



Report to: General Committee

Meeting Date: November 29, 2021

SUBJECT: Proposed City of Markham “*Coyote Response and Co-existence Strategy*”

PREPARED BY: Kimberley Kitteringham, City Clerk, Ext. 4729
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RECOMMENDATION:

- 1) That the report entitled Proposed City of Markham *Coyote Response and Co-existence Strategy* be received; and,
- 2) That Markham City Council approve the proposed *Coyote Response and Co-existence Strategy* outlined in **Attachment “F”**; and,
- 3) That Council request the Premier of Ontario to direct the Ministry of Northern Development, Mines, Natural Resources and Forestry to formally review the complex issue of human/coyote conflict in Ontario and to develop a comprehensive, Province-wide solution to address same; and,
- 4) That Council direct staff to investigate the feasibility of partnering with a post-secondary institution in Ontario to conduct research on the effects of urbanization on coyotes, human/coyote conflicts in an urban setting and best practices and evidence based approaches to address related issues; and,
- 5) That Staff review the *Coyote Response and Co-existence Strategy* on a regular basis to ensure the information included is relevant and in compliance with evolving research and legislation; and,
- 6) That a copy of this resolution be sent to Ontario’s 444 municipalities, the Association of Municipalities of Ontario (AMO), the Association of Municipal Managers, Clerks, and Treasurers of Ontario (AMCTO); the Toronto Region Conservation Authority (TRCA), and the Federation of Canadian Municipalities (FCM); and further,
- 7) That Staff be authorized and directed to do all things necessary to give effect to this resolution.

PURPOSE:

The purpose of this report is to introduce the City’s proposed *Coyote Response and Co-existence Strategy*, including detailed information on the types of potential interactions residents may have with coyotes, as well as clearly defined steps the City will take in the event of such interactions.

BACKGROUND:

The City of Markham's *Greenprint Sustainability Plan* is the City's long-term plan to make Markham one of the most sustainable cities in North America. The *Greenprint* features 12 priority areas, including Markham's ecological integrity and the need to protect, restore and enhance biodiversity in the municipality, including wildlife in its natural ecology systems. Markham's [Official Plan](#) seeks to protect and sustain Markham's biodiversity and natural heritage for future generations by conserving the necessary natural habitats and corridors required by native plants and animals to move and thrive within the City's Greenway System. The City seeks to reach a positive balance between natural heritage lands and urban development by establishing environmental buffers through the location of public land uses such as schools, roads and parks.

Eastern Coyotes have long been present in Ontario and are an extremely intelligent, family-oriented and highly adaptive species. Over the past 100 years, the natural landscape of Ontario (including Markham) has dramatically changed and natural species such as bears, wolves, cougars, etc., have been displaced, creating a vacuum in the ecosystem that has ultimately been filled by coyotes. There are plenty of natural food sources available in urban settings, including rodents and rabbits. In Markham, the vast majority of the green space pockets in the eastern quadrant are an ideal setting for coyotes to roam and find adequate amounts of food sources—rabbits, geese eggs, etc. and offers plenty of shelter by way of naturalized park areas.

In 2021 in particular, the media has been filled with stories of increased human/coyote conflicts throughout Canada - and indeed North America. At the General Committee meeting on May 31, 2021, City staff provided an overview of the current coyote situation in Markham (see *Attachment "A"*). Lesley Sampson, Executive Director of Coyote Watch Canada, was in attendance at the meeting to provide expert information on coyote behavior and human/coyote conflicts, and to respond to numerous questions on same. Representatives from the Ministry of Northern Development, Mines, Natural Resources and Forestry and the Toronto Region Conservation Authority were also in attendance. During the meeting, residents reported what they felt was an increase in coyote sightings in Markham - particularly in the north eastern quadrant of the City - and expressed various safety concerns. At the conclusion of the meeting, Staff were asked to report back with a formal *Coyote Response and Co-existence Strategy*.

Please Note: Subsequent to the May 31st General Committee meeting, Coyote Watch Canada representatives also completed a site visit of the Markham locations where coyote sightings have been reported – their feedback is contained in *Attachment "B"*.

