)

It is noted that some of the lands within the revised SPA boundary are also subject to the Markham Centre Secondary Plan (OPA 21 to the 1987 Official Plan, revised, as amended) which has not been repealed with the approval of the 2014 Official Plan. The height and density permissions in the 2014 Official Plan are generally consistent with the Markham Centre Secondary Plan (See Section 4 for more details). Figure 4 identifies the in-force land use designations in the proposed SPA.

Zoning By-law

Lands within the proposed Unionville Special Policy Area are zoned under five parent zoning by-laws: by-laws 122-72, 134-79, 1229, 304-87 and 177-96. Existing zoning permissions include commercial, residential, community amenity area (mixed use) and open space zones. A map showing the existing zone categories in the proposed SPA can be found below in Figure 5.

Table 2: Applicable Zoning By-laws in the Proposed Special Policy Area

By-laws	Zones
122-72	C1 – Commercial 1 C3 – Commercial 3 R3 – Residential 3 RM – Multiple Residential RR4 – Rural Residential RRH – Rural Residential HMS – Heritage Main Street SC1, SC3 – Special Commercial O2 – Open Space 2 O1 – Open Space 1
134-79	SC3 – Special Commercial
1229	SC1 – Special Commercial CCA
304-87	RR1 – Rural Residential O1 – Open Space 1
177-96	CA2 – Community Amenity Area OS1 – Open Space 1 R2 – Residential 2

