

# JAPANESE BEETLE PROGRAM OVERVIEW

- ▶ Plant Health and Pest Prevention Services
- ▶ California Department of Food and Agriculture



Japanese Beetles on Corn

# Japanese Beetle Program

## *Popillia japonica*

- Exclusion
- Detection
- Environmental Compliance
- Emergency Eradication Response
- Public Outreach

# Exclusion

## ➤ Federal Quarantine

- Aircraft Inspection – Up To 7,000 Annually
  - Commercial Passenger
  - Air Cargo
- 1,166 Beetles Detected 2004-2014

# Exclusion

## State Exterior Quarantine

- JB Harmonization Plan Category 1 State
  - Border Protection Stations – Commercial/Private Vehicles
  - County Agricultural Commissioner
    - Parcel Facilities
    - Incoming Nursery Stock Shipments
  - Dog Teams – Unmarked Parcels with Plant Material

# Detection

## ➤ Residential Areas

➤ 2 Traps Per Square Mile – Total 13,000 Annually

➤ Serviced On A Schedule

➤ Four Finned Green Funnel Trap

➤ Feeding Lure Wafer

➤ Pheromone Tab – Male Sexual Response



# Detection

## ➤ High Risk Areas

### ➤ Airport Perimeters

- 25 traps/square mile in one mile wide band surrounding airport

### ➤ Parcel Facilities

- 25 traps in a square mile centered on the facility

# Japanese Beetle (JB) Sacramento County High Hazard Detections - Trapped

### JB Trapped by Year First Year, Second Year

- 1991, 1996
- 1996, 2002
- 2000, 2006
- 2001, No Detection
- 2002, 2002
- 2002, No Detection
- 2003, 2005
- 2003, 2006
- 2012, No Detection
- JB Residential Detections

0 2.5 5 Miles



# Japanese Beetle Responses

## Delimitation Trapping

JB Harmonization Plan (50-25-5-5 Per Square Mile In 49 Square Mile Area)

### Fair Oaks

- Increased Core to 160
- Within Treatment Area Placed A Trap In The Front And Back Yards

