

AMCA Symposium on
Supplemental Mosquito
Control

Louisiana's Response
Post Katrina / Rita

By

Kyle Moppert

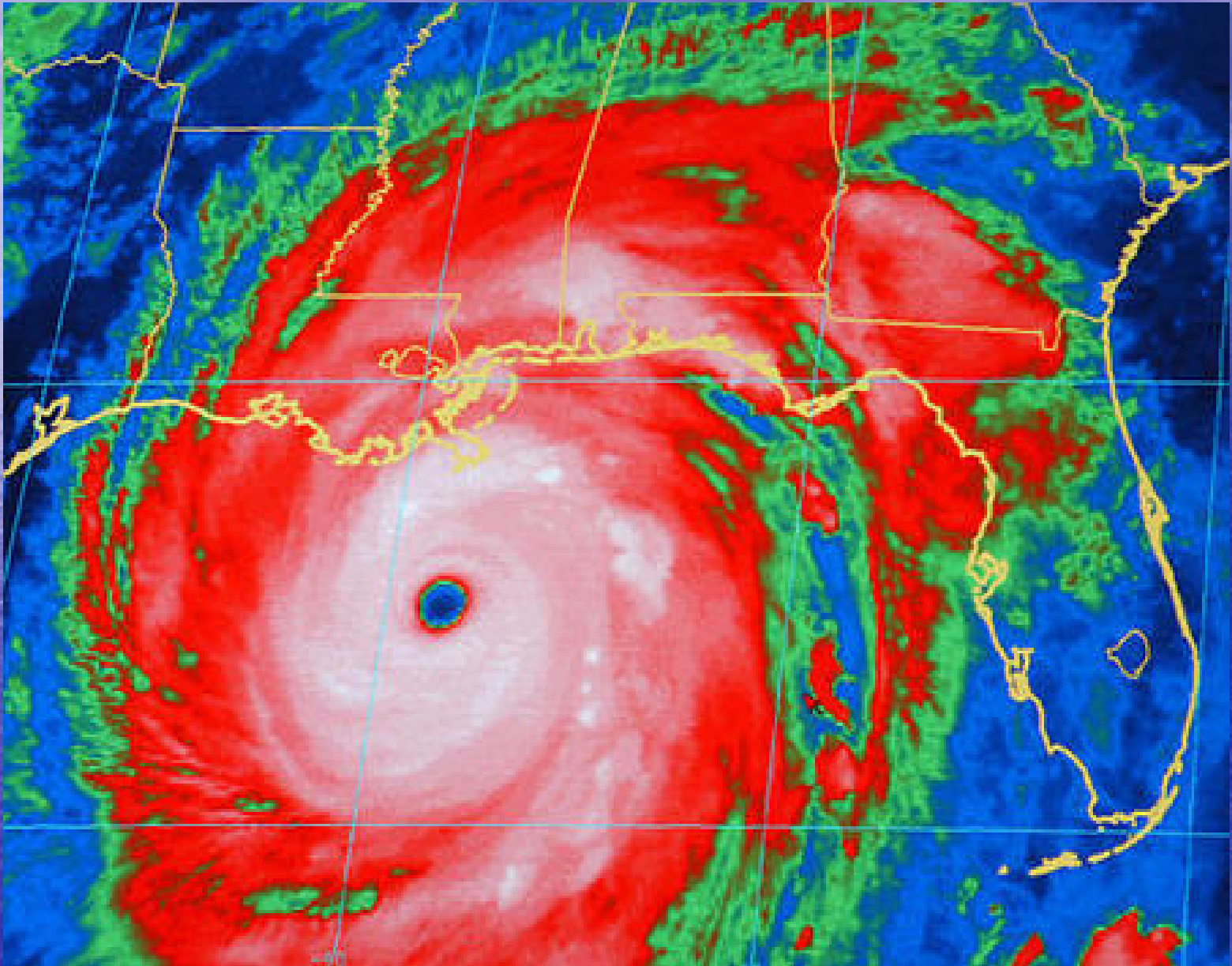
Louisiana Office of Public Health

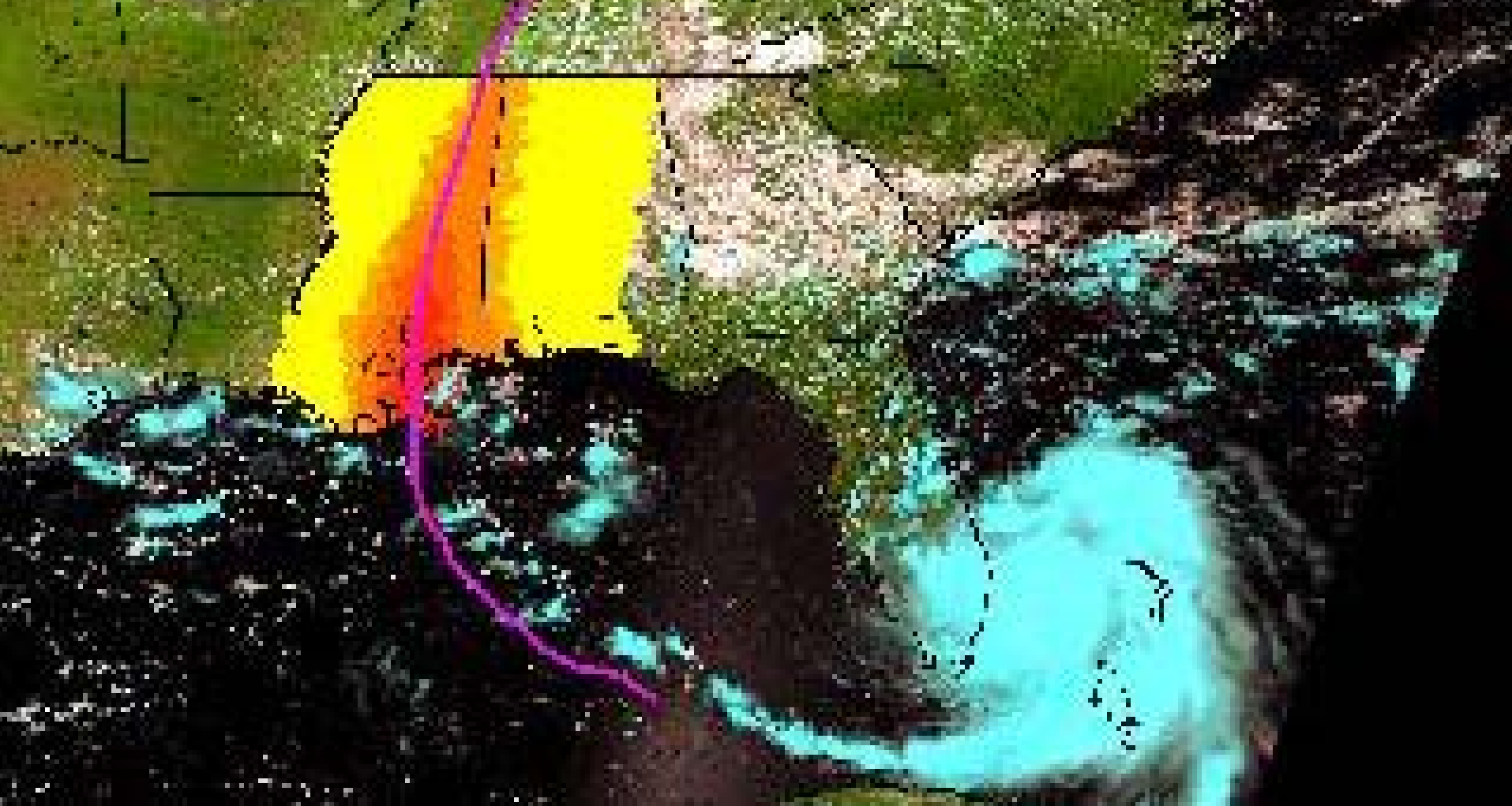


WHEN YOU ARE IN **DEEP** TROUBLE, LOOK
STRAIGHT AHEAD, KEEP YOUR MOUTH
SHUT & SAY NOTHING !

Hurricane Katrina

Landfall August 29, 2005





Maximum Sustained Winds are represented by the yellow, orange, and red areas. The pink line shows the path of Hurricane Katrina.

Hurricane Rita

September 23, 2005





Hurricane Katrina - A massive wave crashes over a floodwall at the Paris Road bridge near Michoud's Entergy plant in New Orleans near I-510