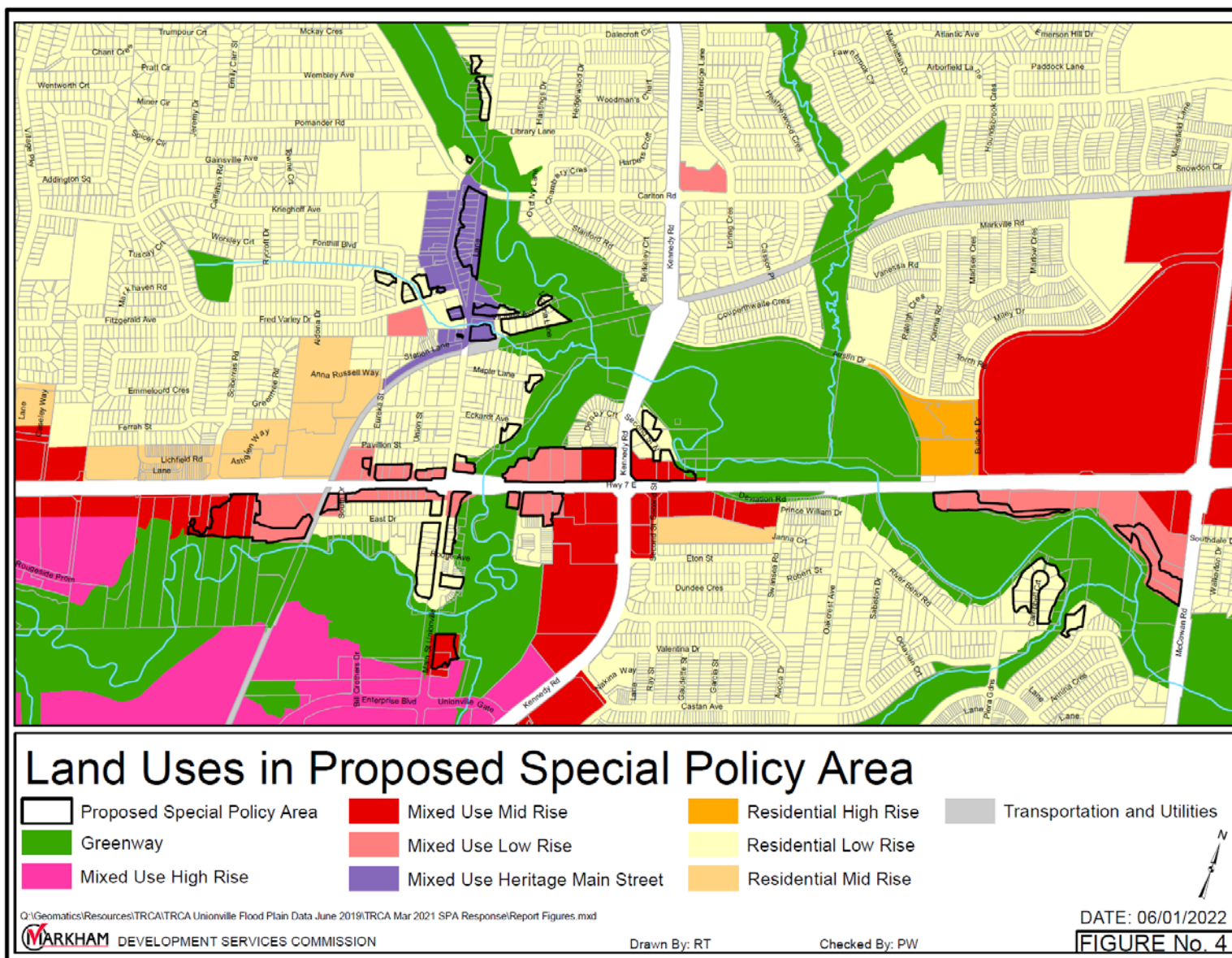


Figure 4: Land Use Designations in the Proposed Special Policy Area

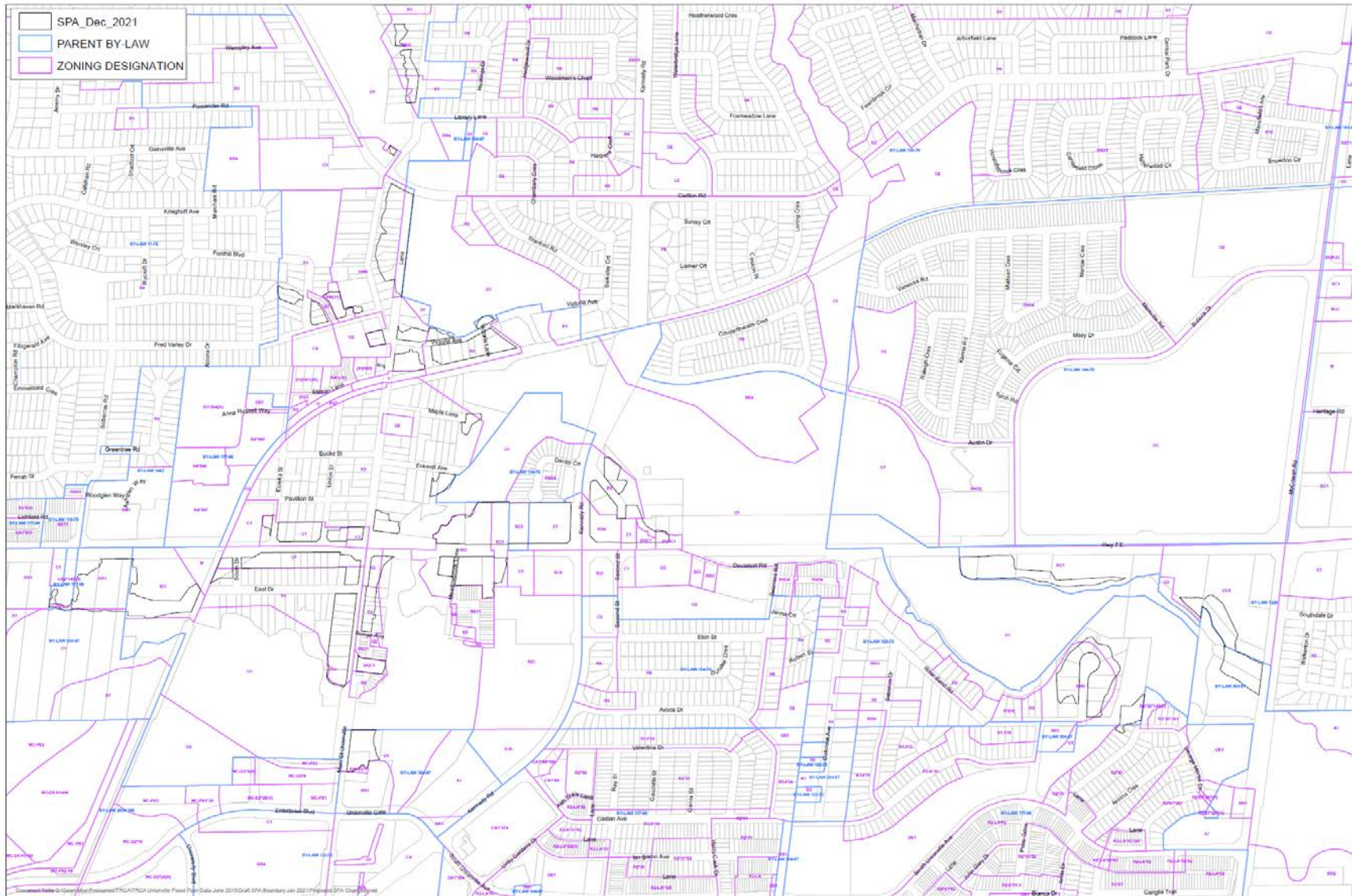


Figure 5: Zoning in the Proposed Special Policy Area

3.3 Population of the Proposed Special Policy Area

A population analysis was undertaken looking at the existing population and the potential population increase in the proposed Special Policy Area resulting from existing approved development permissions. A more fulsome description of the assumptions and analysis is provided in Appendix B. The existing population information was gathered from MPAC data to identify the number of housing units that currently exist within the Special Policy Area. Then, a population per unit (PPU) was applied.

The estimated potential population increase was completed based on the maximum permitted height and/or density in the existing in-force Official Plan permissions. No intensification or change to the Official Plan designations is proposed within the Special Policy Area.

There are currently 95 existing residential units which have an estimated population of 301 within the SPA. At full build-out, it is estimated that an additional 3144 people (of which 1035 may be realized within the 2031 planning horizon) may be added within the SPA. Staff do not expect that full build-out will occur within the 2031 planning horizon as there are numerous stable commercial properties – some of which have recently renovated or reconstructed. It is likely that a majority of the population increase will occur beyond the 2031 planning horizon. A summary of the population analysis is provided below in Table 3.

Table 3: Existing Population and Potential Population Increase within the SPA

Description	Population Increase from 2021	Total Population
Existing Population in the SPA (2021)		301.0
Potential population increase by 2031 planning horizon	1035.4	1336.4
Potential population increase at full build-out (2031+)	3144.5	3445.5

Feasible alternatives for expansion outside of flood plain

A comprehensive review of growth for the City was completed through the 2014 Official Plan. The Official Plan establishes a city-wide growth management strategy for Markham that is designed to accommodate all growth to 2031 through a combination of intensification and urban expansion across the City. No intensification is proposed within the Special Policy Area beyond the existing

permissions in the Official Plan. The potential population increase in the Special Policy Area is based on the full build-out of lands in accordance with the current in-force land use designations in the 2014 Official Plan.

4.0 Ongoing And Future Planning Studies

The following section describes ongoing and future planning initiatives within or adjacent to the Unionville Special Policy Area.

4.1 Markham Centre Secondary Plan update

Section 9.12.4 of the 2014 Official Plan identifies that the provisions of the 1987 Official Plan including the Markham Centre Secondary Plan (OPA 21) continue to apply to the lands within Markham Centre until an updated secondary plan is approved. Through the Official Plan Amendment, staff are proposing that a site-specific policy be included to identify the updated SPA boundaries and that the SPA policies shall prevail in the event of a conflict with the existing secondary plan. The City is currently undertaking a review of the Markham Centre Secondary Plan and a new Secondary Plan will be prepared. No intensification will be permitted within the updated SPA boundary beyond current permissions.

4.2 Other Secondary Plan Studies

The City is also expecting to complete secondary plans for the Unionville Heritage Centre and the Markville key development area which contain lands subject to the SPA. Both of these Secondary Plans would be prepared as an amendment to the 2014 Official Plan and would incorporate the SPA boundary and policies.

4.3 Comprehensive Zoning By-law Update

The City of Markham is currently undertaking a City-wide comprehensive zoning by-law update. Once approved, the new zoning by-law will replace existing zoning by-laws. It will include an SPA overlay for all properties impacted by the Special Policy Area boundary. Approval of the new comprehensive zoning by-law is expected to occur after this SPA update. As such, it is currently proposed that all existing zoning by-laws will need to be amended to reflect the proposed SPA boundary.

5.0 Flood Plain Technical Information

Detailed information on the flood plain model and mapping exercise is available through the Unionville SPA 2D Modelling Study and Floodplain Mapping Update, prepared by Valdor Engineering, dated May 2019. The flood plain modelling and mapping were endorsed by the TRCA Board of Directors in May 2019 and accepted by the Ministry of Natural Resources and Forestry (MNRF) in April 2020.

5.1 Flood depths and velocity

Impacts to structures are limited in the more frequent 2 to 50 year return period flood scenarios. Generally, impacts begin with the 100-year design storm with the flooding condition becoming progressively more extensive under the 350-year and Regional storm conditions. Most arterial roads are not subject to flooding during the 100-year storm, however, it is noted that the McCowan Road crossing and Main Street Unionville are subject to flooding during the 100-year storm.

Most local and arterial road and railroad crossings are vulnerable to overtopping during the 350-year and Regional storms. During the 350-year storm, development in proximity to the watercourse becomes flooded and spills occur in a number of areas, particularly areas in the vicinity of Main Street Unionville and Highway 7, and south of Enterprise Blvd west of Kennedy Road. The extent of flooding during the Regional storm is more widespread including further spills in the vicinity of Main Street Unionville and Highway 7, east on Highway 7 near Kennedy Road, Campbell Court, and along Fonthill Creek at Victoria Ave (upstream of the CN railroad crossings).

The depth of flooding during the 100-year storm within the area is generally less than 0.3 m with the exception of some properties along Victoria Ave (identified as SPA #10 in the Valdor Report) where the depth exceeds 1.2 metres in some areas in the vicinity of Main Street Unionville and Victoria Ave. Flood velocities associated with the 100-year event are typically less than 0.3 m/s with the exception of SPA #10 where the velocity exceeds 1.2 m/s in isolated areas.

During the 350-year storm, the depth of flooding ranges generally from 0.1 m to 1.2 m in most areas, however there are certain areas that have flood depths exceeding 2.4 m. Velocities under the 350-year storm condition are similar to the 100-year condition.

During the Regional storm, the depth of flooding generally ranges from 0.1 m to 1.8 m, however there are areas that exceed 3.6 m. While most velocities are less than 0.6 m/s, velocities in excess of 2.0 m/s occur at some locations.

MNRF flood risk categories are divided into low, moderate and high risk and defined as follows:

- Low Risk – vehicular and pedestrian ingress/egress is available (depth is less than 0.3 m)
- Moderate Risk – pedestrian ingress/egress ONLY available (depth-velocity product less than $0.37 \text{ m}^2/\text{s}$ with a maximum depth of 0.8 m and a maximum velocity of 1.7 m/s), and
- High Risk – Depth velocity product greater than $0.37 \text{ m}^2/\text{s}$ OR depth greater than 0.8 m OR velocity greater than 1.7 m/s.

Figures 6 to 11 below illustrate the flood risk areas within the flood plain under the 350-year and Regional storm conditions. Most areas within the updated SPA boundaries are outside of the high risk category under the 350-year scenario with the exception of the properties along Main Street Unionville.