Core and Adjacent Deployed Within 48 Hours

## Visual Survey

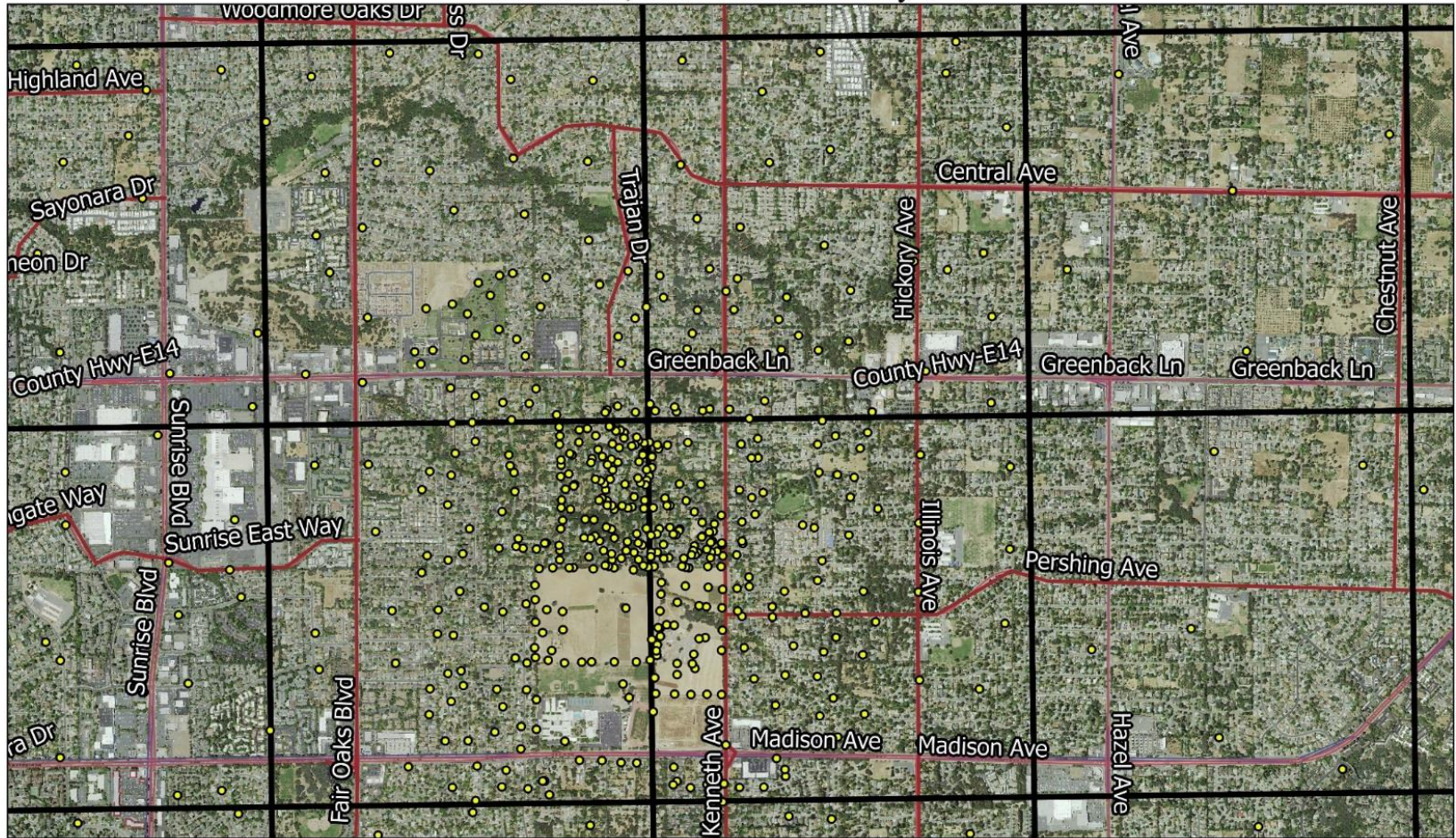
Up To 400 Meters





# Fair Oaks

Trap Locations  
Core Delimitation Area  
Fair Oaks, Sacramento County CA



0 500 1000 1500 2000 m



## Legend

- JB Trap Locations
- ▭ Trapping Grids (1 sq mile)

Created 12/04/2015

# Treatment Program Trigger

## ➤ Two Adults Detected

- Within One Life Cycle
- Within a Three Mile Radius
  - Start of Treatments Dependent on Time of Detection

# Treatment Plan

- Recommended by 1983 JB SAP When Over 90 JB Detected in Orangevale/Citrus Heights
  - Distance Component
  - Ground Treatment Component
  - Foliar Treatment Component