20























PRICE	DATE	AMOUNT
\$ 500		
\$ 100		

PROSPECTOR COMPLAINT

NAME _____
ADDRESS _____
PHONE (____) _____

NATURE OF COMPLAINT _____
DATE _____
TIME _____

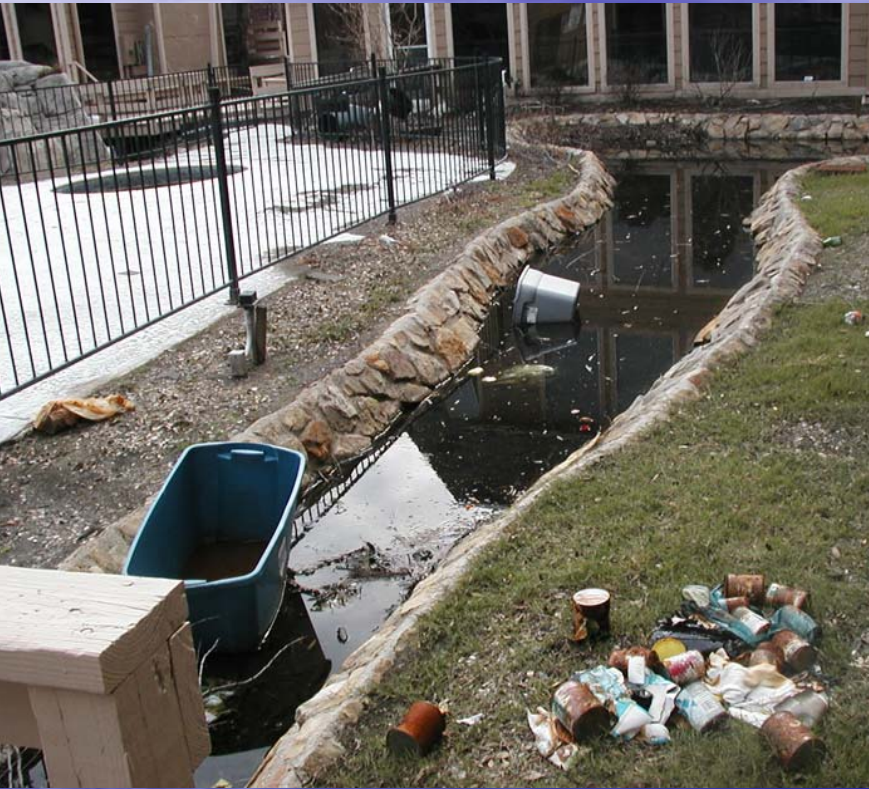
SPEAK ZONE _____
LAST DATE _____

COMMENTS _____



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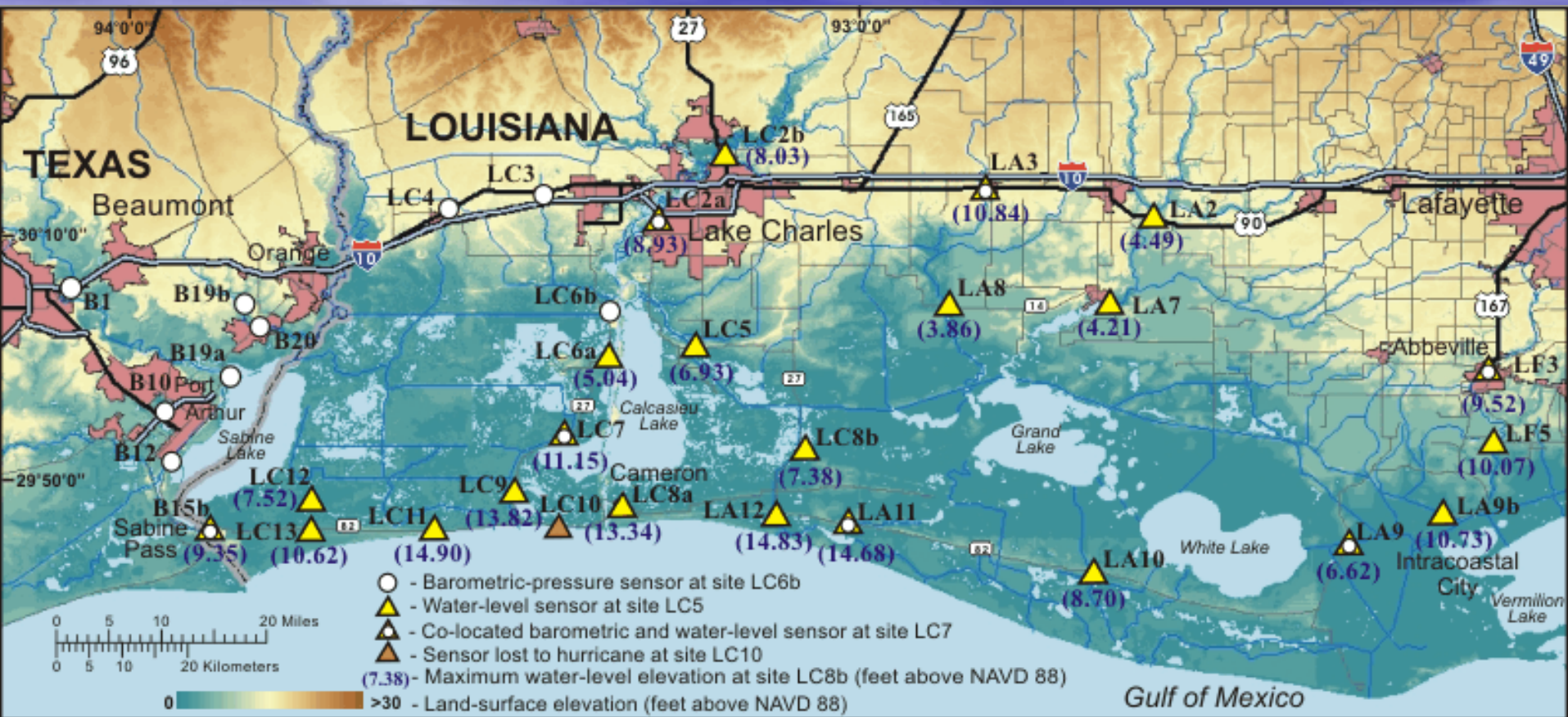
Swimming Pools



Over 5,000 pools in New Orleans.







Hurricane Rita Storm Surge as measured by USGS data-collection sites in southwestern Louisiana and southeastern Texas

June 16, 2001



June 16, 2001



September 28, 2005



September 28, 2005



USGS

USGS

Holly Beach, Cameron Parish LA

Ecological Changes

- Wrack – storm driven marsh grass, mud and debris
- Drain Paths - Permanently blocked and altered
- Salt Laden Mud Intrusion
- Over 50 % of the mature trees in St. Tammany and Calcasieu Parishes were uprooted or otherwise destroyed.
- Root Ball Voids
- Conversion of Marsh to Open Water / Mud Flats



Root Ball Voids

Root Ball Voids

8 Percent of St. Tammany Parish now consist of Root Ball Voids – These holes provide breeding habitat for a variety of species of mosquitoes, a number of which are capable of vectoring West Nile and other Arboviruses.