Legislative Framework in Ontario

The *Fish and Wildlife Conservation Act* governs wildlife in Ontario. Although municipalities have delegated authority to administer the *Act*, the reality is the City is limited in the actions it can take to address wildlife-related issues. For instance, wildlife cannot be relocated more than 1 kilometer from where it is found in an effort to: 1) mitigate the spread of disease; and, 2) avoid harm to the animals (animal experts consider the relocation of wildlife beyond 1 kilometer to be inhumane, as the displaced animal will not have access to

food, shelter or water and could infringe upon another family's territory eventually leading to the death of the animal). In addition, removing a single healthy animal, does not solve the problem as it does not eliminate the reason the animal chose the location for their habitat (presence of food, shelter, etc.). Ultimately, unless food sources are eliminated, another family will simply move in to inhabit the newly vacated area.

The City of Markham – like other Ontario municipalities – has the authority to lethally intervene (kill) aggressive coyotes and other wildlife under strict guidelines and limitations.

Specifically, the City is permitted to employ a provincially licensed trapper or hunter to kill aggressive coyotes or other aggressive wildlife. Finding such a resource however, can be difficult. In order for an individual to possess or use body gripping traps in Ontario, a Provincial Trapping licence is required.¹ In Southern Ontario, there is no closed season or limits for trapping of coyotes. This means coyotes can be hunted and trapped all year and there is no limit to the number of coyotes a hunter or trapper can kill.

If a trapper is employed by the City, they must comply with the City's by-laws and are therefore prohibited as per the *Discharge of Firearms By-law* to discharge a firearm (firearm includes a gun of any kind and a crossbow) within Markham (see excerpt in *Attachment "C"*). Additionally, the use of leg traps and snare traps is not permitted under the City's *Animal Protection and Services By-law* (see excerpt in *Attachment "D"*) as they pose a danger to all other animals (including domestic dogs) and can cause serious bodily harm to humans. They are also considered by animal experts to be inhumane as an animal can be left trapped in one for several hours or days which leads to unnecessary suffering. Ultimately, the only viable way to physically trap a wild animal within Markham is by use of a live trap. This can take time as animals - especially coyotes - are highly intelligent and may not go into the live trap. Once trapped, the coyote would have to be humanely euthanized by a certified Wildlife Veterinary Technician, at additional cost to the City.

Municipal Scan

City Staff surveyed Ontario municipalities on their current coyote response programs and the interactions between their residents and coyotes (see *Attachment "E"*). The majority of municipalities surveyed rely heavily on the Ministry of Northern Development, Mines, Natural Resources and Forestry to assist with conflicts that arise between humans and coyotes and do not have formal processes in place to address same. The survey also indicates that Ontario municipalities rarely intervene with healthy coyotes and instead, focus on the provision of public education on ways to reduce negative human/coyote interactions. In fact, Toronto and Mississauga have developed localized education and training tools to provide residents with ways to effectively co-exist with coyotes. Staff found only two municipalities (Burlington and Collingwood) that have developed a specific, tiered response to human/coyote interactions.

OPTIONS/ DISCUSSION:

¹ As per Ontario Regulation 667/98 (Trapping), a trapping licence may be issued to a resident or a Canadian citizen, 16 years of age or older, if the applicant: 1. holds an outdoors card issued under [Ontario Regulation 665/98 \(Hunting\)](#); 2. has successfully completed the fur harvest, fur management and conservation course.

The likelihood of a human/coyote conflict in Canada is extremely rare. On average, there are 3 such incidents annually in the country. Between 1960-2006, there were a total of 142 incidents reported in both Canada and the United States combined.² Over the past year, the City of Markham has received an increased number of reported coyote sightings (coyote sightings are not indicative of aggressive coyotes). Staff believe the sightings are primarily related to the COVID-19 pandemic. In fact, researchers suspect that with the majority of residents staying closer to home, there are more opportunities for coyote sightings throughout the day. Additionally, more household garbage is being produced and placed outside, as well as increased park and open space use by residents. Staff believe resident feeding is the leading cause of negative interactions. If human food sources are removed, research shows that coyotes will naturally move on. This is illustrated in the study performed by the conservation agency in 2019.³