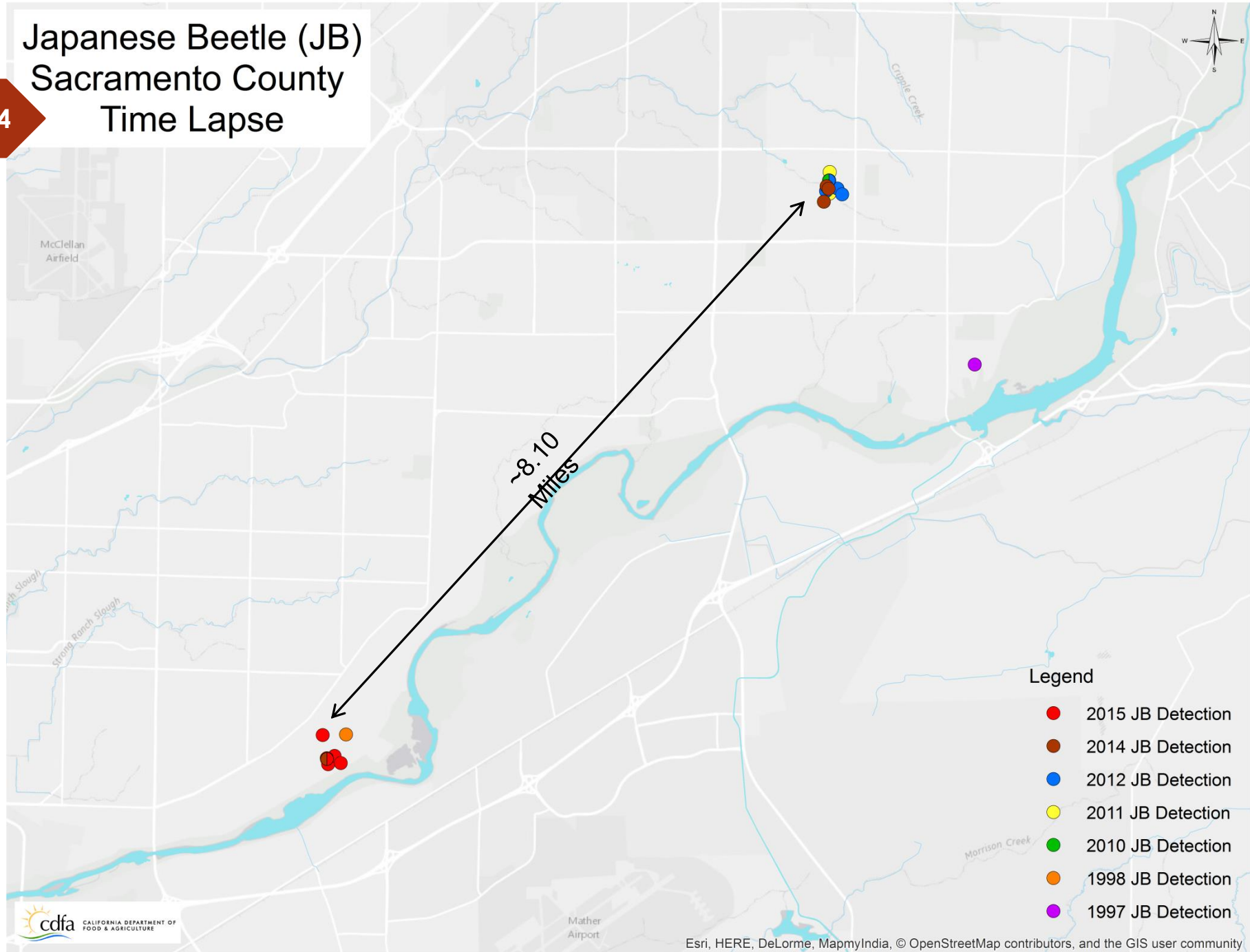
# Current Treatment Plan

- New Pesticides Added in 2011
  
- Within 200m radius of finds:
  - Foliar treatment with cyfluthrin or carbaryl (max. 3)
    - Host List – Started In 2011
    - Do Not Treat List
      - Non-host
      - Not On Label
    - Vegetable Gardens Not Treated
  - Imidacloprid applied to soil (once)

# History of Eradication Projects

<b>Year(s) of Finds</b>	<b>City</b>	<b>County</b>	<b>Adults</b>	<b>Larvae</b>
1951	Inglewood	Los Angeles	1	0
1961 to 1962	Sacramento	Sacramento	449	71
1973 to 1974	Balboa Park	San Diego	24	0
1983 to 1984	Orangevale/ Citrus Heights	Sacramento	93	1
2002	Rancho Cordova	Sacramento	5	0
2005	Long Beach	Los Angeles	3	0
2006 to 2007	Vista	San Diego	3	0
2010 to 2014	Fair Oaks	Sacramento	10	0
2014 to 2015	Carmichael	Sacramento	10	0

