

MOSQUITO CONTROL ISSUES: 2006

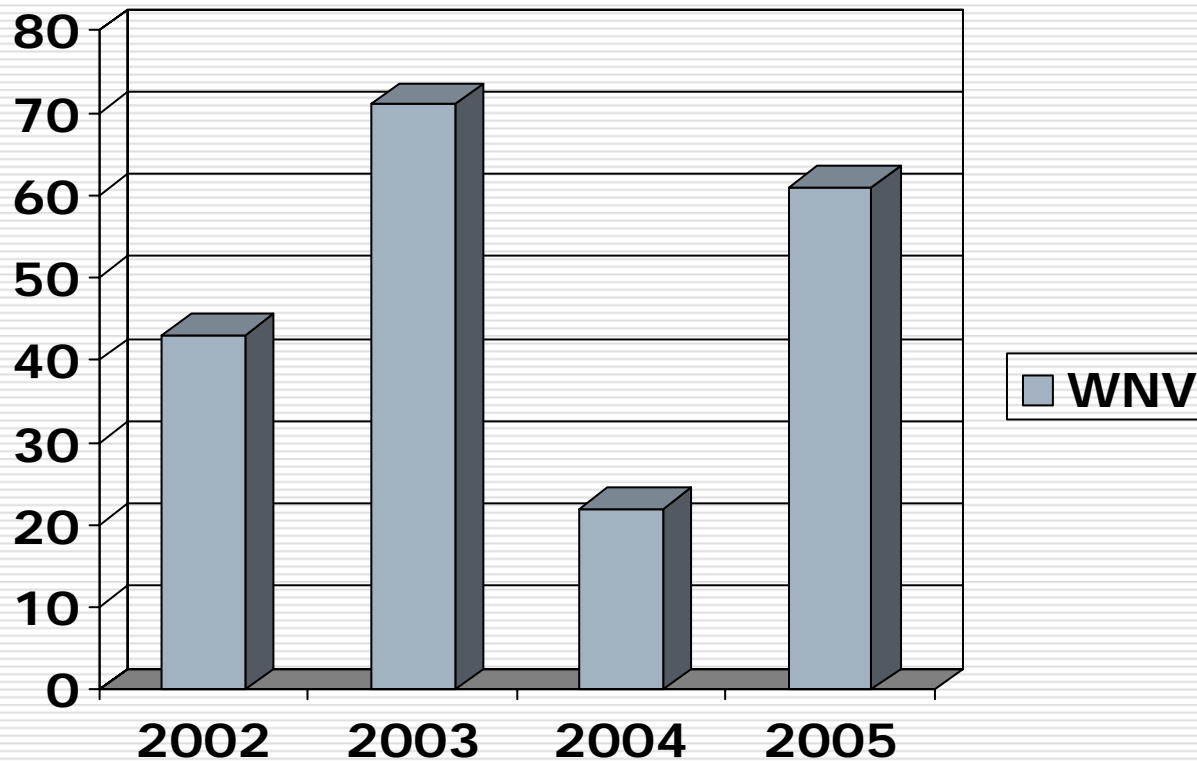
PRESENTATION TO THE
Neighborhood Quality of Life Committee
May 22, 2006

