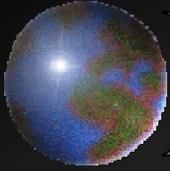


Implementation of a Countywide Vector Control Program in Shelby County, Tennessee

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History of Mosquito-Borne Disease Epidemics in Shelby County

Yellow Fever

(1800's)

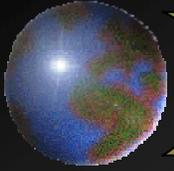
- 12,000 cases
- 5,000 fatalities

Saint Louis Encephalitis

(1960's and 1970's)

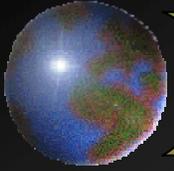
- 136 cases
- 17 fatalities





Health Problem:

- ❑ West Nile virus was first identified in Shelby County, the fall of 2001
- ❑ First human cases of West Nile virus occurred in 2002 – resulting in 40 human cases and 7 deaths
- ❑ 2003 – 10 human cases and 1 reported death
- ❑ 2004 – 12 human cases with no reported deaths
- ❑ 2005 – 13 human cases and 1 reported
- ❑ 2006 – 10 human cases with no reported deaths



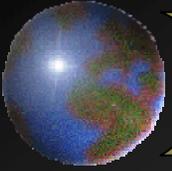
Purpose and Objective:

- ❏ To prevent and protect Shelby County residents against mosquito and rodent-borne disease epidemics.



How is this done

- ❖ by reducing and controlling the number of vectors that are able to spread and amplify diseases or inflict pain or injury

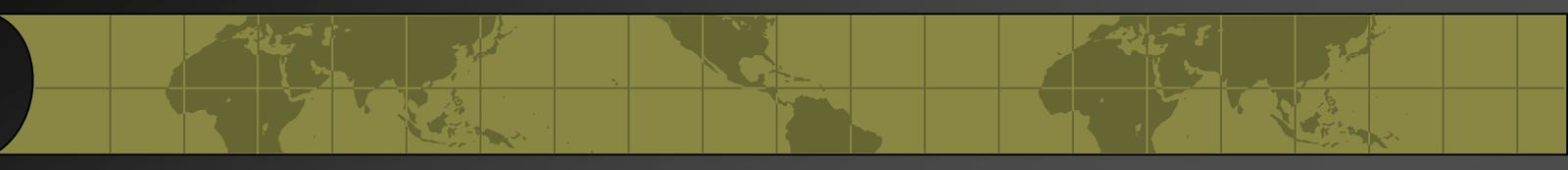
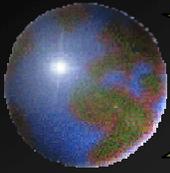


Program Goal:

- ❑ Implementation of a comprehensive and integrated mosquito control program which will provide year round services to Shelby County residents based on scientific driven methodologies.

Why is a countywide vector control program necessary.....

- ❖ to protect the public's health and enhance the economic development, recreational use, and enjoyment of outdoor living



Vector Control Services

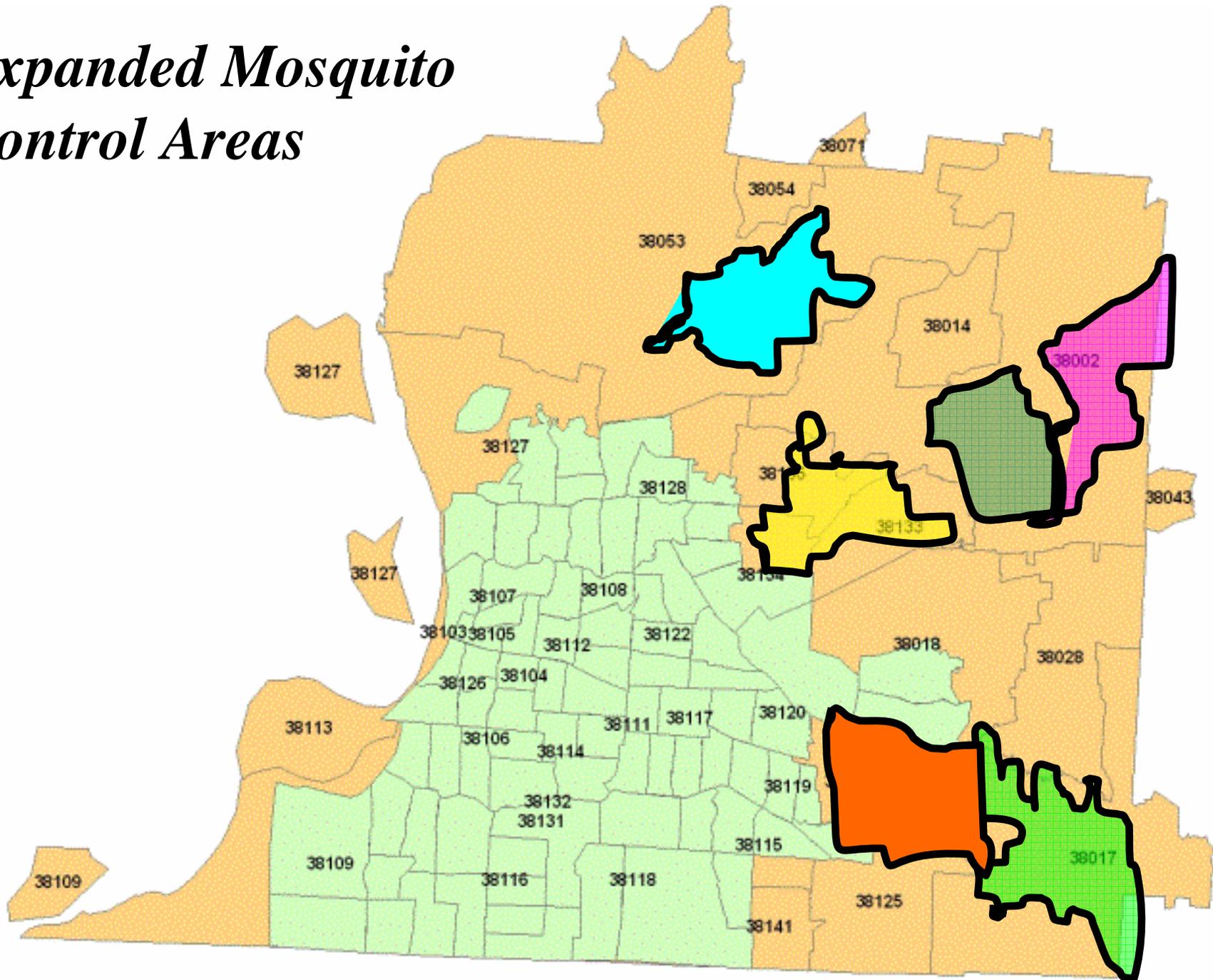
Pre-Countywide Vector Control Services:

