

SC-13/2019 - Special Meeting of Council

April 23, 2019

5:00 pm

Town of Pelham Municipal Office - Council Chambers

20 Pelham Town Square, Fonthill

Pages

1. **Call to Order and Declaration of Quorum**

2. **Approval of the Agenda**

3. **Disclosure of Pecuniary Interest and General Nature Thereof**

4. **Staff Report Requiring Action**

4.1 **2019 Town of Pelham Gypsy Moth Infestation**

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5. **Resolution to Move in Camera**

Section 239(3.1) - Educational or training sessions

6. **Rise From In Camera**

7. **Confirming By-law**

15

8. **Adjournment**

Concept: How Might We Respond to the Gypsy Moth Infestation in the Town of Pelham

Background:

Whereas Council directed staff through the April 1, 2019 Public Works Report “Control of Gypsy Moth Outbreak in the Town of Pelham” to proceed with an urban infestation survey, this report serves to inform Council on the degree of gypsy moth infestation in the Town and propose a control strategy to reduce the damage to the urban forest and public lands in the areas surveyed, and to limit the spread of the infestation to other areas.

In 2017 staff began to receive concerns from residence regarding the emergence of Gypsy Moths in urban areas surrounding Fonthill, specifically Hillcrest Park which is located adjacent to Pancake Lane and Blackwood Crescent. In 2018 staff, by direction of Council, initiated the aerial spraying to reduce the infestation in Hillcrest Park (6.47 acres). Throughout the summer of 2018, Public Works Staff received photos of defoliation and reports of the presence of gypsy moths from approximately 116 citizens inside the urban boundary of Fonthill, Ridgville and Fenwick.



Image 1 – Hillcrest Park aerial application May 2018



Image 2 – Gypsy moth larva – Memorial Drive 2018.

In the past, effected municipalities have worked together to assist with the preparation and public awareness of the infestation. Their assistance included funding of the pre-spray co-ordination & the treatment of their own lands. In 2019, the Township of West Lincoln joined the Town of Pelham to work with Trees Unlimited and Zimmer Air Services to prepare for the 2019 spring infestation.

To optimize spray efficacy, reduce Gypsy Moth populations, minimize host tree defoliation and reduce the expansion of the outbreak to other areas in the Town, a program for the aerial spraying is proposed to be conducted over the infested areas within the urban boundary of the Town of Pelham, as delineated through the surveying process. The determination of the aerial treatment zones is dependent on a number of factors including the density, size and distribution of egg masses, tree species, ground cover, and the existing condition of the trees related to other stress factors. Both public and private trees will be sprayed in urbans areas under this program. It is not logistically possible to treat only street trees or omit individual properties when aerial applications are performed. The Egg Mass surveys and Urban/Rural Spray Blocks have been provided as an attachment to this report.

Adverse weather conditions such as wet, cool or windy conditions at the time of the proposed spraying may impact the program causing delays or not all areas being completely treated. Areas that do not meet the criteria established by Trees Unlimited for a spray program will not be included. Affected

property owners who do not meet the criteria will be advised as to how to implement integrated pest management strategies to reduce the population size on their properties.

Two aerial applications of *Bacillus thuringiensis kurstaki* (Btk) are required, typically beginning in mid-May and should be completed within a ten to fourteen day time frame. Btk is a naturally occurring, soil borne bacteria that only targets the larvae of insects within the order Lepidoptera (moths and butterflies). Because Aerial application of Btk is applied in early May before food plants for butterflies develop the impact on other butterfly populations is minimal. The active ingredient in Btk work only in the digestive system of the larvae and these conditions are not found in humans, mammals, birds, or other insects. Btk is one of the few chemicals that is registered for use for organic farming practices.

Although Gypsy Moth populations will be reduced within the proposed treatment areas, not all the gypsy moth caterpillars will be eradicated. Results will be variable between spray blocks and residents will observe some Gypsy Moths living in the treatment areas following the application; however, if the defoliation rates can be reduced, the overall tree mortality rates will also be lowered. As 2019 is the third year of the infestation within the Town of Pelham, it is unlikely that the population of gypsy moths would be high enough to warrant further treatment in 2020 as it is suspected that populations may begin to collapse.

