
For Information

REPORT TITLE: Pest Control Subsidy Framework and Study

FROM: Andrew Farr, Interim Commissioner of Public Works
Cathy Granger, Acting Commissioner of Health Services

OBJECTIVE

To provide Regional Council with information to support the development of a framework for a residential rodent control rebate program as requested under Resolution 2020-704, and to provide initial findings on how such a program could be administered, detailing potential financial impacts and what monitoring could be put in place to assess its effectiveness, should Council decide to proceed.

REPORT HIGHLIGHTS

- The Applewood Hills and Heights Residents Association have raised the issue of rats being a significant problem in their area. In addition, Region-wide 330 rat inquiries have been received since January 2017.
 - The Region of Peel does not currently provide rodent control services for private properties. However, Public Health inspectors do investigate complaints and provide education to residents.
 - All three local municipalities are similarly positioned in that the baiting and trapping of unwanted wildlife, such as rats is the responsibility of businesses and residents on private property and not the responsibility of the local municipality.
 - After a detailed municipal scan, most large urban municipalities within the Greater Toronto Area and beyond do not directly employ rodent control and/or rebate programs. Several subsidy programs were found in southwestern Ontario but were administered by the local municipality.
 - Should a program be endorsed by Council, evidence suggests that a long-term strategy using an integrated pest management (IPM) process to control rodents and provide education and monitoring in accordance with best management and environmental practices in addition to a subsidy is required.
 - Further study is necessary to provide a thorough response to the community needs. The study would include investigating the increased presence of rodents, root causes, effective prevention and control measures and enhanced education.
 - Development of the overall program is estimated to cost \$4.64 million in 2020 and 2021 with estimated annual costs to implement the program Region-wide at \$3.39 million annually, commencing in 2022.
 - Regional staff will work with the local municipalities to align any Regional programs with local programs.
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DISCUSSION

1. Background

Rats are a common pest in large urban centers. They are prolific breeders and will increase rapidly if the environment is supportive, particularly where there is an abundance of food. Experts indicate that it is critical for neighbourhoods to work together to prevent an infestation from becoming established. While it is difficult to eradicate rats, populations can be controlled by eliminating sources of food, water, and shelter on properties. Rodent management requires a collaborative approach to minimize the impact.

Rodents may carry ticks, fleas, and historically have spread diseases, although the risk of disease transmission in Peel is extremely low. They can also contaminate food with hair, droppings, and urine, as well as damage property by gnawing on electrical wires, insulation, siding, and wallboard.

Currently, the Region does not have an overall program related to pest management; however, staff do get involved in specific rodent complaints and issues as outlined below.

a) Public Health

Peel Public Health tracks reports of rodent sightings. Reports and sightings have fluctuated in Peel over the last number of years. Peel Public Health has received 330 rat-related complaints between January 1, 2017 and September 24, 2020. Of the complaints received, 150 were from the City of Brampton, 10 from the Town of Caledon, and 170 from the City of Mississauga. These complaints include both residential and commercial properties but do not include rat complaints inside food premises. In 2020, there have been 110 rat-related complaints across Peel, year to date.

A map with a breakdown of rat complaints by postal code between January 1, 2017 to September 24, 2020 can be found in Appendix I.

The incidence rates of reportable rodent-borne illnesses in Peel are low. There have been no human cases of plague (*Yersinia pestis*) in Canada since 1939. In addition, there have been no reported cases of rodent-associated diseases like viral hemorrhagic fever, hantavirus pulmonary syndrome (a rodent-borne viral disease) or tularemia in the past 10 years in Ontario. Rodents can be associated with other bacterial or parasitic infections that are not reportable to public health, and while their incidence rates are likely low, further assessment is not possible due to the absence of public health data.

Peel Public Health investigates reports of rodents in the community and provides public education. In responding to rodent complaints on private property, a public health inspector conducts a site visit. Both the property and surrounding land-uses are examined. The public health inspector also provides education and advice – both to the property owner and to surrounding properties. The education is focused on managing and preventing rodents, including removing food sources and areas where the rodents may reproduce.