# Japanese Beetle (JB) Sacramento County Time Lapse



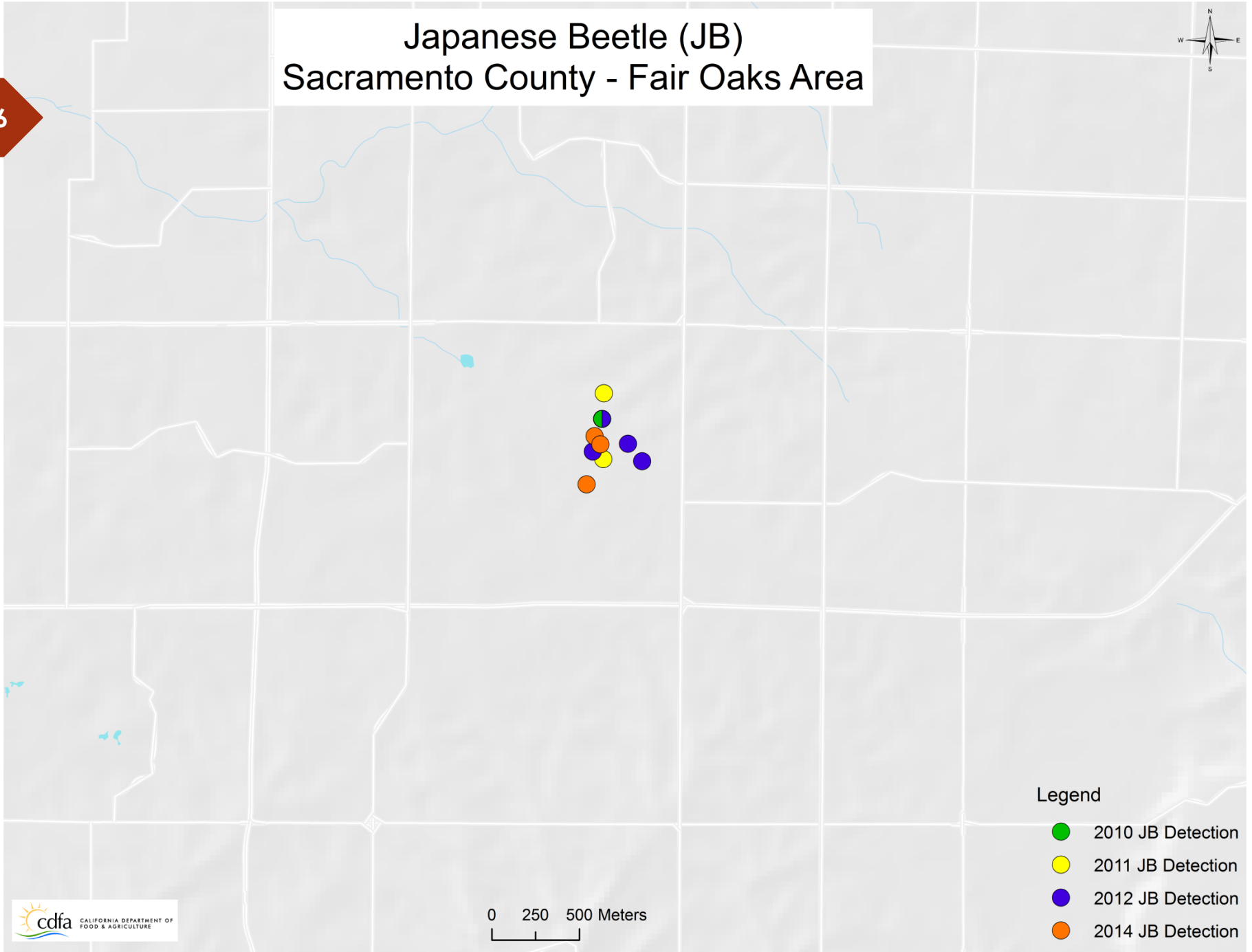
# Fair Oaks Detections

- 2010, August 5 (1 female)
- 2011, July 12 (separate locations, 1 female, 1 male)
- 2012, June 6 (1 female), June 19 (separate locations, 1 male, 1 female), June 21 (1 female)
- 2013: 0
- 2014, May 19 (1 male), May 22 (1 male), June 16 (1 male)
- 2015: 0