The *Municipal Act, 2001*, Section 128, authorizes a local municipality to prohibit and regulate with respect to public nuisances, including matters that, in the opinion of Council, are or could become or cause a public nuisances. During past infestations in Ontario, Councils of several larger municipalities including the City of Mississauga, and Hamilton declared the infestation of Gypsy Moth to be deemed a public nuisance particularly given that if left unchecked would lead to devastation of the natural environment with in urban areas with the defoliation of many trees.

Alternatives for Consideration:

Alternative 1 a)

Council may decide to implement a Gypsy Moth Control program to include the aerial spraying of trees on municipally owned lands and upon private urban lands within the affected areas identified through the surveys to be at severe infestation levels. The maximum total area to be sprayed would be approximately 165 acres which would include of 85 acres private urban lands and 80 acres of municipally owned properties, 30 urban acres & 55 rural acres, including unopened road allowances. The cost of this program would be approximately \$79,000 (plus HST) but could fluctuate mildly due to permit costs, application restrictions by federal and provincial agencies (equipment & road closure

requirements). If this Alternative is chosen, the Town Clerk be authorized to introduce a nuisance by-law to declare gypsy moth a nuisance pest as attached to this report.

Alternative 1 b)

If a Gypsy Moth Control program is approved, Council may consider the imposition of a mandatory cost recovery program for affected homeowners to help offset some of the cost requiring the enactment of a fee by-law. The estimated cost to the 250 benefitting property owners would be approximately \$216 (plus HST) per property. This estimation is based on the following formula:

$$\frac{(Total\ Cost) - (Town's\ Portion)}{Number\ of\ Benefitting\ Properties}$$
$$\frac{\$79,000.00 - \$25,000.00}{250}$$
$$= \$216$$

Alternative 1 c)

If a Gypsy Moth Control program is approved, Council may consider providing full program funding for Urban Area spraying from the Levy with no attempt to recover costs from benefitting private property owners.

Alternative 2

Council may decide to implement a Gypsy Moth Control program to aerial spray only municipally owned lands and unopened road allowances identified through the survey to be at severe infestation levels. The maximum total area to be sprayed would be dependent on the existing operation budget allocation of \$25,000.00 for the program co-ordination and aerial spraying.

Alternative 3

Council may direct staff to “do nothing” and allow nature to run its course. This alternative is not recommended based on the following impacts:

Environmental

- Reduced Tree vigor
- Tree crown dieback and mortality

- Further reduction of the Urban Canopy
- Reduced shade, dry soils
- Effects on air quality, sound reduction, heat sink effects, etc.
- Increased pesticide contamination due to uncontrolled private application

Human Health

- Allergic reactions to hairs, wing scales including rashes and skin irritations, respiratory tract irritations, eye irritations
- Psychological reactions
- Hazard trees, dead branches and tree falls
- Increased exposure to chemical pesticides

Economic Impacts – Costs to Property Owners

- Pesticide treatments privately undertaken
- Cleanup of insect body parts
- Pruning dead branches; dead tree removal and replacement
- Rural property owners have organized their own cooperative spray program

Economic Impacts – Costs to the Municipality

- Increased tree inspections
- Increased staff response to citizen concerns
- Tree pruning and maintenance
- Tree removal and replacement
- Reduced use of infested parklands and recreational trails

The potential impact on other Forestry programs could be significant if staff is directed to take a “do nothing” approach. This would result in an increased backlog of work orders for City owned trees if this pest is not controlled and allowed to spread. There is the potential for hundreds of dead and/or hazardous trees requiring attention, creating other budget pressures.

The Challenge:

HWM implement an Aerial Tree Spray program to protect the urban forest as well as municipal properties in the Town of Pelham from the Gypsy Moth Infestation.

