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1-9-01*City of Alexandria, Virginia***MEMORANDUM**

DATE: JANUARY 5, 2001

TO: THE HONORABLE MAYOR AND MEMBERS OF CITY COUNCIL

FROM: PHILIP SUNDERLAND, CITY MANAGER *PS*

SUBJECT: PROPOSED SPRING 2001 GYPSY MOTH SUPPRESSION PROGRAM FOR TWO AREAS IN THE WEST END OF THE CITY.

ISSUE: City Council consideration of the Spring 2001 gypsy moth suppression program for two areas in the West End of the City.

RECOMMENDATION: That City Council schedule the proposed 2001 gypsy moth suppression program for public hearing on Saturday, January 13, and following the public hearing, approve the program as recommended by staff, with the following components:

1. Aerial application of Bacillus thuringiensis (B.t.) over two spray blocks totaling 96 acres, which includes 50 acres in the area surrounding the Virginia Theological Seminary, a small portion of Episcopal High School, Temple Beth El and adjacent residential properties south of Seminary Road (27 properties or dwellings) and 46 acres in Seminary Hill (107 properties) (Attachment 1). (The term "block" is used in the gypsy moth program to describe certain prescribed areas to be sprayed, and a block often extends over a number of acres.) This program will be carried out in cooperation with the Virginia Department of Agriculture and Consumer Services (VDACS);
2. Declaration that the aerial and ground spray programs are to be voluntary, that a 200-foot buffer zone will be maintained around the property of any objector, and that ground spraying will be provided for those desiring their properties to be treated within the buffer areas surrounding objectors and in other locations specified by the City Arborist; and
3. Implementation of other gypsy moth suppression measures to include the distribution of burlap for banding trees and educational materials in cooperation with the Virginia Department of Agriculture and Consumer Services.

BACKGROUND: Based upon the annual gypsy moth egg mass survey conducted by the Department of Recreation, Parks and Cultural Activities, we have determined that two areas in the City, totaling 96 acres, qualify to participate in the Virginia Department of Agriculture Consumer Services (VDACS) Gypsy Moth Suppression Program in the spring of 2001. This program includes the aerial application of insecticide to control the gypsy moth population, and is partially funded by the United States Department of Agriculture. The qualifying areas consist of 50 acres in the area surrounding the Virginia Theological Seminary, a small portion of Episcopal High School, Temple Beth El and the adjacent residential properties south of Seminary Road (27 properties or dwellings) and 46 acres in Seminary Hill (107 properties).

In the past gypsy moths have been very destructive and have caused serious damage by defoliating and weakening mature hardwood trees such as oaks in areas of the City. Alexandria's gypsy moth suppression program began in 1988 with the spraying of 1,200 acres throughout the City. The suppression program was most intensive in 1989 when 1,800 acres were sprayed. The spray areas varied from 400 acres in 1990 to 200 acres in 1991, 100 acres in 1992, 96 acres in 1993, 57 acres in 1994 and 44 acres in 1995. In 1998, two trees on the public right-of-way were treated by ground application of pesticides. No pesticides were applied by the City to control the gypsy moth in 1996, 1997 or 1999. In 2000, it was necessary to spray 86 acres in North Ridge.

The City plans to use the biological insecticide B.t., a naturally occurring bacterium which will eliminate gypsy moths and other leaf-eating caterpillars. B.t. is applied in spring before most harmless species of butterflies have hatched, and it is often used by organic gardeners to control leaf eating caterpillars on vegetables. It is biodegradable and leaves no long lasting residue on trees or in the ground.

The decline in the gypsy moth population through the nineties has been attributed in part to timely applications of pesticides. However, it has been the artificial introduction of a fungus (*Entomophaga maimaiga*) of the gypsy moth larvae which has kept the population in check. The mild and dry spring weather in 1999 and 2000 was not favorable for the development of this fungus. We believe that the modest increase in the City's gypsy moth population expected in 2001 may be a result of this decline in the fungus of the gypsy moth larvae.

As required by VDACS and following procedures established in previous years, we have initiated a request for assistance in gypsy moth suppression in the upcoming year. This request has included preliminary identification of spray blocks for review by VDACS to determine that they meet program qualifications.

In the years prior to 1994, the Gypsy Moth Advisory Committee representing eight community groups and the Alexandria Environmental Policy Commission was convened to discuss and advise staff in the development of the spray program. In March 1994, the City Council suspended the Committee because the gypsy moth population had declined to a point where it was no longer a City wide problem (affecting only a few neighborhoods within the City). Because the expected increase in the gypsy moth population is in isolated areas, we do not recommend that the Gypsy Moth

Advisory Committee be reconvened at this time. However, we are meeting with the leaders of the affected neighborhoods to improve public awareness in these areas and address any concerns which may arise. Jerry Dieruf, the City's Gypsy Moth Coordinator, has met with the Executive Board of the North Ridge Citizens Association, an area that has had problems with gypsy moths in the past. We have contacted representatives of the neighborhood most immediately effected area in Seminary Hill about this spraying proposal, and we will make certain that the neighborhood associations, the Seminary, Temple Beth El and Episcopal High School are aware of the upcoming public hearing.

