



Corporate Report

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Files



DATE: April 5, 2007

TO: Chair and Members of General Committee
Meeting Date: April 18, 2007

FROM: Paul A. Mitcham, P.Eng., MBA
Commissioner of Community Services

SUBJECT: 2007 Gypsy Moth Control Program & Single Source Contract
Award, File Ref: FA.49.220-07

- RECOMMENDATION:**
1. That the implementation of the 2007 Gypsy Moth Control Program including the communication and cost recovery plans be endorsed for the aerial application of Foray 48B, *Bacillus thuringiensis* subspecies *kurstaki* (Btk), over the designated spray zones.
 2. That a by-law be enacted to declare the gypsy moth infestation as identified on the treatment maps, attached as Appendix 2 to Appendix 11, be a public nuisance and that staff be directed to take appropriate measures including aerial treatments within the identified infested areas.
 3. That the Manager, Materiel Management be authorized to execute a contract with Zimmer Air Services Inc., in the amount of \$174,900.00 for aerial spraying services, as directed, for the 2007 Gypsy Moth Control Program.
 4. That the Gypsy Moth Program be funded from the Contingency Reserve (account #305125) and that the necessary budget adjustments be approved.

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REPORT SUMMARY: As recommended in the corporate report from the Commissioner of Community Services dated February 9, 2007 – Status of the Gypsy Moth Population in Mississauga for 2007, the operational, communication and cost recovery plans have been initiated for the control of gypsy moth populations in areas of the city exceeding previously established infestation thresholds.

BACKGROUND: Gypsy Moth Control
 Similar to the successful 2006 Gypsy Moth Control Program, management of the current gypsy moth infestation is critical in order to reduce losses of trees on streets, forested parklands and residential woodland areas. As no other Federal, Provincial or Regional authority is currently actively involved in control of gypsy moth in southern Ontario, the City of Mississauga is the key agency to oversee this effort.

Further information of the gypsy moth control in Mississauga was previously detailed in the Corporate Reports from the Commissioner of Community Services on January 11, March 1, April 5, April 26, June 20, November 23, 2006, and February 9, 2007.

COMMENTS: Delineation of the 2007 Treatment Zones
 Staff have finalized the exact delineation of treatment zones, where the gypsy moth infestation has exceeded levels over the establish treatment thresholds. Criteria considered in delineating these areas for treatment include egg mass densities, past defoliation, tree health, canopy cover, species composition and topography. A city wide spray zone map for the 2007 Gypsy Moth Program is contained in Appendix 1. The specific treatment zone maps are also included as Appendix 2 to Appendix 11 of this report.

Treatment Areas
 The total treatment land area is 286.5 hectares (707.9 acres) as summarized in the chart below:

Spray Area	Ward	Hectares	Acres
Staghorn Woods (P-313)	5	11.5	28.4
Credit Woodlands – Erindale Park (P-60)	6	74.2	183.4
Carriage Way (P-157) – Credit Valley Golf & Country Club	7	8.4	20.8
Gordon Woods	7	26.5	65.5
Queensway – Huron Park (P-26)	7 & 8	35.8	88.5
Richard Jones Park (P-84)	7	10.0	24.7

UTM – Sawmill Valley Trail (P-161)	8	96.2	237.7
Windrush Woods	9	4.9	12.0
Meadowvale Conservation Area (P-328)	11	11.6	28.7
P-388 – MTO	11	7.4	18.2

Public Nuisance Declaration

Section 128 of the *Municipal Act, 2001* authorizes Council to prohibit and regulate with respect to public nuisances. Council may declare a matter to be a public nuisance and its decision, so long as it is arrived in good faith, is not subject to challenge.

The recent Bill 130 has also amended the Municipal Act to provide a municipality with broad authorities under section 11 to pass by-laws with respect to the economic, social, and environmental well-being of the municipality, as well as the health, safety and well-being of persons.

At the current level of infestation, staff recommends that the gypsy moths infestation as found in the treatment areas identified in the maps attached as Appendix 2 to Appendix 11 of this report, be declared a matter of public nuisance under section 128 of the *Municipal Act, 2001*. The red lines on the maps delineate areas identified under the Public Nuisance By-Law. This is recommended, particularly as the continuation of such levels of infestation would lead to devastation to the natural environment in the city, with the defoliation of many trees. Also as provided in the previous Corporate Reports submitted in 2006, insect droppings, silk, and hairs, shed by the caterpillars could become a health concern and unpleasant in residential neighbourhoods, streets, and parks.

Zimmer Air Services Inc.

A competitive procurement process was undertaken in 2006 for aerial application services. Staff research identified 2 potential bidders. However, Zimmer Air Services Inc. was the only responding bidder. Zimmer was deemed to be fully qualified to do the work, had access to the required equipment, experience with Transport Canada approvals processes, and were highly recommended as an expert vendor. Accordingly, the contract was awarded to them. Zimmer gained invaluable experience in managing an aerial spray program in an urban area during the 2006 program; they are fully aware of the requirements of all City and external stakeholders and as a result are uniquely qualified to undertake the 2007 program. There are no other vendors who can match this level of expertise and experience.

Therefore, Zimmer Air Services Inc. is considered to be a single source to undertake the contract for the 2007 aerial application requirements. Also, there continues to be inherent risks associated with the aerial spraying of an insecticide and prudence and diligence continue to be of high importance.

The City's Purchasing By-law #374-2006 provides for single source contract awards under these circumstances, ref. Schedule A, 1. (a) The Goods and Services are only available from one supplier by reason of: (ii) scarcity of supply in the market, and (iv) the complete item, service, or system is unique to one vendor and no alternative or substitute exists within Canada (other vendors may exist in BC, where similar programs have been conducted, however it would not be practical to retain them, when proximity is a factor in the success of the program).

Further, satisfactory contract terms and conditions were developed with Zimmer in 2006 that would apply, with only minor updating, to a contract for the 2007 program.

It is therefore recommended that a contract be issued to Zimmer Air Services for aerial application services, on a single source basis.