If necessary, the inspector will refer the property to the local municipal property standards/bylaw enforcement personnel. Public Health also inspects food premises and enforces the pest control provisions of the Ontario Food Regulations.

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b) Regional Facilities and Construction

The Region of Peel owns and operates numerous facilities and offices across its service areas. Many facilities have incorporated standard pest control tactics including baiting and trapping as standard practice for many years. Typically, this work is limited and is outsourced to pest control specialists.

The Region's capital program spends over \$500M annually in construction. Typically, construction related activities have not historically included pest control requirements such as baiting and trapping.

c) Peel Living

Peel Living currently incorporates an Integrated Pest Management Specialist dedicated to serving the Peel Housing Corporation. The Specialist works in partnership with an approved vendor to address pest control issues including treatment and prevention.

d) Legal

Legal advice received indicates that under the authority to provide services that the municipality considers necessary or desirable (subject to certain rules concerning upper tier and local municipal jurisdictions) under the *Municipal Act, 2001*, as amended, Peel can implement a pest control subsidy program, although in doing so, would be responding to a nuisance that Peel did not create and therefore is not obligated to remedy. Public nuisance and property are areas of local jurisdiction. Animal control jurisdiction has been traditionally exercised at the local municipal level.

2. Concerns from the Applewood Hills and Heights Resident Association

The Applewood Hills and Heights Residents Association (AHHRA) represents the interests of citizens residing in Ward 3 (Applewood Hills & Heights) in the City of Mississauga. AHHRA has shared their concerns about rats including sightings and damage to property. Staff including Peel Health and Public Works and the City of Mississauga responded to the concerns, including a virtual public meeting on August 11, 2020. Also in attendance was an urban rodentologist, Dr. Bobby Corrigan. The meeting was held to share the actions Peel has taken to address rodent complaints in the area.

In response to these local concerns, the Region implemented the following measures:

a) Public Works Construction Sites

Beginning in June 2020, the Region retained pest control vendors to install outdoor bait traps for construction projects within Wards 1, 3, 9 and 11 in the City of Mississauga. Additionally, new enhanced cleaning and site inspections are required of contractors in these areas, with weekly monitoring taking place.

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b) Waste Management

The Region completed detailed waste set-out monitoring of the area. Tables 1 and 2 are a summary of waste management staff observations since June 2020.

Table 1: Waste Collection Monitoring - Curbside

Date	Homes with Early Set Out	Home with Overflowing Litter Containers
June	4	0
July	4	0
August	14	0
September	38	1

Table 2: Waste Collection Monitoring - Multi-residential June 2020 to September 2020

Notice to Comply Issued	Total Notice to Comply Issued
Open Lids	36
Messy Collection Areas	10
Missing Lids/Repair Request	6
Total Notice to Comply Issued	52

Waste Management will continue to support the waste collection set out related rodent mitigation, control, and prevention plan in Mississauga Ward 3 through the following actions:

- Reinforce waste set-out best practices with residents through targeted public education
- Continue to monitor curbside and multi-residential waste set outs of bins/carts and report on incorrect set outs
- Continue to enforce correct set outs through waste by-law enforcement staff

3. Findings - Consultation with Local Partners

In order to develop a rodent control framework, Regional staff met with representatives from the Cities of Brampton and Mississauga and the Town of Caledon as well as the local Conservation Authorities to discuss current roles and responsibilities.

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a) Local Municipalities

Mississauga and Brampton are similarly positioned in that the baiting and trapping of unwanted wildlife, such as rats is the responsibility of businesses and residents on private property and not the responsibility of the local municipality. Mississauga has completed some rat investigations associated with city property including buildings and boulevards. Both Mississauga and Brampton provide some education for residents regarding pest control.

Generally, local municipal staff responsible for animal control cautioned that targeting a species for reduction may lead to inadvertent consequences including impacts to other species, other invasive species and the overall eco diversity of the wildlife system. City staff did not recommend involvement in natural wildlife and recommended against any program that could upset this diversity.

