March 21, 2016
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The Town Council meeting was held in the Moose Hill Council Chambers, Town Hall, 268B Mammoth Road, Londonderry,
NH.

Present: Chairman John Farrell; Vice Chairman Tom Freda; Councilors Jim Butler, Joe Green and Tom Dolan; Town Manager Kevin Smith; Executive Assistant Kirby Wade

#### CALL TO ORDER

12 Chairman Farrell opened the meeting with the Pledge of Allegiance. This was followed by a moment of silence for all the 13 men and women who serve us here and abroad and all first responders and the men and women who serve us here and 14 abroad.

#### **PUBLIC COMMENT**

18 Chairman Farrell invited up Cassie Gudek, the Community Liaison Director for New Hampshire Job Corps Center. She 19 presented the council with a brief history, who they serve and how they serve them. It is a federally funded program through 20 the Department of Labor. Gudek discussed the programs that they offer. The Council thanked Gudek for attending the 21 meeting and informing the public about New Hampshire Job Corp Center.

- 23 Chairman Farrell opened up Public Comment. There was no comment from the public.
  - **PUBLIC HEARING**

#### NONE

#### NEW BUSINESS

- Chairman Farrell introduced the appointment of the Tax Collector/Deputy Town Clerk and the Deputy Tax Collector.
  Chairman Farrell stated that pursuant to RSA 41:33, the Council hereby appoint Kathleen Donnelly of 23 Rainbow Drive,
  Londonderry, NH, as the Town of Londonderry Tax Collector and Deputy Town Clerk starting on March 16<sup>th</sup>, 2016 and shall
  be valid until March 16, 2017. Councilor Green motioned to accept the appointment. Second by Vice Chairman Freda. Chair
  votes 5-0-0. Chairman Farrell stepped down from the appointment due to his relationship with the appointee. Vice Chairman
  Freda read in the motion to appoint the elected Town Clerk Sherry Farrell as the Deputy Tax Collector pursuant to RSA
  41:18. Motion to approve made by Councilor Green and second by Councilor Dolan. Chair votes 4-0-1.
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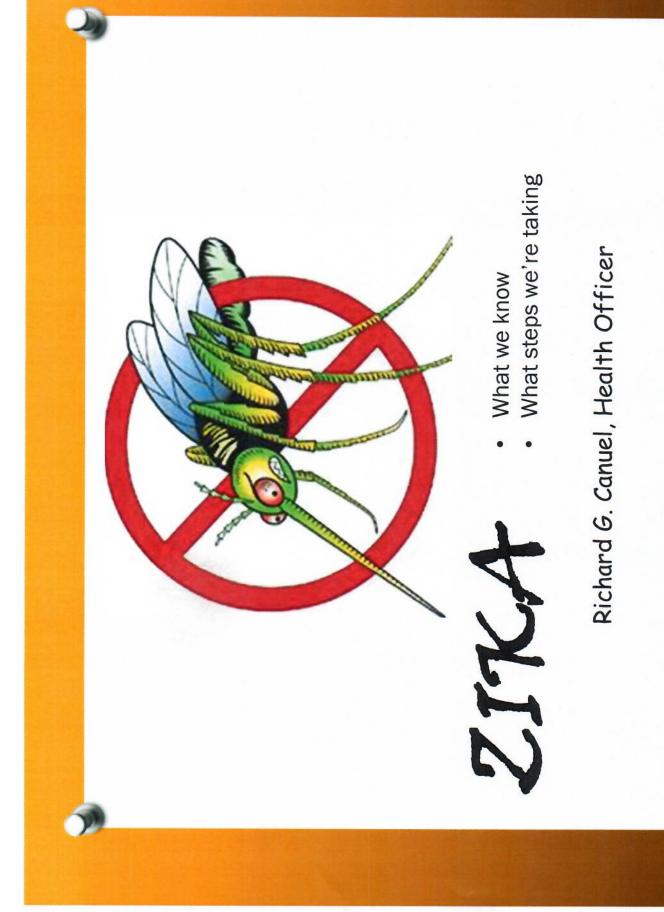
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Chairman Farrell introduced Order #2016-09, the expenditure of Maintenance Trust Fund for various projects. This Order is
 for the vent pipe replacement at South Fire Station and the energy wheel bearings ERU-1 at North Fire Station. Motion to
 approve Order #2016-09 made by Councilor Green and second by Vice Chairman Freda. Chair votes 5-0-0.

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#### LONDONDERRY TOWN COUNCIL MEETING MINUTES

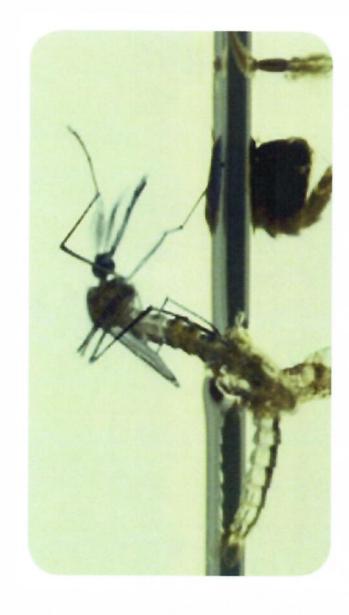
45	APPROVAL OF MINUTES			
46 47 48 49 50	Motion to approve the Town Council minutes from March 7, 2016 made by Councilor Green and second by Councilor Butler. Chair votes 4-1-0. Councilor Dolan stepped out of the meeting for a minute.			
51	<b>BOARD/COMMITTEE APPOINTMENTS</b>			
52				
53 54 55	The Council motioned to appoint Todd Ellis as an alternate member to the Recreation Commission. That is the Recreation Departments recommendation. Motion to appoint made by Councilor Green and second by Councilor Butler. Chair votes 5 0-0.			
56				
57		<u>ADJOURNMENT</u>		
58				
59	Motion to adjourn made by Councilor Dolan and second by Councilor Green. Chair votes 5-0-0.			
60 61			D. (	
61 62	Notes and Tapes by: Minutes Typed by:	Kirby Wade Kirby Wade	Date: 03/21/2016 Date: 03/24/2016	
63	Approved by:	Town Council	Date: 04/04/2016	
64	Approved by:	Town Counch	Duce. 04/04/2010	
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Females generally lay 100 eggs at a time





