# The Demise of Small Programs: Does it Matter?


**Mosquito control programs threatened by budget cuts**

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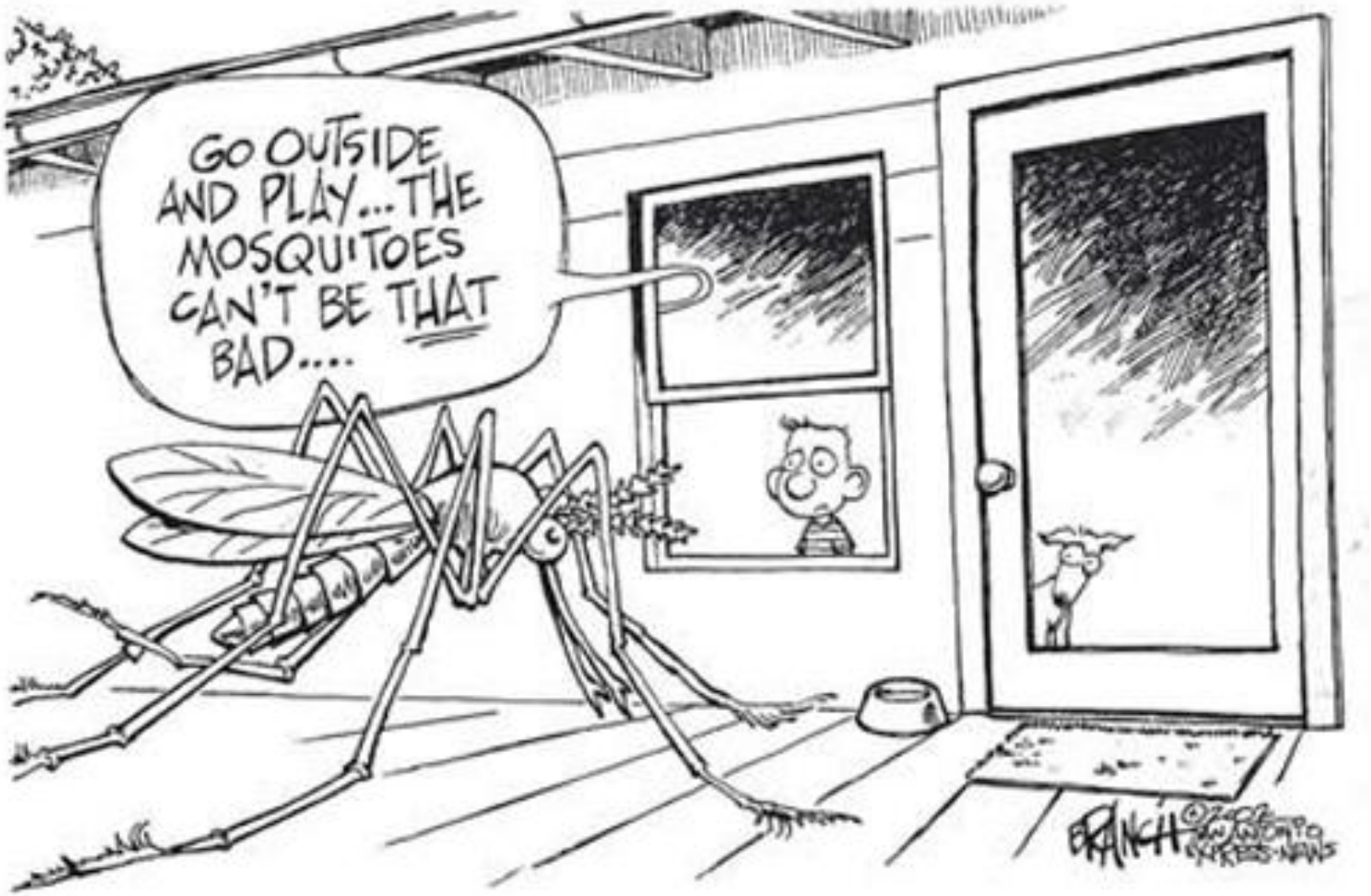
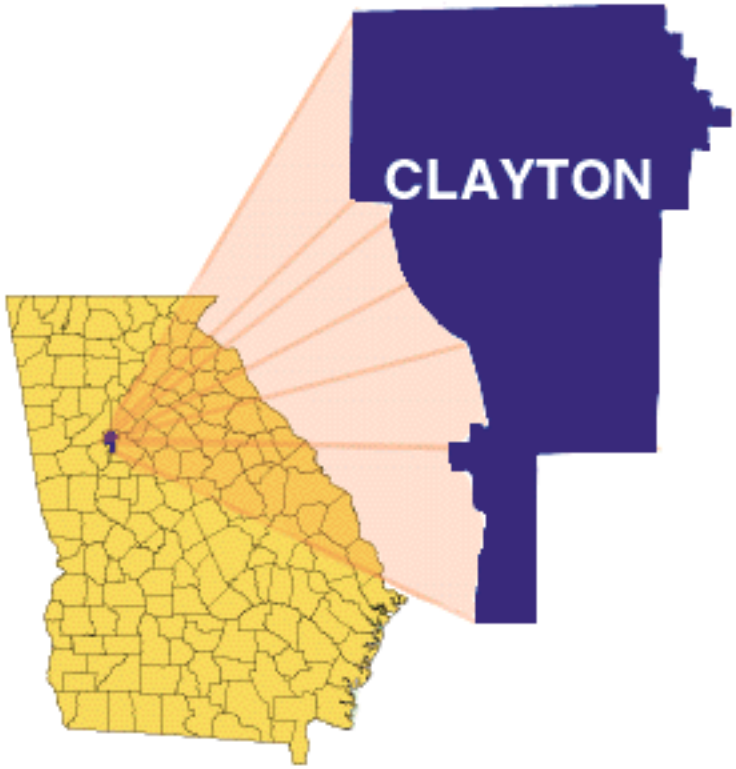
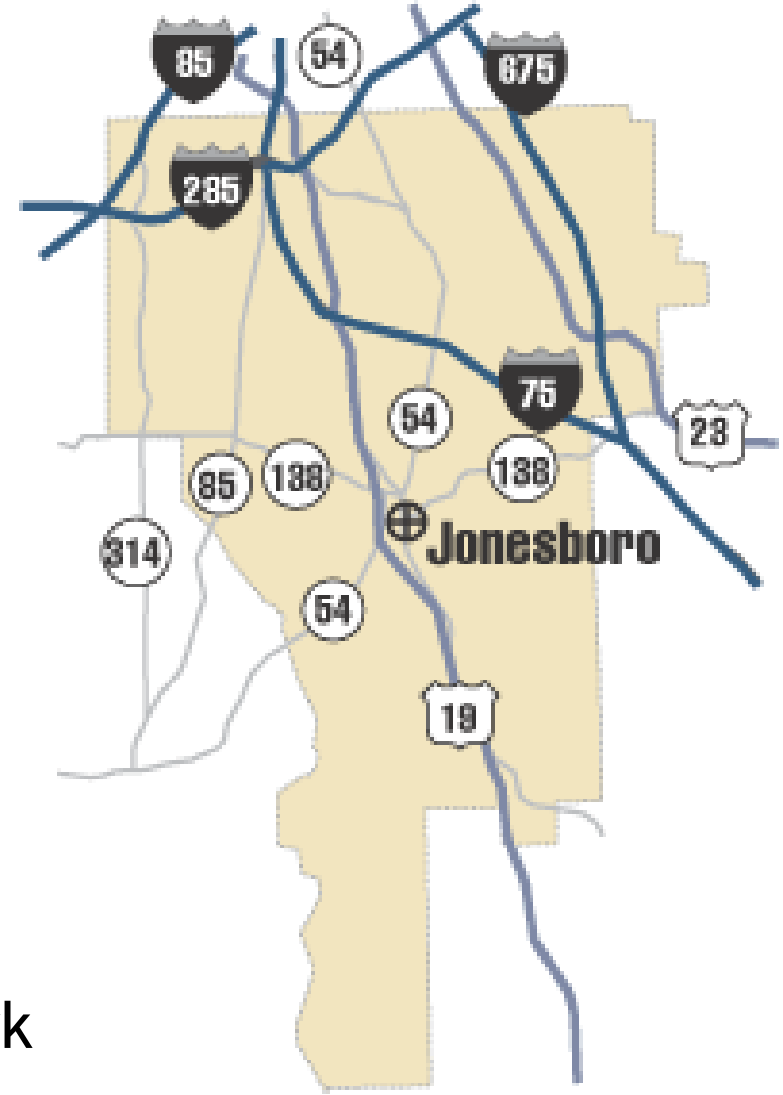