The Town of Caledon indicated that rats are not a significant issue. The three municipalities all recommend that education is the key to managing rat and other pest populations, and in particular the elimination of food sources and the effective management of waste and property standards.

b) Conservation Authorities

The Credit Valley and Toronto and Region Conservation Authorities held similar views on the rodent issue and how to proceed. While the conservation authorities recognize the struggle and frustration residents may have, both recommend the best approach to managing rodents is the elimination of food sources. This includes the proper management of garbage, compost and reducing the use of bird feeders that typically provide a food source for rats.

Conservation Authority staff also recommend practices for parks that include regularly emptying waste cans particularly before dark and installing wildlife resistant waste receptacles. Both agencies strongly support enhanced community education to assist with rat prevention together with existing public health and by-law programs to address rats on private property.

Conservation Authority staff warn against the use poison baits, except for targeted residential and/or commercial areas, as needed. It has been documented that wildlife and domestic pets including birds will actively feed on poison bait utilized in conventional traps.

4. Findings – Other Municipal Practices in Rat Control

Staff engaged GM BluePlan Engineering (GMBP) consultants to conduct a review of municipal practices in rodent control outside of Peel. Most municipalities contacted provide only educational material (shown in Appendix IV), although Welland, St. Catharines, Niagara Falls, Windsor and Fort Erie have rodent control subsidy programs. These municipalities were interviewed to gather additional information and a summary of the five interviews is provided in Table 3. Of those who have pest subsidy programs, all are lower tier municipalities, with significantly smaller populations.

It should be noted that the majority of large urban municipalities within the Greater Toronto Area and beyond do not directly employ rodent control and/or rebate programs. This included York, Durham, Toronto, Hamilton and Waterloo. Most of these municipalities did have education and other frequently asked questions on their websites.

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Table 3: Summary of Municipalities with Rodent Control

Municipality	Niagara Falls	St. Catharines	Welland	Windsor	Fort Erie
Population	48,144	133,113	52,293	233,763	30,710
Year Established	2018	2018	2019	More than 20 years	Currently in development
What's Covered	Mice and rats	Rats only	Rats only	Baiting for rats only but also inspect for skunks.	Rats only
Customers Covered	Residential only	Residential only	Residential only	Residential only	ICI, Specific BIA only
Subsidy Details	50% rebate up to \$200/year	50% rebate up to \$200/year	50% rebate up to \$200/year	Cost of baiting covered by City if eligible (multiple visits if needed).	50% rebate with \$30/month fee
Subsidy Process	Residents provide an invoice to the City for pest control contractors.	Inspection performed by City; contractor form completed if the property is eligible. Resident provides proof of purchasing services.	Inspection performed by City; contractor forms completed if the property is eligible. Resident provides proof of purchasing services.	Inspection performed by City approved contractor; release form completed if the property is eligible. City approved contractor baits only if a burrow is present, resident does not pay out of pocket.	Business contacts Town and the pest control contractor baits 2-8 times per business over a 1-year pilot program.
Annual Budget	\$50,000/year, only utilizing \$8,000 to \$9,000	\$20,000 first 2 years (never spent); reduced to \$10,000 this year and ran out of funding in June.	\$25,000, staying well within budget.	Contractor cost \$50,000/year through tender. Total budget of \$137,000 includes FTE, truck, educational material. Budget needs to be increased.	Around \$10,000/ year
Program Resources	Use existing resources in by-law group; 1 administrative staff worker.	4 by-law officers; enforcement coordinator and clerk	By-law clerk handling complaints and by-law officers (3 .5 FTE on weekends).	1 FTE inspector; clerk takes initial call and maintains database.	Use existing resources, estimating an extra hour of work a week.

Of note, all but one rebate/subsidy program was established for residential properties only and exclude condominiums and apartments. Fort Erie is commencing a pilot project for industrial, commercial and institutional customers in one specific business improvement area. Niagara Falls, St. Catharines, and Welland will provide a rebate for residents who use a licensed pest control vendor.