Communications

A comprehensive communications plan will be developed for the 2007 gypsy moth control program. The plan will follow the format used in the successful 2006 program in which a variety of tactics are used to ensure the community and media are well informed in a timely and effective manner regarding the 2007 infestation, the City's control program and treatment implementation.

Main communication tactics to be used include: a comprehensive website www.mississauga.ca/pestmanagement; hotline number with ongoing message updates; community information packages; e-mail alerts (for subscribers); media releases; newspaper advertisements and portable road signs.

The Communications Division will be working closely with all stakeholders both internal and external including the Region of Peel's Medical Officer of Health and Peel Health to ensure the communications plan effectively addresses all aspects of the control program.

The safety and health of Mississauga residents and the protection of the environment are top priorities. The communications plan supports these priorities and strives to ensure all audiences are informed and educated in a timely and effective manner.

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Technical Stakeholder and Regulatory Agencies

Approvals from all of our technical stakeholders and regulatory agencies for the spray have been reviewed and addressed. Staff is continuing to work on the required implementation of the traffic control, communication and cost recovery plans. It is estimated that the aerial application will take place in mid-May, dependent on weather conditions and gypsy moth larva and host tree species development.

Integrated Pest Management

Residents throughout the city are encouraged to continue with or initiate Integrated Pest Management (IPM) control programs, specifically in infested areas, to help reduce potential gypsy moth caterpillar densities on their properties. These IPM activities include scraping off and destroying egg masses, picking the caterpillars off foliage, placing sticky bands around tree trunks to catch caterpillars, installing burlap skirts around tree trunks and then collecting and destroying the caterpillars that hide under the burlap and using pheromone traps or lures to catch or confuse male moths.

FINANCIAL IMPACT: Total costs of the Gypsy Moth Control Program are estimated at \$316,200. All direct costs which can be reasonably estimated related to the project, have been incorporated for cost sharing purposes, including spraying, consulting, road and highway closure costs, policing, communication, signage, etc.

These costs have been based on preliminary spray areas which are subject to change pending Transport Canada's final approval. A break down of the major cost components are detailed as follows:

Costing Details	Total Estimated Cost
Spraying Costs **	\$165,000
Police Road Closure Costs *	35,200
Communication Costs	30,000
Overtime Costs	30,000
Administration	15,100
Contingency	15,000
Signage and Barrier Costs	13,900
Consulting Costs	12,000
Total Costs	\$316,200

*Preliminary estimates have been estimated by Peel Police and Ontario Peel Police. Policing costs will vary depending on specific needs for each spraying area.

**Costs for additional spray applications are \$240.00/ha + GST are not included in the estimate.

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It is recommended that the City recover a portion of the cost of the program from land owned by other public entities as well as private properties based on the proportionate number of hectares owned by each category. The spraying area is approximately 286 hectares in size, with about 31% being private property while the remaining lands are publicly owned properties such as parks, roads, schools or utilities. The following chart demonstrates the sharing of costs between the three different categories:

Category	Hectares of Land	Break Down	Cost Sharing
Privately Owned Lands	87.9	31%	\$97,300
City Owned Lands	129.8	46%	143,800
Other Publicly/Institutional Owned Lands	67.8	24%	75,100
Total	285.5	100%	\$316,200

Based on the 653 private residences affected, staff are recommending that 31% or \$97,300 of the estimated costs be recovered from the private property owners. The cost per property is \$158 (including GST).

For the other publicly owned lands, the City will be issuing invoices to the affected entities based on the proportionate number of hectares owned. Based on estimated costs of \$75,100 and 68 hectares of land affected, the cost per hectare is approximately \$1,174 (including GST).

The costs remaining, estimated at \$143,800, are to be borne solely by the City. These relate primarily to city owned property such as parks and road allowances.

The estimated total cost of the Gypsy Moth Program is \$316,200. While the city will be invoicing various property owners to recover the costs, the *Municipal Act* does not provide a mechanism to enforce payment. However, it should be noted that the rate of payment recovery from the community last year was quite high at 84%. It is recommended that the Contingency Reserve be used to fund this program.

CONCLUSION:

The 2006 Gypsy Moth Control Program was successful in significantly reducing gypsy moth populations and maintaining leaf canopy cover over the designated treatment zones. Considering the

current levels of Gypsy Moth infestation in certain areas of the City, it is recommended that Council declares the infestation within the specified areas as a public nuisance and engage in control measures as provided in the City's 2007 Gypsy Moth Control Program. 19

Zimmer Air Services Inc. performed aerial application services in 2006 and are considered a single source to undertake aerial application requirements for the 2007 Gypsy Moth Control Program.

A total cost estimate of \$316,200 has been compiled for the Gypsy Moth Control Program. Staff recommend that the City recover a portion of the cost of the program from land owned by other public entities as well as private properties based on the proportionate number of hectares within the proposed treatment areas similar to the process utilized in the 2006 Gypsy Moth Control Program.

Residents are strongly encouraged to undertake IPM control initiatives to assist in reducing the Gypsy Moth populations within their neighbourhoods.

ATTACHMENTS:

- Appendix 1: Spray Zone Map for the 2007 Gypsy Moth Program
- Appendix 2: Staghorn Woods (P-313)
- Appendix 3: Credit Woodlands – Erindale Park (P-60)
- Appendix 4: Carriage Way (P-157) – Credit Valley Golf & Country Club
- Appendix 5: Gordon Woods
- Appendix 6: Queensway – Huron Park (P-26)
- Appendix 7: Richard Jones Park (P-84)
- Appendix 8: UTM – Sawmill Valley Trail (P-161)
- Appendix 9: Windrush Woods
- Appendix 10: Meadowvale Conservation Area (P-328)
- Appendix 11: P-388 – MTO