HMW introduce a nuisance by-law to declare gypsy moth a nuisance pest.

Our Recommended Solution:

BE IT RESOLVED THAT Council receive the report, 2019 Town of Pelham Gypsy Moth Outbreak; and

- 1. That staff be directed to implement a Gypsy Moth Control program an Aerial Tree Spray program involving the aerial spray of the biological control agent Btk to include both Town and privately owned trees within the identified affected areas to control the larval stage of the European gypsy moth which causes defoliation of trees;**
- 2. That an Implementation and Communication Plan be developed, providing defined treatment areas, measures to mitigate public concern, communication and cost recovery plans;**
- 3. That staff coordinate a process whereby a portion of the cost for aerial spray may be received from affected property owners to help offset the cost of the control measures;**
- 4. That the appropriate nuisance by-law to declare gypsy moth a nuisance pest be passed and enacted.**

Rationale:

Through the infestation surveys completed by Trees Unlimited it was found that infestations within the Town of Pelham have reached severe outbreak levels which will lead to defoliation and tree loss. Town staff have received over one hundred reports of gypsy moth infestation and requests for spraying from citizens concerned about the health of their trees and the enjoyment of their properties.

Measure of Success:

Success would be achieved if a Gypsy Moth Control program be successfully implemented with no risk to public health that effectively reduces the gypsy moth population and reduces defoliation of the tree canopy.

Milestones:

N/A

THE CORPORATION OF THE
TOWN OF PELHAM

BY-LAW NO. XXXX (2019)

Being a by-law respecting the gypsy moth

WHEREAS, the Council of the Town of Pelham (“Council”) deems it necessary to take steps to limit the impact of gypsy moth infestation on trees within the Town’s Urban Boundary, so as to help preserve its tree assets and to reduce the consequences to the well-being of the public due to the loss of trees;

AND WHEREAS, section 128 of the Municipality Act, 2001, S.O. 2001, c.25, as amended (“the Municipal Act”), permits a local municipality to prohibit and regulate with respect to public nuisances, including matters that, in the opinion of council, are or come become, or cause a public nuisances;

AND WHEREAS, section 10(1) of the Municipal Act authorizes a municipality to provide any service or thing that the municipality considers necessary or desirable for the public;

AND WHEREAS, section 10(2) of the Municipal Act authorizes a municipality to pass by-laws respecting the economic, social and environmental well-being of the municipality;

AND WHEREAS, Council has considered the research and surveying conducted by staff and an external consultant on the levels and effects of the gypsy moth infestation in certain areas within the Town;

AND WHEREAS, Council is of the opinion that the level of gypsy moth infestations in certain areas within the Town constitutes a matter of public nuisance or could become a public nuisance;

NOW THEREFORE THE MUNICIPAL COUCIL OF THE
CORPORATION OF THE TOWN OF PELHAM ENACTS AS FOLLOWS:

1. The gypsy moth infestations in areas identified by the Director of Public Works as severe in nature and deemed a matter of public nuisance in the Town of Pelham.
2. The Director of Public Works is authorized to implement an aerial spray program using the biological control agent *Bacillus thuringiensis* subspecies *kurstaki* (Btk) In and around the proposed spray areas identified in the Public Works Report “2019 Town of Pelham Gypsy Moth Infestation” where the Director is satisfied that the established criteria for the aerial spray program are met.
3. The Director of Public Works is authorized to implement a gypsy moth control aerial spray program using the biological control agent *Bacillus thuringiensis* subspecies *kurstaki* (Btk) in and around Public Street Trees within the road allowances and trees on private lands within the Town found within the areas identified in the Public Works Report “2019 Town of Pelham Gypsy Moth Infestation” where surveys have been carried out by the Director confirming that the treatment threshold has been exceeded and the Director is satisfied that the established criteria for the aerial spray program are met.