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Key to all programs is that residents must first meet criteria typically evaluated by an inspector. In order to qualify for the subsidy residents must ensure the removal of food and water sources and property cleanup as required. These programs are fairly new (and being implemented within the last 2 years) and appear to respond to resident complaints and reducing rodent incidents on properties, while not necessarily reducing eliminating rodent populations in general.

Windsor has the most established program and uses a contractor on retainer to inspect and bait. This program has been in place for over 20 years and focuses on reducing rodent populations by only baiting properties with burrows present and using education for residents who do not have burrows on their property.

5. Proposed Direction

Staff retained Bobby Corrigan, Ph.D. to assist with a recommendation for a long-term rodent control plan utilizing a strategy incorporating an Integrated Pest Management model (IPM). Dr. Corrigan is a leading urban rodentologist who specializes in rodent control for cities internationally. Dr. Corrigan cautioned the Region against the use of a standalone subsidy program without the implementation of a strategy including an IPM plan, which addresses the root causes of rodent infestations.

IPM is a decision-making process that can anticipate, prevent or eliminate pest activity and infestation by employing several tactics to achieve long term solutions. Education is a key component of IPM strategies.

A Regional IPM program will include a thorough analysis of food availability, education, waste management, predator populations and other factors. The overall goal of IPM is to keep pest levels below an economically damaging level while minimizing impacts on humans and the environment. IPM focuses on a detailed understanding of how pests grow and develop, with a particular focus on what determines survival and what causes outbreaks.

Based on information from the municipal scan and the Region's consultants, staff advise that should Council endorse a pest control subsidy program, that the following be considered.

a) Integrated Pest Management Program

Rodent management is a complex issue that encompasses a variety of tools, approaches, monitoring and control principles. As pest control rests outside any currently funded Region program, should Council endorse a program, staff propose the creation of a new "IPM team" to assist with rodents for both the short-term and long-term actions and to support the subsidy program and overall strategy. The IPM team could be developed to focus on provisions of services to internal clients such as Peel Housing Corporation and others that require subject matter expertise.

The resources necessary for an IPM team include one manager/supervisor, one additional specialist, three inspectors and an administrative assistant. As the Region does not have services related to rodent control, new staff resources are required to implement an IPM program.

Appendix III contains the preliminary financial recommendations for the development and implementation of strategy and an IPM team.

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The team would execute a thorough study and workplan would that include:

- Establishing an IPM working group with staff and the local municipalities for investigating rat and other pest infestations
- Developing and implementing support for IPM processes with internal clients within the Region including Public Works, Peel Housing Corporation and other divisions
- Developing and implementing inspections programs for pest investigations and complaints
- Developing baseline pest and rodent population metrics using 311 reported complaints and subsequent monitoring programs
- Creating rodent management plans and tactics for high rodent activity zones
- Developing a formalized and comprehensive pest management education and outreach program for commercial and residential properties
- Ensuring any mitigation and extermination programs involve IPM
- Ensure safe baiting programs for bait stations and burrow baiting operations
- Ensuring future use of pest professionals are subject to professionally written and designed request-for-proposals
- Completing an assessment of climate change on pest population
- Developing procurement processes and documents for external vendors for the IPM and rebate programs
- Developing and implementing record keeping processes
- Compiling best practice procedures for Peel covering construction sites, facilities and residential areas
- Providing quarterly monitoring of Peel's high-density multi residential complexes
- Continue consulting with urban rodentologists and academic contacts as necessary
- Providing yearly updates to Council, and as needed businesses and residents.

b) Subsidy Program

Municipal scans confirm that the majority of municipalities that have a rebate program in place have a qualification program which is supported by staff inspectors and/or external vendors. Inspectors validate both the presence of pest in addition to addressing direct measures that contribute to pest infestation including the absence food and/or water sources (including bird feeders), property condition and effective management of wastes. Prior to confirmation of subsidy eligibility, it is proposed that the Region implement a similar inspection and qualification program.