DISCUSSION: The proposed suppression program is based on the results of a gypsy moth egg mass survey completed in the fall of 2000. Staff surveyed approximately 150 sites in areas which historically were most affected by gypsy moths, and used these results to determine the limits of the proposed spray blocks. The following options have been considered:

1. Application of no pesticides and the distribution of burlap banding and educational materials to the public.
2. Aerial application of B.t. in two spray blocks, 50 acres surrounding the Virginia Theological Seminary and adjacent areas and 46 acres in Seminary Hill, and the ground spray application of B.t. to properties within the buffer areas surrounding objectors and in locations specified by the City Arborist; in combination with the distribution of burlap banding and educational materials to the public.
3. Aerial application of B.t. in two spray blocks, 50 acres surrounding the Virginia Theological Seminary and adjacent area and 46 acres in Seminary Hill, and the ground spray application of B.t. to properties within the buffer areas surrounding objectors, only if there are oak trees present, one or more gypsy moth egg masses are visible upon inspection of the site, and only upon request of the property owner or resident; in combination with the distribution of burlap banding and educational materials to the public.

Staff recommends that option two be approved for the 2001 suppression program: the application of B.t. in two spray blocks (50 acres surrounding the Virginia Theological Seminary and 46 acres in Seminary Hill), and the ground spray application of B.t. to properties within the buffer areas surrounding objectors and in locations specified by the City Arborist, in combination with the distribution of burlap banding and educational materials to the public. The proposed suppression program is consistent with programs which have been recommended to City Council by the Gypsy Moth Advisory Committee in prior years.

The additional conditions for ground spray applications in option 3 were implemented in the 2000 suppression program at the request of interested citizens. Staff believes that these conditions were too restrictive and prohibited ground spray applications on properties which were proposed for treatment. As a result, trees in the Seminary Hill spray block proposed in the 2000 suppression

program suffered defoliation in two locations, the number of egg masses counted at survey points for this area is nearly double the previous year's counts, and the size of the spray block proposed for this area in this year's program is 17 acres larger than last year. Because last year's suppression program failed to adequately control the gypsy moth population in Seminary Hill, staff does not recommend option three.

Burlap for banding trees and educational materials will be available to the public in May and June at the Lee Center, located at 1108 Jefferson Street; the Jerome "Buddie" Ford Nature Center, located at 5700 Sanger Avenue; and Fire Station No. 53, located at 2801 Cameron Mills Road and one of the other Fire Stations near Seminary Hill. Banding trees with burlap helps monitor gypsy moth larvae and determine levels of infestation. Residents who band their trees will be reminded that they must inspect the bands and remove larvae on a regular basis for this program to be effective.

In November 2000, City staff submitted a proposal to VDACS to participate in the 2001 Virginia Cooperative Gypsy Moth Suppression Program. The State requires that spray blocks have a minimum of 250 egg masses per acre, the presence of primary and secondary host tree species, and the potential for additional infestation from adjacent communities (i.e. caterpillars being wind borne into the City from Arlington and Fairfax Counties). The City's proposed suppression program meets these requirements, qualifying the City to participate in the program and to receive federal funding for a portion of the program.

