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To: Ulli S. Watkiss, City Clerk
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Attention: Marilyn Toft, Manager, City Council and Bylaws

RE: Response to Administrative Inquiry regarding drone safety in the City of Toronto

Councillor James Pasternak submitted Administrative Inquiry [IA24.2, Drone Safety in the City of Toronto](#), under section 27-7.11 of the Toronto Municipal Code Chapter 27, Council Procedures. This Administrative Inquiry seeks an update on work done to develop a policy for governing drones in Toronto's outdoor spaces arising from the May 2015 Item [EX5.19, Safety in the Air - Governing Drones in Toronto's Outdoor Spaces](#).

Response

At the time that Item EX5.19 was considered by City Council in May 2015, the federal government had not published updated regulations related to drone use in Canada. As such, there was some regulatory uncertainty as to the rules surrounding drone use in Toronto. Updates to the [Canadian Aviation Regulations](#) came into force on June 1, 2019. Prior to the federal government enacting the updated federal drone safety regulations, Municipal Licensing and Standards (MLS) engaged other divisions and agencies in a Drone Working Group, and engaged Transport Canada, to discuss and determine the impact of drones on local municipal affairs.

Transport Canada's current regulations are comprehensive and specifically address where drones can be flown, restrictions on the size of drones and proximity to bystanders, and matters related to training and registration. Enforcing these regulations is the responsibility of Transport Canada. When necessary, Toronto Police Service liaises with Transport Canada's inspectors on investigations and enforcement. In addition, the Parks Bylaw ([Toronto Municipal Code Chapter 608, Parks](#)) includes a provision that prohibits the use of drones within City parks; MLS is responsible for the enforcement of this provision.

The federal government has the jurisdiction to regulate aeronautics, including drones. Basic drone operations are not allowed within controlled airspace; the majority of Toronto falls under controlled airspace, with areas of uncontrolled airspace in parts of Wards 20, 21, 22, 23, 24,

and 25 (see [Figure 1](#)). In addition, drones are not allowed to take-off or land within Rouge National Urban Park.

With airspace being heavily regulated by the federal government, there is limited opportunity for additional regulation by the City. Any additional regulations imposed by the City are expected to have a limited impact and would likely be redundant, as the existing rules encompass most misuses of drones.

The regulation and enforcement of drone use in Toronto by Transport Canada is consistent with existing practices and permissions related to aviation in Toronto. MLS supports the federal government's current drone regulations as an important way to provide regulatory predictability to those seeking to operate drones and to address safety risks to the general public.

If drone regulations are updated in the future by Transport Canada to include more advanced operations within population centres such as Toronto, City staff will report to City Council on regulatory changes, along with operational impacts and municipal considerations, as appropriate.

Additional information related to this request is provided in Attachment 1, below.

Carleton Grant
Executive Director, Municipal Licensing and Standards

- c. Mike Williams, General Manager, Economic Development and Culture
Sandra Rodriguez, Director, Intergovernmental and Agency Relations

Attachment 1: Additional information on drone regulation in Toronto

1. Context and Directives

In May 2015, City Council directed Municipal Licensing and Standards (MLS), in consultation with Economic Development and Culture (EDC), to report back with a strategy governing the use of drones in the City of Toronto's outdoor spaces ([Item EX5.19](#)).

In July 2016, staff were asked to report on the potential impact of widespread commercial drone use across Toronto, after the final regulations are posted by Transport Canada. As part of this, staff were also asked to report on plans to collaborate with the federal and provincial governments with regard to regulatory requirements necessary to manage this emerging technology within municipalities ([Item EX17.30](#)).

Transport Canada published their final regulations on January 9, 2019 (*Canadian Aviation Regulations, Part IX – Remotely Piloted Aircraft Systems*), which provided clarity on the rules governing Remotely Piloted Aircraft Systems (drones) and the related regulatory jurisdiction. These new rules came into force on June 1, 2019.

2. Transport Canada Regulations

Jurisdiction

The federal government has the jurisdiction to regulate aeronautics, including drones. Transport Canada regulates aeronautics in Canada's airspace to keep the public safe. The [Aeronautics Act](#) and [Canadian Aviation Regulations \(SOR/96-433\)](#) establish the framework in which all model aircraft, including drones, can operate. Transport Canada's [drone safety webpage](#) contains additional information about drone regulation in Canada.

Controlled Airspace

Basic drone operations are prohibited within controlled airspace; this includes areas within:

- 5.6 kilometres (3 nautical miles) of any airport; and
- 1.9 kilometres (1 nautical mile) of heliports or aerodromes used by helicopters.

Given these parameters, the majority of Toronto falls within controlled airspace. Areas of uncontrolled airspace exist in parts of wards 20, 21, 22, 23, 24, and 25 in Scarborough (see Figure 1). In addition, drones are not allowed to take-off or land within Rouge National Urban Park, which is located in Scarborough, without permission from Parks Canada. Drone operators must get air traffic control approval for operations in controlled airspace and maintain communications with air traffic control while flying.