## Emerging adult mosquito.

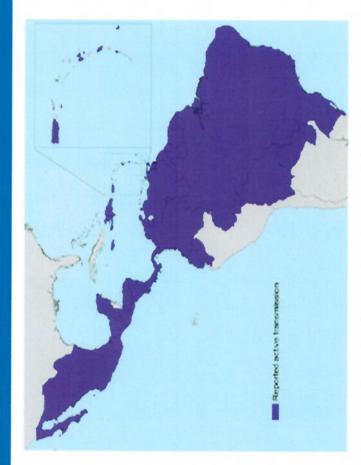
The Aedes Aegypti & Aedes Albopictus are primarily container breeders rather than water bodies



# Female mosquito after biting a person.

The process from Egg Hatch - Larva - Pupa - Adult = 8 to 10 Days

Countries and Territories in the Americas with Active Zika Virus Transmission



South America, Central America, Caribbean Islands

Approximate distribution of *Aedes albopictus* in the United States\*



Likely geographic area of the Zika-carrying albopictus species

#### What You Should Know About Zika Virus

### What is Zika virus and how does it spread?

Zika virus (ZIKV) was first discovered in 1947 in the Zika Forest of Uganda. Shortly thereafter, it was isolated from mosquitoes and then humans in 1968. Ziku is a flavivirus similar to vellow feeet dengue, Japanese encephalitis, and West Nile virus. Prior to 2007, it had only been detected in central Africa and throughout souther statis. However, in 2007, it was associated with a disease outbacker on "hap tail in the outh Pacific representing the first time it had spread outside of Asia. From there, it spread to South America with human cases first reported in 2014.

ZIIV is transmitted by Aedes mosquitoes. In the Americas, it has only been linked to transmission by Aedes eagingth. As eagingth is also responsible for the transmission of denger wirus, yell ow fever virus, and chikungunya virus. Recently in Africa, the virus was detected in Aedes abloatized, or the Asian tiger mosquito: hence, it is likely that Ae, abloatize could vector the virus in the Americas.



### Symptoms of Zika Infection

Treatment of Zika Infection

Treatment includes rest and the use of acetaminophen to Patients should also be advised to drink plenty of fluids if diagnosed.

relieve fever.

- Typically, people with ZIKV infection begin showing symptoms with a mild headache.
- Within a day or two, a macufopspular rash may appear and can cover many parts of the body (arms, hands, face, and chest).
  - Following the rach, people generally report continued fever, malaise, and body aches. Follo

If anyone has recently traveled to a known endemic area and are displaying any of the symptoms of Zika infection, they should consult their physician immediately.

Other symptoms can include diarrhea, constipation, abdominal pain, and diztness.

### **Concerns with Pregnancy and Perinatal Infections**

and shall have been en children with Zika vine. It may tood at this tim



### >>> More about Aedes aegypti



bloodmeal at night under artificial illumination. Aedes cregypti is reported to fly only a few hundred yards its body. It is a peridomestic species found not far from human dwellings, and is particularly abundant in Ae argypti, the yellow fever mosquito, is characterized by a silvery-white "fyre-shaped" pattern of scales on towns and cities. They are primarily early morning or late afternoon feeders, but females can also take a from breeding sites. Larvae can be found in a variety of artificial containers, including buckets, tires, cans, and flower pots.

Vector Disease Control International

vdd.net



# Sick with CHIKUNGUNYA, DENGUE, or ZIKA?

Protect yourself and others from mosquito bites during the first week of illness.

#### Protect family and friends

- During the first week of illness, chikungunya, dengue, or Zika virus can be found in the blood.
- A mosquito that bites you can become infected.
- An infected mosquito can bite a family member or neighbor and make them sick.

For more Information: www.cdc.gov/chikungunya www.cdc.gov/dengue www.cdc.gov/zika



Protect yourself from mosquito bites

- Wear long-sleeved shirts and long pants.
  Use door and window screens to keep
- Use insect repellent.

a fever with any of the following symptoms: • Muscle or joint pain • Headache, especially with pa

Watch for these symptoms See your doctor if you develop

- Headache, especially with pain behind the eyes
- Rash
- Conjunctivitis (red eyes)



### Is there a treatment for Zika virus?

- There is no specific treatment for Zika virus infection, except to treat the symptoms:
  - Get plenty of rest
- Drink fluids to prevent dehydration





Take medicine such as acetaminophen to reduce fever and pain



• DO NOT take aspirin or other non-steroidal anti-inflammatory drugs (NSAIDs) as they have been linked to Reye syndrome.



• If you are taking a medicine for another medical condition, talk with your healthcare provider before taking any additional medication.



### How dangerous is Zika virus?

Most people do not develop any symptoms and those who do almost always recover within about a week. Only a few deaths have ever been reported linked to the virus.

## After having Zika virus, are people immune?

Once a person has been infected, he or she is likely to be protected from future infections.

