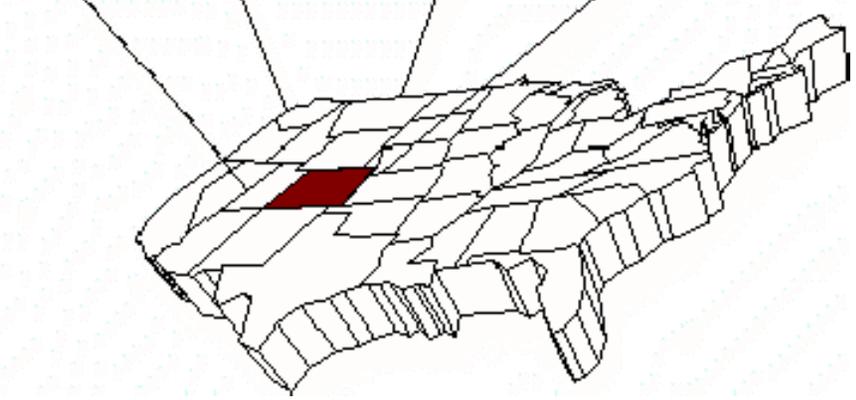
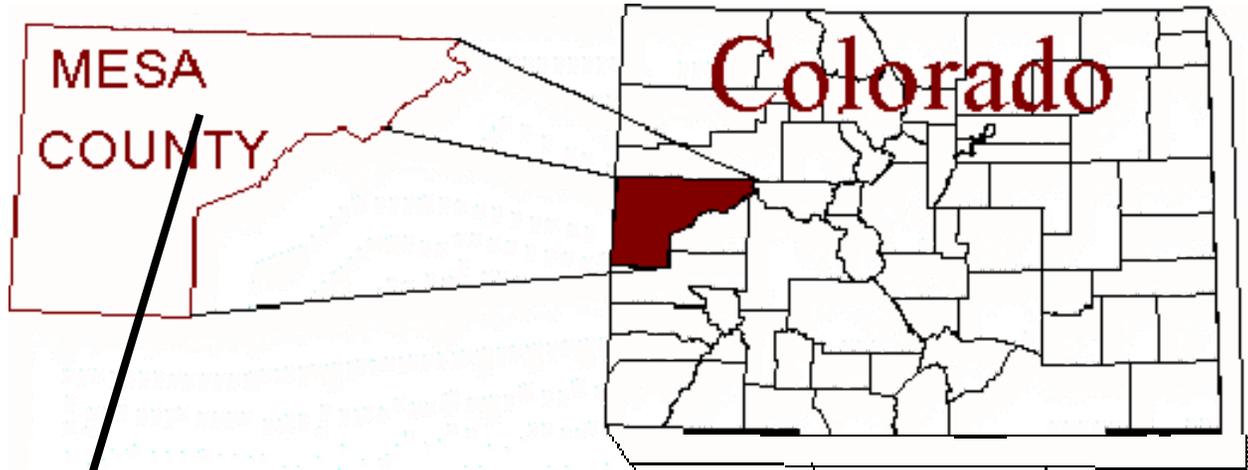




Japanese Beetle Eradication Palisade, Colorado 2003-2007

Bob Hammon, CSU Tri River Area Extension
Jude Sirota, Mesa Co. Div. of Pest Management
Debbie Bulmer, Japanese Beetle Program
Coordinator, Upper Grand Valley Pest Control
District

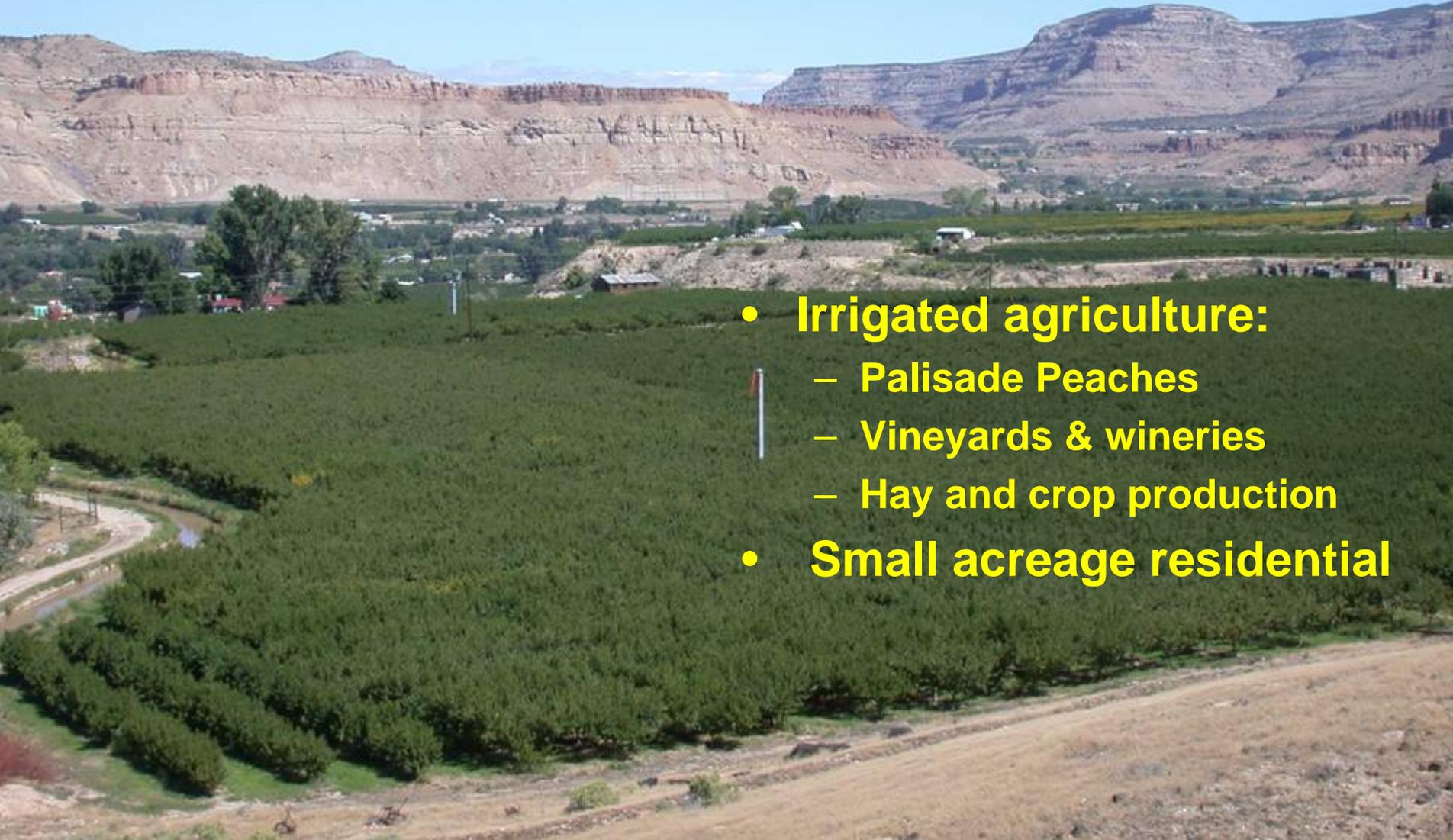
Where Is Palisade Colorado?