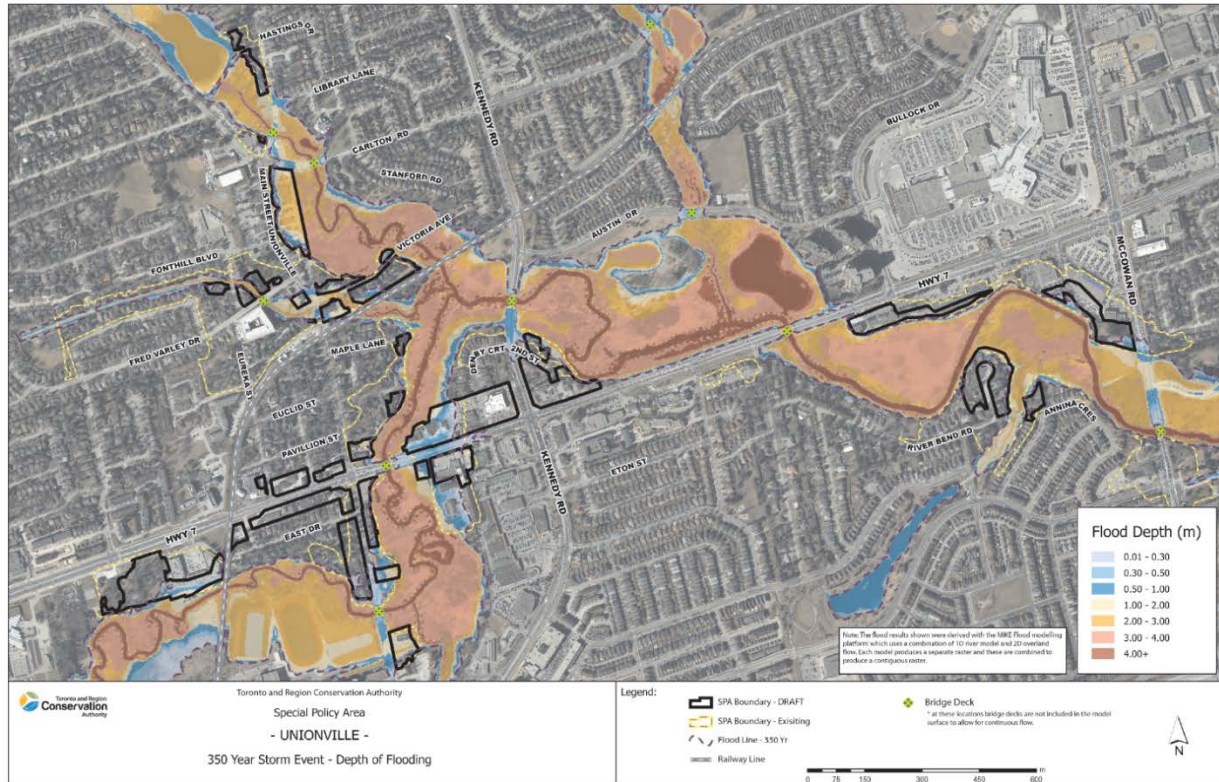


Figure 6: Depth of Flooding - 350 Year Storm

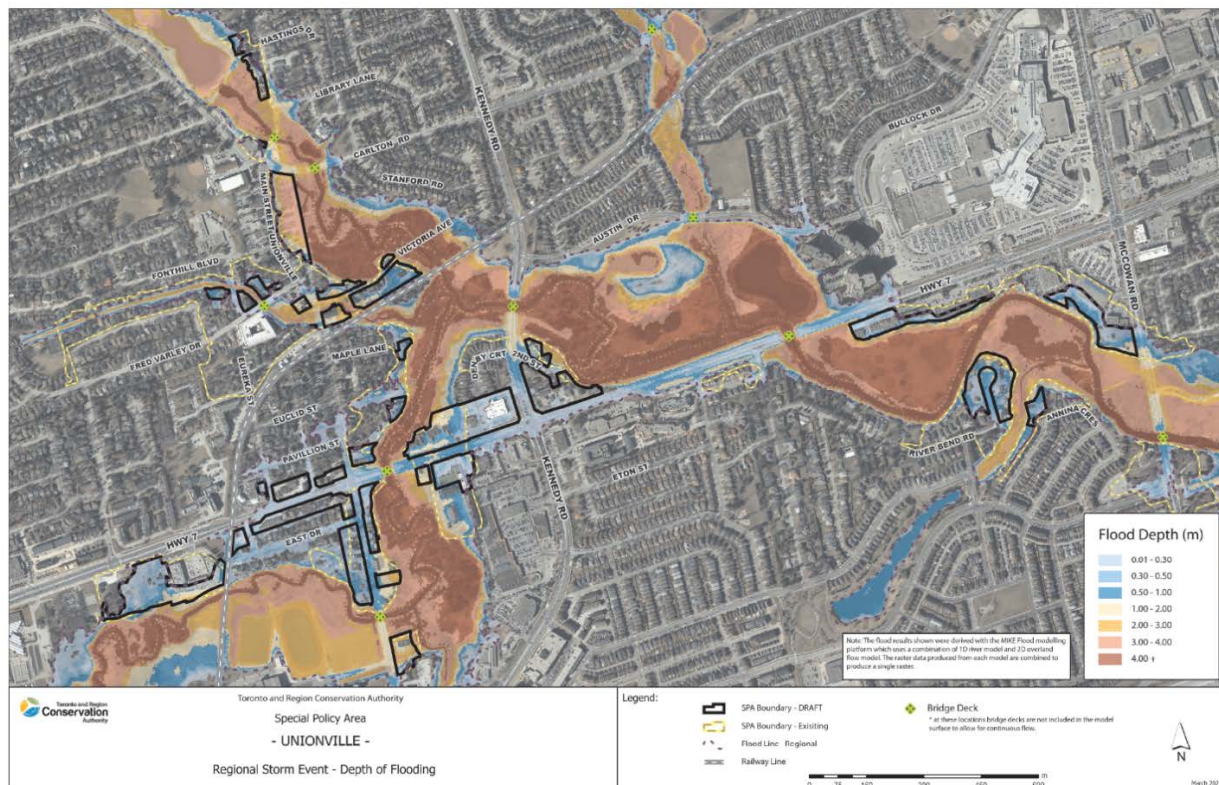


Figure 7: Depth of Flooding - Regional Storm Event

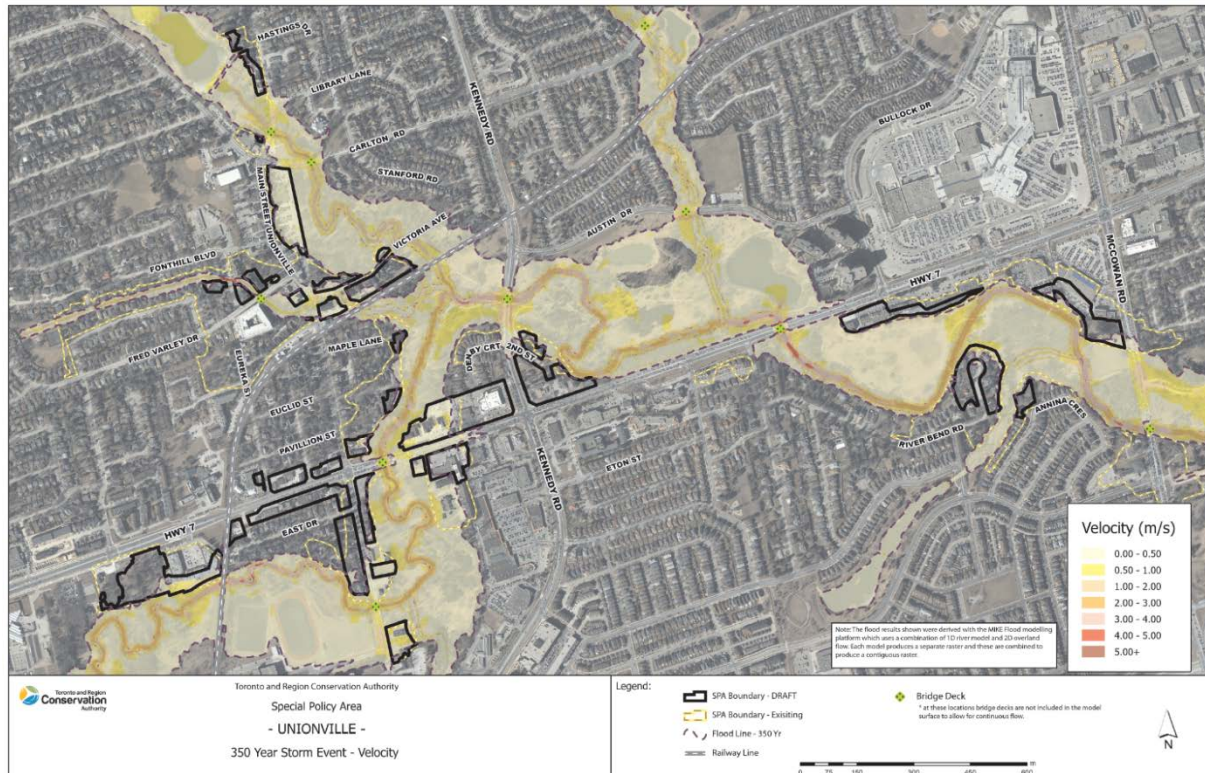


Figure 8: Flood Velocity - 350 Year Storm

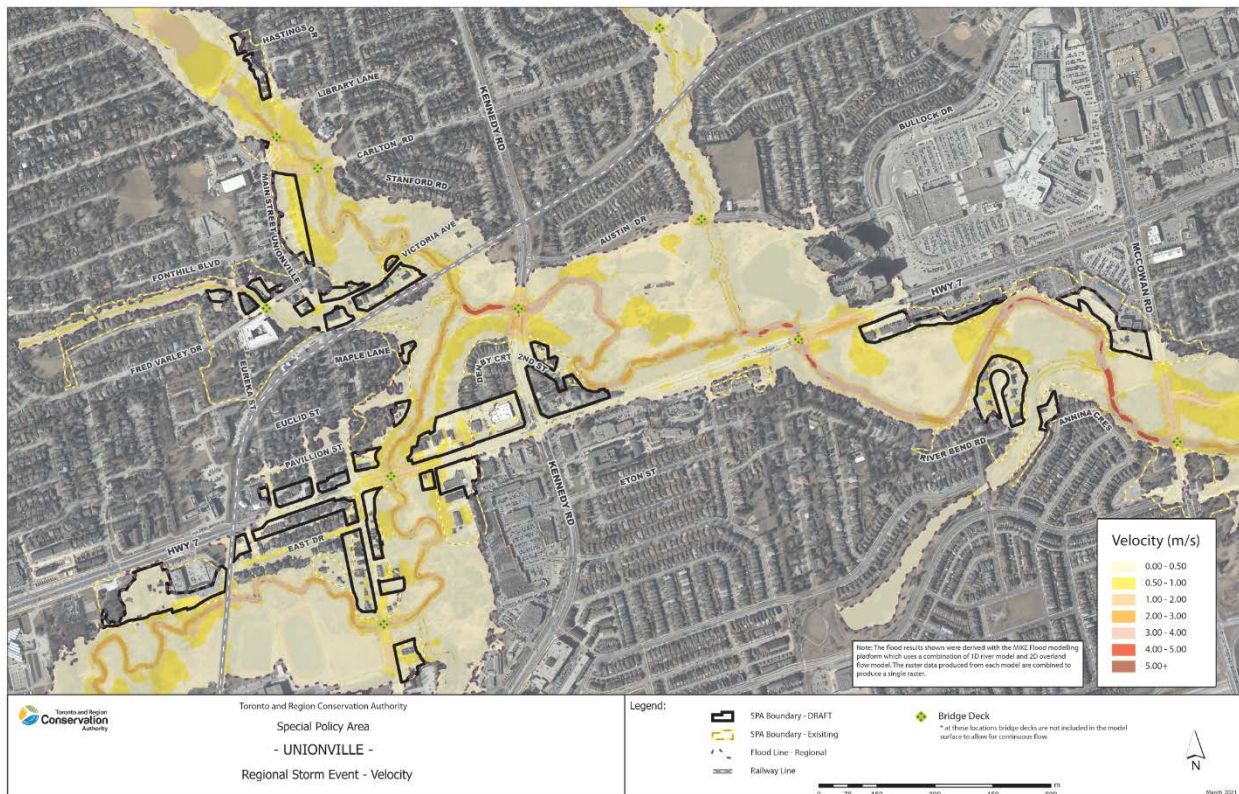


Figure 9: Flood Velocity - Regional Storm Event

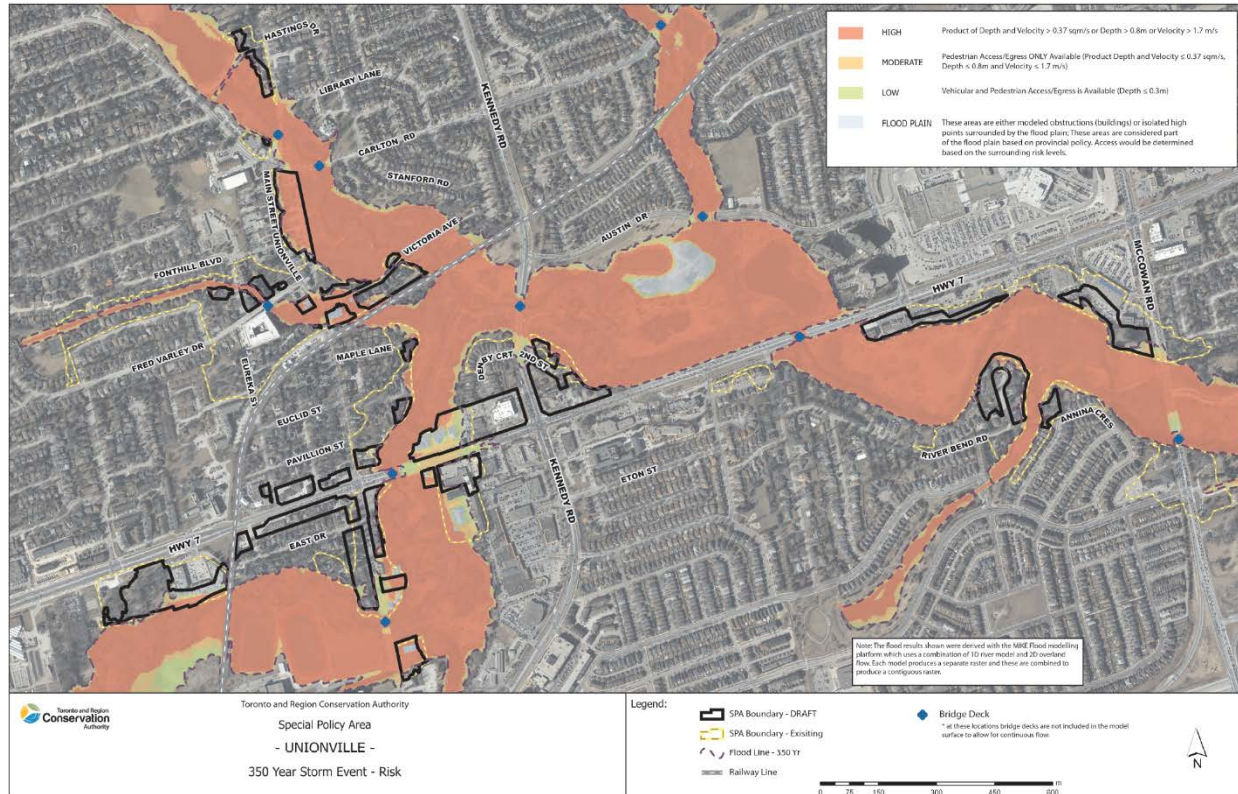


Figure 10: Flood Risk - 350 Year Storm

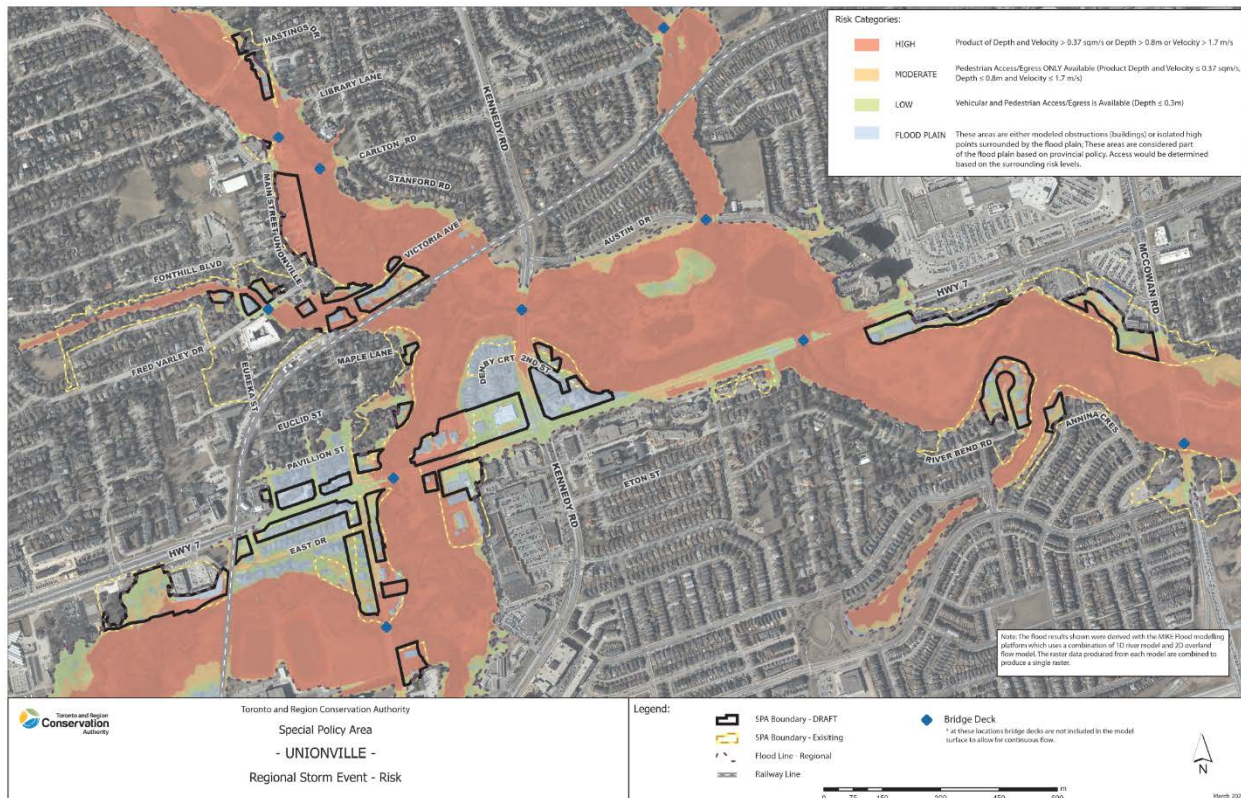


Figure 11: Flood Risk - Regional Storm Event

5.2 Standards for Development in SPA –Flood proofing and access/egress

There are no changes to the policies for the Unionville SPA. Development in the SPA will continue to be subject to the Unionville SPA policies and the TRCA's Living City Policies. Floodproofing shall be demonstrated to the maximum extent feasible and shall not be less than the 1:350 year storm.

Section 3.4.1.12 of the 2014 Official Plan outlines access/egress requirements: "That access and egress to all buildings and structures shall be safe. Where safety to the provincial *flooding hazard* standard cannot be achieved, access and egress shall be provided to the maximum level of flood protection that is determined feasible and practical by the Toronto and Region Conservation Authority. Dry access and egress is preferred. Under no circumstances shall new residential units or an increase in overnight accommodation be permitted where safe access and egress cannot be achieved to the provincial *flooding hazard* standard."

5.3 Ice jam frequency

Anecdotally, ice jams were noted to have occurred in the past in the vicinity of Main Street Unionville, south of Carlton Road until Victoria Ave, as well as upstream of Kennedy Road. However, no explicit records of ice jam based flooding are available. The dominant form of flood risk in the Unionville SPA is under open-water conditions. The most recently experienced high-water events have been due to rainfall events in the absence of ice cover.

5.4 Flood remediation opportunities

The Valdor report explores possible flood remediation opportunities in the Unionville area. This includes improvements to culverts/bridge and landform solutions to contain spill areas.