### Zika Virus Outbreak: Update #2

announcing the first New Hampshire resident confirmed with Zika virus. The adult female illness following travel to a country where Zika virus transmission is ongoing. The patient \* 3/1/2016, the New Hampshire Department of Health and Human Services (DHHS) is patient contracted the virus after sexual contact with a male who had a compatible has fully recovered and is not pregnant.

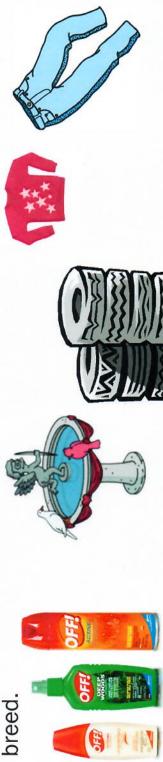
\* To date, 55 samples from residents across New Hampshire have been sent for testing for the Zika virus. Of the tests that have been completed, this is the first positive in the State. Precautions to avoid being bitten



- Use insect repellent containing DEET, picaridin, or oil of lemon eucalyptus according to the manufacturer's label;
- Wear long sleeves and pants; Aedes mosquitoes often bite during the day;
- Stay in places with window and door screens;



- Sleep under a bed net if mosquitoes cannot be kept out of the place you are staying; and
- Eliminate sources of standing water, which allow the mosquitoes to





The Repellency Awareness graphic will provide clear information about repellency on a product label to help you choose an insect repellent.

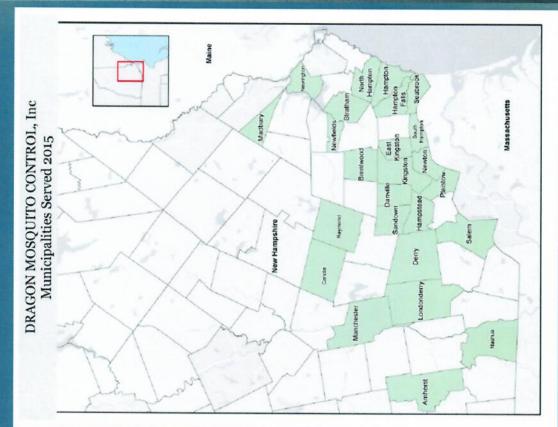
### LONDONDERRY MOSQUITO **CONTROL PROGRAM MARCH 7, 2016**

# SARAH MACGREGOR, PRESIDENT



## **2015 Municipalities**

- 24 Municipalities received varying levels of service from Dragon
- 21 Municipalities had active control programs
- 2 Towns received emergency spraying



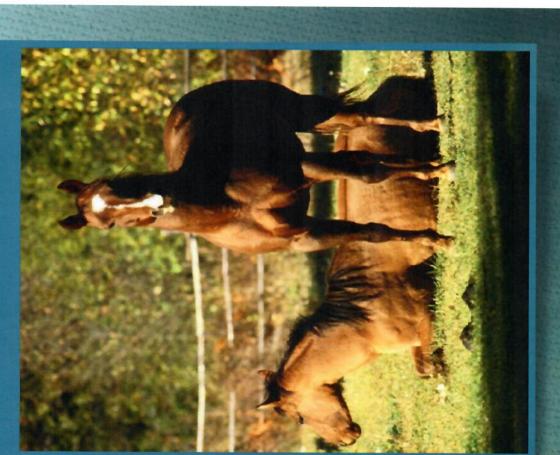
## **2015 Surveillance**

107 trap stations per week light and gravid traps 23 towns



BACKGROUND

#### 2004 EEE reemerges after 22 years



# **EEE Nationally, 2005**

21 cases reported (8 deaths) New Hampshire: 7 (2 deaths) Massachusetts: 4 (2 deaths) South Carolina: 1 (0 deaths) Louisiana: 1 (0 deaths) Alabama: 2 (1 death) Georgia: 1 (0 deaths) Florida: 5 (3 deaths)

## BACKGROUND

EEE reemerged after 22 years 2004

Londonderry - 1 of 7 that year EEE human case in 2005

Dragon hired to conduct a mosquito control program 2006

# State Special Permit

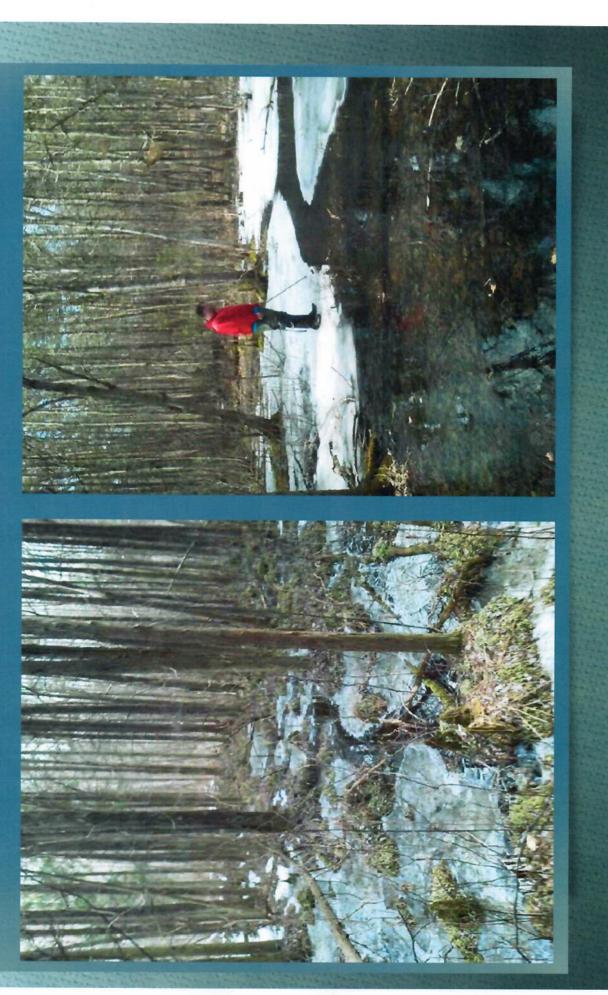
Permit process can take 120 days Required for municipal programs Reviewed by six State Agencies Submit application in Jan/Feb



