

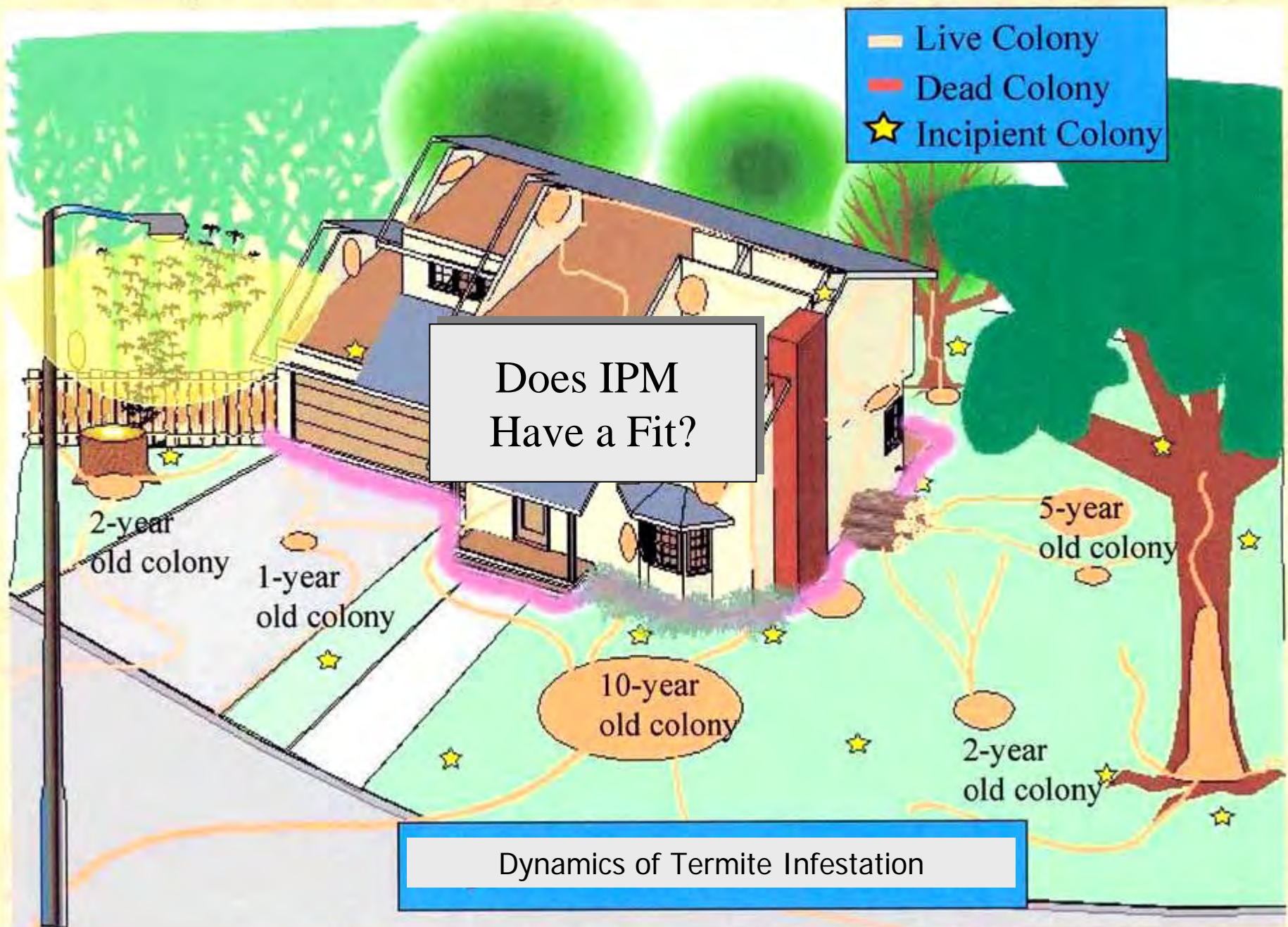
# Management of Subterranean Termite Populations Made Possible with Advances in Technology: A case Study

Frank S Guillot  
Nation Program Coordinator  
USDA-ARS



Fifth National IPM Symposium  
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# *Coptotermes formosanus*, the Formosan Subterranean Termite



- Multiple introductions during and after WWII
- Crates for shipping were infested and used in construction or buried
- Sandalwood trade may account for Hawaii infestation