Additional analysis was completed by TRCA in the report entitled 2020 Unionville 2D Flood Study to look at potential impact of upgrading municipal culverts and the culverts under the CN tracks. This report concluded that:

- upgraded culverts would not result in a significant reduction for the Bruce Creek flood plain.
- Upgraded culverts would result in the reduction of floodplain extent and flood risk along Fonthill Creek, although flooding is not eliminated. It was concluded that upgrading the culvert under the CN tracks would result in the most benefit.

5.5 Emergency Response

The City's Fire and Emergency Services Department coordinates emergency response planning in the City of Markham. The City's approach to emergency response is summarized below:

"It is important to note that every individual is responsible for being prepared for an emergency situation.

The City implements the pillars of preparedness through public awareness, public education, emergency information, and staff training along with conducting an annual exercise and having an Emergency Operations Centre (EOC) in a state of readiness. Information and resources on personal emergency preparedness are available through the City's website in multiple languages. The City utilizes the provincially endorsed incident management system (IMS) that provides a platform for responding to emergency situations that is modular and scalable depending on the scope and type of emergency.

To promote emergency preparedness and rapid action by the public to potential emergency situations the City uses several different communication methods to provide information to citizens which includes but is not limited to radio, television, websites, social media, the Provincial Alert Ready broadcast intrusion app, fire station and city owned electronic information boards and mobile signs.

The City's response specifically is addressed through the all hazards approach in emergency planning outlined in the Emergency Response Plan available on the City's website.

When a potential emergency situation occurs, a risk assessment is conducted and an action plan is determined that provide strategies, objectives and tactics to effectively and efficiently manage the situation to mitigate the impact upon the community and respond in a manner that will allow for an expedited recovery.