# Late Winter - Early Spring

Certified letters mailed to beekeepers booklets, employee handbooks, etc. Public notices are posted or printed Advertise and interview new hires Publish training manuals, MSDS Update No-Spray Registry Gear up for the season

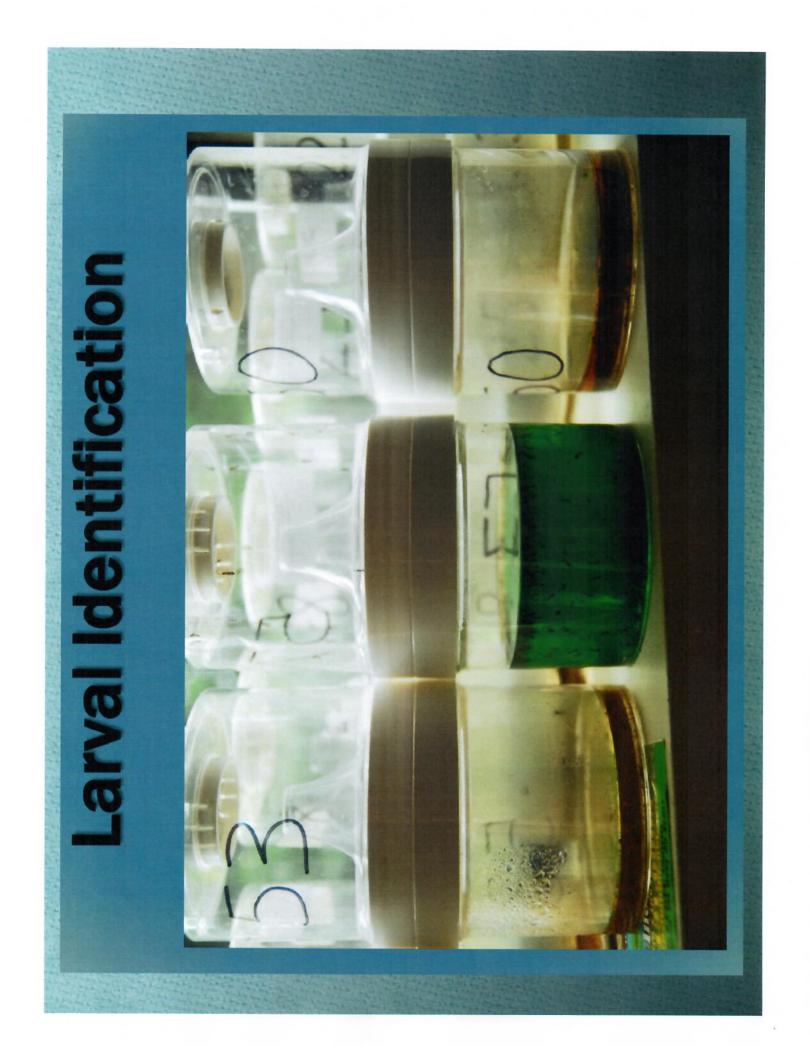


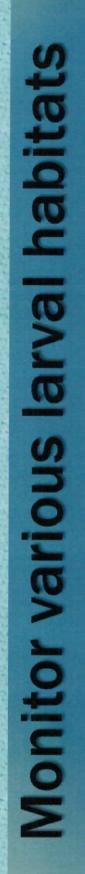


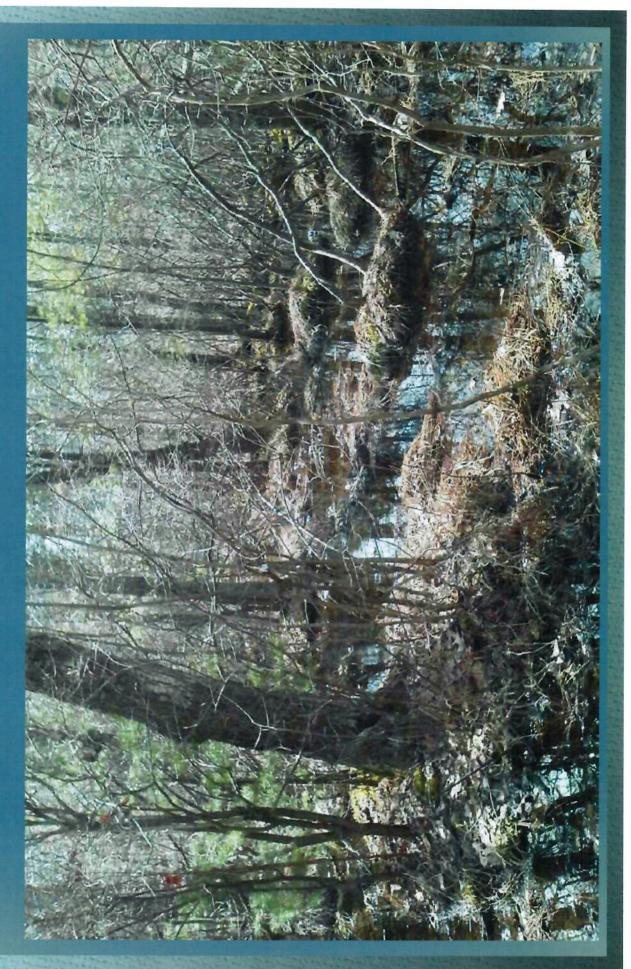


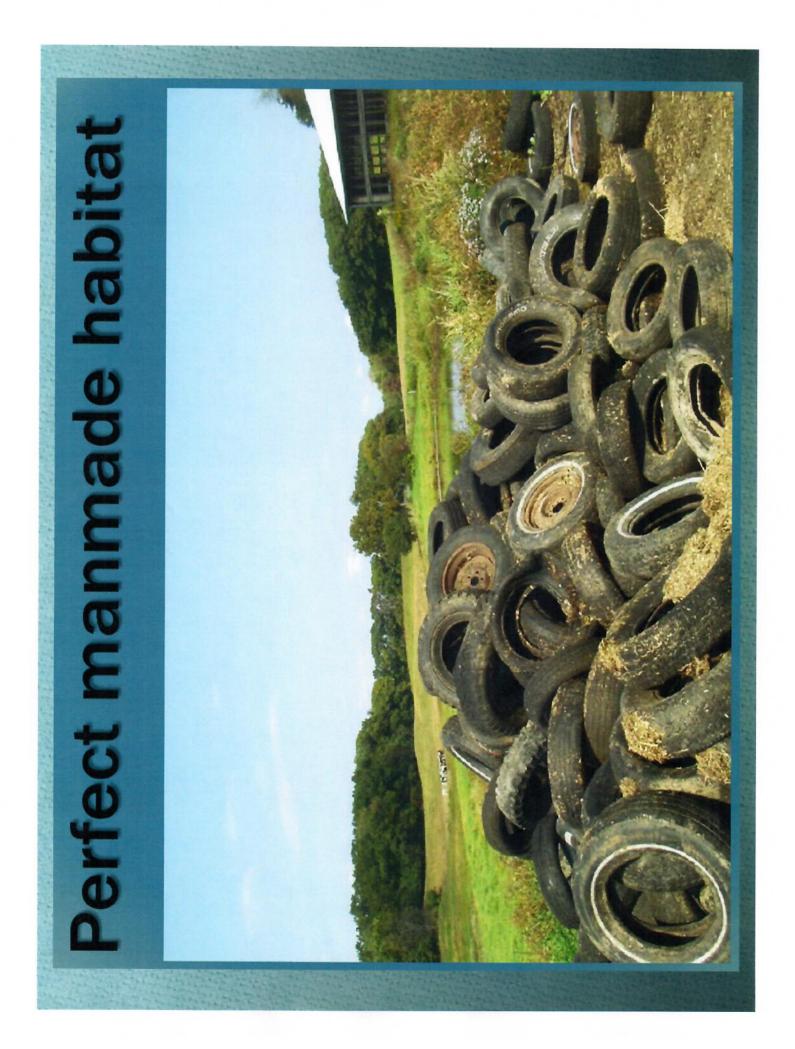