GO OUTSIDE AND PLAY... THE MOSQUITOES CAN'T BE THAT BAD....

# Clayton County Mosquito Control




Making Small Programs Work

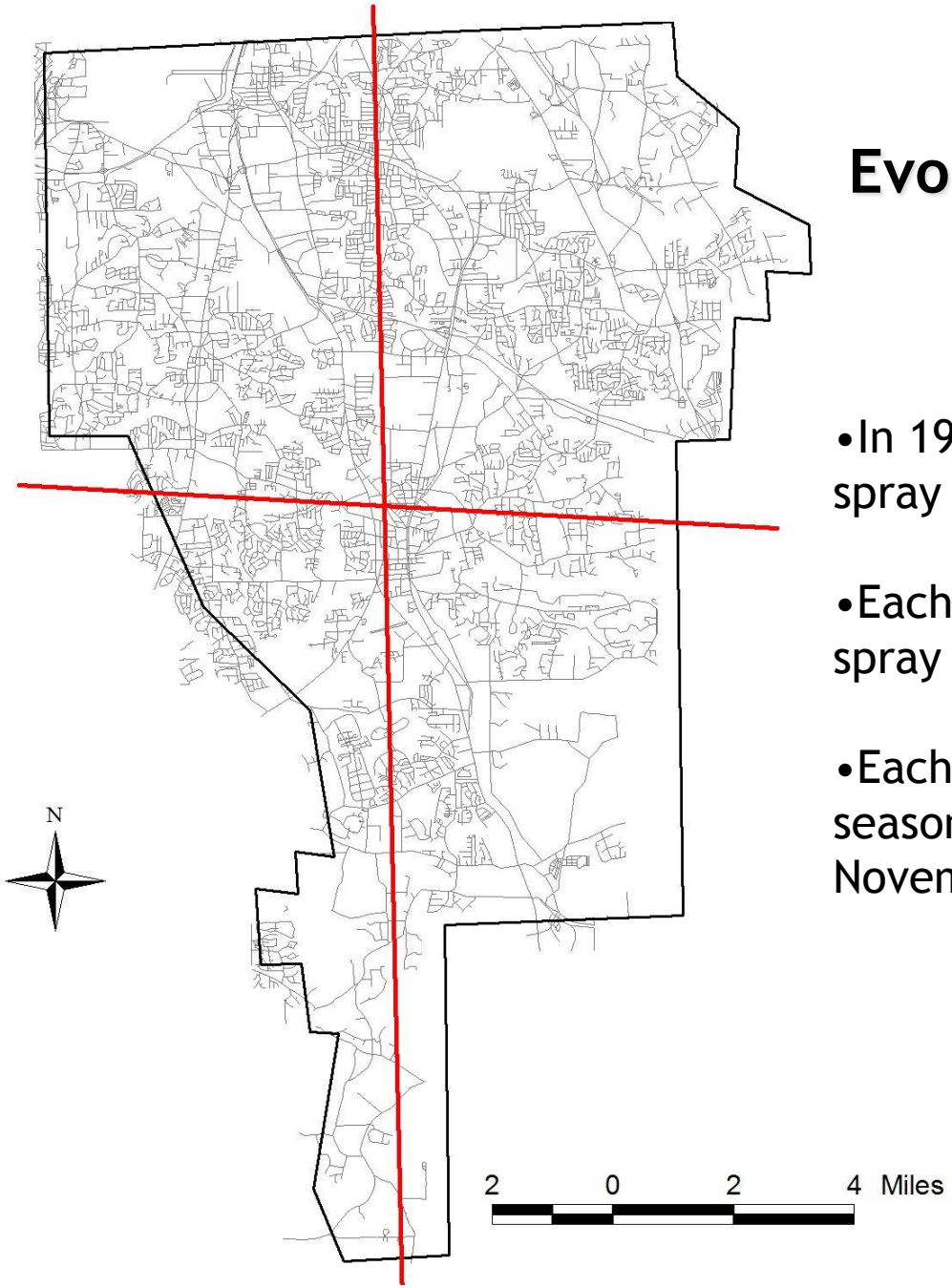

- Clayton County is one of Georgia's smallest counties in land size with an area of 146 square miles.

- It is one of the most densely populated with more than 250,000 residents.

# Evolution of Mosquito Control

• In 1988, County Commissioners funded an adulticide-only mosquito control program to deal with complaints

•For about 6 years Clayton County mosquito control consisted of a call-in only spray program for nuisance mosquitoes




# Evolution of Mosquito Control

- In 1994, the county was divided into 4 spray districts
- Each district had its own scheduled spray week