Markham Fire and Emergency Services will respond to all reported incidents including floods, once on scene the officer will determine what is required to mitigate the incident and contact the necessary resources to do so, working in conjunction with the local police and ambulance service utilizing the Incident Management System.

In situations where the water exceeds 0.30 meters and our apparatus are unable to access the area, alternate methods will be identified when the first officer

arrives on scene, these methods may include protecting people in place, using aerial ladders to access a structure or approaching from a different direction etc. In all reported cases we will respond and assess once on location and have appropriate resources deployed depending on the circumstances presented."

Appendix A: Unionville SPA and Hazard Land Policies

3.4.1 Natural Environmental Hazards

Natural environmental hazards such as flooding and erosion can present an inherent risk to life and property damage. Policies respecting restrictions on *hazardous lands* and *hazardous sites*, *floodplain* management, *Special Policy Areas*, and *flood vulnerable areas* can reduce this risk and enhance public health and safety. Appendix A – Toronto and Region Conservation Authority Regulatory Framework outlines the key components of the Toronto and Region Conservation Authority Regulatory Framework related to *floodplain* and erosion management and *flood vulnerable areas* including:

- the screening area for development, *redevelopment* or *site alteration* established through Ontario Regulation 166-06;
- *flood vulnerable areas* that are shown symbolically and are potentially susceptible to flood events where the flood risk must be assessed and addressed prior to development, *redevelopment* or *site alteration*; and
- the *floodplain* and erosion hazards where development, *redevelopment* or *site alteration* is regulated.

Map 8 – Special Policy Areas identifies areas that have historically existed within the *floodplain* where site-specific policies approved by the Province are intended for the continued viability of existing uses.