Based on feedback from the municipal scan and advice from consultants, should Council endorse a program, staff propose that Peel implement an interim subsidy program by providing 50 per cent of the incurred costs for the services of a professional pest control service to a maximum of \$200 per year. Residents would have to submit invoices from licensed pest control vendors.

For a resident to make a retroactive claim for subsidy, staff would recommend that an initial program be developed to validate individual claims and confirm that the resident invested in a professional pest control vendor and/or can provide receipts for the purchase of bait and/or traps. While it will not be possible to validate eligibility (property conditions) for retroactive claims, a current inspection could validate that the criteria are being met at the time of the claim.

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c) Construction Abatement Program

Staff were requested to commence abatement of pests on active and planned capital construction in the Applewood and other areas of the Region of Peel under the assumption that construction activities are exasperating the rodent problem. To date, pest abatement measures are either implemented or being planned for water and wastewater projects. As part of the larger program implementation, staff would review whether this is to be incorporated for other Region of Peel construction projects subject to the direction of Council.

Based on the recommendations of the consultants, Regional staff would not recommend six months of pre-baiting activities on construction sites. The impacts of baiting and trapping outside of active construction may have a direct impact on other wild animals and pets. In addition, many water, wastewater or road construction projects cover large areas that would require numerous baits and traps, making it difficult to effectively monitor and manage.

d) Waste Management Program

Per information provided above, Peel has implemented inspection programs for residential and multi-residential areas in the Applewood area using existing staff. In order to continue this program and to implement additional measures recommended by the motion Region-wide, additional staffing, inspection and vehicles would be required.

e) Pest Control for the Industrial, Commercial and Institutional (ICI) Sector

The consultants work revealed that municipalities offering a rebate for pest control only do so for the residential sector and there are no programs that support the ICI sector. Windsor does offer baiting services for publicly accessible commercial alleyways based on complaints by businesses in the area or by city waste management staff.

Municipalities exclude the ICI sector because of existing federal and provincial legislation that requires pest control for certain establishments including but not limited to restaurants, food processing plants and grocery stores. The *Food and Drugs Act and Safe Food for Canadians Act* federally regulation food safety in Canada. Health Canada is responsible for establishing policies and setting food safety standards for food businesses while the Canadian Food Inspection Agency is responsible for enforcing these policies and standards. Provincially, the Ontario Food Premises Regulation under the *Health Protection and Promotion Act and the Ontario Food Safety and Quality Act* require that food sold in Ontario is safe and suitable for human consumption.

The provincial *Residential Tenancies Act* also outlines that it is the responsibility of the landlord to maintain rental properties taking action to control pests (like rodents and cockroaches) as well as to comply with existing property standards, related to health, safety, housing and maintenance, under municipal by-laws or provincial maintenance standards.

Should Council endorse a program, staff would recommend that the ICI sector be excluded from any potential rebate program due to existing industry specific legislation covering pest control. In addition, staff advise that the financial impacts to support the ICI sector would significantly increase the required budget. As there are no distinct examples of a rebate

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program for the ICI sector, additional study would be required to assess budgetary requirements.

RISK CONSIDERATIONS

Should Council endorse a program, the following risk considerations be considered.

Findings indicate that a rebate program must be complemented by enhanced education efforts and other strategy measures. Without an IPM strategy and program to manage rodent control, there is a risk that demand for the rebate program could be significant but may have little impact on rodent population. This may be further exacerbated by climate change and the extension of breeding periods, all of which requires further investigation.

Additionally, residents participating in a rebate program must provide permission to access private property and must accept the risks of retaining pest control vendors to bait and trap rodents. Licensed pest control vendors use poison that while rare, can be accessed by family pets and other wildlife including birds, owls, squirrels and chipmunks. Poison can also impact children.