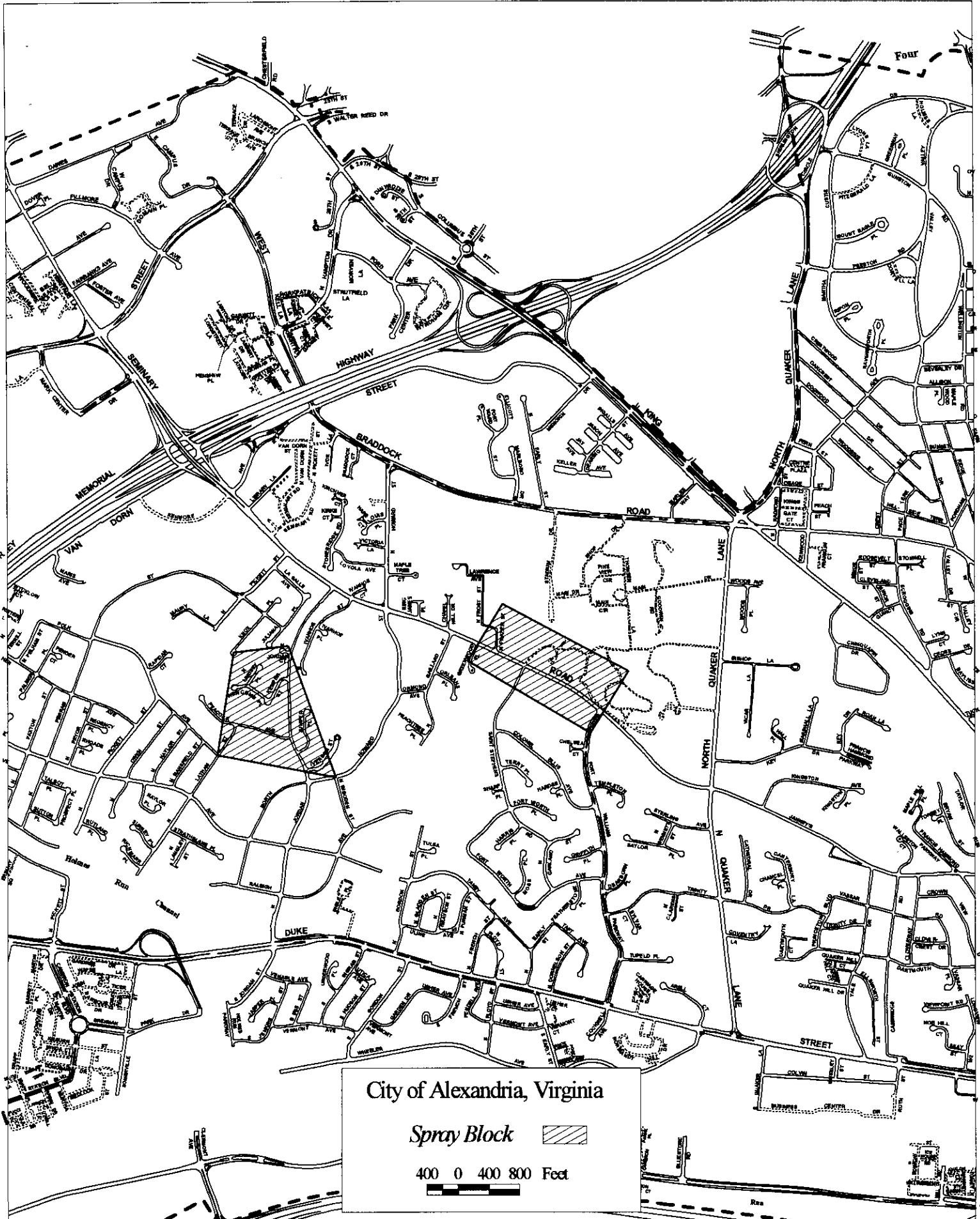
The estimated cost of the 2001 Gypsy Moth Suppression Program is \$40,880 (Attachment 2). The City's share is \$22,640. The estimated federal share of the program is \$18,240, which will cover one half of the aerial application and one half of the personnel costs. The State no longer shares in any of the direct costs of the program. However, the State will administer the program, contract with an applicator, and supervise the aerial application.

FISCAL IMPACT: The estimated cost of the suppression program is \$40,880. Federal funding is projected to account for \$18,240 of the total cost, reducing the City's cost to \$22,640. The FY 2001 Budget includes \$24,957 for gypsy moth suppression.

ATTACHMENTS: 1. 2001 Gypsy Moth Suppression Program Spray Block Map
2. 2001 Gypsy Moth Suppression Program Estimated Costs

STAFF: Sandra Whitmore, Director,
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Attachment 1
2001 GYPSY MOTH SUPPRESSION PROGRAM



2001 GYPSY MOTH SUPPRESSION PROGRAM

ESTIMATED COSTS

	FEDERAL SHARE	CITY SHARE
AERIAL SPRAY SUPPRESSION PROGRAM		
Aerial spray application (96 acres @ \$67.50/acre)	\$ 3,240.00	\$ 3,240.00
Helicopter rental for defoliation survey and spray observation		\$ 1,200.00
GROUND SPRAY SUPPRESSION PROGRAM		
Ground spray applications (10 acres @ \$100.00/acre)		\$ 1,000.00
INTEGRATED SUPPRESSION PROGRAM		
Burlap bands		\$ 300.00
MAILINGS, NOTIFICATIONS, AND SUPPLIES		
Printing costs (1,000 pieces)		\$ 300.00
Postal costs (1,000 pieces)		\$ 300.00
Advertisement		\$ 300.00
PERSONNEL COSTS		
Egg mass survey and suppression program	\$15,000.00	\$ 15,000.00
CONFERENCE AND BOOKS		
Conferences and meetings		\$ 1,000.00
TOTALS	\$18,240.00	\$22,640.00