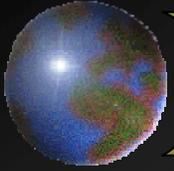
Vector control services performed based on select census tracts where the majority of mosquito-borne diseases were identified

Post-Countywide Vector Control Services:

- Environmental Assessments
- Surveillance
- Larviciding
- Adulticiding
- Source Reduction
- Complaint Investigations and Enforcement of Health Codes
- Public Education and Outreach

Expanded Mosquito Control Areas



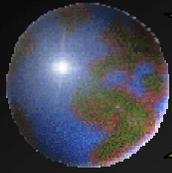


Vector Control Funding

Vector Control State Bill

- ❑ 104th TN General Assembly approved legislation authorizing Shelby County to establish a fixed vector control fee to cover the cost of vector operations.
- ❑ August of 2005, County Commission approved MSCHD to contract with a local utility agency to collect the vector control fee.





Shifting the Burden

Quick Fixes:
Funding of Vector Control fee

Symptom Correcting Process

County Wide Vector Control Program

Cause Correcting Process

Long Term Solution:

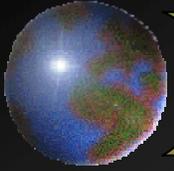
- Education and Community Outreach
- Stakeholder Ownership
- Hire and maintain trained personnel
- Collaboration w/municipalities
- Marketing of program

Side Effects:

- Increased acreage and a shortage of trained personnel
- Increase service expectation
- Increase visibility and public demand
- Increased service coordination

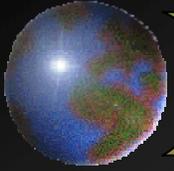
Potential problems if side effects are not addressed:

1. Lack of support from stakeholders
2. Fewer vector control services provided to Shelby County, TN
3. Increase in WNV cases within Shelby County, TN



Implementation Strategy: (three-fold)

- ❑ Interagency Partnership
- ❑ Workforce Development & Enhancements
 - address personnel issues and the increase in acreage through workforce development and technology
- ❑ Marketing Campaign
 - stakeholders develop an awareness of the health benefits and importance of a vector control fee for service program



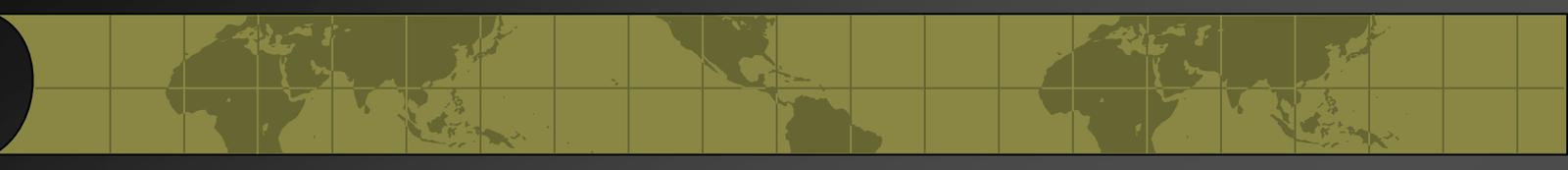
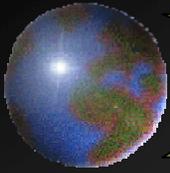
Vector Control Methodology/Deliverables:

Interagency Partnership

- ❑ Interagency Meeting(s)
- ❑ Coordinated and Assigned Mosquito Control Work Crews

Workforce Development & Enhancements

- ❑ Training Sessions (internal/external staff)
- ❑ Vector Control Call Center/Hotline
- ❑ GIS database and Mapping System



Vector Control Methodology/Deliverables:

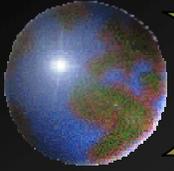
Marketing Campaign

❑ Media

- ❖ Internet/Intranet
- ❖ Press Releases
- ❖ Public Service Announcements

❑ Public Education & Outreach

- ❖ Presentations (i.e., town hall meetings, community organizations, elected officials, agency officials)
- ❖ Pamphlets/Brochures
- ❖ Door-to-Door Inspections



Essential Public Health Services Addressed

- ❑ **Monitor** the environment and health status of the community
- ❑ **Diagnose & investigate** environmental health problems and health hazards
- ❑ **Inform, educate & empower** the community
- ❑ **Mobilize** community partnerships
- ❑ **Develop** policies and plans that support environmental health efforts
- ❑ **Enforce** laws and regulations
- ❑ **Link** people to environmental health services
- ❑ **Assure** a competent environmental health workforce
- ❑ **Evaluate** the effectiveness, accessibility, and quality of environmental health services