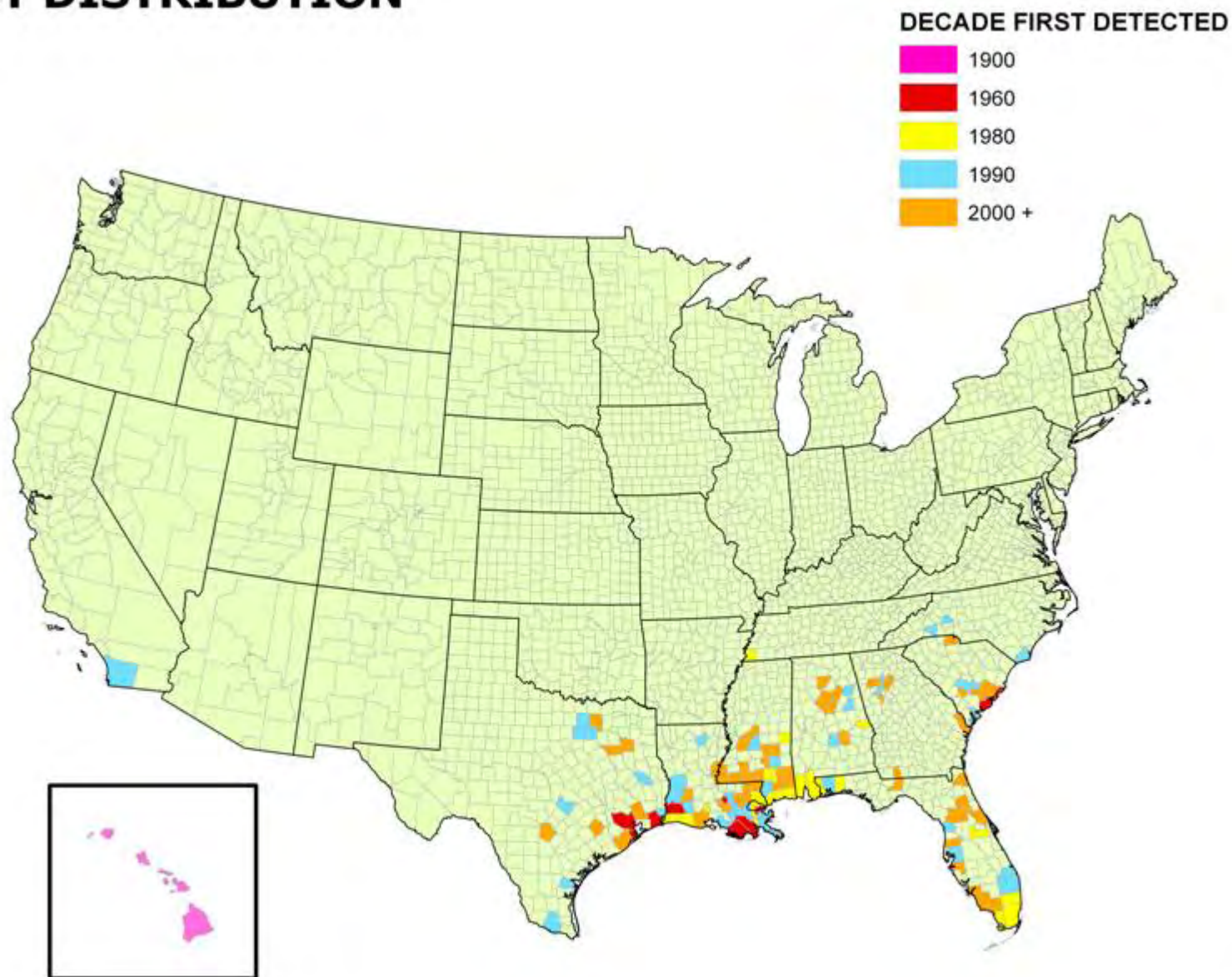


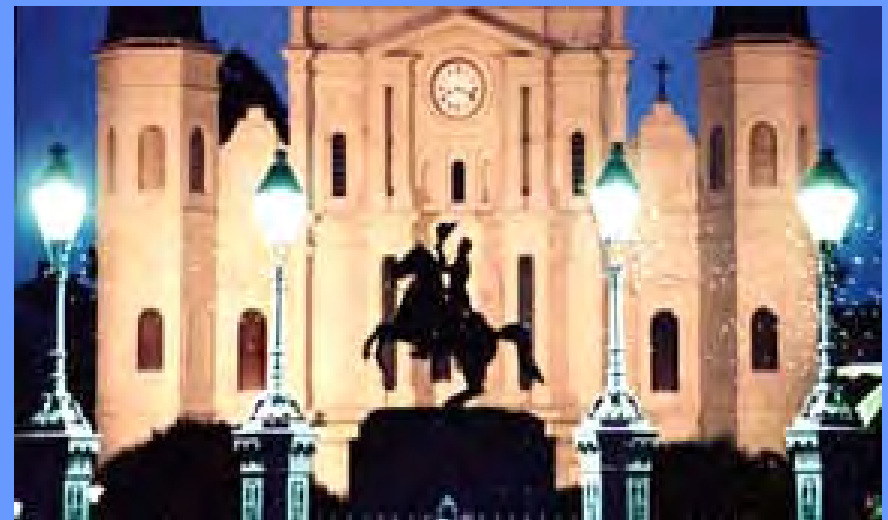
# A Billion Dollar Problem



- Costs include treatment, repairs, loss of trees, depressed property values.
- Eleven states infested.
- Populations increase naturally at points of original introduction and spread to neighboring communities.
- Spread to other urban centers and into rural areas is by commercial and private enterprises.

# FST DISTRIBUTION







# **The New Orleans French Quarter Project**

- **LSU Agricultural Center**
- **New Orleans Mosquito and Termite Control Board**
- **USDA-Southern Regional Research Center**
- **Pest Management Professionals**
- **Property Owners/Tenants**

# Area-wide Management Strategy

- **Inspect & treat all properties (public & private) in a defined area. Presently, includes three French Quarter neighborhoods & the levee.**
- **Property owners required to cooperate with program managers, e.g. Remove conducive conditions, allow inspections. Select licensed PMP. State-approved contract.**
- **PMP's must apply termiticides in compliance with federal & state laws.**
- **Use only non-repellent termiticides or baits.**
- **USDA-ARS & partners to provide project oversight & evaluation of progress.**
- **Estimate changes in FST density with in-ground monitors and alate traps. Inspections.**





