NEW YORK STATE OF OPPORTUNITY.

Department of Environmental Conservation

NEW YORK STATE OAK WILT RESPONSE

2016 Annual Report

Division of Lands and Forests
Bureau of Invasive Species and Ecosystem Health

www.dec.ny.gov

New York State Oak Wilt Response 2016 Annual Report

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Executive summary

Oak wilt has been confirmed in 17 of 44 trees sampled this year in Brooklyn, Islip, Riverhead, Southold, and Canandaigua, New York after being detected through aerial and ground surveys, and public reporting. To effectively manage the response to oak wilt in New York State, an incident command structure is in place in 2016.

Detection and monitoring continues by aerial, ground, and door-to-door survey. Aerial surveys were conducted between July and October 2016 within 16 square miles over the Glenville, Canandaigua, and Islip infections. Symptomatic trees mapped in aerial surveys and by public reports were further verified with ground surveys from July through October. One hundred twenty symptomatic trees mapped were checked by DEC staff. Door-to-door surveys occurred from October through November 2016.

Regulatory measures have been implemented in the form of Protective Zones surrounding infections. DEC plans to expand upon the initial Central Islip Protective Zone in 2017 to include all of Suffolk County, and to create protective Zones in Canandaigua and Brooklyn.

DEC plans to remove all infected trees in 2017 as well as has placed a trench and material barrier in Canandaigua. Public information and outreach was provided through conference attendance, presentations, stakeholder education, letters, hangers, factsheets, an email, and articles.

Oak Wilt in New York State

Oak wilt was first detected in New York in Glenville in 2008; although symptomatic trees had been observed by homeowners as early as 2006**. From sampling, oak wilt was confirmed in Brooklyn, Islip, Riverhead, Southold, and Canandaigua, New York in 2016. Oak wilt was detected with aerial and ground surveys, and public reporting.**

Incident Command Structure

To effectively manage the response to oak wilt in New York State, an incident command structure is in place (Figure 1, p.4). Incident command is established in the NYS DEC Central Office (Albany, NY) to coordinate the response to apply consistent implementation of the response as oak wilt spreads. Oak Wilt has been found in NYS DEC Regions 1, 2, 4, and 8.