West Nile Virus: The Big Change

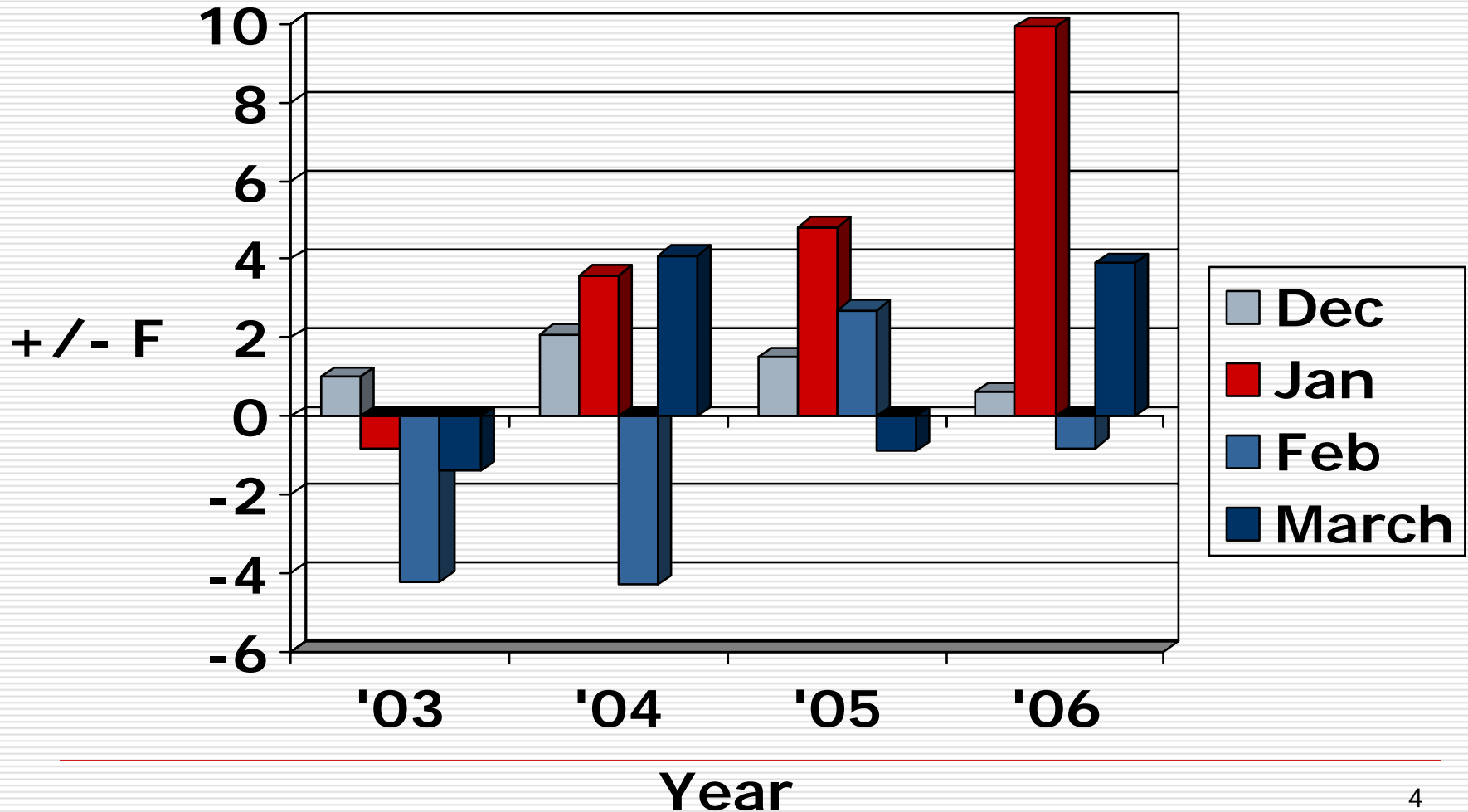
Year	Human Cases/ Deaths	Birds +/Test	Mosquitoes +/Pools	Areas Sprayed
2002	25/2	22/32	18/449	66
2003	41/3	17/39	33/505	79
2004	7/0	8/71	15/557	11
2005	24/0	5/12	37/603	37