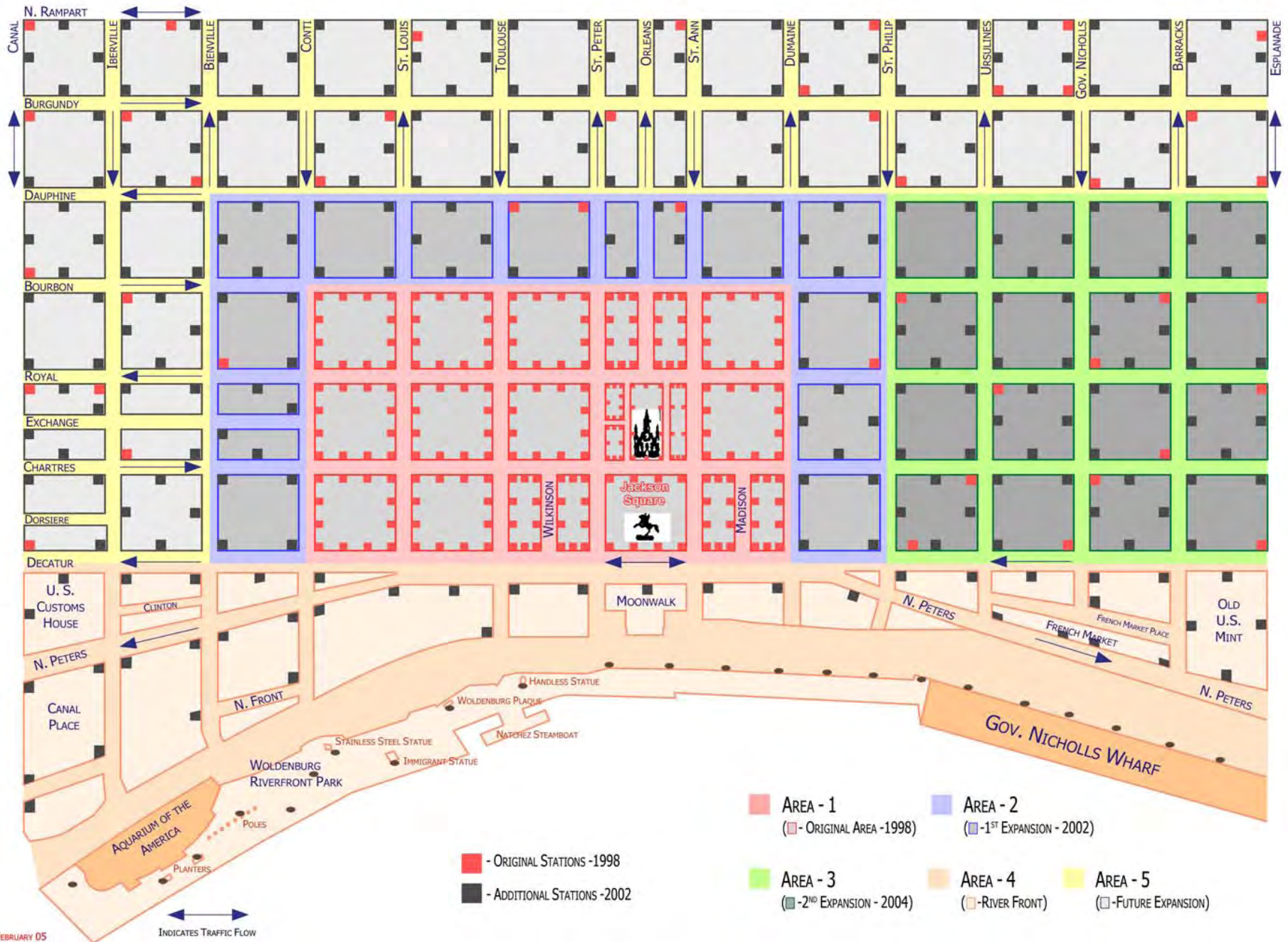
Ed Frytag, NOMTCB



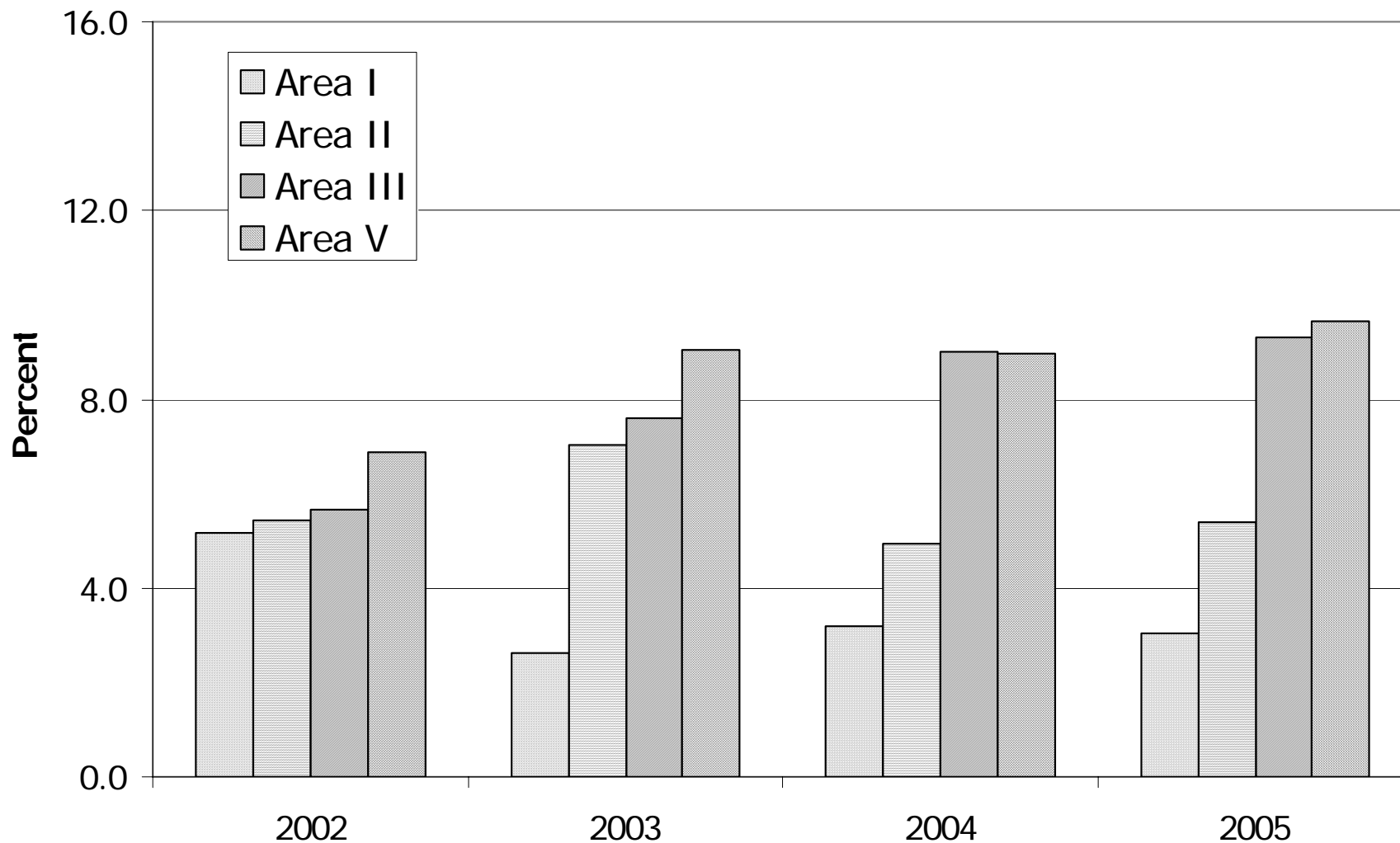




# FRENCH QUARTER



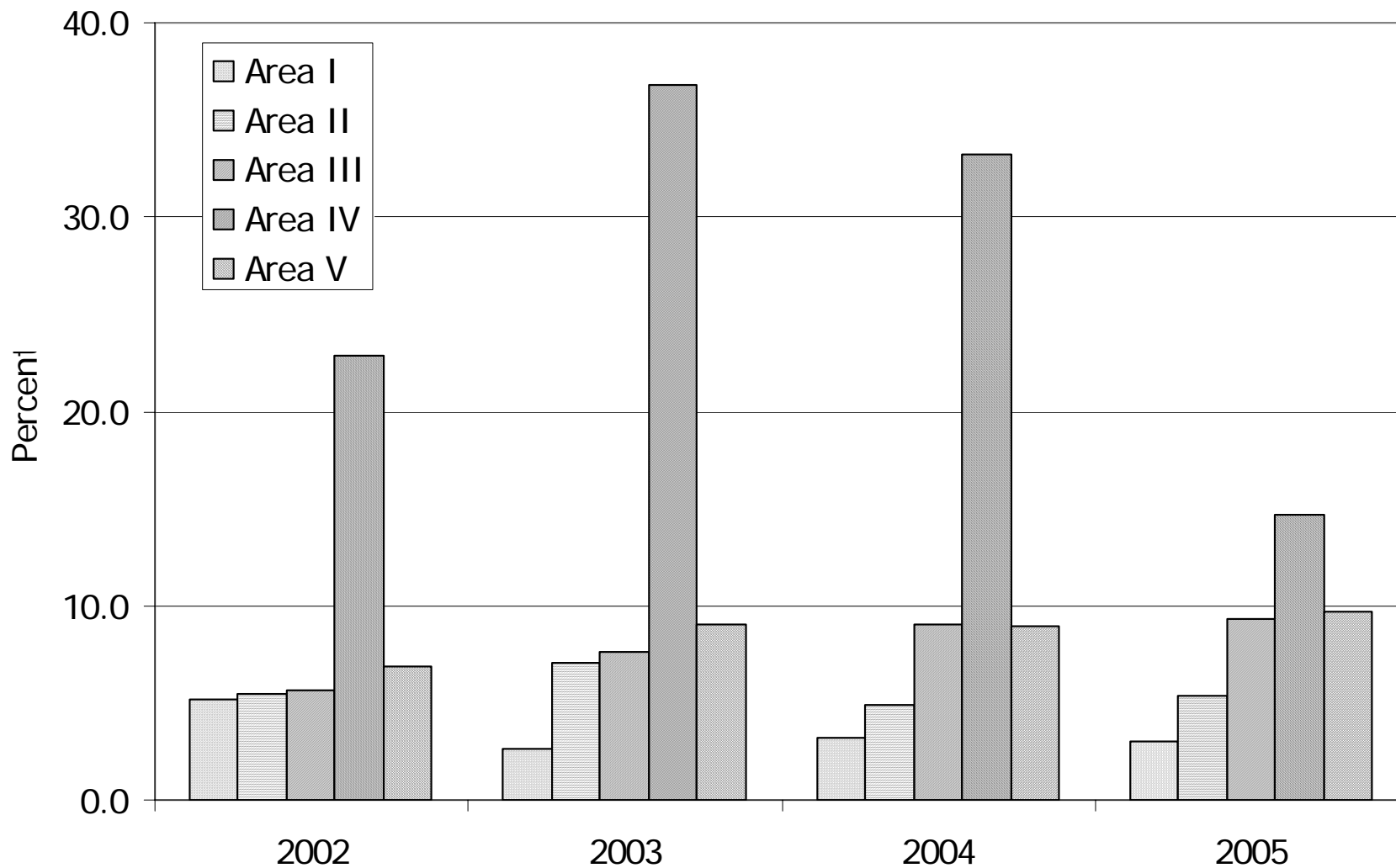
## Active In-Ground Stations in The New Orleans French Quarter