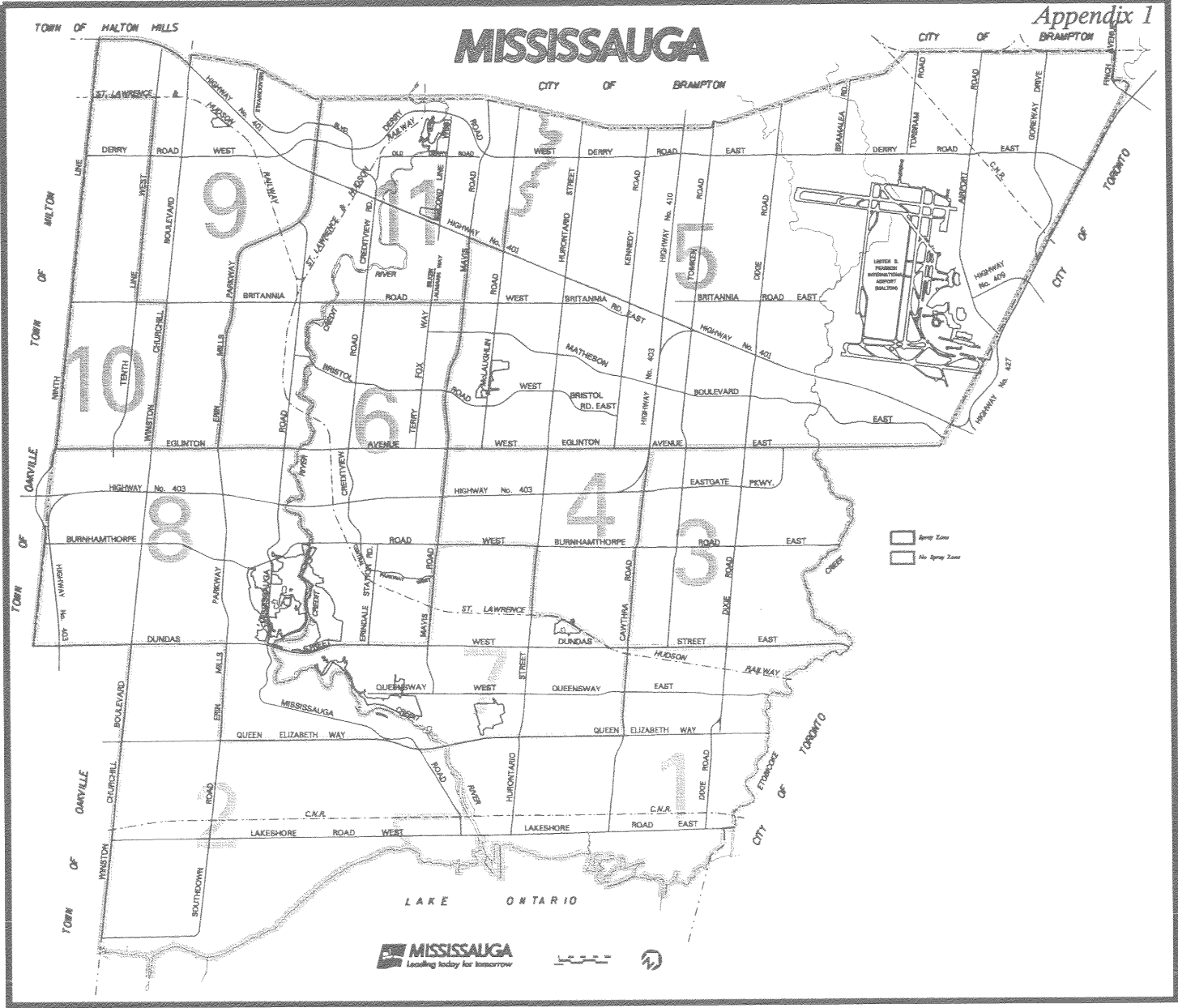
Paul A. Mitcham, P.Eng., MBA
Commissioner of Community Services

Prepared By: Tony Fleischmann, Manager, Environment

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GENERAL COMMITTEE
APR 18 2007

Appendix 1



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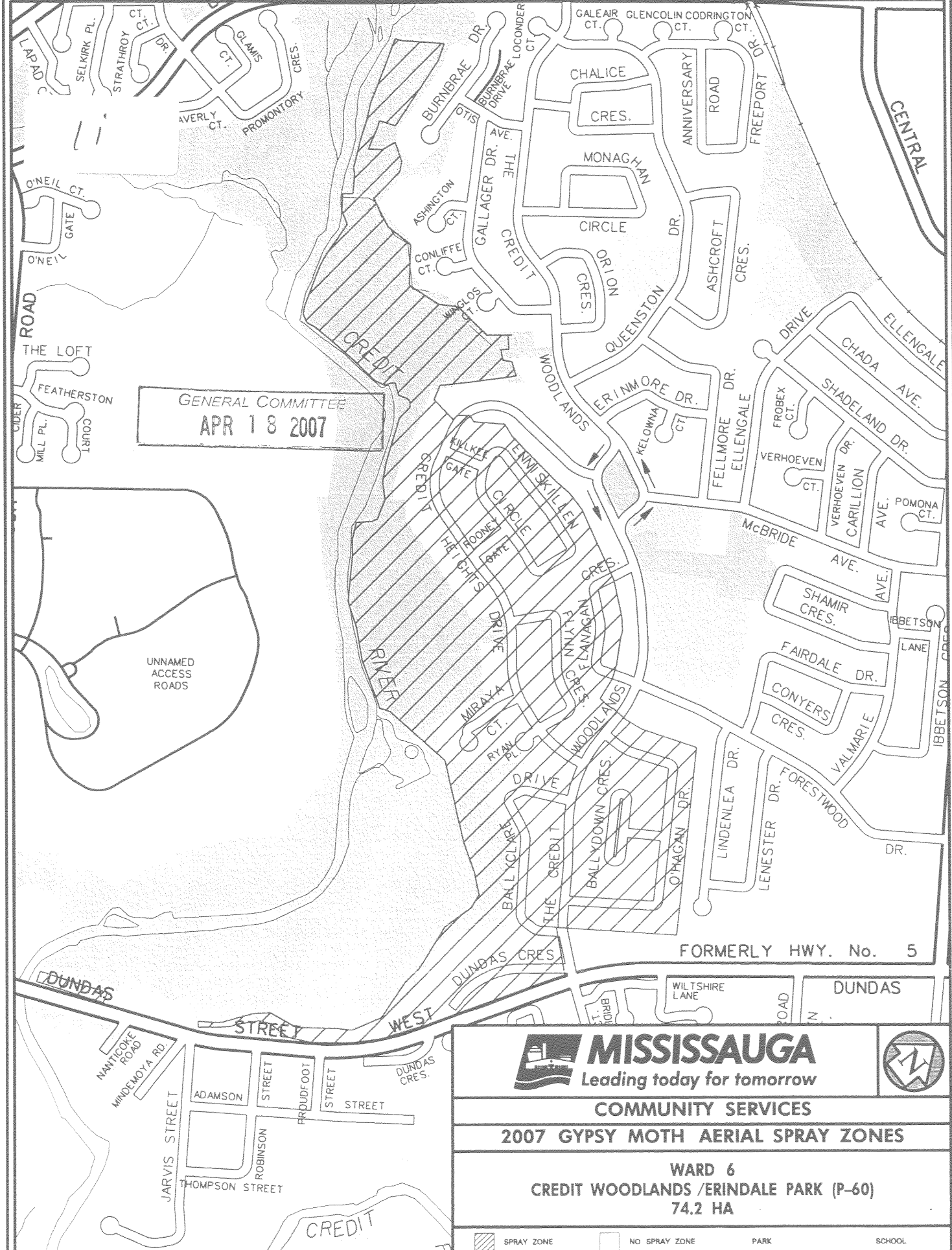
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COMMUNITY SERVICES