Wrack – Storm Driven Debris

















Chandeleur Islands

Direct Impacts on Abatement Districts



New Orleans MAD Headquarters and Hanger



Cameron Parish MAD's Headquarters



Cameron Parish MAD's Aircraft and Hanger

Indirect Impacts

Asian Tiger Mosquito

Aedes albopictus

CDC/James Gathany



White Footed Mosquito

Psorophora ferox



Dark Ricefield Mosquito

Psorophora columbiae





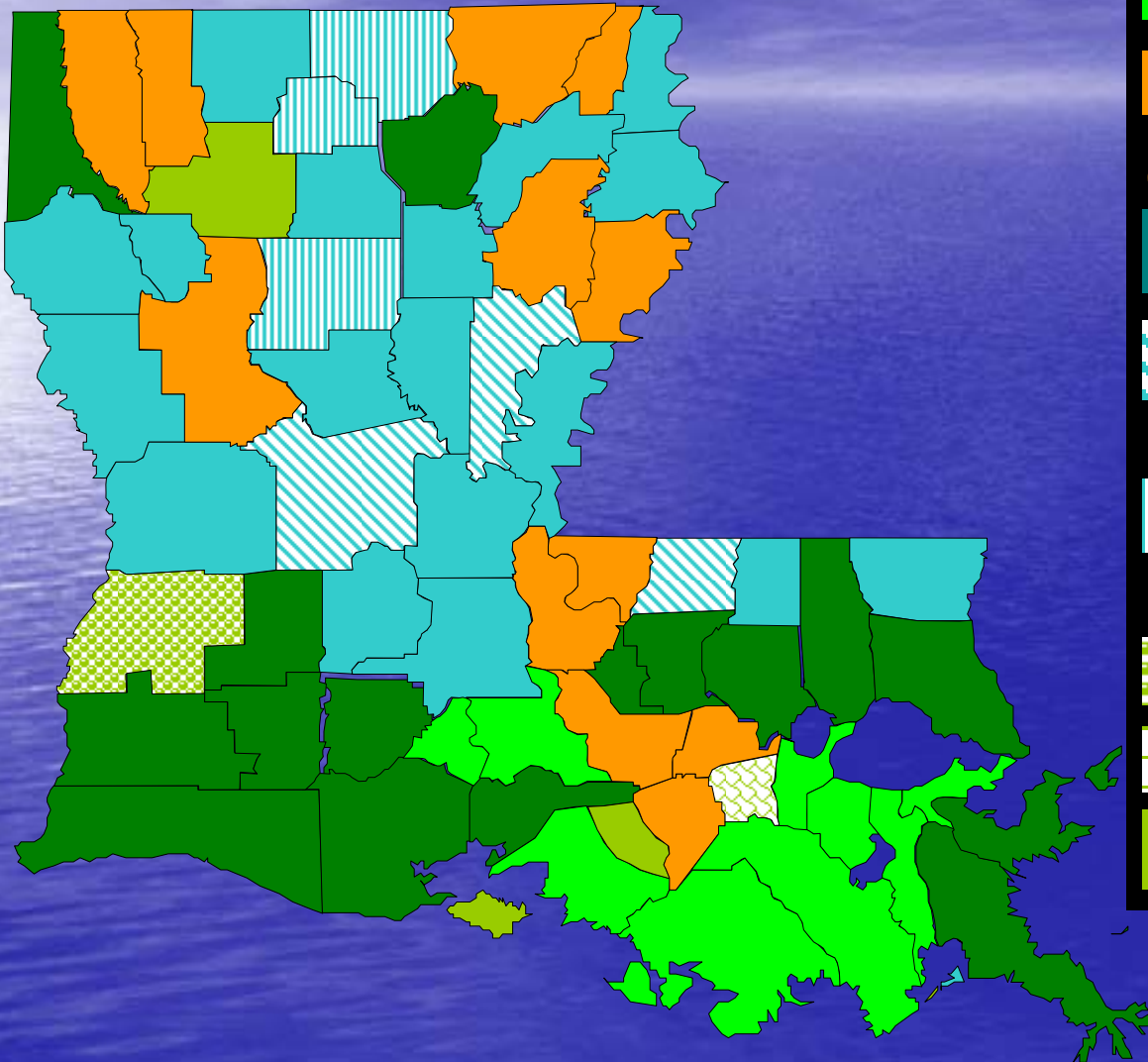
Filth Flies





Pre-Hurricane Louisiana
Mosquito / Vector Control
Response Capacity

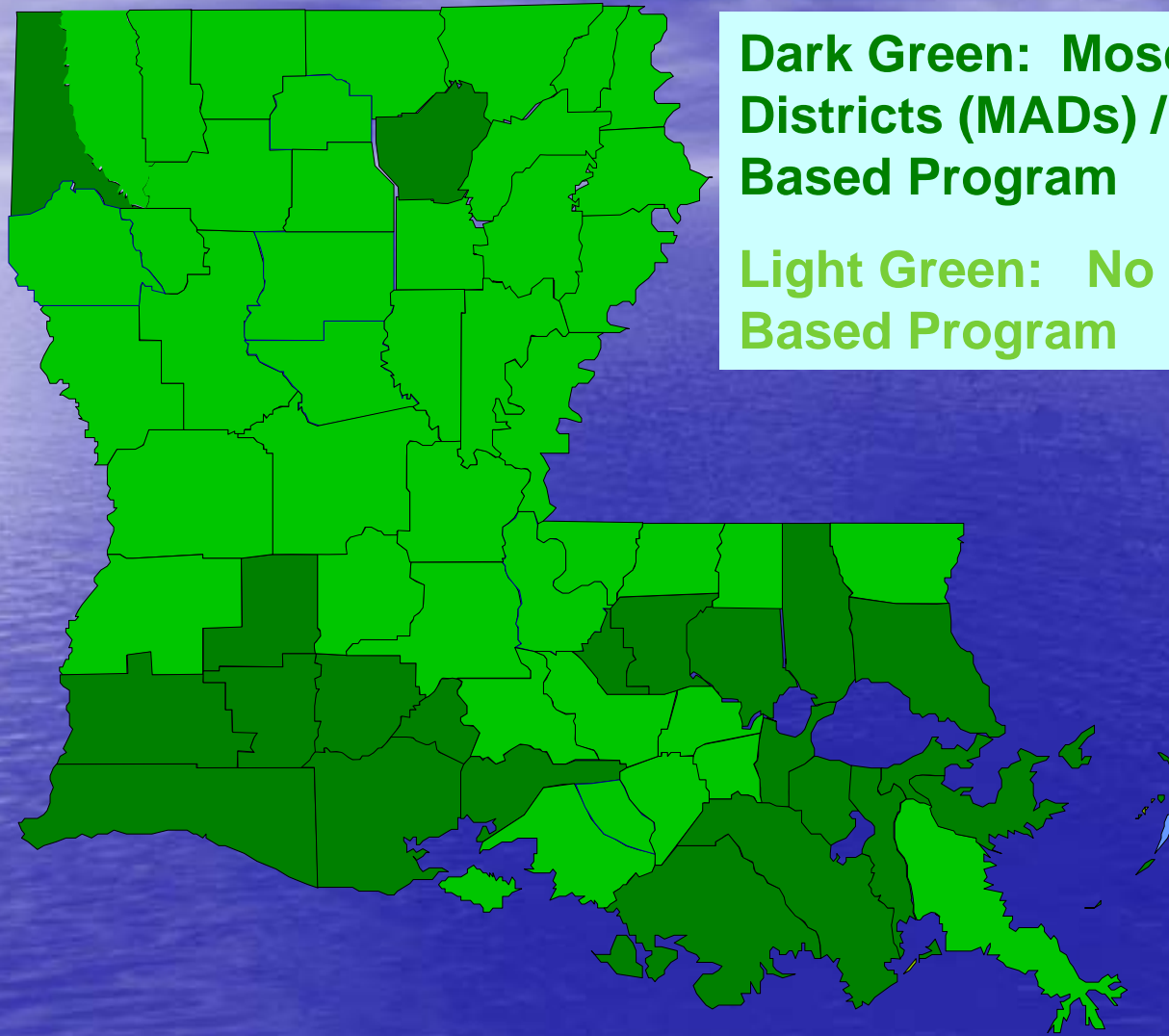
Mosquito Abatement in Louisiana



- Public MAD
- Contractor MAD
- Parish Program
- (City or Towns only)
- City or Town
- City or Town + Parish Larviciding
- City or Town + Parish Emergency
- Parish Larviciding
- Emergency Only
- No Program

Mosquito Abatement in Louisiana

2005



Dark Green: Mosquito Abatement Districts (MADs) / Surveillance Based Program

Light Green: No Surveillance Based Program

Supplemental Mosquito Control Grant

- Appropriated through the Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006.
- Signed onto law as 109-234 on June 15, 2006
- \$3,202,283 set aside for Mosquito Abatement in Louisiana
- \$2,721,940 to be distributed by the OPH (95%)

Supplemental Mosquito Control Grant Coordinator for Louisiana

Kyle Moppert

Office of Public Health Established the Supplemental Mosquito Control Grant Committee

This committee was charged to establish grant distribution guidelines and to approve all awarded funds.

OPH Grant Committee

- Kyle Moppert, Medical Entomologist – OPH
- Dr. Gary Balsamo, DVM, MPH, State Assistant Epidemiologist – OPH
- Dennis Walette, Director Tangipahoa Mosquito Abatement District - Louisiana Mosquito Control Association.

CDC Grant Guidelines

- Funds should be provided to existing mosquito and pest control programs maintained by local jurisdictions.
- Work should be completed by local agencies or contractors hired through local jurisdictions.
- Funds may be used to support local jurisdictions in establishing new programs or to obtain mosquito and pest control services from qualified local contractors.