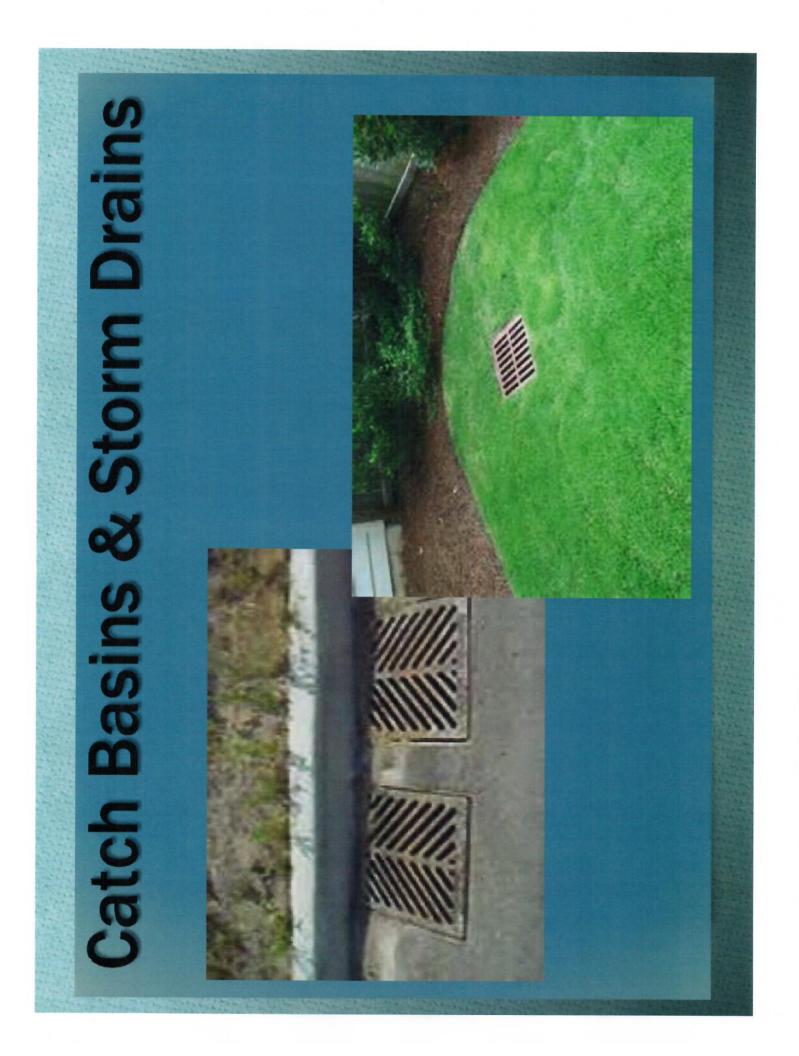












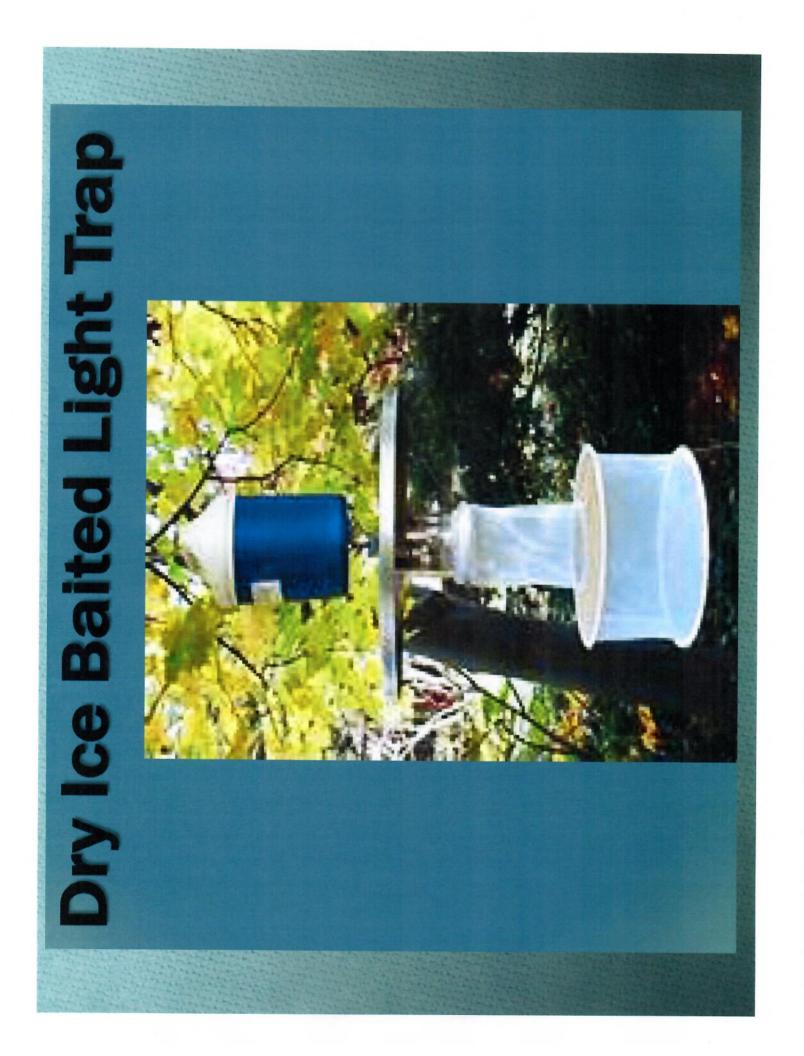
## Larviciding

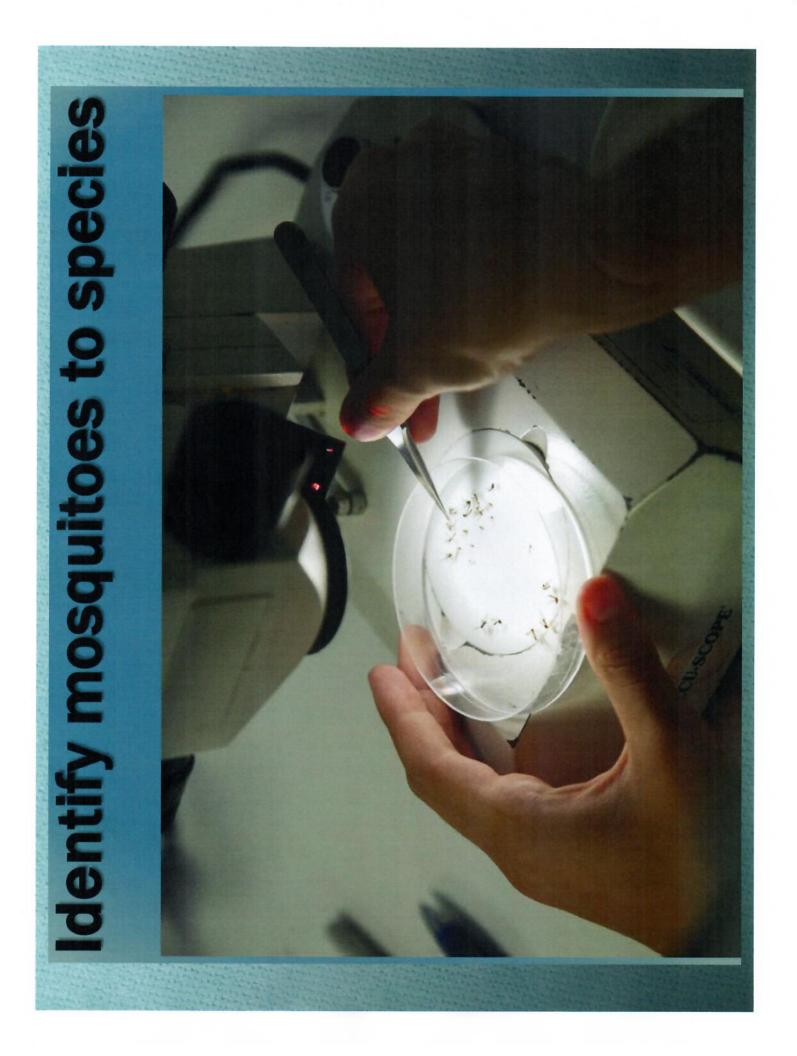
Treat stagnant water to control mosquito arvae