2007 GYPSY MOTH AERIAL SPRAY ZONES

WARD 5
STAGHORN WOODS (P-313)
11.5 HA



GENERAL COMMITTEE
 APR 18 2007

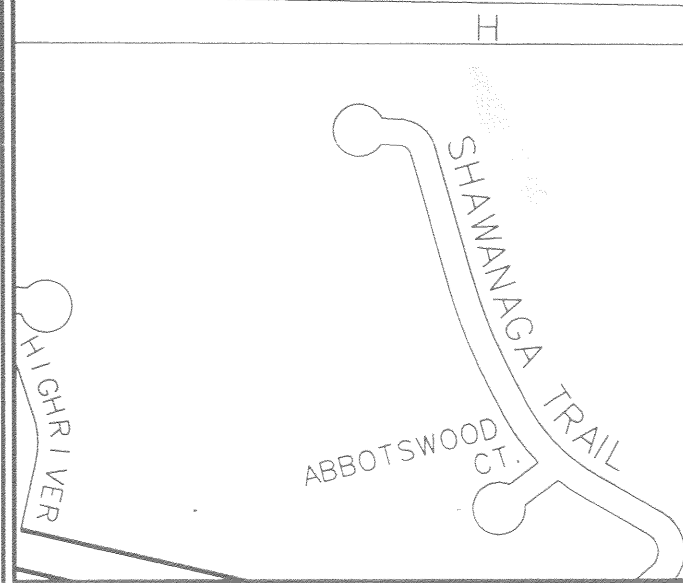
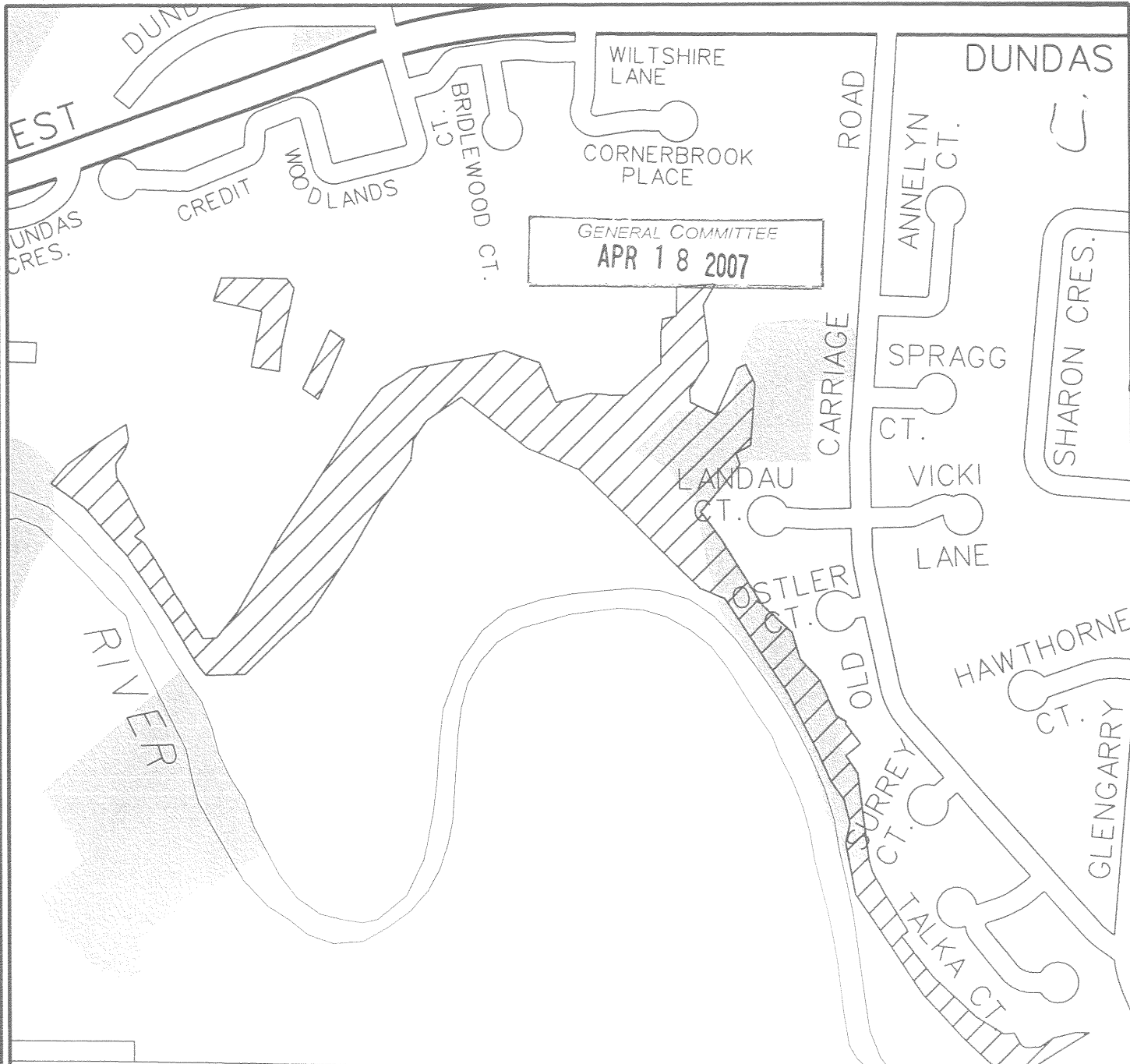
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2007 GYPSY MOTH AERIAL SPRAY ZONES