CDC Grant Guidelines

All activities should be consistent with published CDC guidelines entitled Epidemic/Epizootic West Nile Virus in the United States: Revised Guidelines for Surveillance, Prevention and Control, April 2003

CDC Revised Guidelines for Surveillance, Prevention and Control

- Surveillance – Larval Mosquito, Adult Mosquito, and Virus
- Source Reduction
- Chemical Control – Larviciding and Adulticiding
- Resistance Management
- Biological Control
- Continuing Education of Mosquito Control Workers
- Vector Management in Public Health Emergencies
- Adult Mosquito Control Recommendations
- Determining the Scope of Mosquito Adulticiding Operations
- Evaluation of Adult Mosquito Control
- Health, Public Information and Human Behavior Change.

OPH Grant Committee Guidelines

- The OPH Grant Committee interpreted that the CDC guidelines required that applying programs must be parish-wide, or that at minimum, significant population and areas of a parish must be covered by that program.
- Require new programs applying for funding under this grant to have an established board and sustainable designated funding.

Qualifying Programs

- In order to qualify, a Program or MAD had to currently meet CDC/OPH guidelines

or

- Commit to establishing or improving their Program to meet CDC/OPH standards

Initial Suggestions for Fund Distributions

- Split evenly amongst existing programs
- Base on Parish Population
- Base on Size of Parish
- Base on Funds Expended post-Hurricanes
- Fund Only the Hardest Hit Parishes/MADs

OPH Grant Committee Funding Distribution Guidelines

- All qualifying programs received a standard amount (1X share) of the funds
- Programs substantiating extensive damages received a 2X share
- Programs in Parishes which were especially hard hit and the program facilities were totally destroyed received a 3X share
- Due to the size of their losses, City of New Orleans Mosquito and Termite Board received a 4X share

Parish Programs agreeing to establish or improve their operations in order to meet CDC Guidelines:

- Ascension
- Bossier
- Iberville
- Plaquemines
- St. Mary

26 MADs Qualified for Grant Distributions

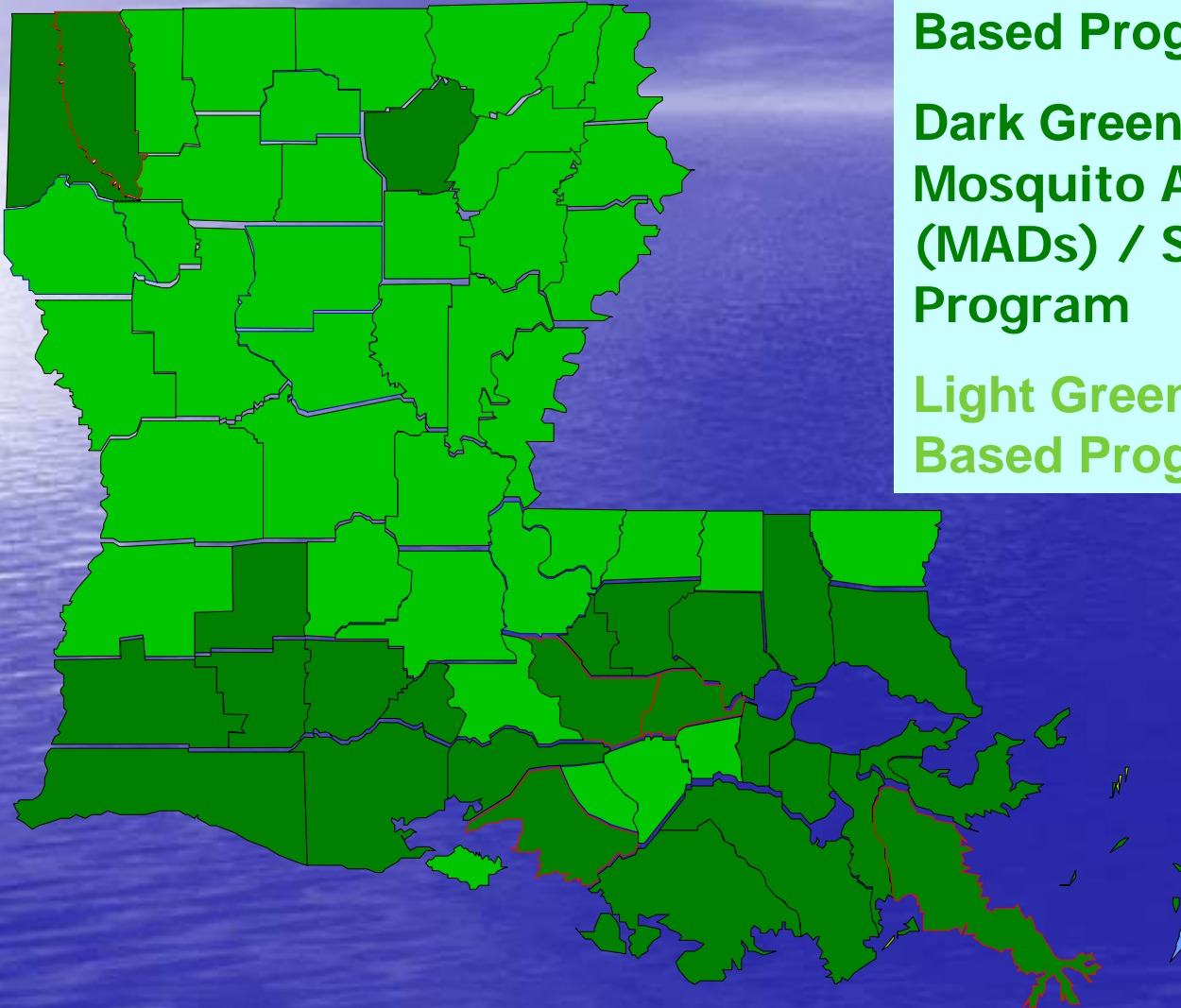
- 1X – 20 MADs
- 2X - 3 MADs
- 3X - 2 MADs
- 4X - 1 MAD

Mosquito Abatement in Louisiana 2007

Dark Green: Mosquito Abatement Districts (MADs) / Surveillance Based Program

Dark Green Outlined in Red New Mosquito Abatement Districts (MADs) / Surveillance Based Program

Light Green: No Surveillance Based Program



Funding Distribution

- 1X - \$ 84,505
- 2X - \$169,010
- 3X - \$253,515
- 4X - \$338,020

1 x

Acadia
Ascension
Bossier
Caddo
Calcasieu
East Baton Rouge
Iberia
Iberville
Jefferson
Jefferson Davis
Lafayette
Lafourche
Livingston
Ouachita
St. Charles
St. John
St. Mary
Tangipahoa
Terrebonne
West Baton Rouge