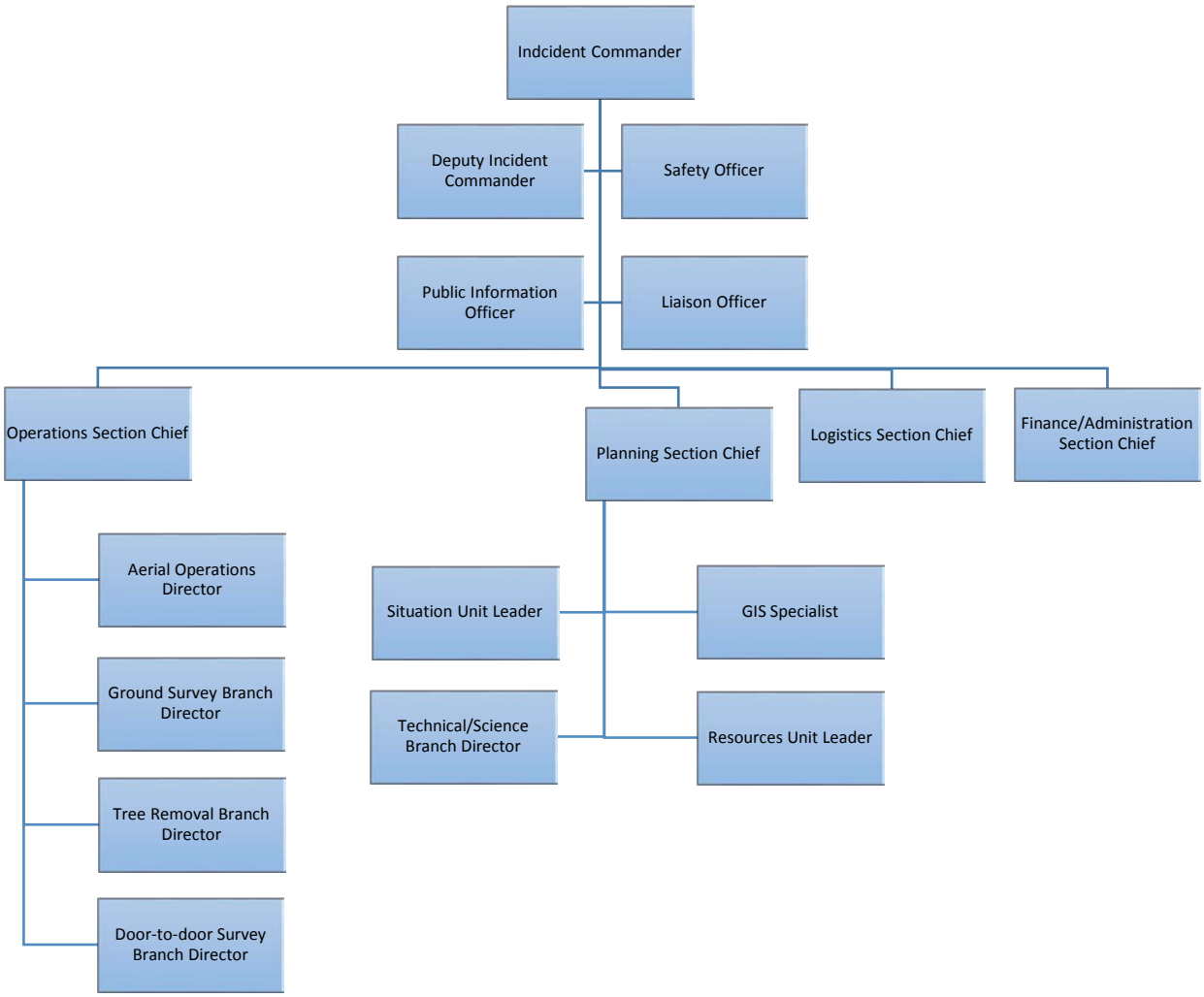

Figure 1. Incident command structure in place December 31, 2016.

Detection and Monitoring

Aerial surveys

Aerial surveys were conducted between July and October 2016 within the surrounding 16 square miles over the Glenville (July 20th and Sept 8th), Canandaigua (Oct 26th), and Islip infections (July 14th and Sept 1st). In Canandaigua, no symptomatic trees were mapped during the aerial flight. Thirteen symptomatic trees were mapped during the aerial surveys over Glenville. In Islip, 72 symptomatic trees were mapped during the aerial flights.

A photo of symptomatic trees taken in Glenville, NY taken on an aerial survey

Ground-truthing surveys

Symptomatic trees mapped in aerial surveys and called in by landowners were further verified with ground surveys from July through October. Ground-truthing surveys led to 13 symptomatic trees checked in Glenville, 72 symptomatic trees checked in Suffolk County, Ground surveys generated from public reporting led to 35 symptomatic trees being checked in Fulton, Kings, Ontario Otsego, Suffolk, and Ulster Counties (Table 1, p 6).

Table 1. Number of trees detected in aerial surveys, number of trees surveyed in ground truthing and ground surveys, number of trees sampled, and number of trees tested positive for oak wilt in 2016.

County	Aerial surveys - damaged trees detected	Ground-truthed trees from aerial surveys	Ground-surveyed trees from public reporting	Number trees sampled	Number oak wilt positive trees
Kings	N/A	N/A	1	8	1
Ontario	0	0	1	1	1
Otsego	N/A	N/A	1	1	0
Fulton	N/A	N/A	1	1	0
Schenectady	13	13	0	0	0
Suffolk	72	72	30	33	12
Ulster	N/A	N/A	1	0	0

Door-to-door surveys

Door-to-door surveys occurred in Central Islip from October through November 2016. During these surveys, trees at the surrounding 92 properties within the Protective Zone to the infected trees were inspected for signs of oak wilt. The surrounding wooded lots were also surveyed in Canandaigua in October 2016. In Canandaigua, 2,560 acres were checked for symptomatic oaks, and no symptomatic oaks were found.