West Nile Virus Cases by Year

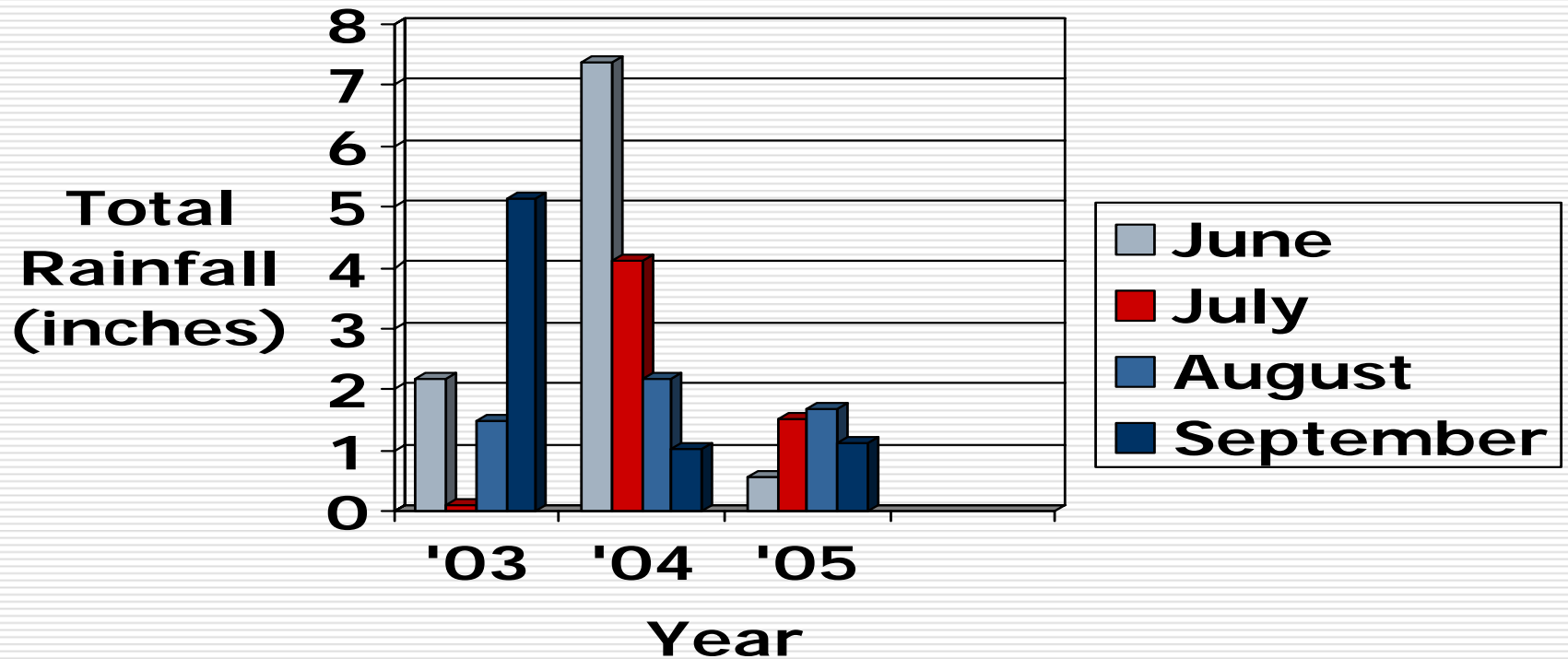
Humans and positive mosquitoes



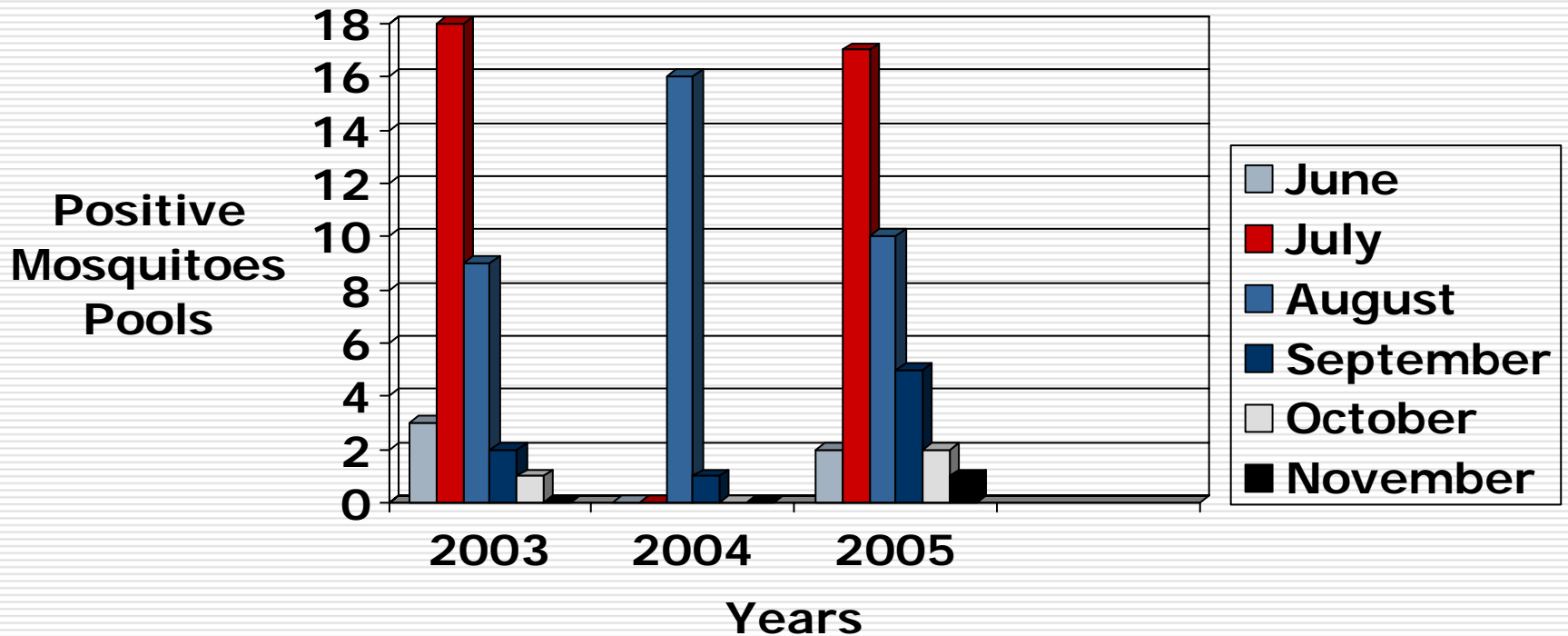
Winter Temperatures, Departure from Normal