2x

Plaquemines
St. Tammany
Vermillion

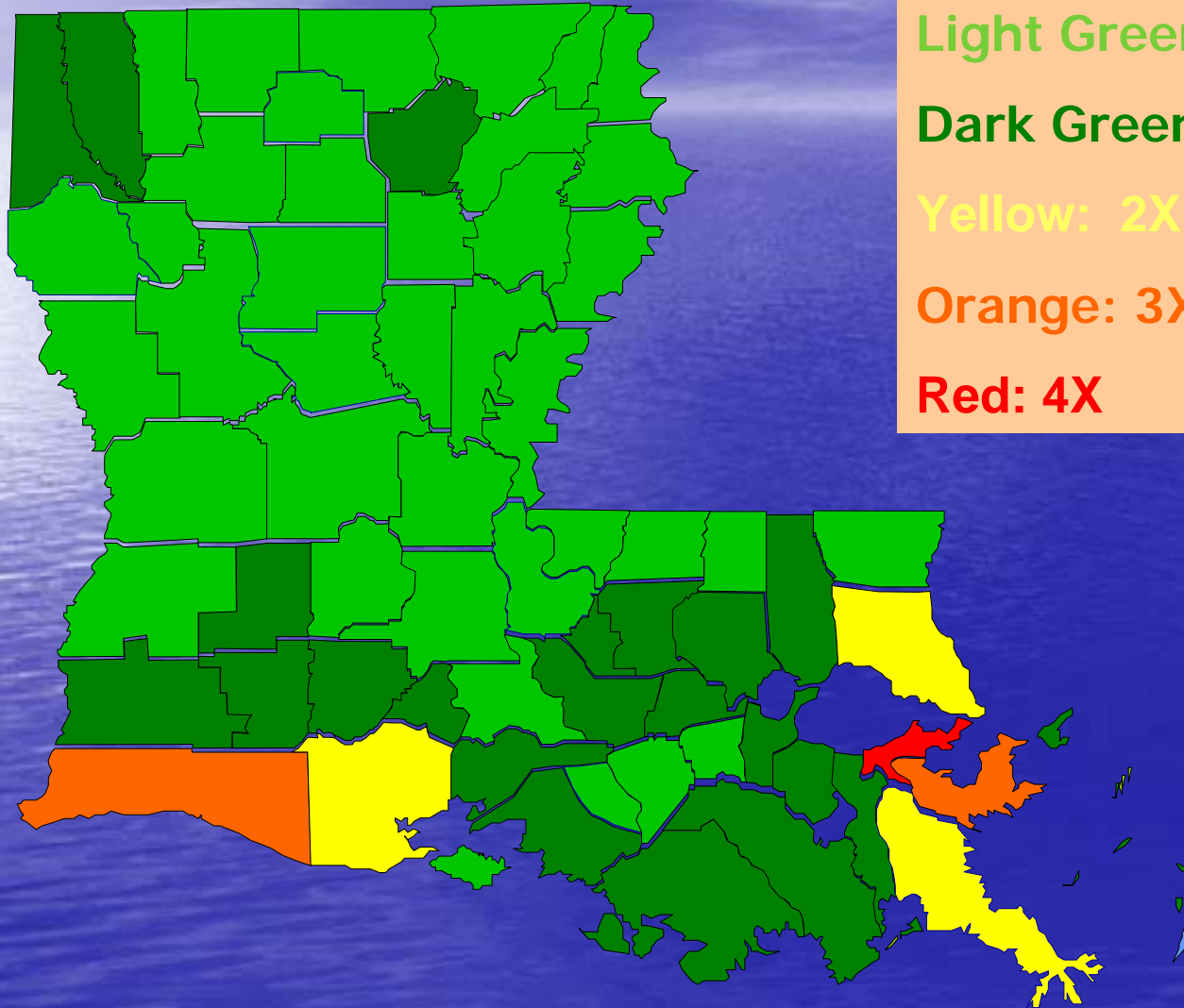
3x

Cameron
St. Bernard

4x

Orleans

Supplemental Mosquito Control Grant Funding



Light Green: No Funding

Dark Green: 1X

Yellow: 2X

Orange: 3X

Red: 4X

Time Line

- Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 was signed onto law as 109-234 on June 15, 2006
- Received Notification of Award mid- July, 2006
- Official Notice of Award August 23, 2006
- Grant Committee Established August, 2006
- Guidelines Promulgated October, 2006
- Avoyelles Parish voted on establishment of MAD November 2006 - Failed
- Request for Proposals from Parishes November 21, 2006
- Application Deadline December 15, 2006

Time Line - Continued

- Application Review January 12, 2007
- Appeals by Plaquemine & St. Mary Parishes settled in early February
- February through June worked with 26 MADs and Parishes to complete Cooperative Endeavor Agreements (contracts)
- All contracts completed and approved June 2007
- Moneys dispersed June and July 2007

26 Cooperative Endeavor Agreements (CEA)

- Each Parish was contacted by phone and sent Attachments to CEA
- W-9's collected from each Parish
- W-9 addresses had to be reconciled with ISIS contact info in ISIS System
- BA-22 were prepared (4 signatures required) and submitted for approval by OPH Contract Section
- CEAs were prepared and sent to Parishes for signatures
- Upon receipt of CEAs Summary of Information and Contract Review forms were prepared and submitted for signature to the OPH Office of Assistant Secretary
- Signed by Mr. Moppert and sent to OPH Contract Review Committee for approval
- CEAs delivered to Division of Administration for approval
- Authorization for release of funds prepared
- Funds released

Expenditures by Parish

Expenditures by Parish

- Acadia - Hanger doors and concrete pad, electrical system, fuel containment area, generator and fencing
- Ascension – Adulticide and larvicide
- Bossier – Surveillance equipment, training and instructional materials, application equipment
- Caddo – Security fencing and buildings, training & instructional materials, increased surveillance
- Calcasieu – Aircraft upgrades/repairs, forklift and adulticide
- Cameron - Replacement of buildings and facilities
- East Baton Rouge - Adulticide
- Iberia – Adulticide, vehicles, application equipment
- Iberville – Aerial application funding
- Jefferson – Contract surveillance and applications
- Jefferson Davis – Generator and insecticide storage containment and fuel facility improvements
- Lafayette – Contract surveillance and applications
- Lafourche – Contract surveillance and applications

Expenditures by Parish - Continued

- Livingston – Laboratory and surveillance equipment, facility improvement, vehicle, educational materials, computer and web site development
- Orleans – Replacement of buildings and facilities
- Ouachita – Adulthood
- Plaquemines – Purchase aircraft
- St. Bernard – Replacement of buildings and facilities
- St. Charles – Contract surveillance and applications
- St. John – Contract surveillance and applications
- St. Mary – Contract surveillance and applications and augment municipal programs
- St. Tammany – Adulthood
- Tangipahoa – Adulthood
- Terrebonne – Contract surveillance and applications
- Vermilion – Adulthood, Surveillance equipment, education, computer
- West Baton Rouge – Construct new buildings / facilities

Summary of Expenditures

- Adulticide / Larvicide / Aerial applications – 9
- Aircraft / Aircraft related upgrades - 3
- Contract surveillance and applications - 7
- Construct / Replace / Improve buildings and facilities - 6
- Generators - 2
- Surveillance / Laboratory / Office Equipment - 4
- Vehicles / Application Equipment – 2
- Education / Training – 3
- Assist Municipal Programs - 1