4. This By-law shall come into force and effect on the date of its enactment.

ENACTED and PASSED this xx day of xxxxx, 2019

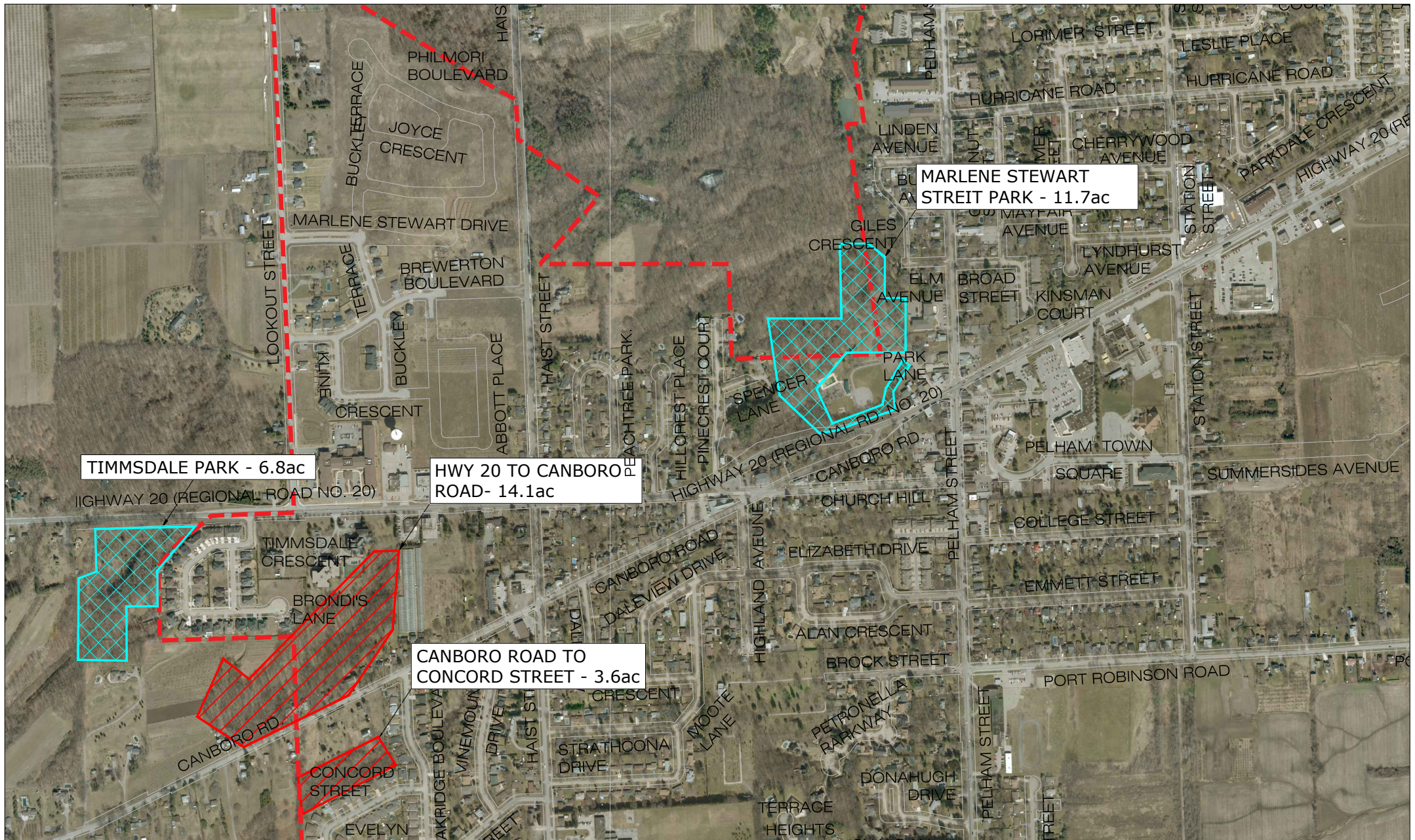
MAYOR M. JUNKIN

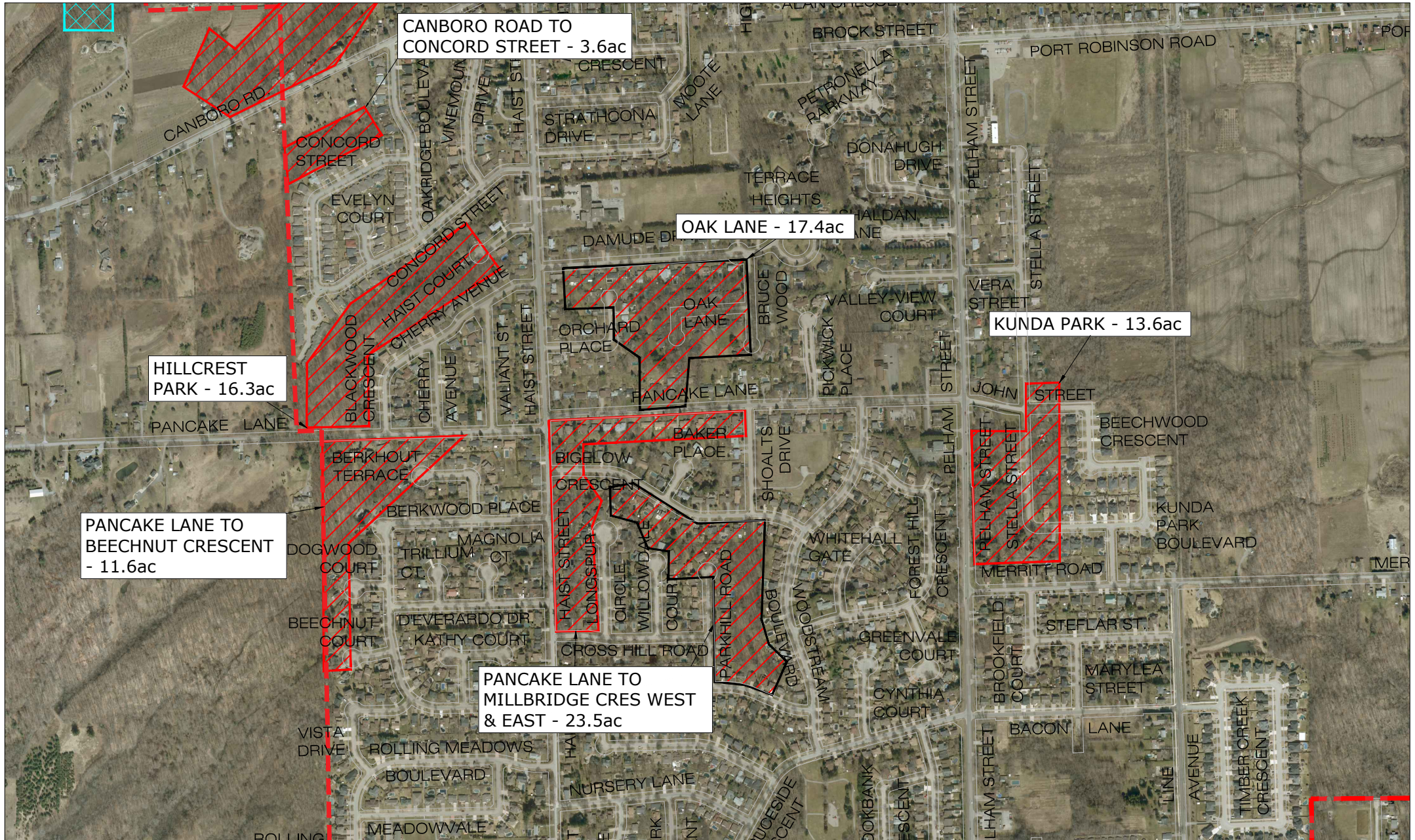
TOWN CLERK NANCY J. BOZZATO

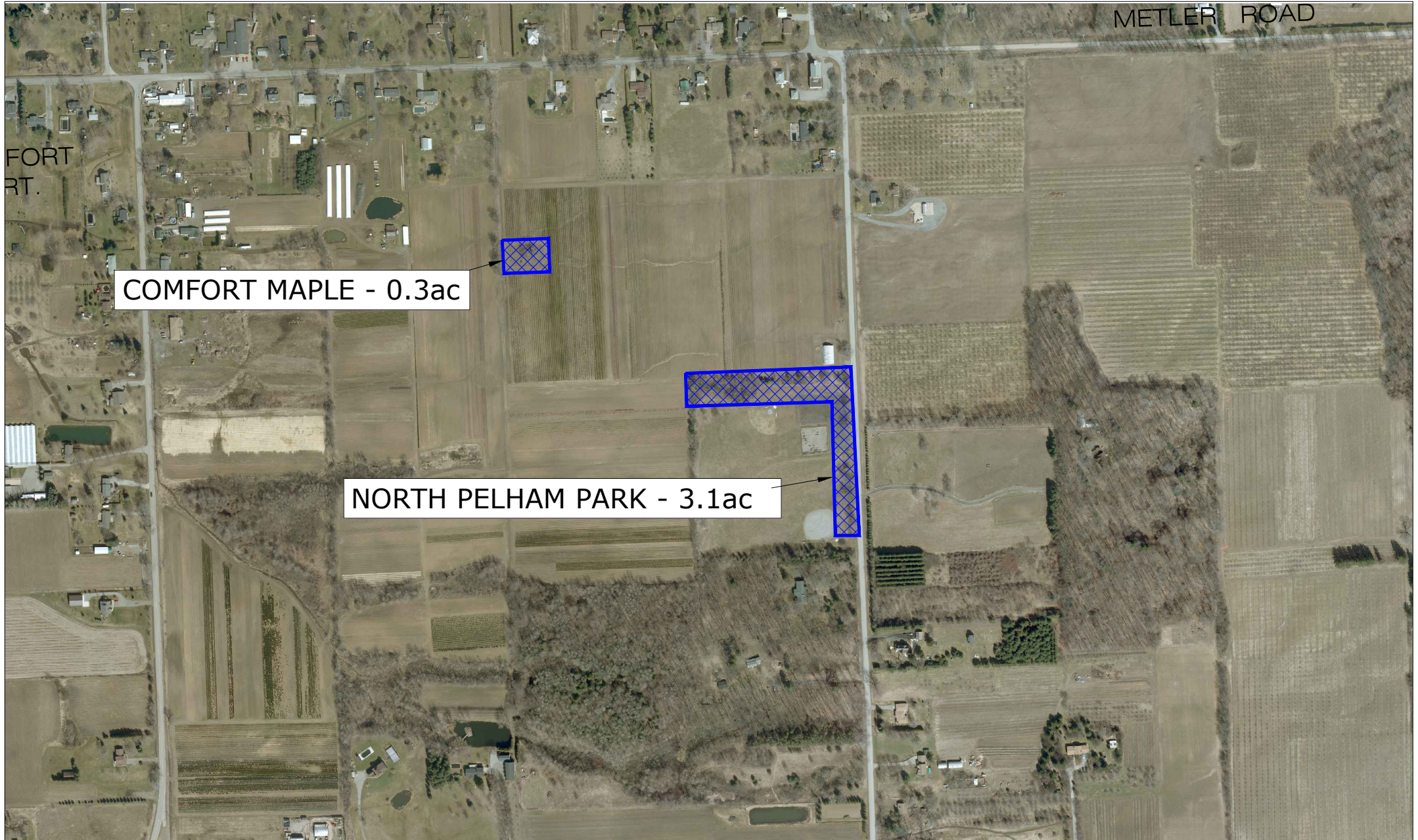
2019 Pelham Gypsy Moth Egg Mass Surveys

#	Location	Severity	Notes
1	Hurleston Park	low	<ul style="list-style-type: none"> - Park is very small (<1 ac.) All trees are young - no EM's. - In ravine behind park there are approximately 10 trees with >10 EM/tree. This area may actually be in Thorold. - Since 2009, dumping along hydro-corridor & ATV activity have increased. - Invasive Species: tartarian honeysuckle and European buckthorn.