- Each district was sprayed 8x during the season, starting in April and ending in November

# Evolution of Mosquito Control

•In 1999, complaint-driven larviciding was added to Clayton's mosquito control program

•By 2000, a plan was in place for treating storm drains, retention ponds, swamps, ditches, and road side areas

Mosquito Larvicide

# Evolution of Mosquito Control

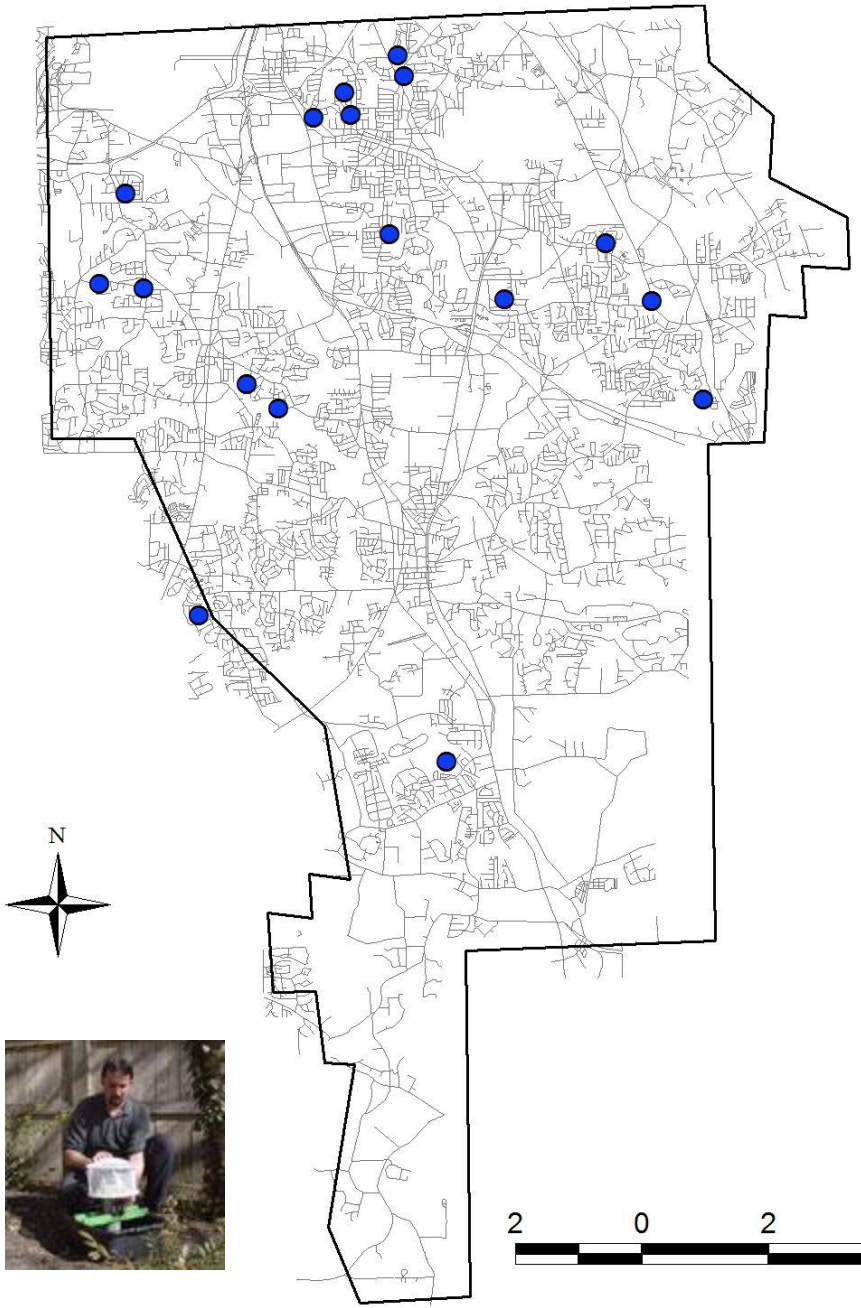
- In 2001, Clayton County began planning for WNV by:
  - Purchasing another spray truck
  - Doubling the adulticiding effort
  - Doubling the larviciding effort

- In addition, the cities of Jonesboro, Morrow, and Lake City joined the mosquito control efforts

- In 2001, WNV was detected in metro Atlanta. The Clayton County Health District began working with mosquito control to help reduce human risk of the disease.