# Active In-ground Stations in the New Orleans French Quarter

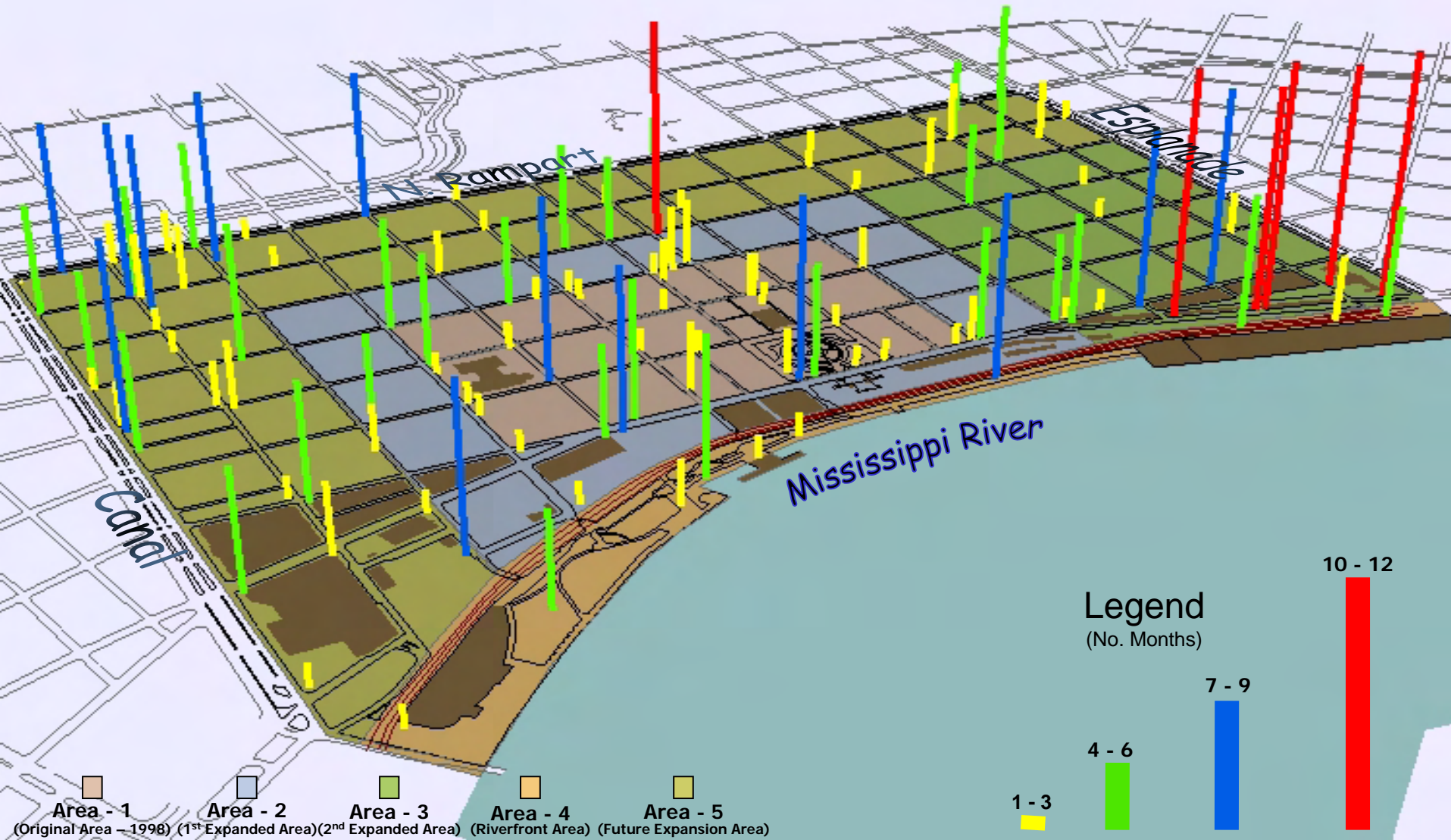
Includes Levee (Area IV)