Current Status

- Quarterly Reports
- Inspections and Verification





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Expenditure Deadline

- December 31, 2008



Kyle Moppert

Center for Environmental Services

Office of Public Health

Louisiana Department of Health and Hospitals

628 N 4th St.

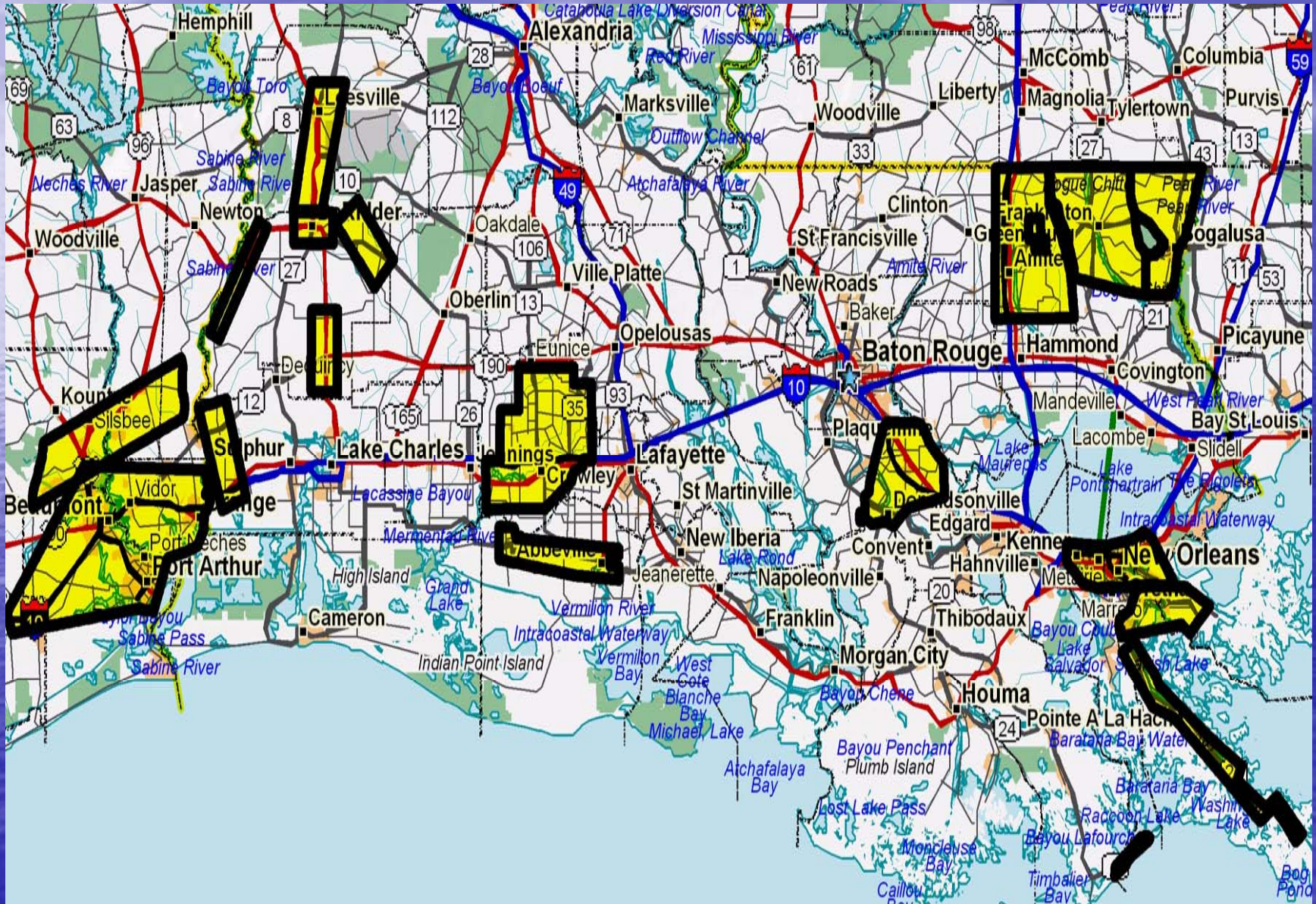
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910AW - Emergency Spray Areas



Over Louisiana and Texas, the 757th aircrews sprayed 2,880,662 acres, or 4,501 square miles—an area equivalent in size to the state of Connecticut. Almost 2 million of those acres were applied in Louisiana.

Fourteen thousand gallons of the pesticide Dibrom® were used, costing FEMA \$1.6 million.

The missions comprised 191.4 hours of total flying time with 46.5 hours of actual “Spray-On” time, flying at 150 feet above ground level.

This was the largest aerial spray mission ever conducted by the United States Air Force.

In addition to the AF missions, Private Contractors Sprayed almost 3.5 Million acres in the Following Parishes:

Acadia; Allen; Avoyelles; Calcasieu;
Cameron; Evangeline; Iberia; Iberville;
Lafourche; Livingston; Jefferson;
Lafayette; Ouachita; St. Charles; St. John;
St. Martin; St. Tammany; Tangipahoa;
Terrebonne; and Vermillion

Additional Aircraft owned by Mosquito Abatement Districts made a total application of 1,456,498 acres in the following Parishes :

- Acadia
- Calcasieu
- East Baton Rouge
- Jefferson Davis
- Vermillion

Total Post Katrina/Rita Aerial Applications in Louisiana

6,890,367 acres =
10,766 square miles
or

an area larger in size than the States of
New Jersey and Delaware

Total Post Katrina/Rita Aerial Applications in Louisiana and Texas

12,222 square miles which is
equivalent to the State of
Maryland