There were no positives detected in Clayton County in 2001.

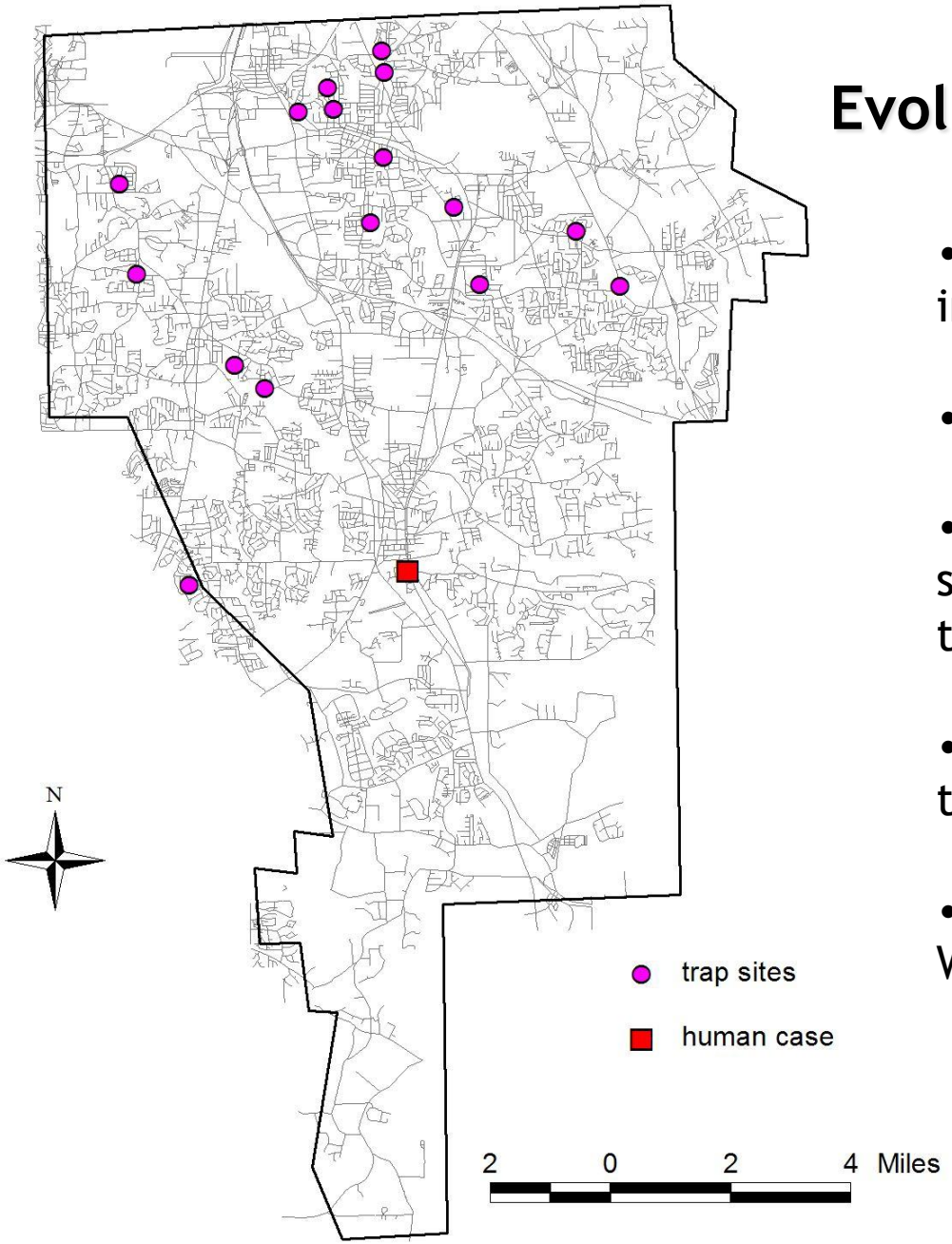
# Evolution of Mosquito Control





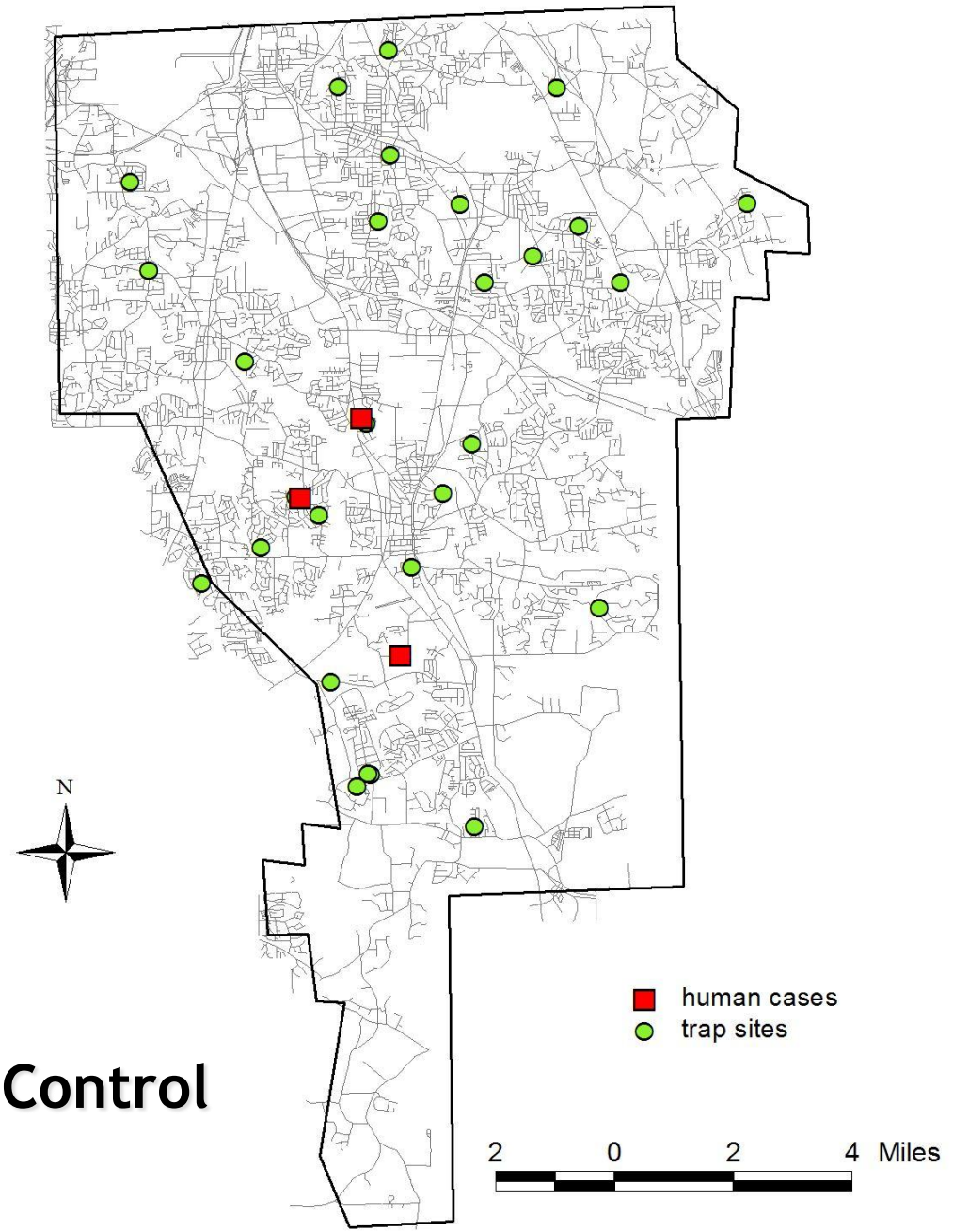

- In 2002, mosquito surveillance was started in Clayton County as part of the WNV surveillance program
- Surveillance was done at 18 sites
- 161 pools of mosquitoes were submitted for testing; 3 pools tested WNV+
- 31 birds were submitted for testing; 16 tested WNV+
- There were no human cases in Clayton County in 2002

# Evolution of Mosquito Control




- Mosquito surveillance continued in 2003
- Surveillance was done at 16 sites