Summer catch basins - nearly 3900 State Special Permit is required Bacillus bacterium kills larvae Spring freshwater sites were treated in 2015 April to October

# **Mosquito Surveillance**

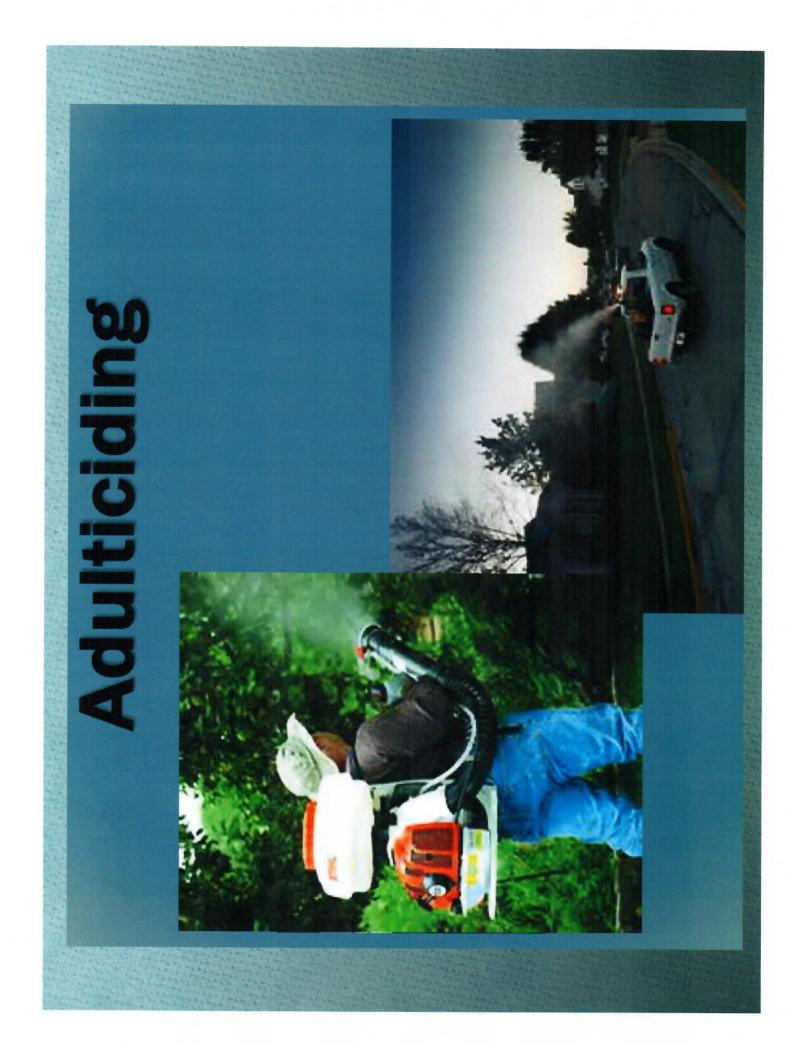
Four fixed trap locations in Londonderry Mosquitoes are sent to the State Lab in Mosquitoes carrying disease found at 3 Traps set weekly mid-June to October 29 mosquitoes species found in town Catch adult mosquitoes in light traps of those sites through the years Concord for disease testing

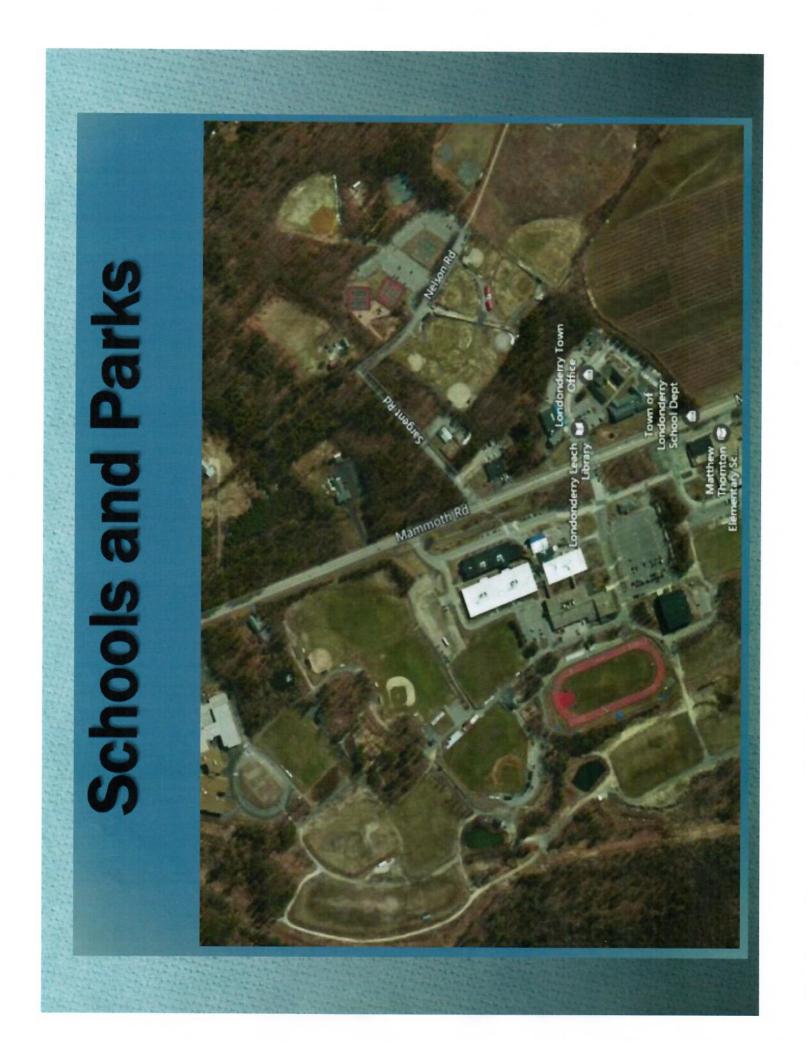




# Mosquito Species

WHAT'S NEW?