WARD 6
CREDIT WOODLANDS / ERINDALE PARK (P-60)
74.2 HA

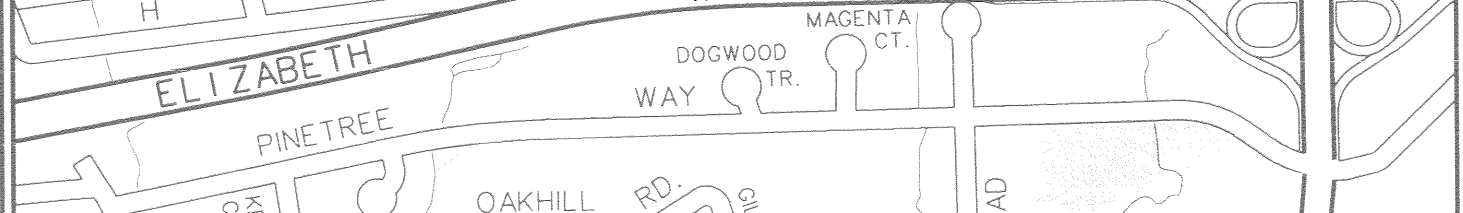
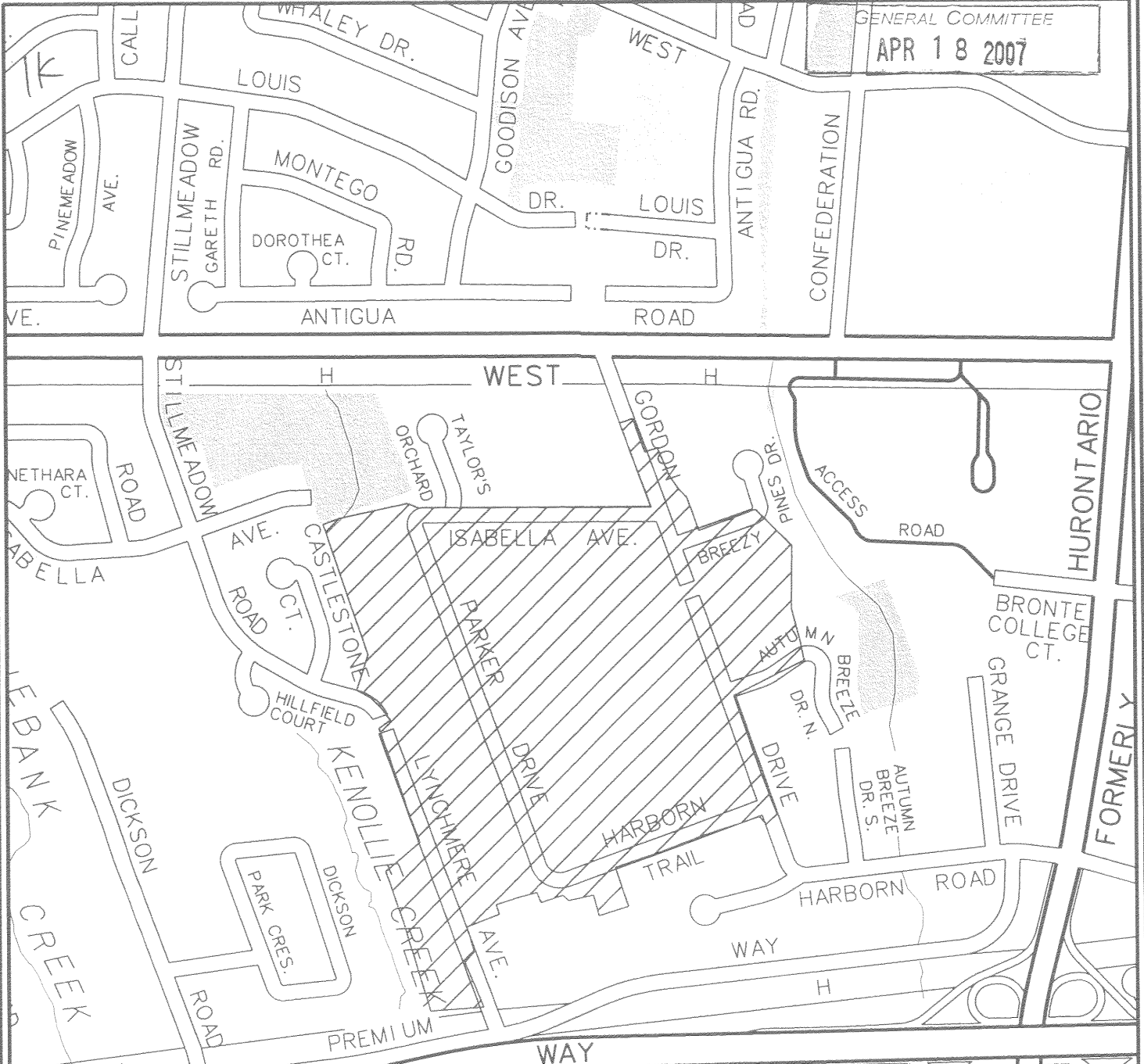
SPRAY ZONE NO SPRAY ZONE PARK SCHOOL