Sampling

In 2016, samples were collected from trees in Fulton, Kings, Ontario, Otsego, and Suffolk Counties**.** The tree species sampled for oak wilt were *Quercus rubra*, *Quercus bicolor*, *Quercus alba*, *Quercus coccinea*, *Quesrcus veluntina*, and *Quercus palustrus*. **DEC staff found 17 of 44 trees tested positive for oak wilt** (Table 2, p.6). The majority of trees that tested positive for oak wilt were in Long Island (Figure 2, p.7).

Table 2. Positive sampling result details.

Location with positive trees	Positive trees	Positive tree species	Culture Test(s)	Tissue PCR	Isolation PCR	Sequencing
Kings	1	*Quercus rubra*	Negative	Positive	N/A	Positive
Ontario	1	*Quercus rubra*	Positive	Positive	Positive	Positive
Suffolk	12	*Quercus rubra, Quercus alba, Quercus veluntina*	Negative	Positive	N/A	Positive

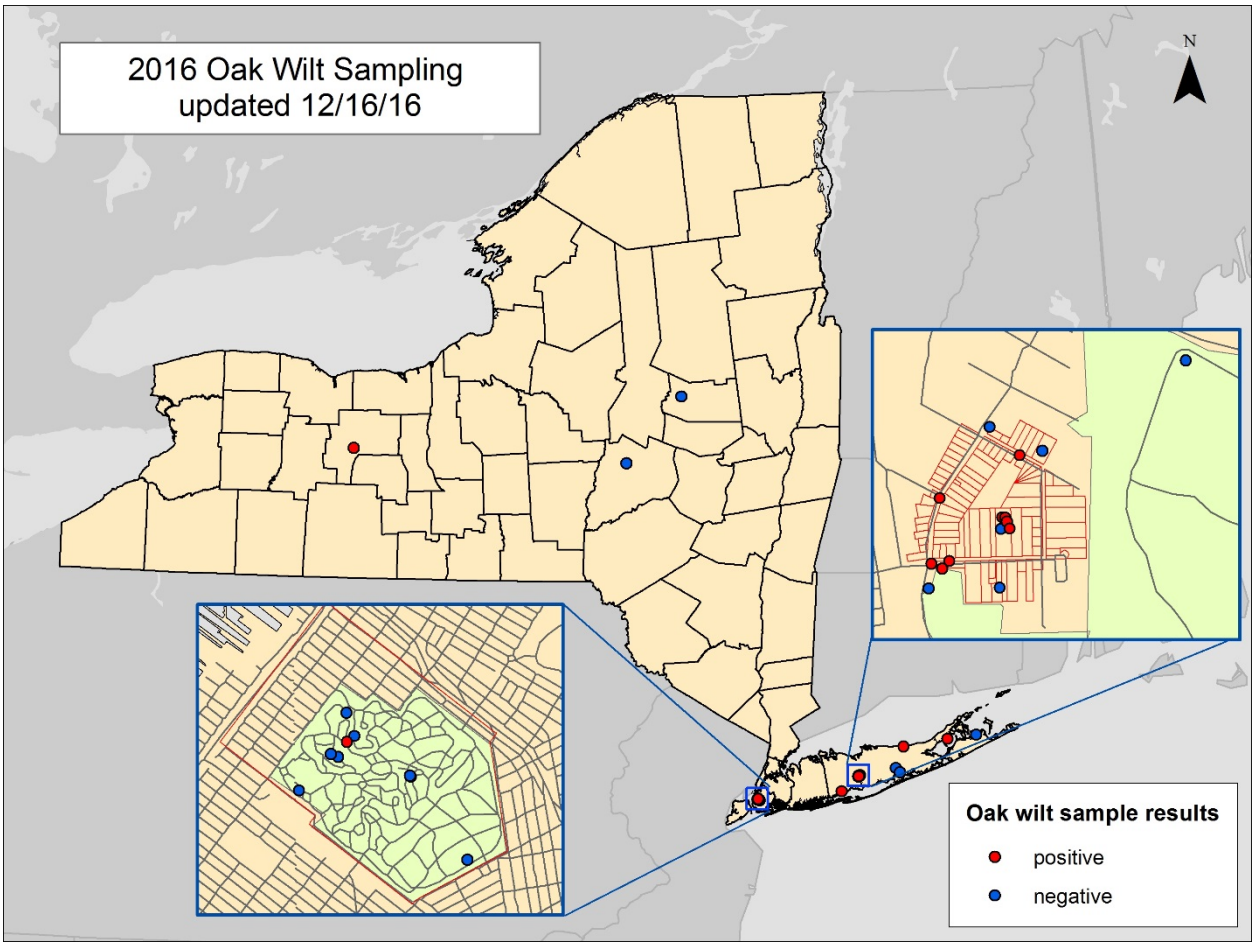

Figure 2. A map showing sampling results; most positive samples were from Long Island

Tree tagging

To monitor and track the health of specific trees within root grafting distance of oak wilt positive trees, oak trees surrounding oak wilt positive trees were marked in Central Islip in October and November 2016. DEC staff will revisit these trees in 2017 to check on their health to see if sampling needs to take place In Central Islip, 110 trees were mapped.

Regulatory

One Protective Zone was established for Central Islip in 2016. This zone was established based on the average flight distance (.25 miles) of nitidulid beetles, which spread the disease. However, **DEC plans to expand upon this Protective Zone in 2017 to include all of Suffolk County, and to create protective Zones in Canandaigua and Brooklyn** (Figure 3, p.8) since more than 3 towns within that county contained infections.