For the purposes of Section 3.4.1, the definition of development shall mean the creation of a new lot, a change in land use, or the construction of buildings and structures requiring approval under the Planning Act, but does not include:

- a) activities that create or maintain infrastructure authorized under an environmental assessment, Planning Act, or Condominium Act process; and,
- b) works subject to the Drainage Act.

It is the policy of Council:

3.4.1.1 To protect the safety of the public and reduce property damage by directing development, *redevelopment* or *site alteration* to locations outside of the *hazardous lands* and *hazardous sites* generally shown in Appendix A – Toronto and Region Conservation Authority Regulatory Framework with the exception of *Special Policy Areas*.

3.4.1.2 To prohibit the following uses on *hazardous lands*, *hazardous sites* and *Special Policy Areas*:

- a) an institutional use including hospitals, *shared housing* such as long-term care homes and retirement homes, *daycare centres* and schools;

- b) an essential emergency service such as that provided by fire, police and ambulance stations and electrical substations; or
- c) uses associated with the disposal, manufacture, treatment or storage of hazardous substances.

3.4.1.3 To promote and encourage mitigation and remediation works for existing development within *hazardous lands* and *hazardous sites*.

Hazardous Lands and Hazardous Sites

Hazardous lands and *hazardous sites* pose risks to human health and safety and private property due to potential flood impacts and/or unstable slopes and erosion issues. *Hazardous lands* and *hazardous sites* are regulated in accordance with the natural hazard policies of the Provincial Policy Statement and the regulations of the Toronto and Region Conservation Authority. It is the intent of Markham to direct development, *redevelopment* and *site alteration* away from these areas to protect the safety of the public. *Hazardous lands* and *hazardous sites* are generally designated 'Greenway'.

3.4.1.4 That *hazardous lands* and *hazardous sites* located within the areas as generally shown in Appendix A – Toronto and Region Conservation Authority Regulatory Framework, with the exception of *Special Policy Areas* and certain *flood vulnerable areas*, shall be generally designated as 'Greenway' lands on Map 3 – Land Use. The limits of *hazardous lands* and/or *hazardous sites* and the boundary of the corresponding 'Greenway' designation will be confirmed through the *development approval* process.

3.4.1.5 To prohibit development, *redevelopment* or *site alteration* and lot creation in *hazardous lands* and *hazardous sites* in accordance with Provincial policies, Conservation Authority regulations and the policies of this Plan.

3.4.1.6 To only consider development, *redevelopment* and *site alteration* in *hazardous lands* and *hazardous sites* where appropriate, provided:

- a) it is associated with required flood and/or erosion control works, minor additions and structures associated with passive recreational uses, or located within an approved *Special Policy Area*;
- b) it has been demonstrated that safe access can be provided to the satisfaction of the Toronto and Region Conservation Authority;
- c) no habitable living space or overnight accommodation is located below the regulatory flood elevation; and,
- d) infrastructure is provided in accordance with Section 3.1.2.9

3.4.1.7 To require conveyance of *hazardous lands* and *hazardous sites* within the 'Greenway' designation at no cost to a public authority as part of a

development approval, except in those circumstances where an existing use will continue after implementation of the *development approval*.

3.4.1.8 That the management of *floodplain* lands as generally shown in Appendix A – Toronto and Region Conservation Authority Regulatory Framework be based on the *regulatory flood standard* in accordance with Provincial standards and mapping produced by the Toronto and Region Conservation Authority.

3.4.1.9 That where development, *redevelopment* or *site alteration* is proposed in areas subject to *erosion hazards* and slope instability, a geotechnical report shall be prepared by the proponent to address the nature and extent of the erosion and identify appropriate setbacks and remediation measures to prevent long-term erosion hazards to the satisfaction of Markham and the Toronto and Region Conservation Authority.

Special Policy Areas

Special Policy Areas are areas within Markham that have historically existed within the *floodplain* where site-specific policies approved by the Province provide for the continued viability of existing uses, which are generally small scale. Specific policies in this Section, Section 8.1.5, 9.14.6, 9.19.2, 9.19.6, 9.19.7, 9.19.11 and certain secondary plans are provided to address the management of these areas including criteria and procedures for development, *redevelopment* or *site alteration* as established by the Province. *Special Policy Area* policies shall prevail over all other policies in this Plan.

Markham's *Special Policy Areas* are shown as an overlay on Map 8 – Special Policy Areas with the underlying land use designation reflecting existing uses, existing zoning and statutory approvals shown on Map 3 – Land Use. It is the intent that a *Special Policy Area* provide for the continued viability of existing uses and manage development and *redevelopment* where provided for in this Plan. *Special Policy Areas* are not intended to allow for new or intensified development and *site alteration* if a community has feasible opportunities for development outside of the *floodplain*.

It is the policy of Council:

3.4.1.10 That no new development shall be permitted on any parcel of land within a *Special Policy Area* where:

a) the development would be subjected to velocities and/or depths that would create an unacceptable risk to life or property;

- b) the development would be susceptible to major structural damage as a result of a flood less than or equal to the *regulatory flood standard*;
- c) the necessary flood protection measures would have a negative impact on adjacent properties; or,
- d) adverse downstream and/or upstream impacts would be created/exacerbated and/or an increase in risk to life or property would occur as a result of flooding.

3.4.1.11 That development, *redevelopment* or *site alteration* within a *Special Policy Area* is permitted subject to meeting technical floodproofing and safe access/egress criteria in accordance with the underlying land use designations and the policies of this Plan. Development applications which would intensify the level of development beyond what is permitted by this Plan, must demonstrate that no alternatives exist outside of the *floodplain* and shall be assessed in a comprehensive manner and require the review and approval of the Ministers of Municipal Affairs and Housing and Natural Resources and Forestry.

3.4.1.12 That access and egress to all buildings and structures shall be safe. Where safety to the provincial *flooding hazard* standard cannot be achieved, access and egress shall be provided to the maximum level of flood protection that is determined feasible and practical by the Toronto and Region Conservation Authority. Dry access and egress is preferred. Under no circumstances shall new residential units or an increase in overnight accommodation be permitted where safe access and egress cannot be achieved to the provincial *flooding hazard* standard.

3.4.1.13 To require that applications for development, *redevelopment* or *site alteration* on lands in a *Special Policy Area* shall include:

- a) technical engineering studies detailing information such as flood velocity and depth of storm flows, flood damage reduction measures and stormwater management techniques, or other information as determined appropriate by Markham and the Toronto and Region Conservation Authority. The study requirements may be scoped where applications are considered minor such as additions or replacement structures;
- b) a flood evacuation plan for multi-unit developments prepared by a qualified professional where and which is determined appropriate by Markham and the Toronto and Region Conservation Authority;
- c) a comprehensive floodproofing and management review to identify any remediation strategies as may be required to support larger *redevelopment* parcels in Markham Centre; and
- d) plans that demonstrate primary building system controls, such as service unit panels, are above regulatory flood elevation.