It is important to note that there have been **no** documented cases of a coyote attacking a human in Markham. Since 2019, there have been 2 documented cases of a coyote attacking a dog. Both attacks were investigated and followed up on by Animal Care Officers, staff from the Ministry of Northern Development, Mines, Natural Resources and Forestry, and Coyote Watch Canada. As unfortunate as these attacks were, it was determined that the coyotes involved were not acting out of character or aggressive at the time of the attacks. In both situations, the dogs killed were either not on a leash or they were on a leash that was longer than the permitted maximum of 2m (6 feet) under the City's *Animal Protection and Services By-law*. Coyotes are omnivores. This means they eat small rodents as well as local vegetation such as berries, fruits, and nuts. While they may not distinguish between a cat/small dog or one of their preferred prey species (such as rabbits or voles), they do not consume domestic dogs as a common food source. In both of the previously noted attacks, staff suspect the coyotes actually mistook the dog for one of their more common diet species. It is important to put the number of coyote attacks on dogs into perspective. Since April 2021 (when Markham's Animal Services was brought in-house) there have been 15 reported cases of domestic dogs attacking humans in Markham and 32 cases of domestic dogs attacking/injuring other dogs, two of which were fatal. This information provides important context in terms of assessing the magnitude of the human/coyote co-existence challenge in Markham.

City of Markham's Proposed *Coyote Response and Co-existence Strategy*

To-date, Markham's Animal Care Staff have been extremely vigilant in addressing all reported coyote concerns within Markham. They have also conducted ongoing inspection of areas of concern and public education sessions for local residents and community groups. Markham City staff are not aware of any long-term studies regarding human/coyote conflicts in Canada or on the impact of habitat destruction on coyotes living in Canadian urban centres. In the absence of such academic research, municipal staff across Canada are having to formulate co-existence strategies based on limited resources and staff expertise (in most cases) and on local information, much of which is based on the anecdotal observations of residents. Further, local responses typically focus on specific tools to reduce negative human/coyote interactions without addressing the broader issue of habitat

² https://urbancoyoteresearch.com/sites/default/files/resources/WhiteandGehrt_CoyoteAttacks.pdf

³ <http://theconservationagency.org/neighborhood-coyote-traffic-drops-in-first-food-removal-experiment-by-nbcs/>

destruction. For this reason, it is the position of Markham staff that this complex public policy issue would best be dealt with at the Provincial level.

The proposed City of Markham *Coyote Response and Co-existence Strategy* is included as **Attachment “F”**. It is designed to be a living document and will be modified as more information regarding coyote behaviour and mechanisms to reduce human/coyote conflicts emerges. The key deliverables addressed in this Strategy are as follows:

1. Increased resident education and community outreach - the relationship between humans and coyotes is complex. It is driven both by the differing attitudes people have about coyotes and by the personality differences between the coyotes people encounter. Ongoing sustained education efforts is a critical part of establishing and maintaining a successful coyote response and co-existence plan in Markham. These efforts include formal programs in schools, plus informal education sessions at the community level and within the neighborhoods experiencing higher volumes of sightings.

2. Implement domestic pet management and property management education programs - the conflicts that humans have with coyotes typically involve resources that coyotes need, such as food. This can result in coyote aggressive behavior, predation on domestic pets as food, and attacks on domestic pets as perceived competitors. On extremely rare occasions coyote attacks can also be directed at humans. All of these outcomes range from unwelcome nuisances to tragedies. Most are avoidable through changes adopted by homeowners in their immediate vicinity. Greater attention should also be directed towards the City’s *Keeping Markham Beautiful By-law*. Residents must maintain their properties, keeping them free of garbage and debris, animal attractants, and keeping grass below 6 inches in length. Small mammals and rodents make up a large part of a coyote’s diet and flourish on properties that are not maintained. By keeping properties maintained, residents are less likely to attract rodents, which then discourages coyotes.

3. Implementation of an Incident Escalation Framework – as part of the proposed Strategy, the City has developed a framework for an actioned response to coyote interactions. Each interaction is outlined and categorized based on the severity of the interaction. Interactions are classified as anything from a sighting in your yard to an unprovoked attack on a human. The actions of City Staff as well as all agencies responsible for wildlife conflict are outlined in detail based on the interaction.