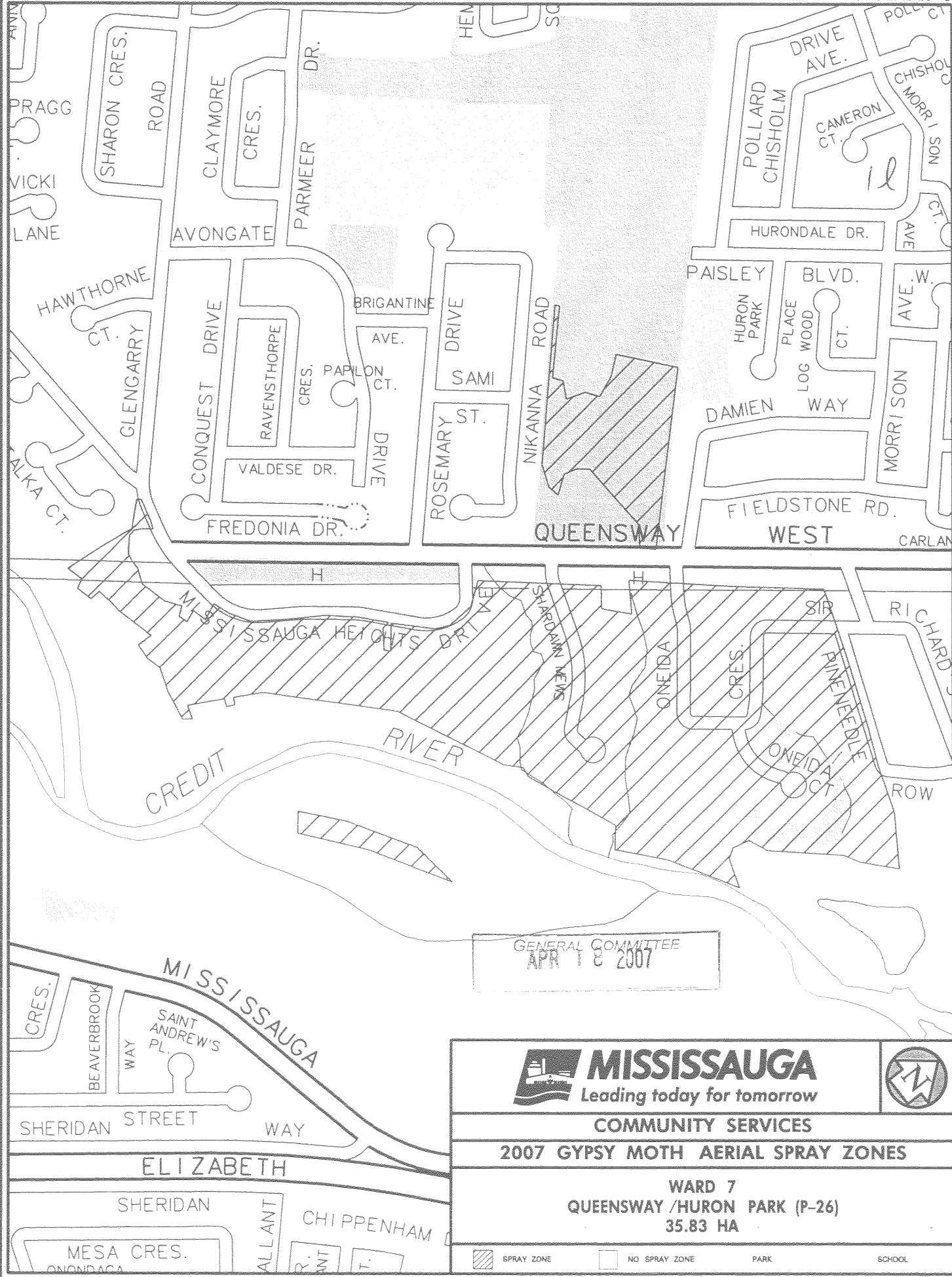
 MISSISSAUGA Leading today for tomorrow		
COMMUNITY SERVICES		
2007 GYPSY MOTH AERIAL SPRAY ZONES		
WARD 7 CARRIAGE WAY (P-157)/CREDIT VALLEY GOLF & CC 8.4 HA		
 SPRAY ZONE	 NO SPRAY ZONE	 PARK
		 SCHOOL

GENERAL COMMITTEE

APR 18 2007



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COMMUNITY SERVICES		
2007 GYPSY MOTH AERIAL SPRAY ZONES		
WARD 7 GORDON WOODS 26.5 HA		
 SPRAY ZONE	 NO SPRAY ZONE	 PARK
		 SCHOOL