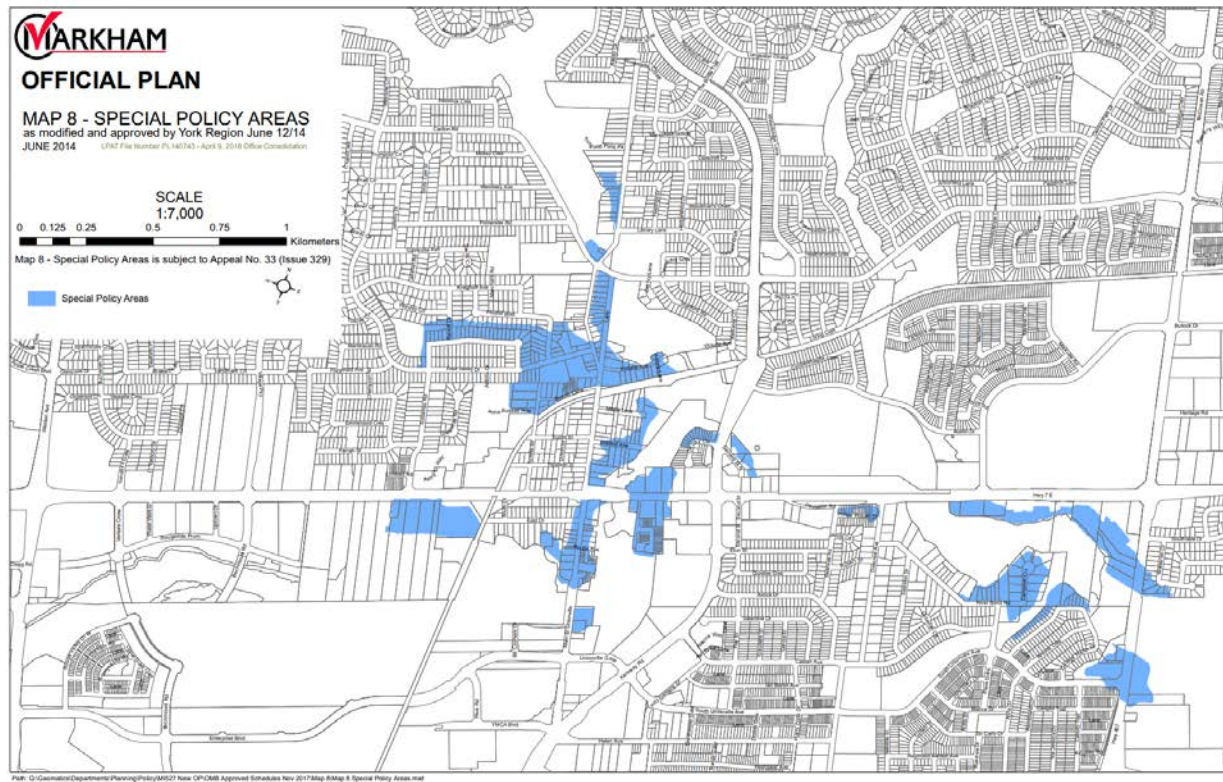
3.4.1.14 That the approval of buildings, structures, and parking in a *Special Policy Area* shall be conditional upon the landowner incorporating flood protection measures to the *regulatory flood standard* on all new buildings and new additions to minimize flooding impacts to the satisfaction of Markham and the Toronto and Region Conservation Authority. Where floodproofing to the regulatory flood elevation is not possible, floodproofing must be to the greatest extent feasible to the satisfaction of the Toronto and Region Conservation Authority, however, under no circumstances may it be lower than the 1:350 year flood elevation.

3.4.1.15 That prior to the issuance of a building or *site alteration* permit, applications for development on lands wholly or partially within a *Special Policy Area* shall require approval and permits from the Toronto and Region Conservation Authority in accordance with applicable criteria, procedures, standards and regulations.

3.4.1.16 That *Special Policy Area* lands shall continue to be identified with a *Special Policy Area* zone overlay in all applicable zoning by-laws with the necessary provisions to implement the relevant policies and shall be subject to site plan control approval.

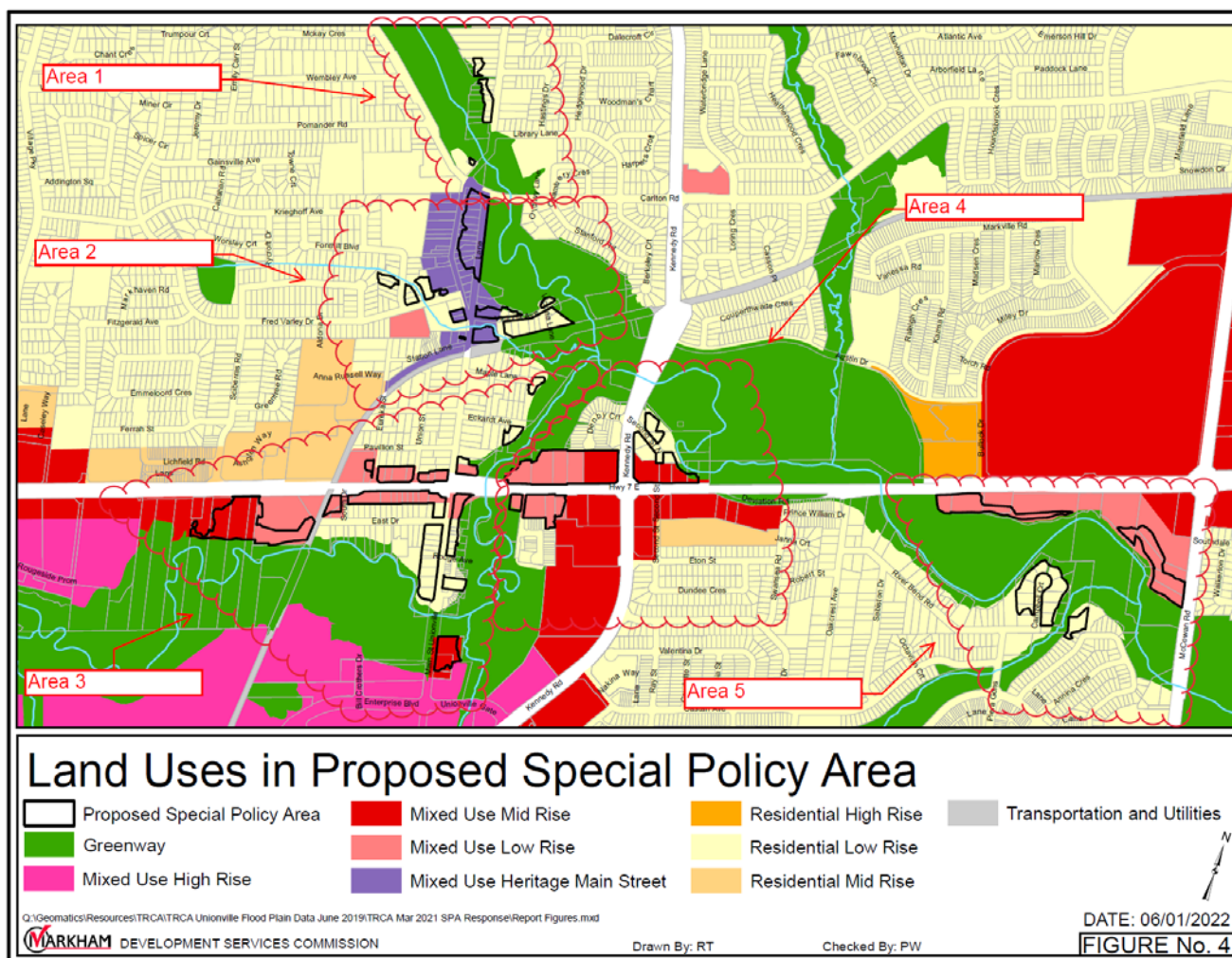
3.4.1.17 To prohibit new lot creation or additional dwelling unit creation on lands designated 'Residential Low Rise' in *Special Policy Areas*.

Map 8 of 2014 Official Plan (Existing Special Policy Area, 2014)



Appendix B: Population Analysis for the Special Policy Area

The population analysis has been completed by breaking down the SPA into five sub-areas (Area 1 - Unionville North; Area 2 - Unionville Core Area; Area 3 - Unionville South; Area 4 - Hwy 7 & Kennedy Road; Area 5 - Markville & South Unionville) as shown below.