Summer Rainfall

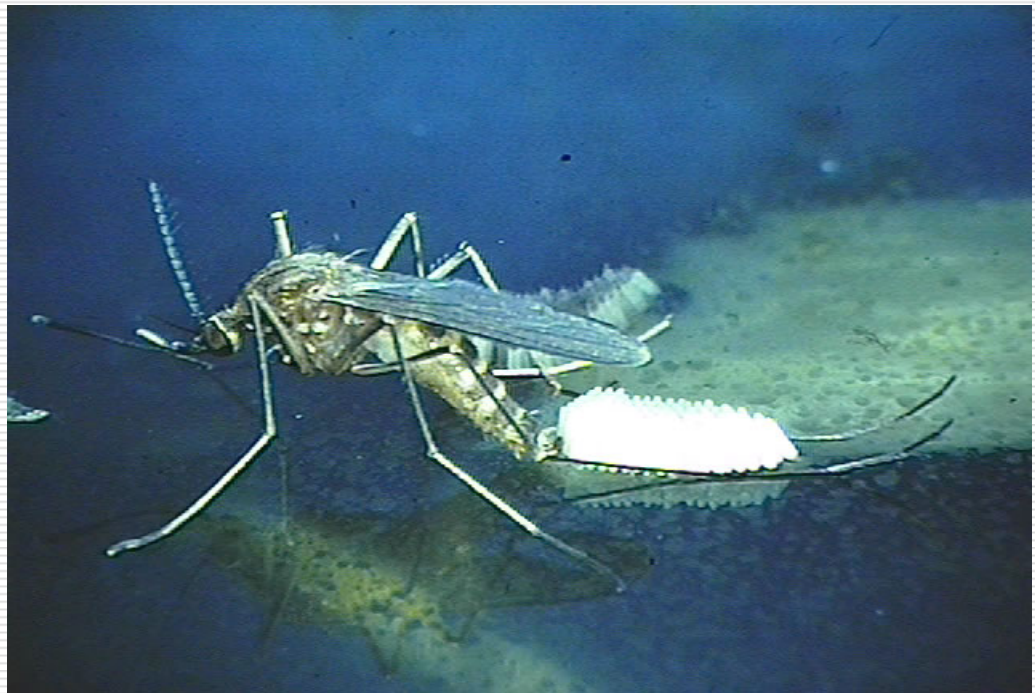


Mosquitoes Positive for West Nile Virus by Month



Dallas Mosquito Control Plan

- Plan approved by City Council
 - To control disease carrying mosquitoes



Dallas Mosquito Control Plan

- Provides for:
 - Notification of public in case of mosquito borne disease
 - Control of mosquito breeding by treating and eliminating standing water
 - Disease surveillance by collection and testing of mosquitoes and collection of information and testing wild birds
 - Pre set spraying triggers in response to mosquito borne disease
 - Aerial spraying plan with Dallas County when Public Health Emergency is declared

Dallas Mosquito Control Plan

GOALS

Minimize human illness through:

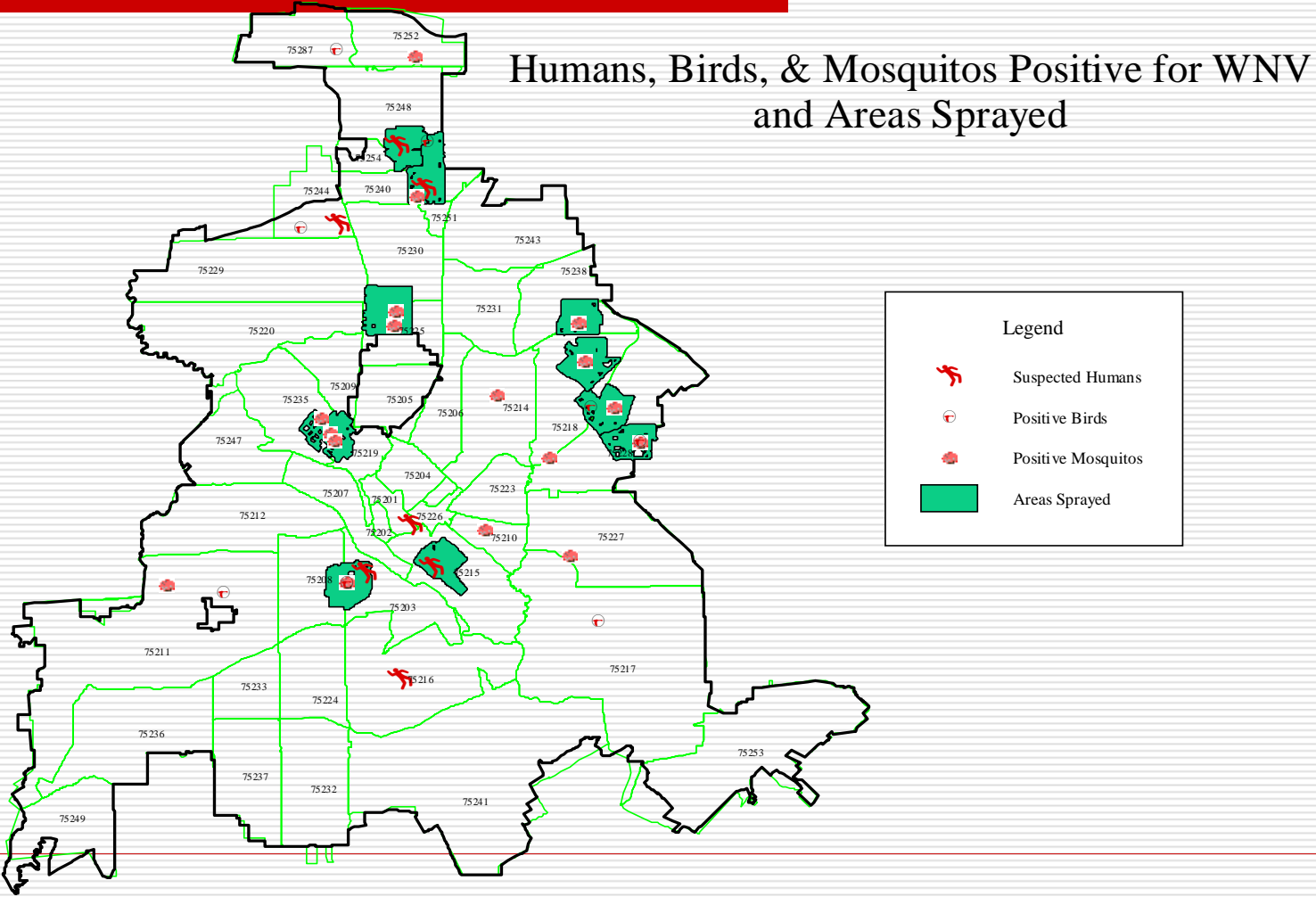
- Public Education
- Source Reduction
- Surveillance
- Mosquito Control