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APR 18 2007

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COMMUNITY SERVICES
2007 GYPSY MOTH AERIAL SPRAY ZONES

WARD 7
QUEENSWAY /HURON PARK (P-26)
35.83 HA

SPRAY ZONE **NO SPRAY ZONE** **PARK** **SCHOOL**







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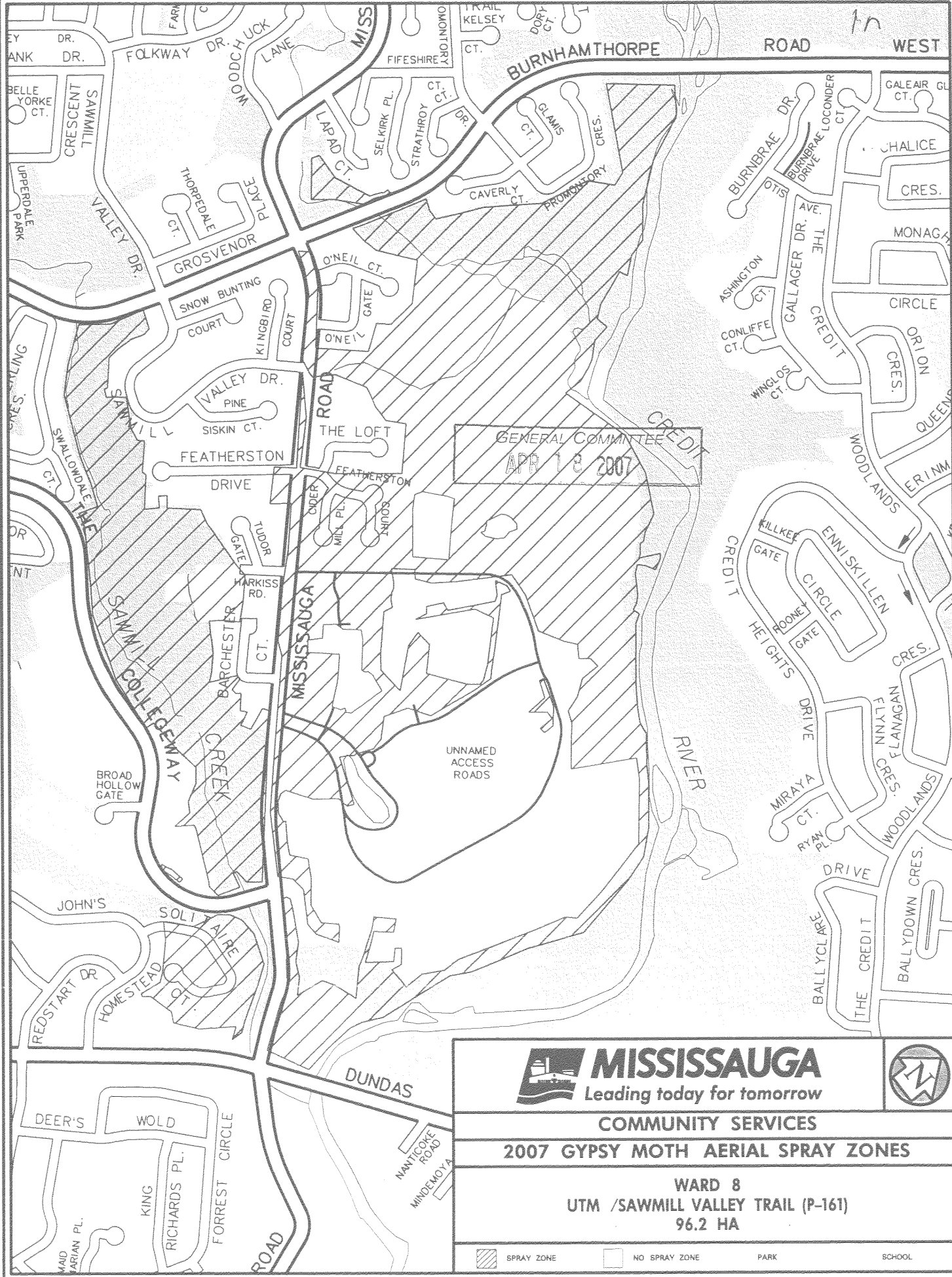


COMMUNITY SERVICES

2007 GYPSY MOTH AERIAL SPRAY ZONES

**WARD 7
 RICHARD JONES PARK (P-84)
 9.99 HA**

 SPRAY ZONE
  NO SPRAY ZONE
  PARK
  SCHOOL



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2007 GYPSY MOTH AERIAL SPRAY ZONES

WARD 8
UTM /SAWMILL VALLEY TRAIL (P-161)
96.2 HA

 SPRAY ZONE
  NO SPRAY ZONE
  PARK
  SCHOOL

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2007 GYPSY MOTH AERIAL SPRAY ZONES