- 125 pools of mosquitoes were submitted for testing; 2 pools tested WNV+
- 20 birds were submitted for testing; 12 tested WNV+
- There was one human case of WNV in Clayton County in 2003

- Additional mosquito surveillance was done in 2004
- Surveillance was done at 30 sites
- 283 pools of mosquitoes were submitted for testing; 1 pool tested WNV+
- 19 birds were submitted for testing; 6 tested WNV+
- There were 3 human case of WNV in Clayton County in 2004




# Evolution of Mosquito Control

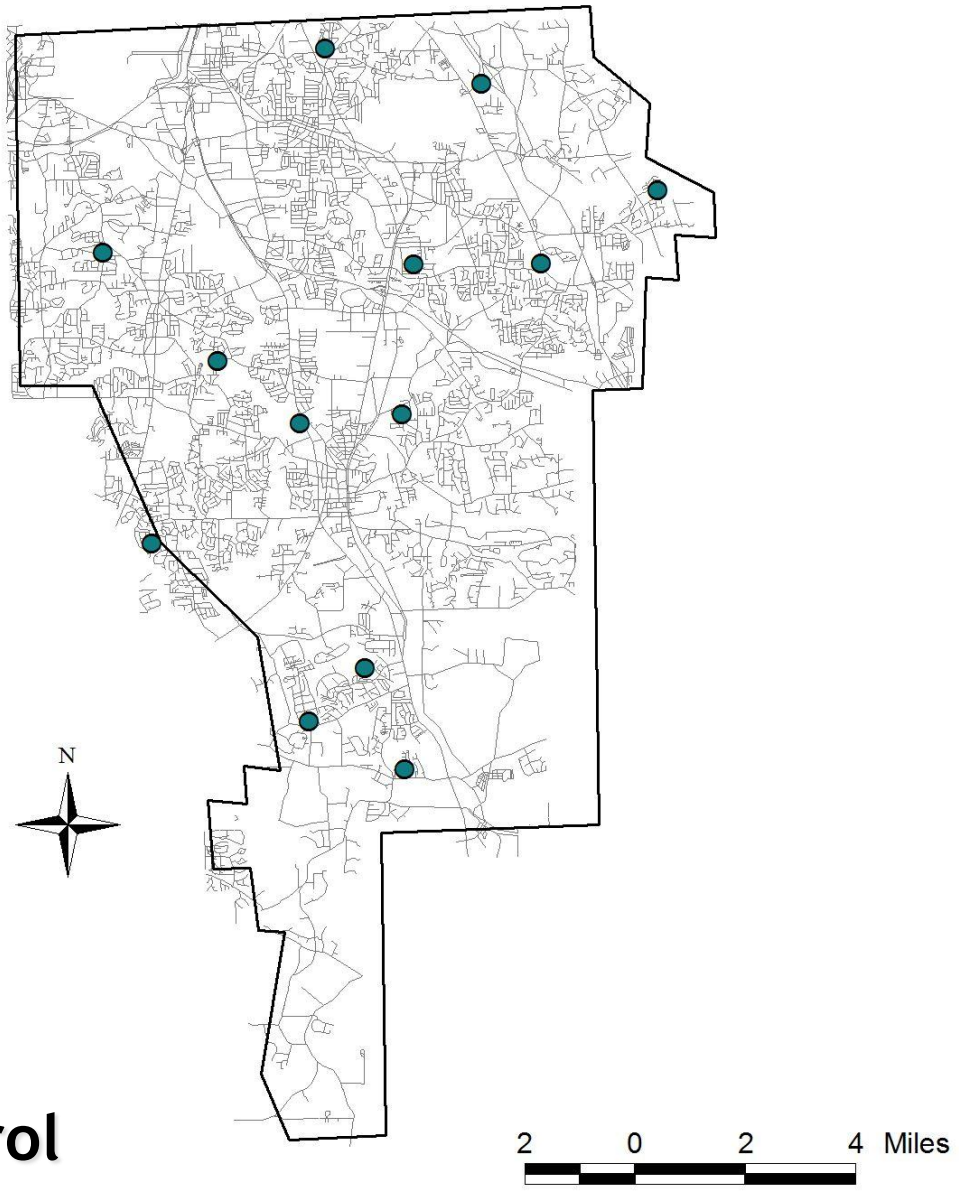
- In 2005, sentinel sites were chosen from all the sites trapped in Clayton County from 2002-2004