4. Human Intervention Strategies to Reduce/Mitigate Interactions with Coyotes - removing food resources is a critical part of reducing unwanted coyote visits to a yard or local neighborhood. Coyotes maintain large activity areas and may move several kilometres in a single night. If their attempts to gather food from the immediate area are unsuccessful—due to lack of food or from aversion conditioning this can significantly reduce the probability of a return visit.

5. Investigate partnering with a local University to conduct research on human/coyote conflicts and the effects of urbanization on coyotes - for the most part, coyotes can live in close proximity to humans with very little conflict. However, with the increase in sightings and reports from Markham residents, it is evident that coyote management is

becoming a priority in the City. Presenting factual information in an effort to change local perceptions on wildlife conflicts is key to a successful co-existence program. Staff are committed to forming a partnership with a University or Academic group to further expand the knowledge and understanding on co-existence programs and monitor trending data within wildlife conflict management. Additionally, it is important to further investigate urban sprawl and the direct correlation this has with human-wildlife conflict.

The proposed *Coyote Response and Co-existence Strategy* is the product of considerable research and consultation with experts, including Coyote Watch Canada and Shades of Hope Wildlife Refuge. The City will continue to consult with both of the organizations on all future concerns relating to coyotes in Markham. This will include partnering with them for annual site inspections where multiple sightings are reported, as well as any attacks on domestic dogs or humans. City staff also consulted with Markham's Animal Care Committee on the proposed Strategy. The Committee provided comments which are included as *Attachment "G"*.

CONCLUSION

It is evident that more research is needed in Ontario to understand coyote behavior and the impact of habitat loss, the changing environment, etc. on these animals. For this reason, staff believe the Provincial Government has a significant role to play in the development of an Ontario-wide approach to managing human/coyote interactions. A collaborative approach amongst Ontario (likely even Canadian) municipalities and research teams will undoubtedly result in the development of a more effective and consistent municipal response to the human/coyote interactions - with some modifications based on local circumstances.

The City of Markham is committed to ensuring a sustainable and resilient community where residents safely coexist with wildlife and municipal natural ecosystems flourish. The proposed *Coyote Response and Co-existence Strategy* contains an *Incident Escalation Framework* to guide staff with well-defined responses to coyote interactions. As part of this framework, lethal intervention – the killing of coyotes – will only be used in extreme circumstances where a coyote has attacked or bitten a human. This framework will be very helpful for residents as they will now know what to expect from the City in a variety of different circumstances. Education and public outreach are also key elements of the proposed Strategy and the City is committed to getting appropriate messaging out to Markham residents on coyote behaviours and the Strategy in general.

The proposed Strategy is meant to be a living document and City Staff will continue to connect with organizations and other municipalities to review best practices on humane hazing, etc. Staff will also continue to utilize an evidence based approach to the City's coyote response while keeping human safety at the forefront.

FINANCIAL CONSIDERATIONS

N/A

HUMAN RESOURCES CONSIDERATIONS

N/A

ALIGNMENT WITH STRATEGIC PRIORITIES:

Promoting a sustainable and biodiverse community that recognizes the importance of ecosystems and co-existence between humans and wildlife.

BUSINESS UNITS CONSULTED AND AFFECTED:

Staff in Operations/Parks, Development Services, and Legal Services have been consulted in the preparation of this report.

RECOMMENDED BY:

[Insert text here]

[Insert text here]

ATTACHMENTS:

Attachment “A” – Presentation/Minute excerpt - May 31, 2021 General Committee meeting

Attachment “B” – Feedback from Coyote Watch on Markham Site Visits

Attachment “C” – Excerpt from Markham’s Discharge of Firearms By-law

Attachment “D” - Excerpt from Markham’s Animal Protection and Services By-law

Attachment “E” – Municipal Survey Results

Attachment “F” – Proposed City of Markham *Coyote Response and Co-existence Strategy*

Attachment “G” – Animal Care Committee feedback on proposed Strategy