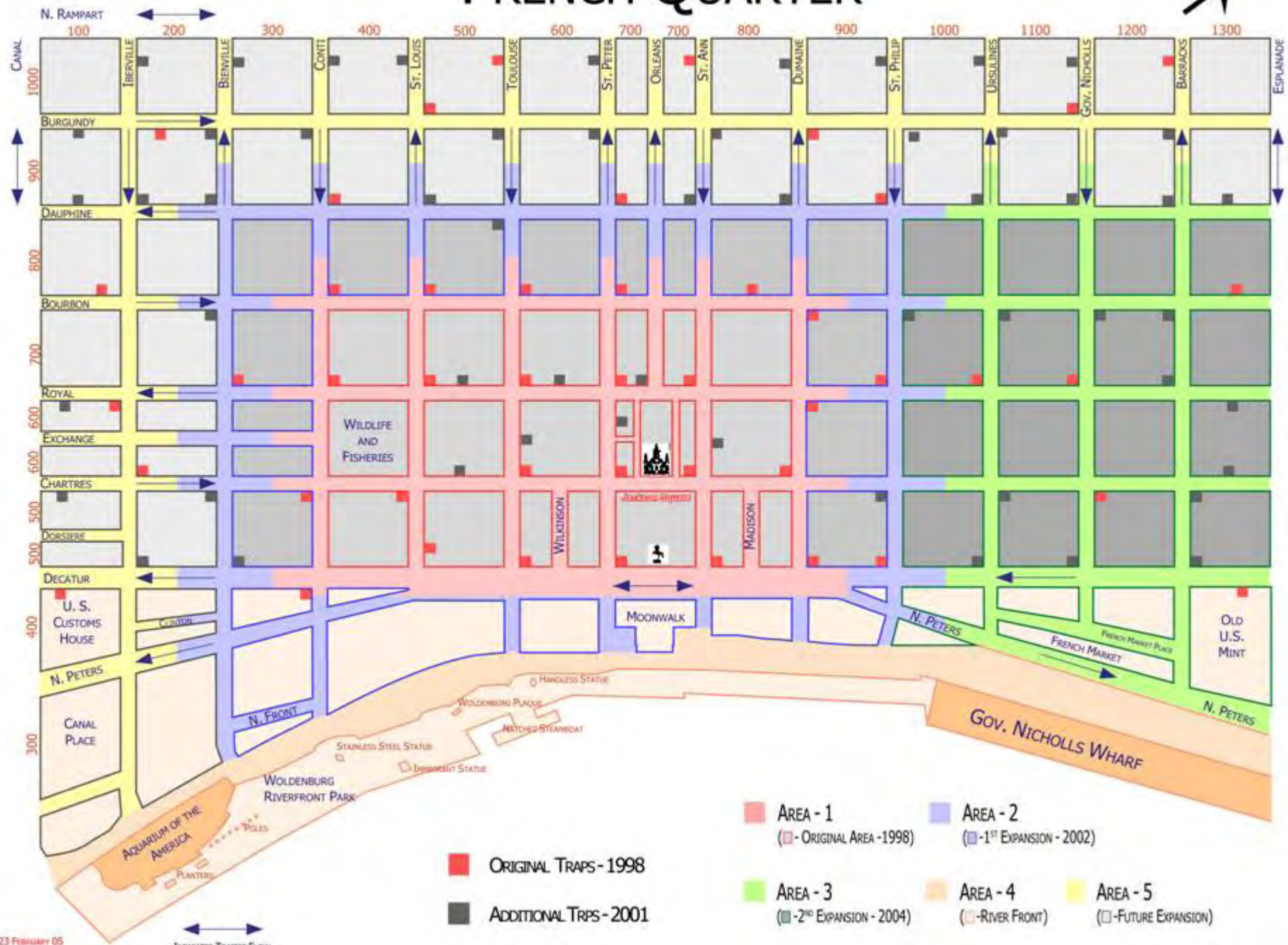
# Formosan Subterranean Termites

## Monthly Activity

2005



# FRENCH QUARTER





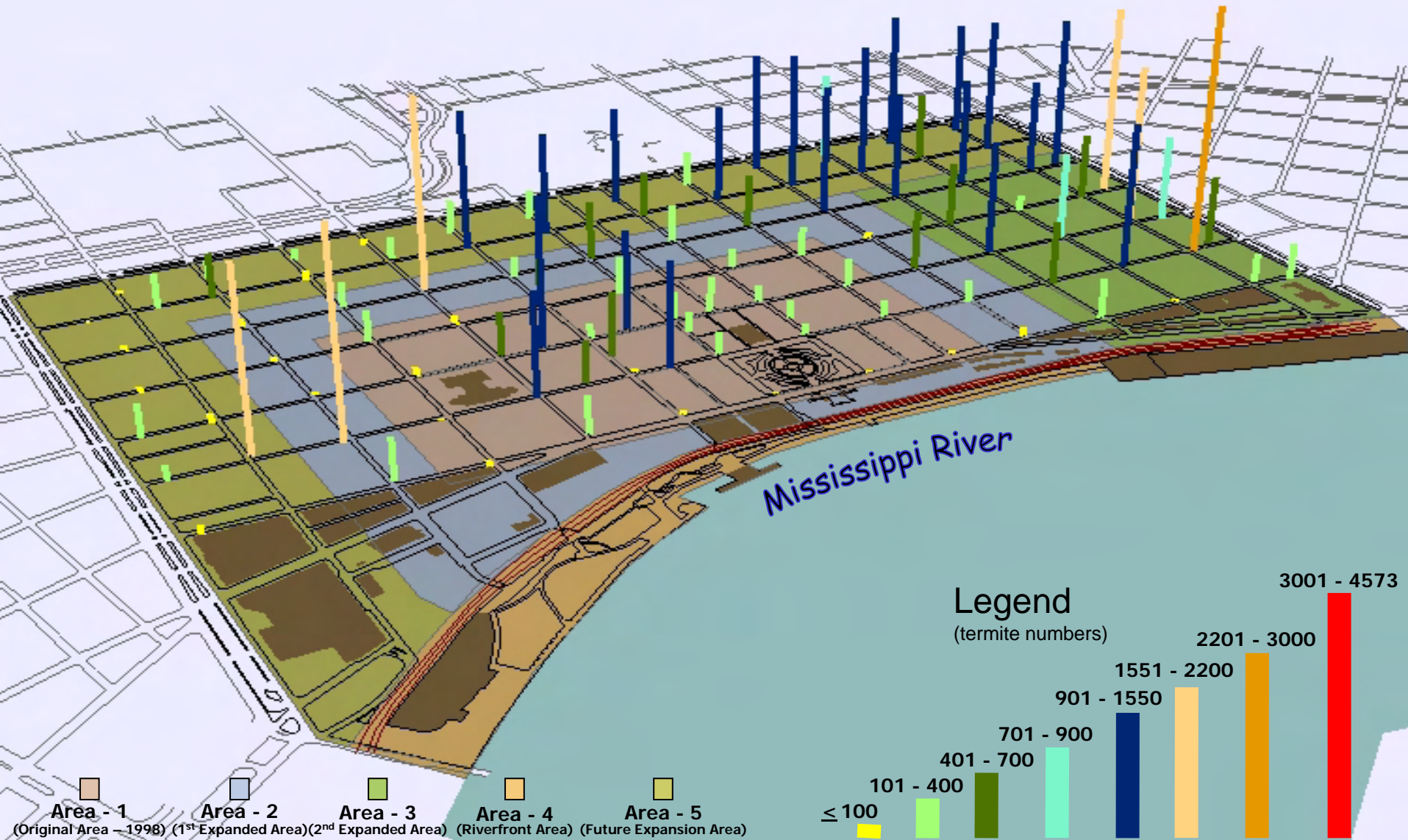




# Formosan Subterranean Termites

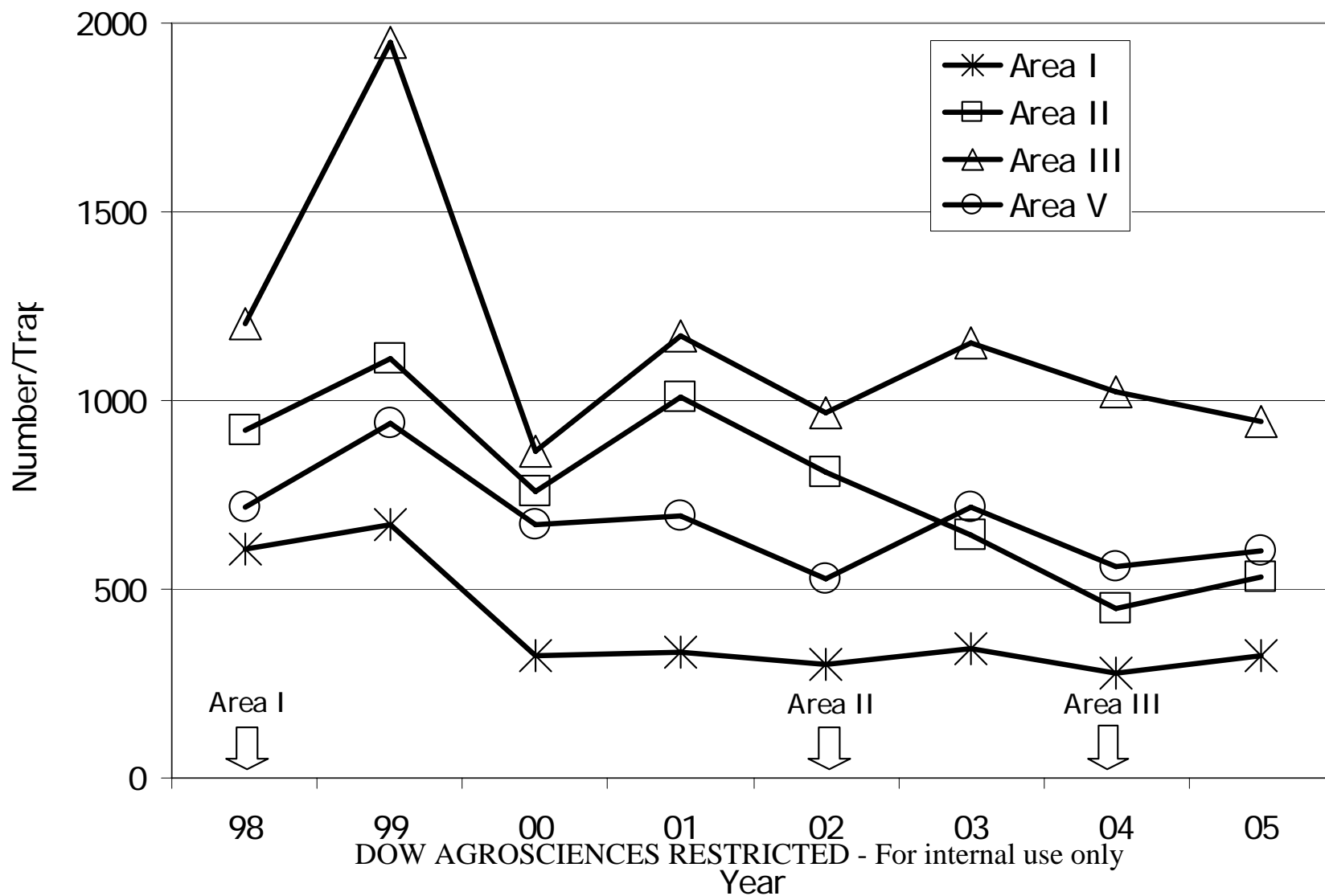
## Alate Activity

### 2005



# Affect of Area-wide Management on Density of Fomosan Alates

## New Orleans' French Quarter





## Refugia

Abandoned Structures

Hidden / Above-ground  