# Japanese Beetle (JB) Sacramento County - Fair Oaks Area



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### Legend

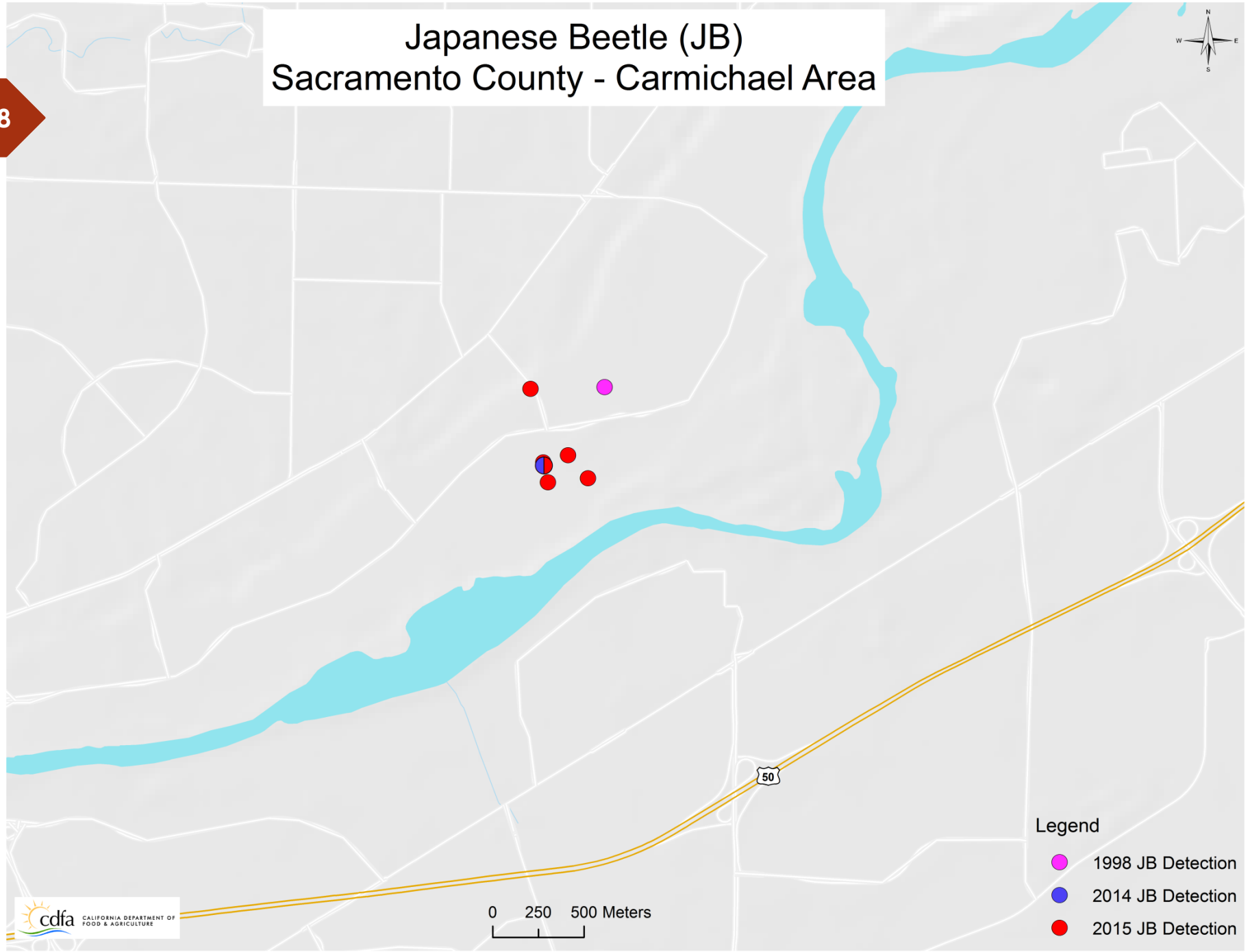
- 2010 JB Detection
- 2011 JB Detection
- 2012 JB Detection
- 2014 JB Detection



# Carmichael Detections

- 2014, July 14 (1 female, 2 males)
- 2015, May 26 (separate locations, 3 males, separate location 1 male, 2 females), May 27 (1 male)

# Japanese Beetle (JB) Sacramento County - Carmichael Area



- Legend
- 1998 JB Detection
  - 2014 JB Detection
  - 2015 JB Detection

0 250 500 Meters

# Japanese Beetle (JB) Santa Clara County - Sunnyvale Area



**Legend**  
200 Meter Buffer

0 100 200 Meters

# After JB SAP Recommendations

CDFA Internal Review On Feasibility To Achieve Goal

Jointly evaluate new alternative approaches

Work With California Departments:

- Public Health
- Pesticide Regulation
- Office of Environmental Health Hazard Assessment

# California Environmental Quality Act

Alternatives not previously considered in CDFA's Statewide Plant Pest Prevention and Management Program Environmental Impact Report (PEIR) would have to be analyzed in compliance with the California Environmental Quality Act (CEQA) prior to implementation.

# Public Outreach

- Direct Mailers And Door Hangers
- Public Meetings

The End

**THANK YOU**  
[www.cdfa.ca.gov/plant](http://www.cdfa.ca.gov/plant)