2	Gordon L. Klager Park	low	<ul style="list-style-type: none"> - Mainly open ball field & playground. - Ditch off property on east side has large trees being effected by proximity to black walnut. - This park backs on the same ravine as Hurleston Park. No EM observed in ravine. - 3 EM located on path (1) and a neighboring house's black walnut (2). - Invasive Species: European buckthorn.
3	Marlene Stewart Streit Park	low to moderate	<ul style="list-style-type: none"> - Perimeter is forested. Tree sp.: Be, By, Bw, Op, Aw, Wi, Cm, Hs, Pw, Cb, Ob, Msu, Tp, Cw, Ew, Wb, Or. - Sloped hillside behind pool has an avg 15 EM/tree on preferred sps. - 1 Ag with 20-50 EMs - Old EMs on a few willow
4	Canboro Road & Concord Street	severe	<ul style="list-style-type: none"> - Forested valley surrounded by homes. Tree sp.: Or, Ow, Sa, Tt, Yb, Pw, Cb, Be, Hb, Aw, Id. - Most species have 100-1000 EM/tree with an average of approx 150 EM/tree. :less preferred species have >50 EM/tree. - Crab apples in the parking lot of Lookout Village have >100 Em/tree.
5	Peace Park	nil	<ul style="list-style-type: none"> - Isolated shade & decorative trees. 1 old EM found.
6	Hillcrest Park West	severe	<ul style="list-style-type: none"> - Park is completely forested. Tree sp.: Pw, Id, Aw, Msu, Be, Op, Ow, Cb, Ob, Or - Most species have 100-1000 EM/tree with an average of approx 150 EM/tree. Sporadic on less preferred species. - Egg masses are small likely due to high populations since 2017.
	Hillcrest park East	severe	<ul style="list-style-type: none"> - Oaks have 100-750 EM/tree with less preferred species having 20-30 EM/tree.
	Pancake Lane south to Beechnut Court	severe	<ul style="list-style-type: none"> - Over-storey dominated by large red oaks. - Oaks have 20-500+ EM/tree with less preferred species having 10-20 EM/tree. Berkwood Place oaks were amongst the highest.
7	Woodstream Park	low to moderate	<ul style="list-style-type: none"> - Large open grass area. Trees sp.: Cb, Wb, Ew, Ms, Sw, Cd, Aw/Ag, Or, Pw, Msu, Ob, Cw, Mulberry. - 10 EMs on 2 Or through park. - 20 EMs focused on Cb along trail/bush. - Since 2009, increased dumping along adjacent boundaries . - Invasive Species - European buckthorn & tartarian honeysuckle.