Methods and Assumptions

Existing Population

The existing population has been estimated using MPAC data. The number of existing residential units were counted by unit type (single-detached, semi-detached, townhouse, stacked townhouse, apartment) and then, a persons per unit multiplier was applied. The following Persons Per Unit (PPU) was used: 3.52 single detached; 3.36 semi-detached; 2.9 townhouse; 2.5 stacked townhouse; 1.97 apartments. **A total of 95 residential units were identified with a population of 301.0.**

Potential Population

The potential population increase was completed based on development and re-development to the maximum height and density permitted by the current in-force Official Plan designations. The assumptions for this analysis include:

- Residential Low Rise – 1 single-detached dwelling is assumed for each existing lot of record. At 61 Main St Unionville, there is one lot that is anticipated to develop with townhouses/semis and an estimated unit count is provided based on the surrounding prevailing lot sizes.
- Mixed Use Low Rise – 1 FSI for a 3 storey mixed use building with retail/office at grade (0.34 FSI) and remaining 2 storeys as apartment uses (0.66 FSI). One apartment unit was assumed for every 110 sq m of gross floor area.
- Mixed Use Mid Rise – 2 FSI for a 8 storey mixed use building with retail/office at grade (0.3 FSI) and remaining as apartment units (1.7 FSI). One apartment unit was assumed for every 110 sq m of gross floor area.
- Mixed Use Heritage Main Street – All properties in the SPA are developed and are protected under the Ontario Heritage Act. There are opportunities to build additions to the rear of existing structures. The estimate of additional dwelling units are based on the Main Street Unionville Vision Plan which identified the potential for an additional 1300 square metres of additional retail with 15 apartment units on the 2nd storey of this retail.

The SPA Procedures Manual identifies that the population analysis should be broken down into the anticipated population increase within the planning horizon (2031) and based on full build-out (2031+). For vacant properties, it is assumed that development will occur within the planning horizon. For developed properties, staff have reviewed the level of development interest through pre-consultation requests and informal discussions with landowners. There are certain stable commercial and residential properties that are not likely to be re-developed within the 2031 planning horizon. The table below provides an estimate of the total population increase as well

as an estimate of the population increase that may be realized within the 2031 planning horizon. **The total population increase at full build-out is estimated to be 3144.5, of which 1035.4 is estimated to be realized within the 2031 planning horizon.**

Area ID	Official Plan Designation	Existing Population	Potential Population Increase (based on current OP permission)	Comments on population analysis
Area 1 Unionville North	Residential Low Rise	35.2	0	Existing: 10 residential dwellings and place of worship Potential: stable residential area. No population increase expected.
Area 2 Unionville Core Area	Residential Low Rise	80.6	0	Existing: 23 residential dwellings (21 singles, 2 semis) Potential: stable residential area. No population increase expected.
	Mixed Use Heritage Main Street	30.7	Total Increase: 29.6 - By 2031: 0	Existing: 2 single-detached dwellings and 12 apartment units located on top of heritage commercial buildings Potential: There is potential for additions to the rear of existing properties with ground-floor retail and 15 apartments on the second story. No development interest at this time. None is assumed to develop by 2031.
Area 3 Unionville South	Residential Low Rise	70.1	Total Increase: 23.2 - By 2031: 23.2	Existing: 18 single and 2 semi-detached. Potential: 1 vacant lot with potential for 8 townhouses. It is assumed this will occur within 2031 planning horizon.
	Mixed Use Low Rise	7.9	Total Increase: 484.4 - By 2031: 121.1	Existing: Four 2 nd storey apartments exist above the ground-floor retail establishments. Potential: Re-development into mixed-use low rise along Hwy 7 frontage. Little development interest at this time. It is assumed 25% of the total may develop by 2031.
	Mixed Use Mid Rise	17.6	Total Increase: 936.2 - By 2031: 468.1	Existing: 5 single-detached dwellings Potential: Re-development into mixed use mid rise along Hwy 7 and Main St Unionville frontage. Several pre-consultations have occurred and there is moderate development

				interest in this area. It is assumed 50% of the total may develop by 2031.
Area 4 Hwy 7 & Kennedy Road	Residential Low Rise	17.6	0	Existing: 5 single-detached dwellings Potential: stable residential area. No population increase expected.
	Mixed Use Low Rise	0	Total Increase: 312.9 - By 2031: 78.2	Existing: no residential (existing commercial structures) Potential: re-development into mixed use low rise along Hwy 7 frontage. Little development interest at this time. It is assumed 25% may develop by 2031.
	Mixed Use Mid Rise	7.0	Total Increase: 531.7 - By 2031: 132.9	Existing: 2 single-detached dwellings (and commercial structures) Potential: re-development into mixed use mid rise along Hwy 7 frontage. Little development interest at this time. It is assumed 25% of the total may develop by 2031.
Area 5 Markville & South Unionville	Residential Low Rise	38.7	Total Increase: 7.0 - By 2031: 7.0	Existing: 11 single-detached dwelling Potential: There are 2 vacant lots of record. It is assumed the two lots will develop with single-detached dwellings by 2031.
	Mixed Use Low Rise	3.5	Total Increase: 819.5 - By 2031: 204.9	Existing: 1 single-detached dwelling (and commercial structures) Potential: re-development into mixed use low rise. Little development interest at this time. It is assumed 25% may develop by 2031.
Total		301.0	Total (2031+): 3144.5 - By 2031: 1035.4	

Property Addresses in the Special Policy Area by Area ID

Area ID	Land Use Designation	Municipal Address	Current Use
Area 1	Residential Low Rise	218 Main Street Unionville	Place of Worship
		232, 234, 236, 240, 246, 248, 252, 256, 260, 262 Main Street Unionville	Residential (detached dwellings)
Area 2	Residential Low Rise	6, 7, 8, 9 Fonthill Blvd 23 Fred Varley Blvd 3, 5, 7, 9, 11, 13, 21 EJ Lennox Way	Residential (detached and semi-detached dwellings)

Unionville Special Policy Area Boundary Review Justification Report

		11, 12, 16, 17, 19, 23, 25, 27, 31, 21 Victoria Ave 3 Victoria Lane	
Area 2	Mixed Use Heritage Main Street	136, 139, 141, 142, 144, 150, 157, 159, 161, 175, 177, 179, 185, 187, 189, 193, 197, 201, 205, 209 Main Street Unionville	Residential (single-detached dwellings and apartments on top of commercial/office uses) Commercial and office uses within heritage structures
Area 3	Residential Low Rise	24 Maple Lane 15, 17 Eckardt Ave 56, 60, 61, 64, 68, 72, 76, 77, 80, 81, 84, 85, 88, 89, 91, 92, 93, 107 Main St Unionville	Residential (18 single-detached, 2 semi- detached, 1 vacant lot)
Area 3	Mixed Use Low Rise	0 South Drive (3 properties) 4261, 4355, 4360, 4400, 4410, 4421, 4431, 4441, 4450, 4451, 4460, 4461, 4470, 4471, 4480, 4481, 4491, 4496 Hwy 7 99, 105 Main St Unionville	Commercial/Office (one and two storey commercial/office structures) Residential (Four 2 nd story apartments) Vacant (4 lots)
Area 3	Mixed Use Mid Rise	4151, 4177, 4189, 4201, 4217 Hwy 7 37, 41 Main St Unionville	Residential (5 single detached dwellings) Commercial (1 single-storey medical office) 1 vacant lot (former residential dwelling)
Area 4	Residential Low Rise	5, 6, 10, 11, 15 Second Street	Residential (6 single detached dwellings)
Area 4	Mixed Use Low Rise	4560, 4561, 4568, 4581, 4591, 4592, 4600, 4601 Hwy 7	Commercial (motor vehicle repair shops, day care, medical clinic, retail plaza)
Area 4	Mixed Use Mid Rise	4630, 4780, 4792, 4802, 4812 Hwy 7	Commercial (retail plaza, gas station, medical clinic) Residential (2 single-detached dwelling)
Area 5	Residential Low Rise	1, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 Campbell Crt 36, 38 Annina Cres	Residential (11 single-detached dwellings) 2 vacant part-lots.
Area 5	Mixed Use Low Rise	4961, 4981, 4997, 5201, 5221, 5221 Hwy 7 8272, 8302, 8312 McCowan Road	Commercial (retail plazas) Residential (1 single-detached dwelling) Vacant (1 lot)