- Surveillance was being done at 14 sites

- 147 pools of mosquitoes were submitted for testing; no pools tested positive

- No birds were submitted for testing in 2005

- There were no human cases of WNV in Clayton County in 2005




# Evolution of Mosquito Control

## MONITORING

- In 2005, mosquito control owned 3 trucks – 2 for adulticiding and one for larviciding

- Daily during the season, two spray trucks went out to their zones and sprayed from 5:00 - 10:00 PM; the larviciding truck went out two nights a week

- There were a total of 4 employees – 3 full time and one part time

- Complaints had decreased drastically; there were around 300 special request a year, which are usually taken care of by larviciding

- Chemicals used in the control program were Aqua-Reslin (adulticide) and Altosid 150 XR (larvicide)

- The Clayton County Health Dept shared data with mosquito control to help ensure that Clayton County residents were protected from vector-borne diseases

## EDUCATION

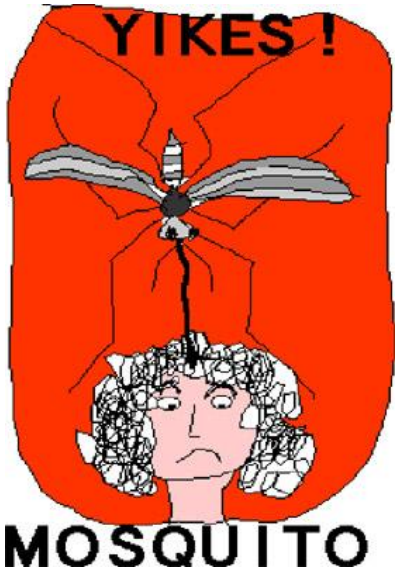
Surveillance continued in Clayton County.

2006: 105 mosquito pools from 15 sites; no positives
2 birds submitted; no positives
no human cases

2007: 118 mosquito pools from 17 sites; 2 WNV+ pools
no birds tested
1 human case

2008: 61 pools submitted from 14 sites; 1 WNV+ pool
no birds tested
no human cases