Public Education

TOOLS

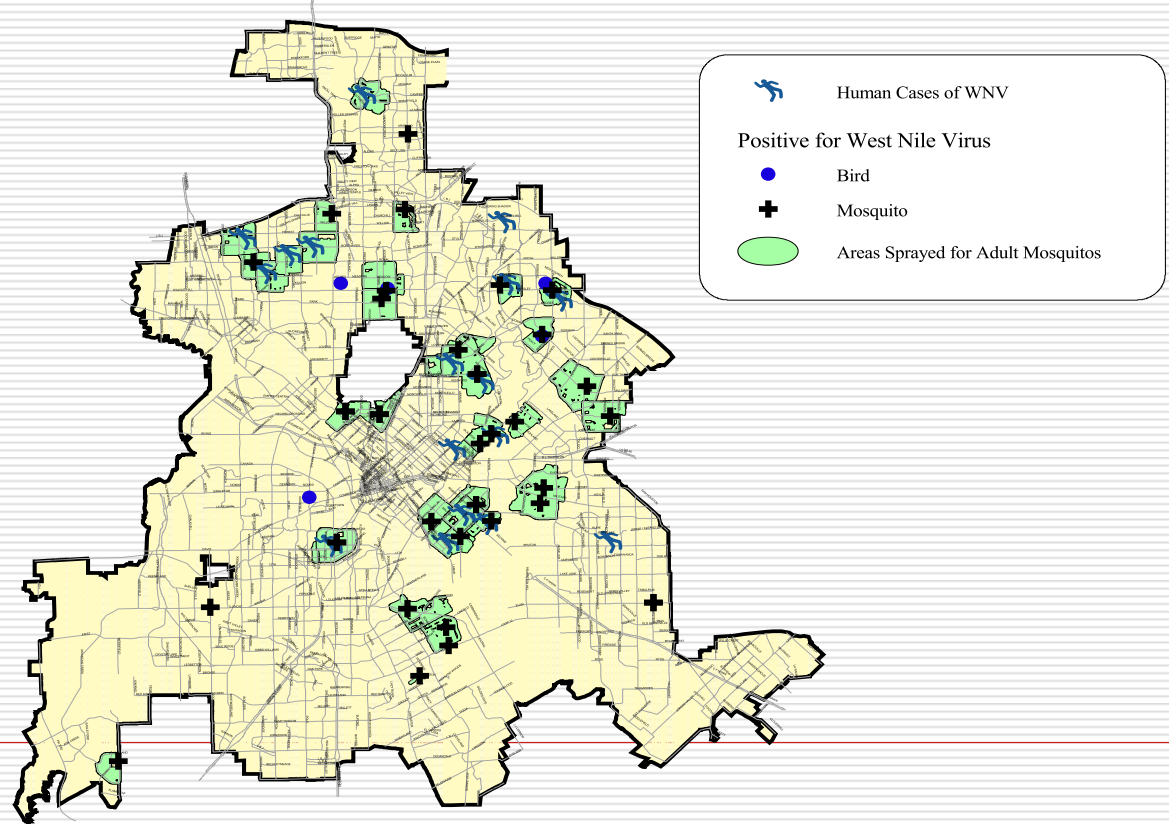
- Media conferences in conjunction with Dallas County
- Press Releases
- Home Owners & Neighborhood Associations
- Displays at Earth Day, health fairs, etc.
- Brochures
- Web Site

Illustration of Map on WEB



Information Available on the Web:

Areas Sprayed for Adult Mosquitos
Human Cases of West Nile Virus and
Birds and Mosquitos Positive for West Nile Virus
City of Dallas, 2005



Dallas Mosquito Control Plan

□ Media Sources

- Television: Fox 4, WFAA 8, KXAS 5, WB 33, CBS 11, KUVN 23, Telemundo 39,
- Radio: KRVA Radio Hispanic Broadcasting, KHAZ,, WBAP 820, KRLD 1080,, KERA Radio, KLIF AM, Metro Network, WRR, Dallas Morning News, Ft. Worth Star Telegram Dallas Observer, KCBI Radio,
- Print: Associated Press, The Weekly, Chinese Times, Korean Times, Dallas Examiner, Elite News, Post Tribune, Minority News, People Newspapers, Dallas Business Journal, Oak Cliff Tribune, White Rocker, El Sol de Texas, El Extra Spanish Newspaper, El Hispano Newspaper, Novedades News, La Estrella Spanish Newspaper, El Heraldo News

Source Reduction

- ❑ Drained by the Street Department



Source Reduction

- Reduce the number of breeding sources
 - Standing, stagnant water
 - Swimming pools
 - Poorly drained ditches
 - Water and sewer leaks
 - Tires
 - Anything that will hold water

Disease Surveillance

- Mosquitoes – Mosquito collections and trapping across the city (600 collections in 2005)
- Blue Jays – Collect and submit for testing. (Limited)
- Reports of dead jays, crows and hawks recorded and plotted. Used to determine mosquito collection location

Mosquito Collection:

Gravid Trap



Mosquito Collection

- ❑ Collecting by aspirator



Disease Surveillance (cont.)

- Track reports of equine, other animal and human cases as provided by TDH and Dallas County.
 - Began collection April 11, to determine concentration & species.
 - TDH and Dallas County will accept mosquitoes for virology testing May 1.