Furthermore there is a potential risk that as a new overall business for the Region, it could be perceived that this is a duplication of resources between the Region and local municipalities, who are traditionally responsible for animal control as additional wildlife, pest control and by-law inspections staff will be required as part of the overall IPM team. To mitigate, Regional staff will work with the local municipalities to align any Regional programs with local programs.

It is also noted that the cost implications of adopting a subsidy and strategy program to address Resolution 2020-704 may be considered by Council as prohibitively expensive. There is a risk that adopting such a program may displace other budgetary and council directed priorities.

FINANCIAL IMPLICATIONS

The financial implications of a program were assessed by developing suitable scaling criteria from the municipal scan and applying to the Region of Peel. Established municipalities that have rebate and/or subsidy programs provided budget and uptake information that staff scaled for the Region. In some areas direct scaling was utilized. Where information was not directly available, staff utilized estimates provided by the consultants. Capital cost estimates were generated from existing costs and scaled appropriately.

Should Council adopt a pest control subsidy program the following are the direct financial implications:

- A residential subsidy program alone for 2020 including applications retroactive to June 1, 2020 is estimated to cost \$475,000 (dependent on uptake of the program). This is estimated to rise to \$900,000 in 2021 and beyond.
- Developing an IPM plan and staffing an IPM team of six full-time equivalents will cost an estimated \$125,000 in 2020. The IPM program costs are estimated to be \$2.0 million in 2021 (\$1.5 million + one-time cost for strategy development) which will be reduced to \$1.5 million annually commencing in 2022 and beyond.

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- For waste management to expand its enhanced monitoring of the Applewood area to the entire Region, four FTE and a truck are necessary at an estimated cost of \$440,000.

Program costs are shown in Table 4. Detailed costs from both capital and operating can be found in Appendix III. As the aspects of a subsidy and IPM program are complex, these will require significant additional study and investigation. The recommendation and financial implications should be considered preliminary. A detailed investigation will be required to confirm assumptions in the report.

Capital abatement programs will be funded by capital cost centres.

Overall, the costs for the entire program will be funded through the rate stabilization reserves with ongoing costs being included in the 2021 Budget.

Table 4: Implementation and Operating Costs for an Integrated Pest Management Program

Summary	2020	2021	2022 and beyond
Full Region of Peel Option			
Rebate Program – Full Region	\$475,000	\$900,000	\$900,000
IPM Resources including external studies and consultants	\$125,000	\$1,500,000	\$1,500,000
Waste Management Support	\$73,000	\$440,000	\$440,000
Sub-total: Annual Operating costs	\$673,000	\$2,840,000	\$2,840,000
Construction Abatement Program	\$75,000	\$550,000	\$550,000
Total Annual Costs	\$748,000	\$3,390,000	\$3,390,000
IPM Strategy – One-time Costs	N/A	\$500,000	N/A
Total – FULL Region	\$748,000	\$ 3,890,000	\$ 3,390,000

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Summary	2020	2021	2022 and beyond
Three Wards Option			
Rebate Program – 3 Wards Pilot	\$143,000	\$103,000	\$103,000
IPM Resources and Waste Management Support	\$181,000	\$1,835,000	\$1,701,700

CONCLUSION

The implementation of an integrated pest management strategy will require additional resources and funding to support a rebate and new program areas within the Region. Significant additional study will be required in order to create the program. Should Council proceed with the development of a residential rodent control program, Regional staff recommend the immediate advancement of resources to develop the program subsequent to Council endorsement.

APPENDICES

- Appendix I – Number of Rat Complaints Reported to Peel Public Health, January 1,2017 – September 24,2020
- Appendix II - Motion
- Appendix III – Financial Analysis
- Appendix IV – Summary of Municipal Scan

For further information regarding this report, please contact Anthony Parente, (Acting) General Manager, Water/Wastewater, extension 7833, anthony.parente@peelregion.ca.

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Reviewed and/or approved in workflow by:

Department Commissioners, Division Directors, Financial Support Units and Legal Services.

Final approval is by the Chief Administrative Officer.



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