

# Vector Control: The Norfolk Experience

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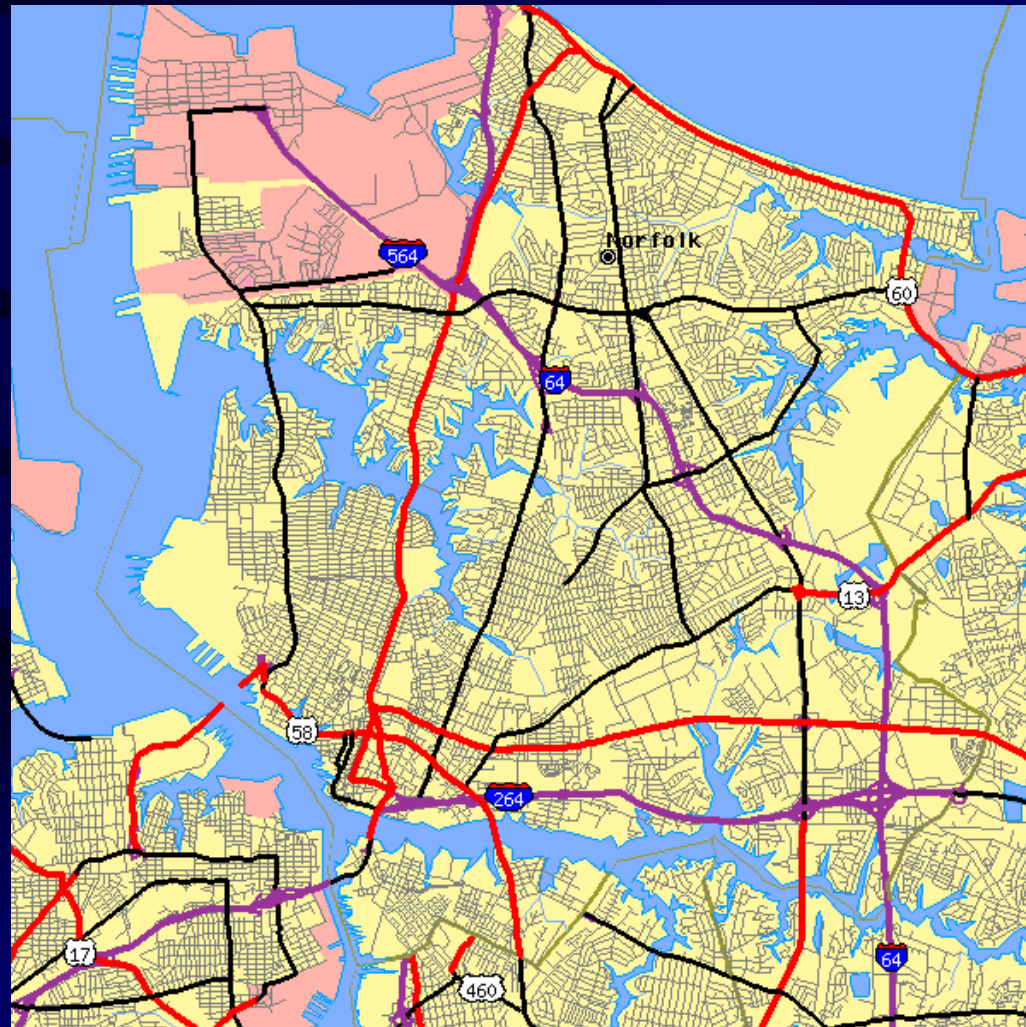
# Overview:

- Norfolk: location and environment
- Vector Control Program
  - Surveillance
  - Control
    - Habitat Management
    - Larval Control
    - Adult Mosquito Control

# Norfolk, Virginia

- Port city in Southeastern Virginia
- 56 square miles
- Population
- Urban/Suburban Environment
  - Guides Control Approach

# Norfolk, Virginia



# NDPH: Division of Vector Control

- Mosquito control
  - Surveillance
  - Habitat Management
  - Larval and Adult Mosquito control
  - Education
- Rodent control (city property)
  - Rat-Free Inspections

# Mosquito Control

- Focus of Norfolk's mosquito control program:
  - Habitat Management/Source Reduction
    - Tidal Ditching
    - Backyard Inspections
  - Education

# Tidal Ditching Program

- Nov-April
- Army Corps of Engineers permit to maintain 33 miles of tidal ditches
- Hand tools







# Education/Public Outreach

- Mosquito information/control literature
  - (English and Spanish)
- Civic League Presentations
- School Presentations
  - Career Day

# Larval Control

- Larval control is a main focus of the Vector Control Program:
  - Cemeteries
  - Junkyards
  - Storm Drains/Catch Basins

# Mozzie Catch Basin Applicator

- 26,000 Storm Drains
- Truck-mounted application
- Inspect/Reinspect Storm Drains for Breeding

# Backyard Inspections

- A core function of the Vector Control Program that emphasizes:
  - Control
  - Education
- Systematic surveys of Norfolk neighborhoods

# Backyard Inspections: Methods

- Norfolk is divided up into 7 units (areas) to which a control team is assigned
- Surveys based on systematic rotation through neighborhoods and/or surveillance
- Teams go door-to-door to inspect for (and control) breeding and hand out mosquito control literature

# *Aedes albopictus/Stegomyia albopicta*

- Mid to late summer
- Most complaints
- Breeds in:
  - Tires
  - Buckets
  - Birdbaths
  - Flower pots



# Mosquito Surveillance

- Larval Samples (species ID)
- New Jersey Light Traps
- CDC Light Traps (baited with dry ice)
- Gravid Traps



# CDC Light Trap with Dry Ice



# Mosquito Surveillance

- Traps set three days per week
- Collected mosquitoes sorted to species level
- Vector species pooled for arboviral testing at NDPH Regional Laboratory

# Mosquito Laboratory



# ULV Fogging

- While larval control is the focus of Norfolk's Vector Control Program, truck-mounted ULV fogging sometimes needed:
  - Positive laboratory test result (mosquito pool, sentinel chicken sera, or wild bird)
  - Vector mosquito species collections surpass threshold at a particular surveillance site

# Summary

- The urban/suburban environment of Norfolk dictates control measures
- Habitat management and larval control are the primary focus
- ULV fogging is done as needed