#### **Mosquito Activity in 2015** West Nile Virus

Mosquitoes - Collected on 9-10-15 Mosquitoes - Collected on 9-9-15 East Kingston Manchester Keene

Mosquitoes - Collected on 9-11-15

#### Eastern Equine Encephalitis Activity in 2015

#### Newton

Mosquitoes - Collected on 9-17-15 Mosquitoes - Collected on 9-29-15 Holderness Candia

Raven - Date of onset 9-17-15

#### New Mosquito Species in NH Anopheles crucians

## Seven specimens collected in Candia

July 21 & 28 August 11 & 25 September 1

### One specimen collected in Kingston

July 23

### Anopheles crucians

Larval Habitat: sphagnum bogs, ponds & acidic swamps EEE virus was isolated from pools of An. crucians in Louisiana, Georgia, Florida, Alabama, and South Carolina.

Also found positive for WNV, LaCrosse, Trivittatus viruses Larvae have been collected from a swamp in Candia on Nov 12, 2015.

#### Zika Virus 2016

West Nile Virus

1999

NEW DISEASES

Chikungunya 2014

#### ZIKA VIRUS

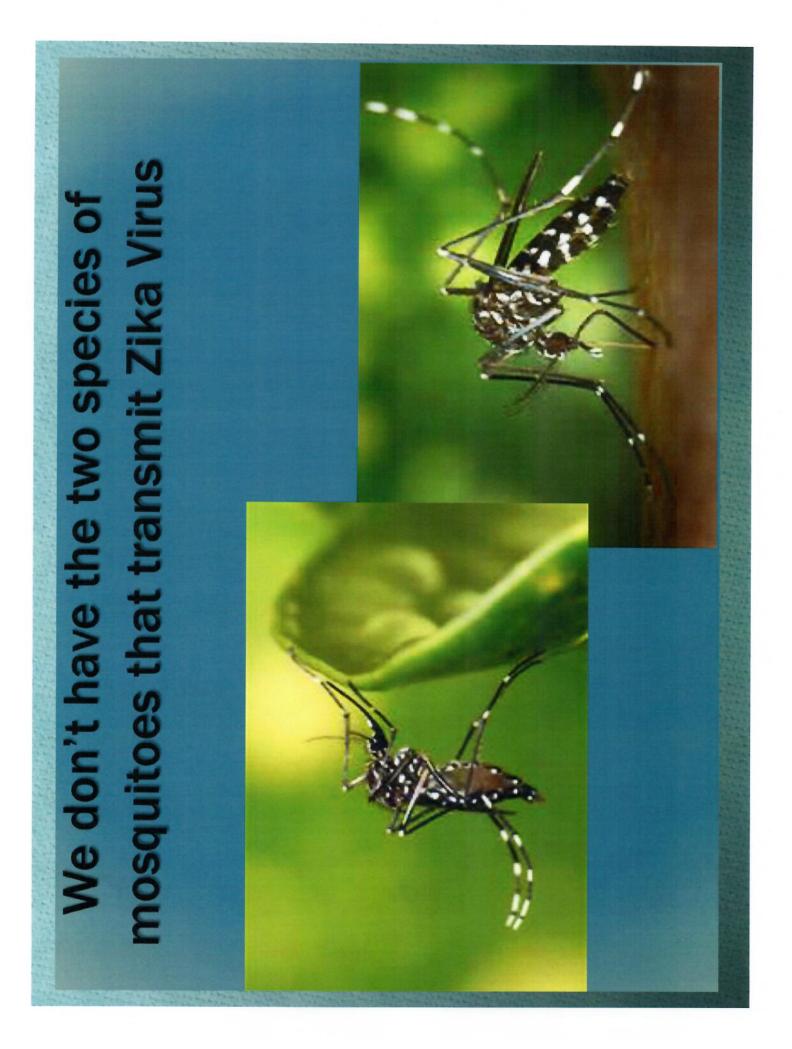
Fever, rash, joint pain, muscle pain, eye Rapid spread in Americas & Caribbean Usually mild symptoms within 2-7 days after being bitten by infected mosquito New information emerging weekly Sexual Transmission of Zika Virus Guillian Barre Syndrome pain, conjunctivitis Microcephaly

### WHY IS THIS HAPPENING?

No Immunity to the Zika Virus Crowded Living Conditions Climate Change Virus Mutation Smaller World Air Travel El Niño

# Is NH at Risk of Zika Outbreak?

Most houses have screens on windows No overcrowding, no slums, no open Well established mosquito control cisterns for our water supply programs in some areas and air conditioning No. Highly unlikely.



#### Aedes albopictus has been found in MA and CT but not well established



### WHAT IF.....?

What if my neighbor comes back from What if Aedes albopictus is found in vacation with Zika virus? 2HN

What if a different mosquito can transmit Zika Virus?

What if I go to the Olympics in Rio and contract Zika? Can I pass Zika onto my family?

# Should we be doing more?

 Public awareness is part of the solution Lessons learned from West Nile Virus Test for mosquito borne diseases Monitor the mosquito population Empty containers of water Treat stagnant water

### Visit Our Web Site

### www.DragonMosquito.com

Sign up for Disease Alerts on Dragon's Register as a no-spray for 2016 Request a larval survey **Twitter account** 