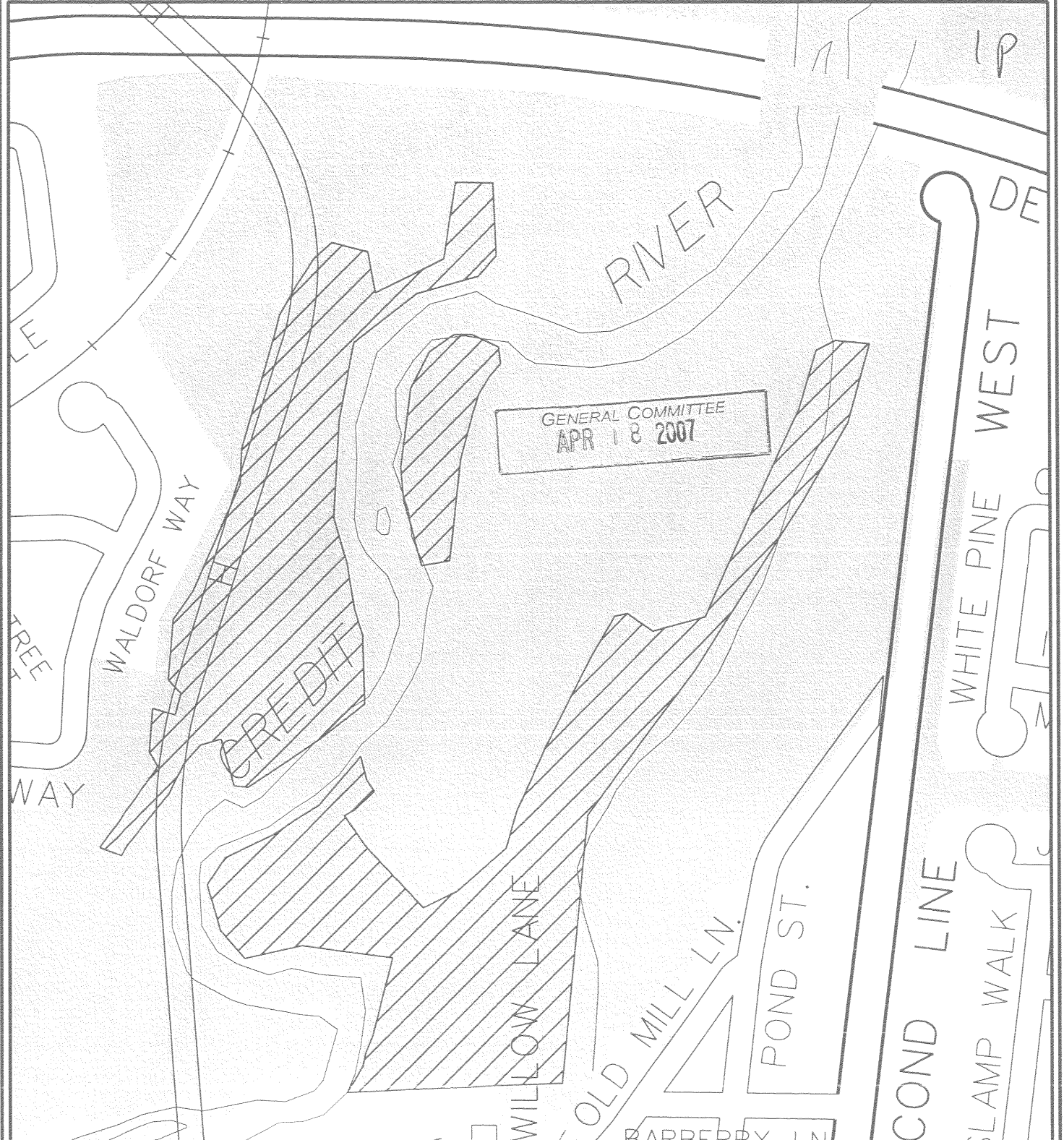
WARD 9
WINDRUSH WOODS (P-327)
4.87 HA

 SPRAY ZONE

 NO SPRAY ZONE

 PARK

 SCHOOL

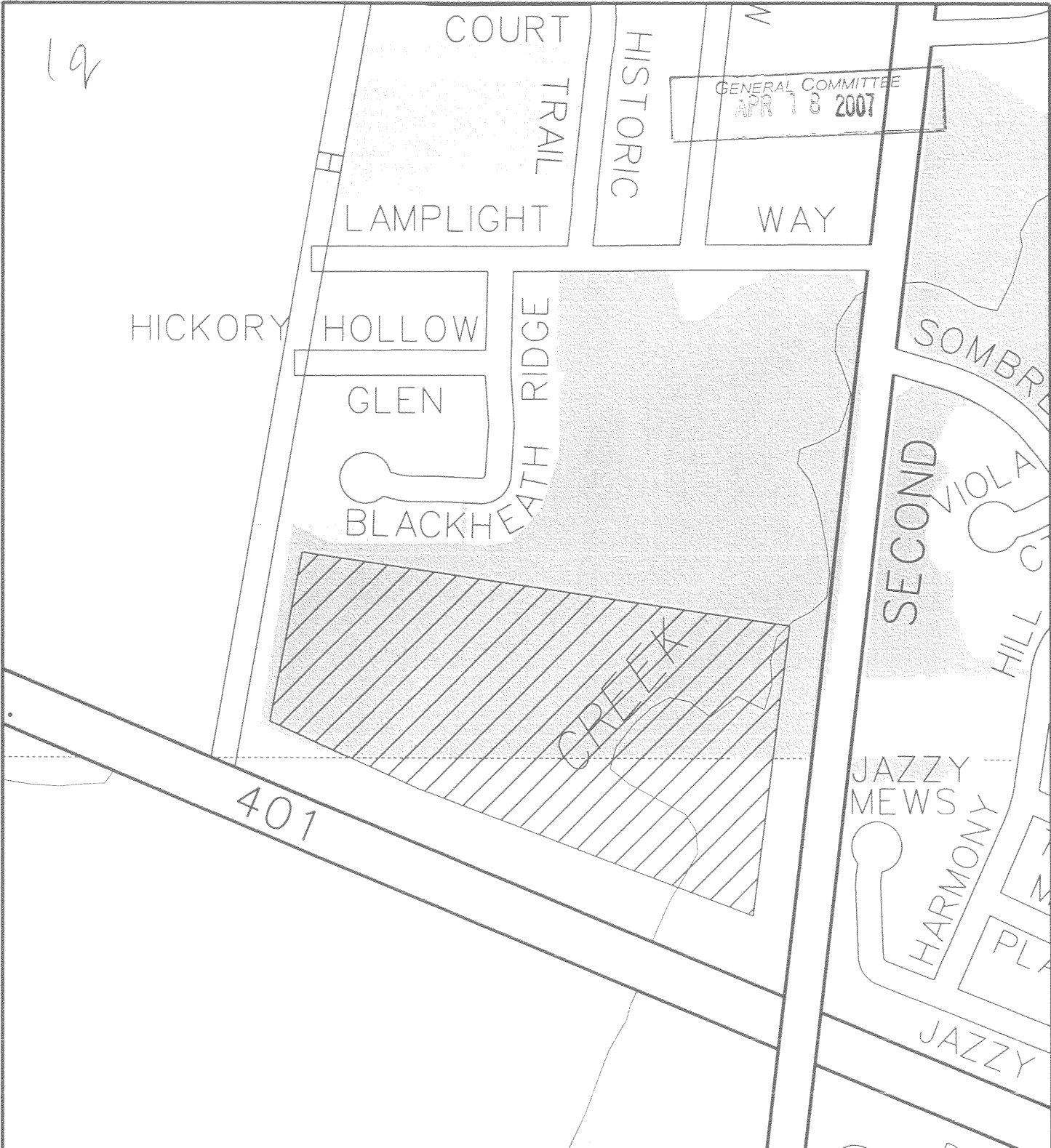


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COMMUNITY SERVICES		
2007 GYPSY MOTH AERIAL SPRAY ZONES		
WARD 11 MEADOWVALE CONSERVATION AREA (P-328) 11.6 HA		
 SPRAY ZONE	 NO SPRAY ZONE	 PARK
		 SCHOOL

UPPER RIVER

19

GENERAL COMMITTEE
APR 18 2007



LETCHERS



COMMUNITY SERVICES

2007 GYPSY MOTH AERIAL SPRAY ZONES

WARD 11
P-388 /MTO
7.4 HA

SPRAY ZONE

NO SPRAY ZONE

PARK

SCHOOL