Discontinuation of the County Mosquito Control Program in 2009

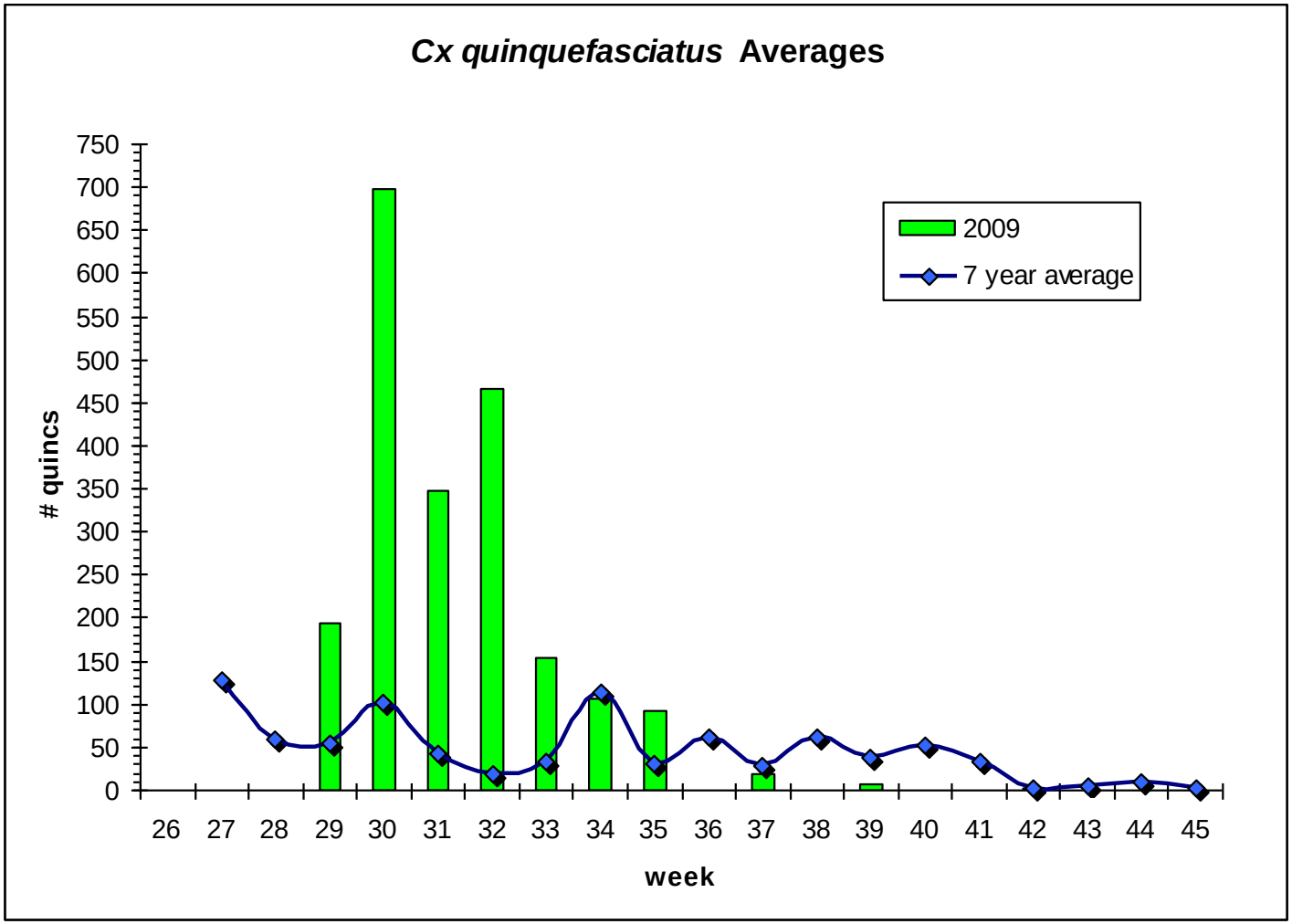


2009: 171 pools submitted from 17 sites; no positives

- no birds submitted
- no human cases

However, numbers of *Culex quinquefasciatus* rose well above levels seen in previous years.

# The Importance of Mosquito Control



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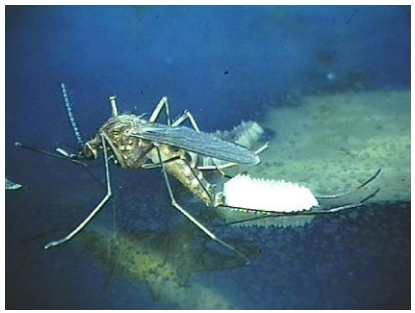
# 2010



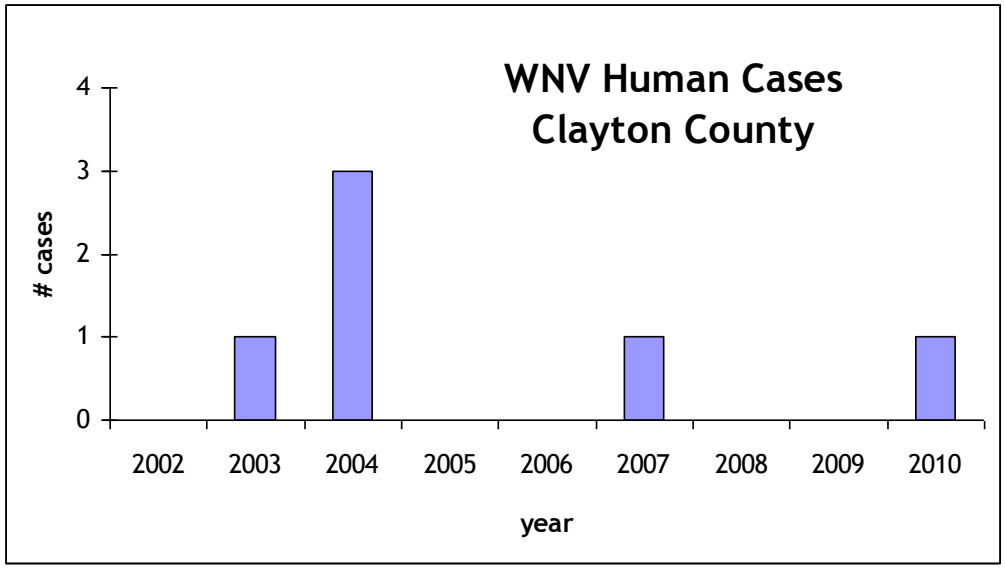
- mosquito pools – 90 pools submitted from 16 sites;