Colonies in Structures

Trees & Courtyards

RR Crossties & Warf

Levee & Parks

Buried Debris



Above-ground Colonies



Shared-wall brick construction in the French Quarter



French Quarter  
Area - 1

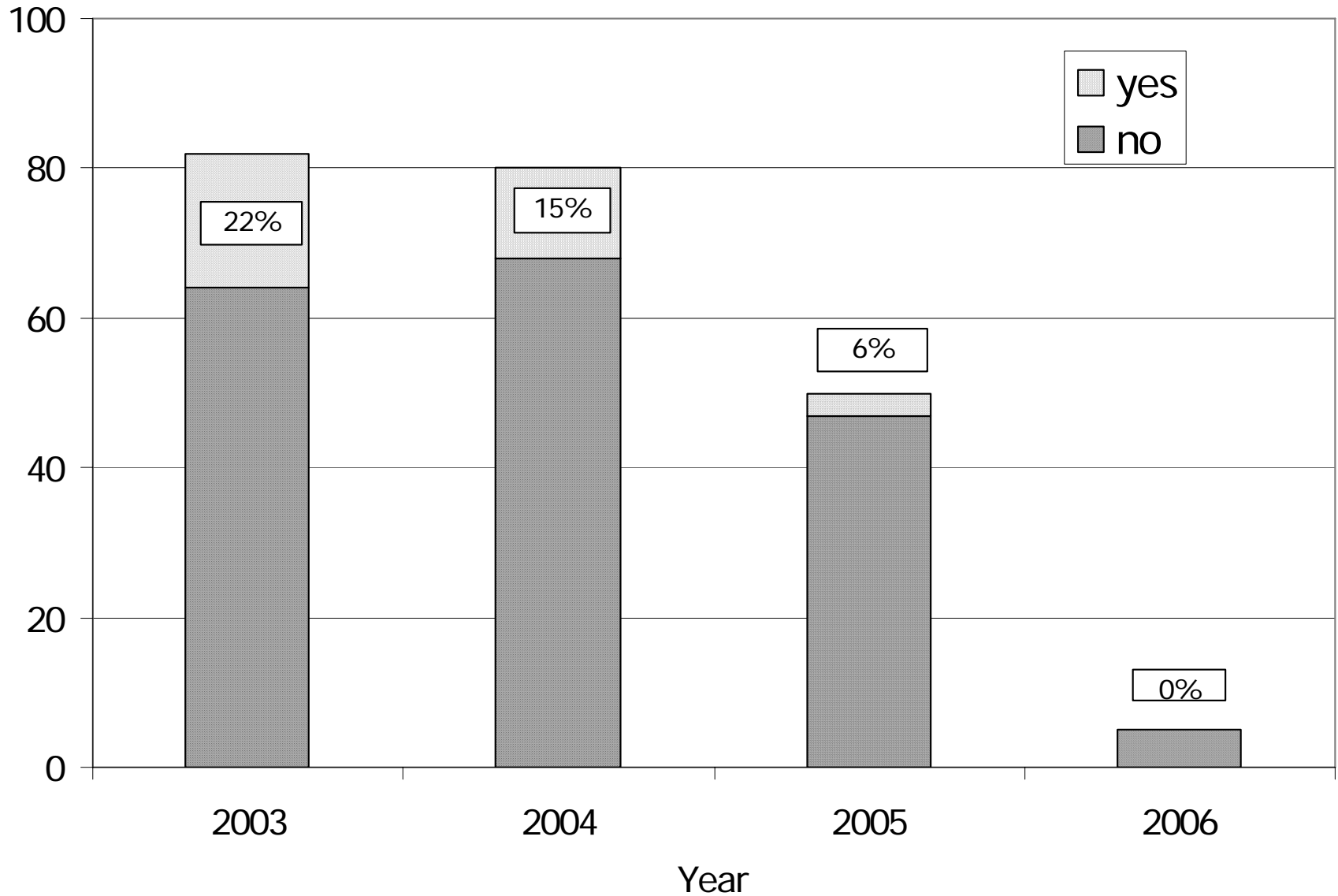
# INFRARED INSPECTION RESULTS



06 March 06

0 112.5 225 450 675 900 Feet

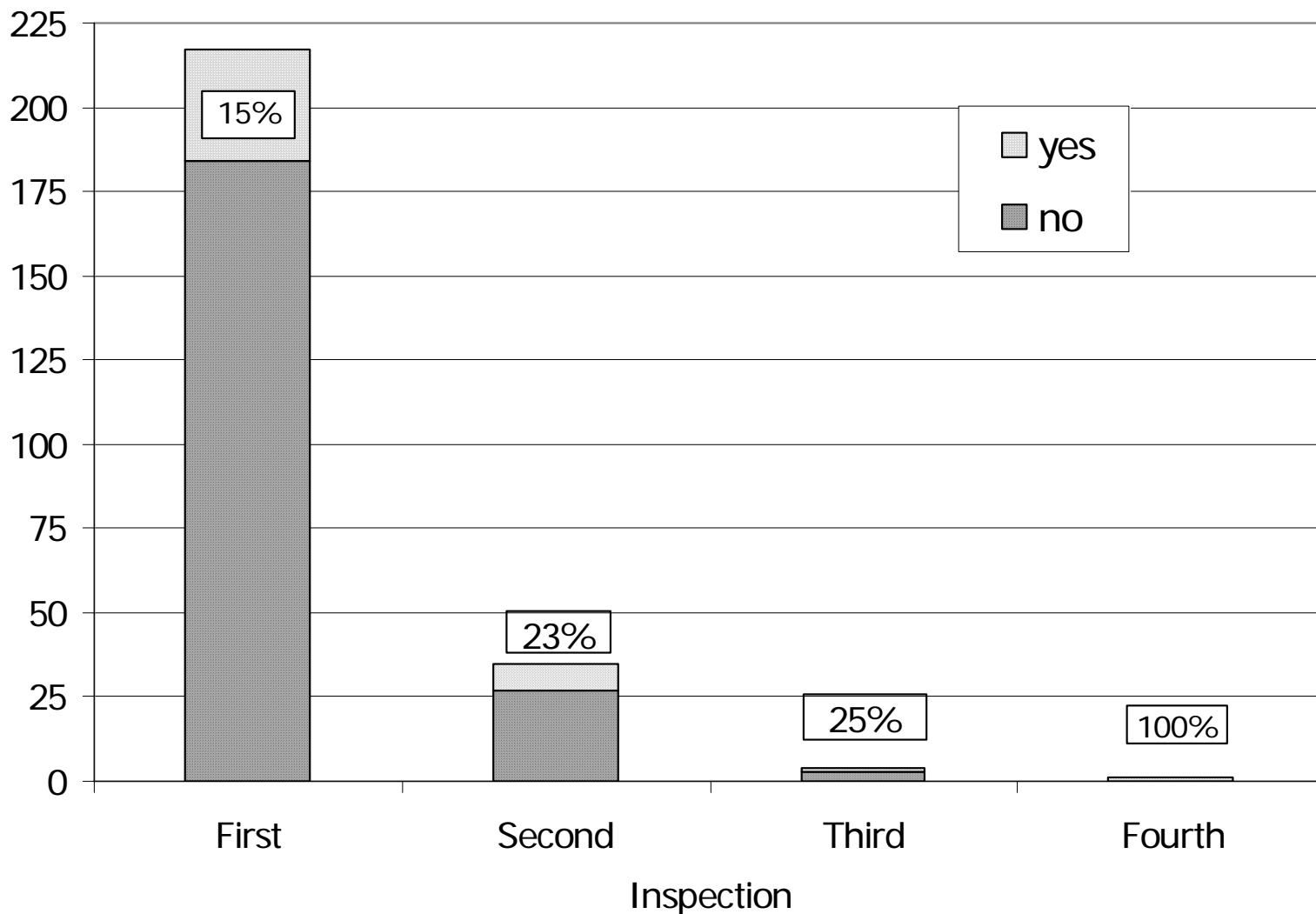
Results of First Inspection  
Number of Structures with Termites  
Area I