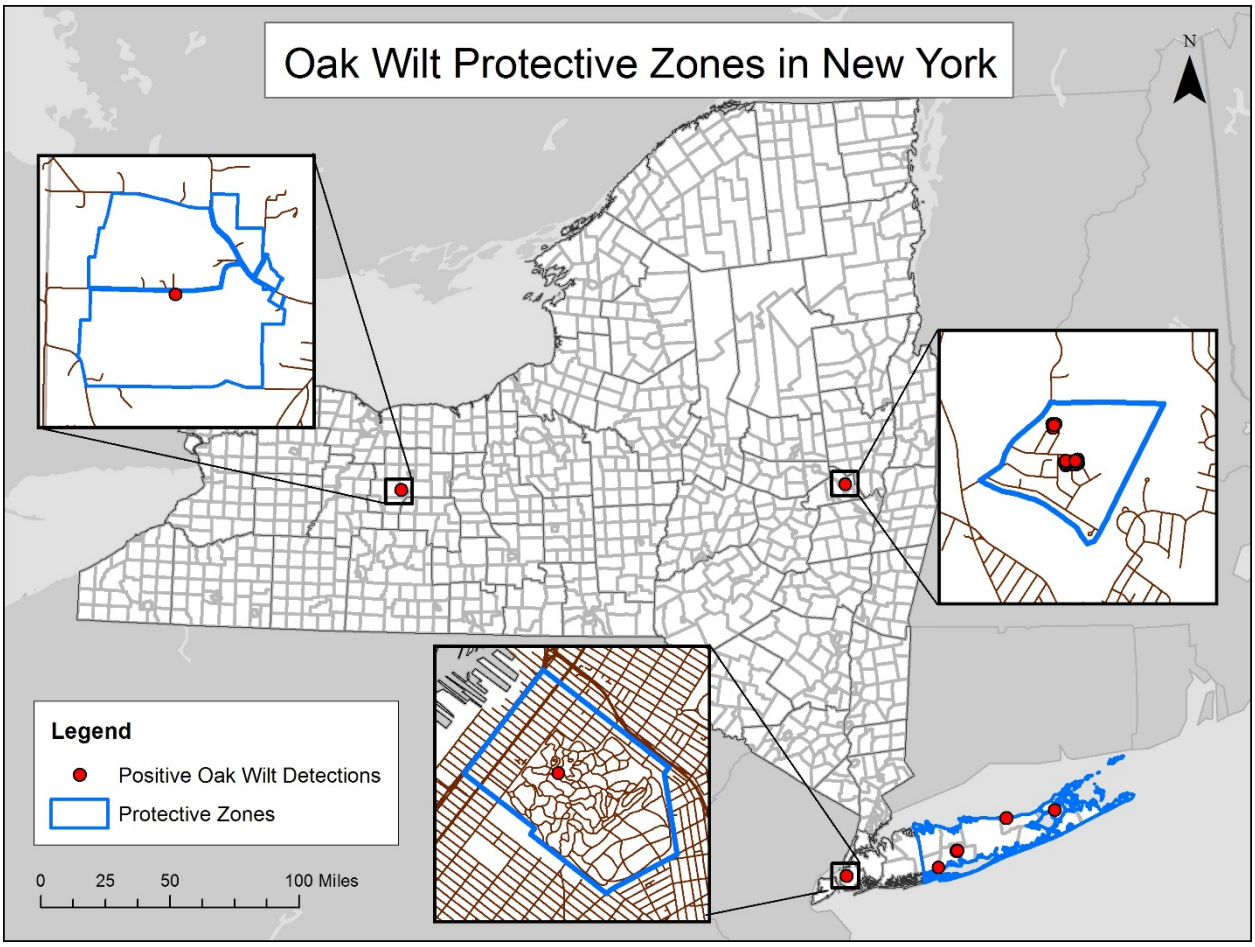

Figure 3. Locations of oak wilt detections and established Protective Zones in New York in 2016.

Eradication and Control Efforts

In 2016, 6 stumps were ground in Glenville as the final stage of tree removal activities for oak wilt management. In 2017, **DEC plans to remove all infected trees** in Canandaigua, Central Islip, Brooklyn, Riverhead, and Southold. In addition, adjacent trees to infected trees will be removed **in Canandaigua and a trench will be installed with a material barrier to further prevent the spread of oak wilt**.

Public information and outreach

An Outreach Strategic Plan was developed to identify targeted audiences and plan the development of adequate resources. To reach homeowners in the Central Islip Protective Zone, 120 homeowner letters and 50 door hangars were sent and delivered, informing them on what oak wilt is, what the protective zone is, and of surveys and management techniques. Since arborists and landscapers can help detect and take preventive measures in area with oak wilt, 28 calls were made to arborists and landscapers. Municipalities and