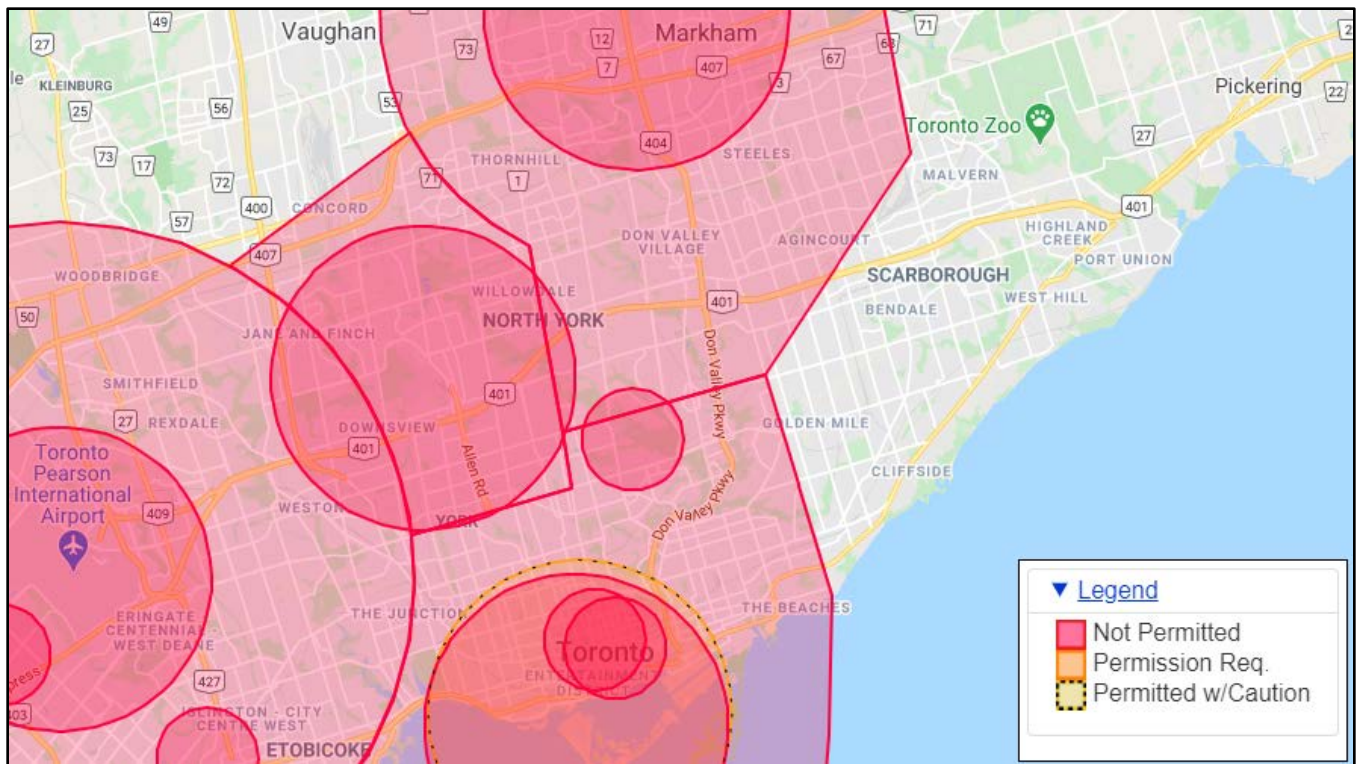


Figure 1: Map of controlled airspace in Toronto (source: National Research Council [interactive map](#)).

In addition to the above restrictions, drone operators:

- May not fly near a police or first responder emergency operation (such as a traffic accident);
- Must avoid sites near disasters (such as forest fires, floods, earthquakes); and
- Cannot fly near advertised events, such as outdoor concerts and sporting events (unless they have a Special Flight Operations Certificate).

Additional Regulations

Transport Canada's drone regulations apply to all drone pilots flying drones between 250 grams and 25 kilograms. There are two main categories of drone operation: basic and advanced. The categories are based on distance from bystanders and airspace rules.

All basic and advanced drone pilots must:

- Register and mark the drone with its registration number;
- Pass an online exam and get a pilot certificate for basic or advanced operations;
- Be a minimum age of 14 for basic and 16 for advanced operations (unless supervised by a person having proper certificates);
- Operate their drone within their visual line-of-sight;
- Stay below an altitude of 122 m (400 feet) above ground-level; and
- Stay away from air traffic.

Basic drone operators are not permitted to fly in controlled airspace or in proximity to bystanders. Advanced drone operators must pass a practical flight test in addition to an online theoretical test. Advanced operators may fly in proximity to bystanders or within controlled

airspace if they obtain permission from air traffic control. Drone pilots flying a drone outside of any of the rules for basic or advanced operations must apply for a Special Flight Operations Certificate.