# Inspection Results

## Number of Structures with Termites

### Area I





BOURBON

TOULOUSE

SAINT PETER

ROYAL





Conti

Chartres

Royal

St Louis

2002-05

16 Colonies

15. Shrubs

14. Magnolia - Yes

12. Palm - Yes

13. Magnolia

7. Palm - Yes

16. Magnolia

17. Palmetto

18. Japanese Yew

11. Magnolia - Yes

9. Palm

8. Oak - Yes

6. Magnolia

10. Magnolia

19. Japanese Yew

Japanese Yew

23. Shrubs

22. Shrubs

21. Magnolia

5. Japanese Yew

1. Magnolia

2. Magnolia

4. Magnolia

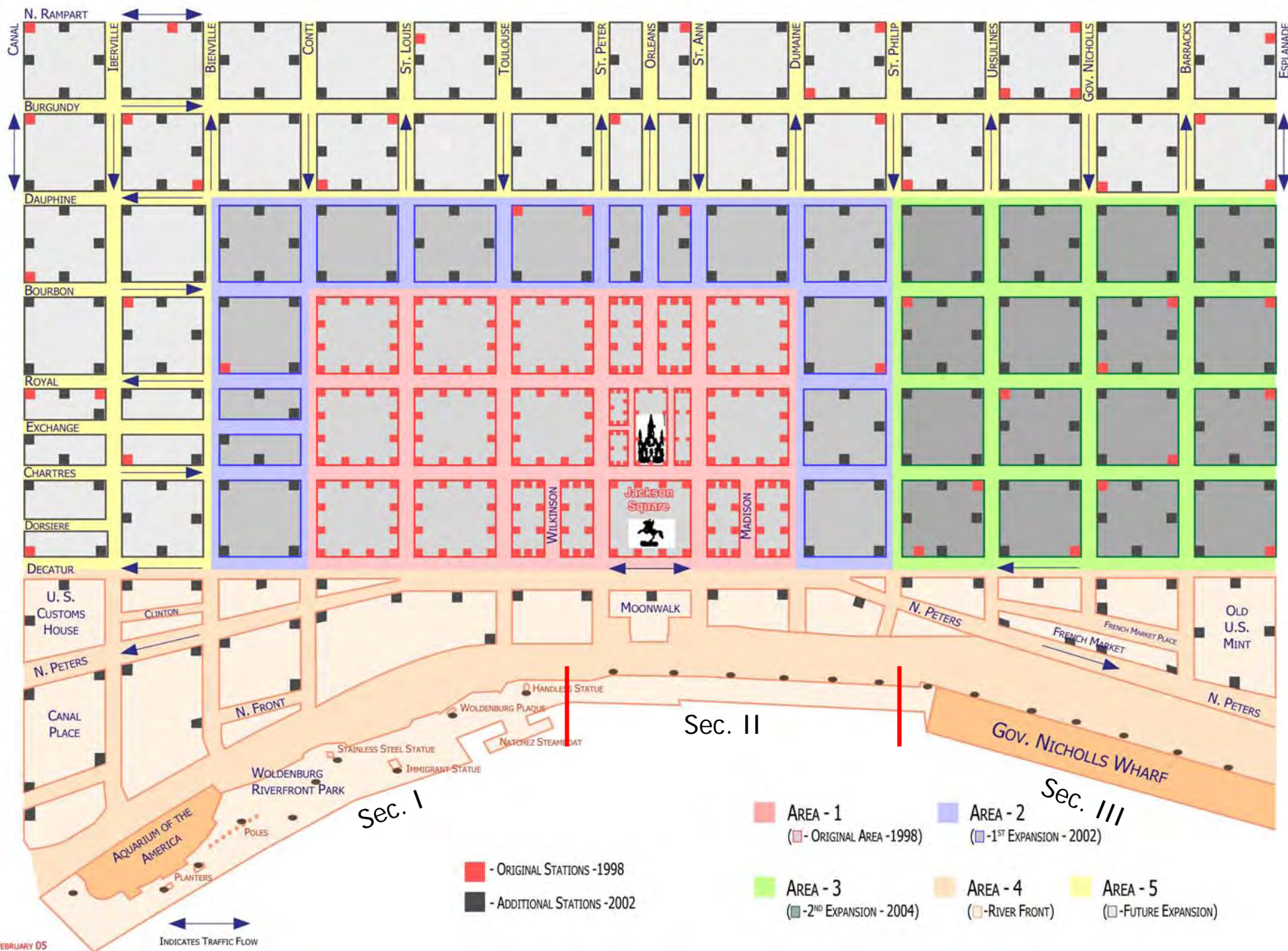
3. Magnolia





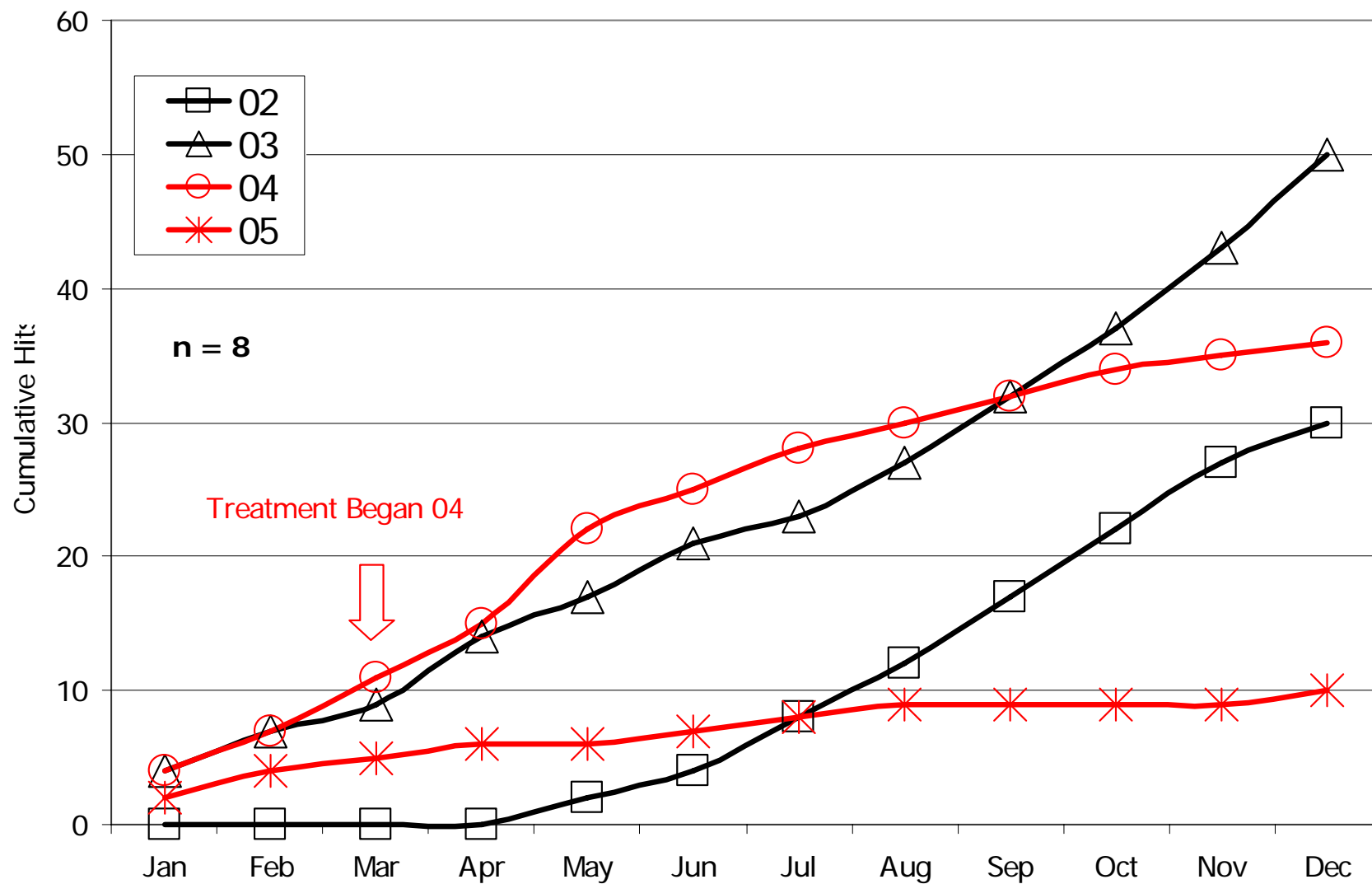


# FRENCH QUARTER

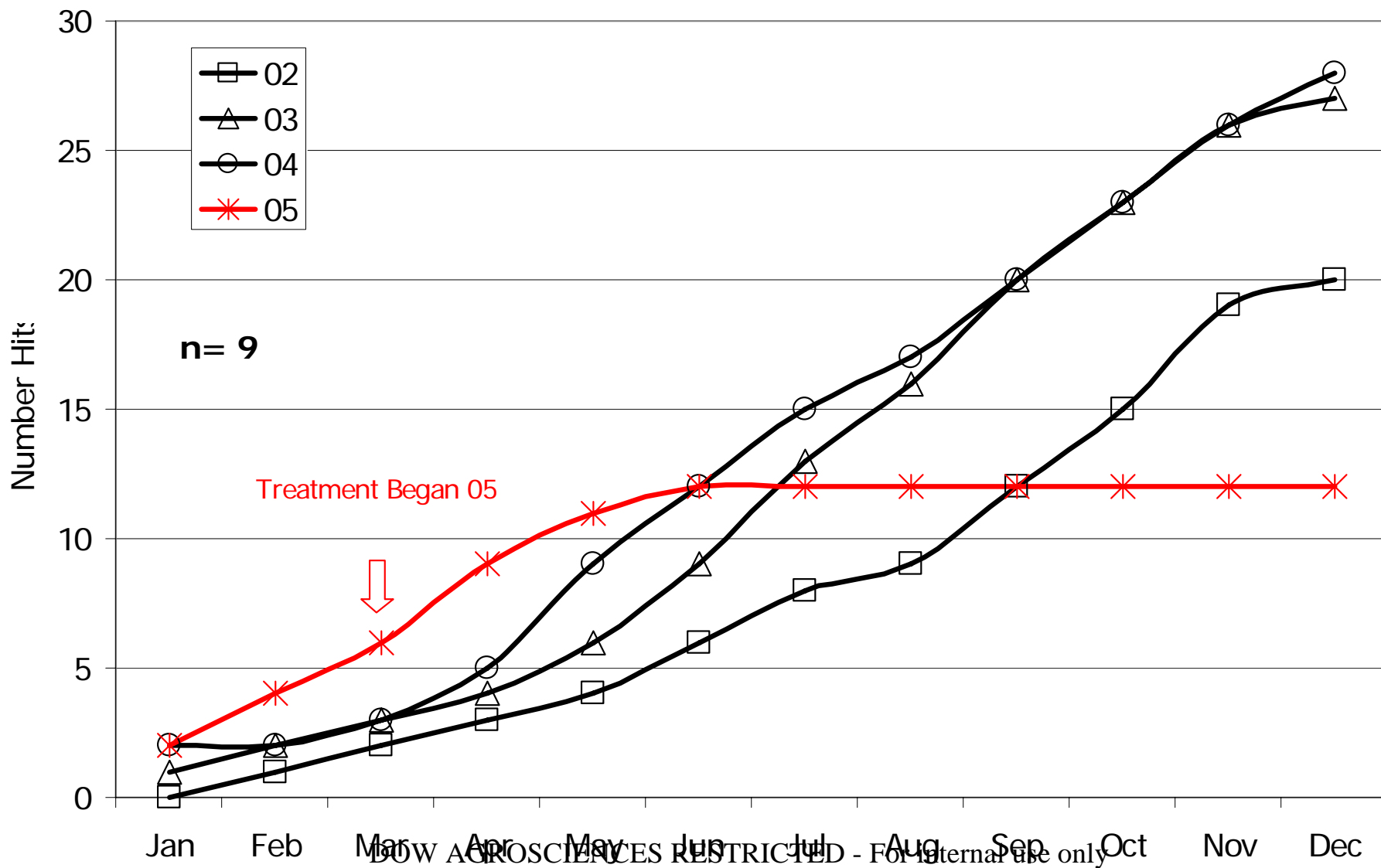




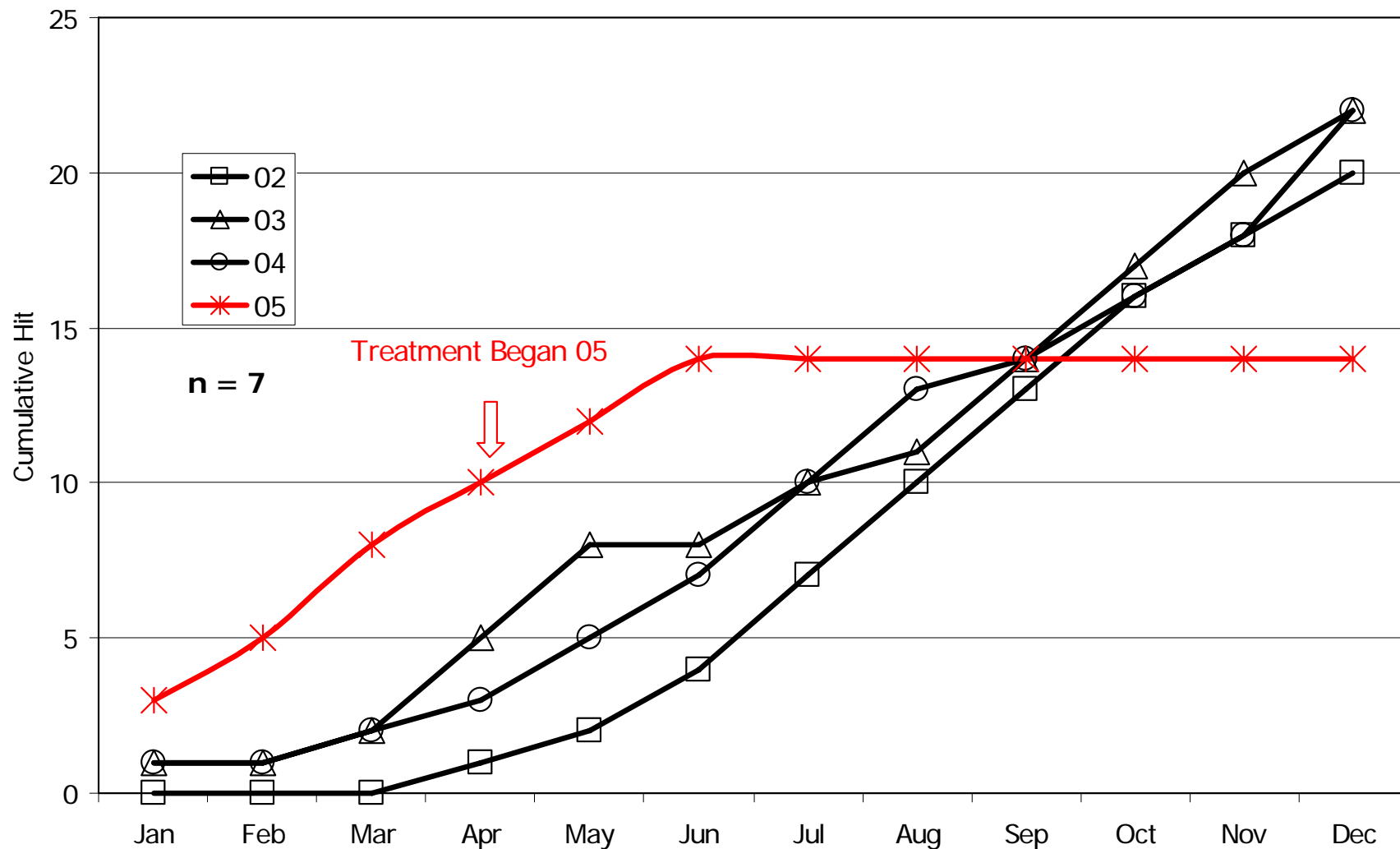
## Active In-Ground Stations on Levee Section 2



# In-Ground Stations on Levee Section 1



## Active In-ground Stations on Levee Section 3



DOW AGROSCIENCES RESTRICTED - For internal use only





## Status



- Significant reduction of alates (>50%)
- Termite activity on levee is reduced (>98%)
- Seven percent of inspected structures found infested. Down from 22% in 2003
- Isolated areas of “high” termite activity remain inside test area
- Above-ground infestations



# Acknowledgements

- New Orleans Mosquito & Termite Control Board
  - Ed Freytag, Claudia Riegel, Barry Yokum
  - Berry Lyons, Aaron Mullins, Perry Ponseti
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