other stakeholders in all areas with positive oak wilt detections were contacted to create partnerships for oak wilt detection, management, and outreach. To inform the public250 factsheets were distributed, which detail what oak wilt is, where oak wilt has been found, how it spreads, the symptoms of the disease and DEC management

Appendix A:

OAK WILT OUTREACH STRATEGY

Goal: Contain oak wilt on Long Island and prevent the occurrence of additional upstate infestations.

Objective #1: *Minimize overland spread of oak wilt from tree wounds by providing best management practices to forestry technicians and arborists.*

ACTION	LEAD	DATE(S)	NOTES
CREATE BMPS FACTSHEETS FOR FORESTRY & ARBORICULTURE AUDIENCES, DISSEMINATE VIA PROFESSIONAL ORGANIZATIONS	KOTARY/EYRES?		SEE APPENDIX FOR LIST OF PROFESSIONAL ORGANIZATIONS & CONTACTS
ATTEND PROFESSIONAL CONFERENCES/MEETINGS, GIVE PRESENTATIONS AND/OR HOST BOOTHS, TAKE ADVANTAGE OF CAPTIVE AUDIENCES WHO CAN SERVE AS EARLY DETECTORS ACROSS THE STATE	KOTARY	TBD	SOCIETY OF AMERICAN FORESTERS, EMPIRE STATE FOREST PRODUCTS ASSOC., NYS FOREST OWNERS ASSOC., LONG ISLAND ARBORISTS ASSOC., ETC.