3. Municipal Role and Divisional Responsibilities

Federal jurisdiction over aeronautics does not prevent the City of Toronto from enacting drone regulations for purposes within its municipal jurisdiction. However, any new City bylaws must not conflict with existing federal drone regulations or areas of responsibilities.

With airspace being heavily regulated by the federal government, there is limited opportunity for additional regulation by the City. For example, the City cannot impose a change to the definition of "controlled airspace" to designate, for example, any areas within controlled airspace as drone friendly. Any additional regulations imposed by the City are expected to have a limited impact and would likely be redundant, as Transport Canada's enforcement of federal rules encompass most misuses of drones.

Drone Safety

The safe operation of drones, especially in built-up city centres, is a concern. With that in mind, the federal government has established regulations related to drone weight and classification, design, airworthiness, markings, training, and operators' proficiency.

Insurance Requirements

Transport Canada recommends that drone operators purchase public liability insurance. Canadian municipalities do not have the authority to mandate public liability insurance for basic or advanced drone operation within municipal limits.

Nuisance

The City receives a low number of complaints about drones within Toronto, as managing drone incidents falls under the responsibility of Transport Canada. The City may be able to establish nuisance-related regulations for drone use; however, Transport Canada's regulations already address most misuses of drones and the City's complaint data does not suggest that drone use is a major issue for residents.

Privacy

Privacy laws apply to information collected by drones (for example, photos and videos). Transport Canada's [privacy guidelines for drone users webpage](#) provides information for drone operators on privacy-related matters. As noted by Transport Canada, some actions (such as voyeurism, mischief, and creating a nuisance) are offences under other legislation and may result in charges.

Use of Drones for Enforcement

According to the Office of the Privacy Commission of Canada's report titled "[Drones in Canada: Will the proliferation of domestic drone use in Canada raise new concerns for privacy?](#)", careful consideration must be given if drones are to be used by the public sector, as "the prospect that drones could eventually be deployed for a myriad of surveillance activities is often the most controversial proposed use. In particular, drones deployed by the public sector for surveillance raises questions regarding the proper balance between state obligations to keep people safe and to respect their privacy rights." Any use of drones by the City would need

Careful consideration of all aspects of their use, including ensuring that the privacy rights of residents are respected. There are also important considerations related to training, safe operation, liability, procurement, and enforceability that would need to be assessed further if drone use is considered as a tool for municipal enforcement.

City of Toronto Bylaws

The Parks Bylaw ([Toronto Municipal Code Chapter 608, Parks](#)) states, "While in a park, no person shall operate powered models of aircraft, rockets, watercraft or vehicles unless authorized by permit" (608-19. Model aircraft and rockets). Like other powered model aircraft vehicles, drones are not to be operated in a park. MLS is responsible for enforcement. Many other cities in Canada have also banned the operation of model aircraft, or drones, in parks; these include Brampton, Calgary, Edmonton, Halifax, Markham, Mississauga, Montreal, Ottawa, Pickering, Vancouver, and Vaughan.

Drone Working Group

Prior to Transport Canada enacting the updated federal drone safety regulations, MLS engaged other divisions in a Drone Working Group to discuss and determine the impact of drones on local municipal affairs. The Drone Working Group was comprised of members from Economic Development and Culture, Parks, Forestry and Recreation, the Toronto Police Service, Toronto Paramedic Services, the City Manager's Office, Transportation Services, Facilities Management, and the Office of Emergency Management.

Divisional Responsibility

Divisional responsibilities related to drone use are detailed below:

- **311:** Knowledge Base directs inquirers about drones to Transport Canada's 'Drone Safety' webpage.
- **Economic Development and Culture:** Film Office requires that a copy of the Special Flight Operations Certificate be submitted before the use of drones for filming is permitted and works with filming companies to ensure compliance.
- **Municipal Licensing and Standards:** participated in the Federal-Municipal Working Group on Drones and responds to complaints about drone use in parks.
- **Toronto Police Service:** liaises with Transport Canada's inspectors on investigations and enforcement.

MLS has been identified as a stakeholder by Transport Canada and receives notices of proposed amendments related to drone regulations. To date, staff are aware of only one notice, which was related to amendments for drone use in isolated areas (defined as areas that are more than 1 km from any area with a population density greater than 25 people per square kilometer). In this case, the proposed amendments did not apply to Toronto and staff did not provide feedback on the proposed amendments.

Based on information from Transport Canada, amendments related to more complex and higher-risk operations (including operations beyond visual line-of-sight) will be subject to a separate regulatory and consultation process at a later, as-of-yet undetermined date. These operations may include regular door-to-door package delivery in population centers and the carriage of passengers on remotely piloted aircraft systems. It is not known what role, if any, that municipalities may have in regulating these operations. The City will engage the federal government directly, and with the Federation of Canadian Municipalities, should this occur.