Mosquito Control

- ❑ Breeding sites - Check and larvicide known sites.
- ❑ Complaints – Check identified locations for compliance, take enforcement action, apply larvicide, and provide information to all parties.
- ❑ Gambusia stocking program, mostly off season. Native fish are stocked in temporary bodies of water.
- ❑ Treating for adult mosquitoes in storm sewers if indicated by collections.

Mosquito Fish: *Gambusia affinis*



Response To Risk Levels Of Mosquito Borne Disease

- ❑ Guidelines for phased response to mosquito borne disease surveillance.
- ❑ Risk levels are related to the probability of human outbreak of disease.
- ❑ Developed with input and reference from Concerned Citizens, Texas A&M Entomology, CDC, other municipal mosquito programs.

Risk Level 0

Off season; adult vectors inactive, climate unsuitable

- Response
 - Source reduction
 - Public education
 - Minnow Stocking

Risk Level 1

- Probability of human outbreak remote. Early season, April, May, no positive birds or mosquitoes.
 - Public education
 - Complaint response
 - Surveillance- collect and trap from pre-selected locations
 - Collect and test jays and crows
 - Record locations of dead jays and crows
 - Control-larvicide and minnow stocking, source reduction

Risk level 2

- Probability of human outbreak low, no positive mosquito pools but with isolated high counts of *Culex quinquefasciatus*, or numerous bird deaths or isolated positive birds
 - Notice on web site
 - Surveillance-additional targeted collections
 - Birds-recording, testing from non positive areas
 - Control-increase larval surveillance, storm sewer treatments, targeted enforcement

Risk Level 3

- Moderate probability of human outbreak; Positive mosquito pools and/or many positive or dead birds concentrated in a small area
 - Notify Council and City Manager's Office
 - Public Education-Press release, targeted information for local area
 - Surveillance-Targeted mosquito collections, continue bird testing in non-positive areas
 - Control-Targeted larval surveillance, storm sewer treatment, targeted enforcement including citations for standing water

Risk Level 4

- High probability of human outbreak. Multiple positive mosquito pools, many positive birds, one or more human cases.
 - Notify Council and City Manager's Office
 - Public Education-press release & targeted communities
 - Surveillance-targeted & citywide continues
 - Control-targeted larviciding, storm sewer treatment, concentrated enforcement
 - Ground based adulticiding to begin in areas with multiple positive indicators. (combination of mosquito pools, birds, horse and/or human cases)

Risk Level 4 (CONTINUED)

Spraying Triggers (for a defined area or neighborhood, a creek or storm sewer drainage system, etc. Spraying will only be done within approximately a 3,000 foot radius of the positive samples). The following may trigger spraying:

- A human case
- A positive mosquito pool &
 - a positive horse or other mammal
 - additional positive mosquito pools
 - several dead or positive birds

Risk Level 5

- Human Outbreak; multiple human cases
 - Notify Council and City Manager's Office
 - Public Education-press releases and targeted communities
 - Surveillance – mosquito collection, bird recording and testing in non-positive areas
 - Control-Larviciding and enforcement in positive areas, storm sewer treatment as indicated
 - Continue to adulticide areas with multiple positive indicators or human cases.

RISK LEVEL 6

- Public Health Emergency
 - Determined by Dallas County Medical Advisory Committee
 - Based on rapidly expanding numbers of human cases
 - Public education, surveillance and control work continues
 - Ground based adulticiding continues in areas with where WNV is active
 - A plan for aerial spraying would be developed jointly with Dallas County, City of Dallas and other Dallas county Cities affected
 - On approval of the City Council, aerial spraying would take place in the areas of the city affected by the outbreak of mosquito borne disease
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Program Enhancements

- Add two new inspector positions
 - Increase surveillance of breeding sites.
 - Increase enforcement in areas with known problems. Example in North Dallas, swimming pools, other areas container breeding, tires, etc.
 - Increase the amount of storm sewer spraying
 - Increase the number of mosquito collections by 40%
 - Increase targeted enforcement, larviciding, and storm sewer treatment in areas with positive samples and human cases
 - Increase public information with press conference, door to door dissemination of flyers, email to HOAs in areas affected

Possible Revisions to Mosquito Control Plan

□ Risk Level 1-5

- Eliminate bird testing
- Continue to take calls concerning dead birds, June thru October, to locate areas of high probability of WNV and thereby locate sites for mosquito collections