Objective #2: *Halt the movement of oak wood from protective zones.*

ACTION	LEAD	DATE(S)	NOTES
EDUCATE MUNICIPALITIES (INCLUDING DPW, PLANNING DEPT.) REGARDING HANDLING OF CONTAMINATED YARD WASTE AND SPORE PRODUCING MATERIAL	KOTARY/BRADY	2/19-2/20/17 – ASSOC. OF TOWNS MEETING	
INFORM ECO'S OF ZONE UPDATES AND PROVIDE LAW ENFORCEMENT FAQ DOCUMENT	?	ONGOING	~35 ECO'S WORKING ON LONG ISLAND, OUTREACH TO CAPTAINS (TOP-

			DOWN DISSEMINATION OF INFORMATION)
MAINTAIN UP TO DATE PROTECTIVE ZONE MAPS ON DEC PUBLIC WEBSITE	KOTARY/VAN DUYNE	ONGOING	WILL MUNICIPALITIES ALSO PUT INFORMATION ON THEIR PAGE?

Objective #3: *Create an informed public who possess the tools to recognize the signs and symptoms of oak wilt, manage it on their properties, and report findings to natural resource managers.*

ACTION	LEAD	DATE(S)	NOTES
INCORPORATE OAK WILT MESSAGES INTO CCE MASTER GARDENER AND FOREST OWNER TRAININGS/WORKSHOPS	PHILLIPS	WINTER/SPRING 2017	NEXT CONFERENCE CALL SCHEDULED FOR 12/21/16
HOST PUBLIC MEETINGS IN LONG ISLAND PROTECTIVE ZONES AND WITH EACH MUNICIPALITY WITH A POSITIVE SAMPLE	KOTARY/COLE	SPRING 2017	FOLLOW UP MEETING W/ ISLIP
STRATEGIZE WITH REGIONAL STAFF REGARDING WAYS TO DISSEMINATE MESSAGES VIA MEDIA (NPR, TV, LOCAL NEWSPAPERS)	KOTARY/COLE	WINTER 2016-2017	CONTACTS: BILL FONDA, CARRIE MEEKS-GALLAGHER
ASSESS FEASIBILITY OF PAID ADVERTISING EFFORTS (BILLBOARDS, SUBWAY/LIRR ADS, ETC.)	KOTARY	WINTER 2016-2017	
MAINTAIN OAK WILT PAGES ON DEC PUBLIC WEBSITE	KOTARY/VAN DUYNE	ONGOING	
COORDINATE SOCIAL MEDIA CAMPAIGN WITH POSITIVE OAK WILT MESSAGING	KOTARY/BOBER/VAN DUYNE/ANTOLOS	ONGOING	FOCUS ON STEPS CITIZENS CAN TAKE TO SLOW THE SPREAD OF OAK WILT, UTILIZE FOREST FRIDAY!
ISSUE DIRECT MAILINGS TO PROTECTIVE ZONE RESIDENTS WHEN NECESSARY (NEW INFORMATION, SPECIFIC ASK, ETC.)	KOTARY/COLE	AS NEEDED	

DRAFT PRESS RELEASES WITH PERTINENT UPDATES (NEW DETECTIONS, PUBLIC MEETINGS, PROTECTIVE ZONE ESTABLISHMENT, ETC.)	KOTARY/COLE/VAN DUYNE	AS NEEDED	SHARE WITH ELECTED OFFICIALS, MUNICIPALITIES, PRISMS, CCE, PROFESSIONAL ORGANIZATIONS
EXPLORE VIDEOGRAPHY PROJECT FOR USE ON YOUTUBE, PARTNER WEB PAGES, ETC.	KOTARY	LOW PRIORITY – LARGE UNDERTAKING, SCOPE OF INFLUENCE UNKNOWN	1ST STEP – IDENTIFY FOOTAGE NEEDED COULD SUBMIT PROPOSAL TO EXCELSIOR CONSERVATION CORPS'S OUTREACH TEAM TO DEVELOP VIDEO