8	Pelham Arena	nil	<ul style="list-style-type: none"> - Mainly open grass area & playground - All trees are very young & include: Msu, Pw, Mm. No EM's.
9	Central Fonthill - Oak Lane	Severe	<ul style="list-style-type: none"> - 10-1000+ EM/tree with oaks averaging 150-1000 EM/tree. - Oaks had moderate to severe defoliation in 2018. Trees are struggling & need protecting.
10	Kunda Park	low to severe	<ul style="list-style-type: none"> - On Stella Street from John Street south to Merritt Road - an average of 20+ EM/tree. Few oaks have <50 EM/tree. Trees are struggling & need protecting.
11	Pelham Corners Park	low	<ul style="list-style-type: none"> - Long narrow park, bordered on both sides by residential back yards - Tree sp.: mainly Be with Or, Aw/Ag, Msu, By, Wi, Mm, Sw, Ob, Pw, Bw, Ew, Cb, Cd - Few EMs scattered in upland hardwood stands (Be, Cb, Or). An average of 10 EM/tree. Numerous old EMs. - Since 2009, increased amounts of dumping & encroachments - Invasive Species - European buckthorn, corkscrew willow & tartarian honeysuckle.
12	Harold Black Park	nil to low	<ul style="list-style-type: none"> - Front portion is mainly open with ball fields and scattered trees - 4 to 5 old & new EMs on lindens along south edge. Few old EMs on. - Rear of property has a wetlands & forested area. Tree sp.: Cw, Ms, Mm, Cb, Id, Wi, Wb, Pw, Fr, Ag/Aw, Ew, Hs, Bd, Su, Gray & Red Osier Dogwood. No EM's found.
13	Centennial Park	low	<ul style="list-style-type: none"> - Very large open area with tennis courts and sports fields. Rear of property has a forested area at the south end. Tree sp.: Ms, Locust, Pw, Cd, Cb, By, Bw, Ow, Ps, Or, Su, Wi, Ew, Be, Msu. - Forested area contains a large vernal pool. - 0-10 EM/tree. Largest count on a Manitoba maple was 5 EMs. - Or had an average of 1-3 EM/tree.
14	Cherry Ridge Park	nil	<ul style="list-style-type: none"> - All grass & playground with few young trees. No Ems.
15	North Pelham Park	moderate	<ul style="list-style-type: none"> - Mainly ball diamonds and open grass. Trees sp. around perimeter: Cd, Pw, Wb. - Or and Cb next to the road and down the northeast property boundary to the corner had anywhere from 50-100+ EM/tree. - No EMs on less preferred sp..
	Comfort Maple	low to moderate	<ul style="list-style-type: none"> - 25-50 EM observed on the tree. Surrounding Msu have 0-10 EM/tree. Tree is threatened from EMs in surrounding forests.
16	Fonthill Cemetery	low to severe	<ul style="list-style-type: none"> - Trees sp. are mainly silver & red maples. 5 EMs on a Manitoba maple. - Adjacent street, Highland Ave, has a number of large oaks with 50-100 EM/tree.
17	Hillside Cemetery	light to moderate	<ul style="list-style-type: none"> - Observed an average of 5+ EM/tree throughout cemetery. - Large Cb and oaks along east boundary have <50 EM/tree.







THE CORPORATION OF THE
T O W N O F P E L H A M
BY-LAW #5000(2019)

Being a by-law to adopt, ratify and confirm the actions of the Council at its special meeting held on the 23rd day of April 2019.

WHEREAS Section 5 (3) of the Municipal Act, S.O. 2001, Chapter M.25, as amended, provides that, except if otherwise authorized, the powers of Council shall be exercised by by-law;

AND WHEREAS it is deemed desirable and expedient that the actions of the Council as herein set forth be adopted, ratified and confirmed by by-law;

NOW THEREFORE COUNCIL OF THE CORPORATION OF THE TOWN OF PELHAM ENACTS AS FOLLOWS:

- (1) (a) The actions of the Council at its meeting held on the 23rd day of April, 2019, including all resolutions or motions approved, are hereby adopted, ratified and confirmed as if they were expressly embodied in this by-law.
 (b) The above-mentioned actions shall not include:
 - (I) any actions required by law to be taken by resolution, or
 - (II) any actions for which prior Ontario Municipal Board approval is required, until such approval is obtained.
- (2) The Mayor and proper officials of the Corporation of the Town of Pelham are hereby authorized and directed to do all things necessary to give effect to the above-mentioned actions and to obtain approvals where required.
- (3) Unless otherwise provided, the Mayor and Clerk are hereby authorized and directed to execute and the Clerk to affix the seal of the Corporation of the Town of Pelham to all documents necessary to give effect to the above-mentioned actions.
- (4) THAT this by-law shall come into force on the day upon which it is passed.

READ, ENACTED, SIGNED AND SEALED

THIS 23rd DAY OF April, 2019 A.D.

MAYOR MARVIN JUNKIN

TOWN CLERK, NANCY J. BOZZATO