  2 WNV+

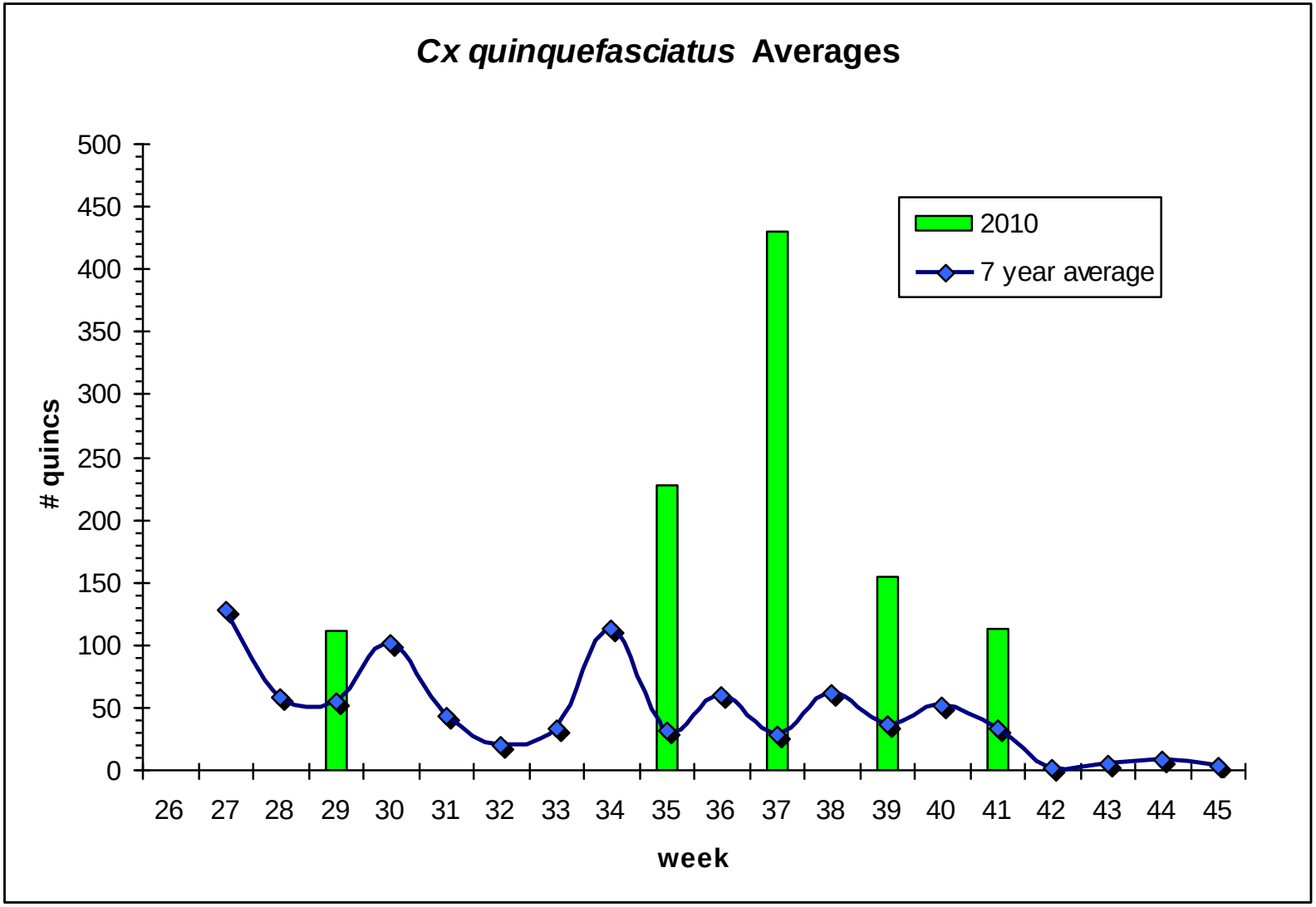
  no birds submitted

  1 human case

- In late March 2010 the first WNV case was reported in Georgia from Clayton County, nearly 3 months earlier than normal.



# The Importance of Mosquito Control



# So, are small programs important?

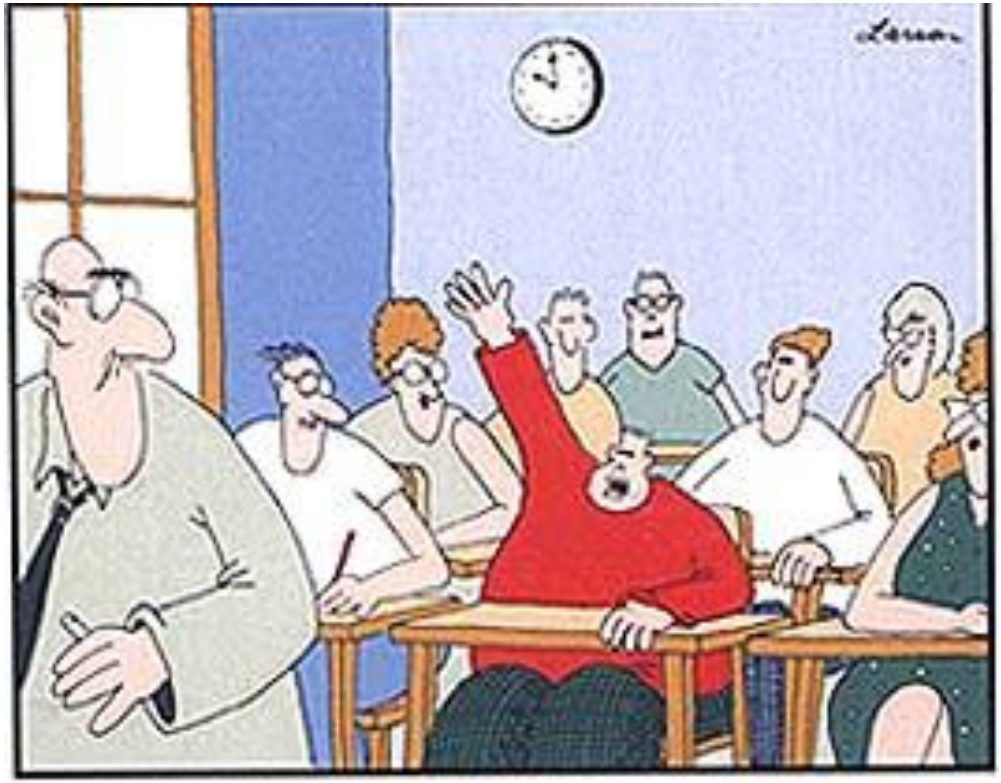
- Demonstrated increase in vector species after the demise of the mosquito control program
- Potential increase in risk of human diseases
- Suspected increase in nuisance species and mosquito complaints

# So, are small programs important?

WHAT OTHER PEOPLE SAY

- A study from Michigan indicated that people in areas with no mosquito control program had a tenfold greater risk of WNV than those in areas where mosquitoes were controlled.
- Once you have infected mosquitoes flying around in an area the only way to knock them down is by adulticiding.
- A study comparing two mosquito control districts showed that the program with the most mosquito surveillance and best documented larviciding and adulticiding operations had the fewest number of WNV cases.

# ANY QUESTIONS?



"Mr. Osborne, may I be excused?
My brain is full."