About 10 mi E of Grand Junction

- High desert ecosystem
- Rainfall 8"-10"/year

- Irrigated agriculture:
 - Palisade Peaches
 - Vineyards & wineries
 - Hay and crop production
- Small acreage residential

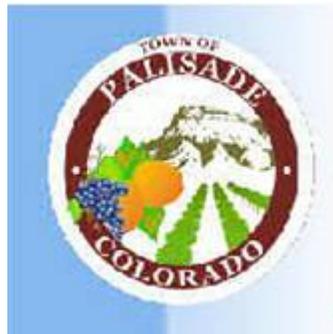


Palisade JB Program History

- 2002: JB identified in Palisade
 - probably present for many years (1997?)
- 2003: JB Eradication Committee formed
 - trapping begins
- 2004: ~700 lawns treated with Merit
- 2005: ~700 Lawns retreated with Mer
- 2006: Core areas identified
 - ~200 lawns treated with Merit
 - Virginia Creeper treatments to 4 properties in July
 - Dylox treatment to ~80 Lawns in September
- 2007: Core infested areas retreated
 - 198 lawns treated with Merit
 - Virginia creeper foliar treatments on 39 properties in July



A Cooperative Effort



The Palisade JB Eradication Committee

- Brant Harrison – Chair
- UGVPCD – Jude Sirota
- CSU Extension
- Colorado Department of Ag
- Town of Palisade
- Palisade citizens
- Palisade fruit & horticultural growers



Upper Grand Valley Pest Control District

Project Manager since 2006

- Formed in 1965
 - CRS Title 35, Article 5
- JB added to pest list in 2004
 - District-wide election
- \$22,000 annual contribution
 - coordinator salary/expenses
- Codling moth
- Peach twig borer
- Greater peach tree borer
- San Jose scale
- Pear psylla
- Shot hole borer
- Oriental fruit moth
- Western cherry fruit fly
- Japanese beetle



Public Relations is High Priority!

- **Program Coordinator**
 - Publicized cell phone #
- **Public meetings**
- **Permission slips from each treated household**
- **Information booth at PO**
- **Pre/post application notices**
- **95%-98% participation**
 - 1 forced treatment
- **Dry-down alternative**



Palisade Japanese Beetle Eradication Program
COORDINATOR – Debbie Bulmer
970-210-0306
Debbie.Bulmer@mesacounty.us
<http://palisadejapanesebeetle.org>



The Town of Palisade, in partnership with the Japanese Beetle Eradication Advisory Committee, from Palisade, Colorado, the Upper Grand Valley Pest Control District and the Colorado Department of Agriculture, are in the continuing the process of ridding the area of the Japanese beetle during the summer of 2007.

Your property is identified as being in an active living area for the Japanese beetle; therefore it is imperative that corrective action be taken.

Your signature below authorizes the contractor and all participating parties to make the recommended application, at **NO COST** to you, with the understanding that you also agree to hold harmless those parties for reasonable and lawful application of the pesticides used. Your Signature also authorizes the Japanese Beetle Eradication Coordinator to enter your yard and hang a Japanese Beetle Trap and the authority to monitor the trap on intervals determined beneficial to the program.

Property owner or renter signature

Printed Name of owner/renter

Property Address(s)

Phone Number

Dated this _____ day of _____, 20____.

Please understand that this application is being provided to minimize the opportunity for devastating crop damage in the area, as well as damage to your landscaping.

This agreement may be delivered in person, or mailed to: Debbie Bulmer, c/o Colorado Department of Agriculture, 750 37.8 RD. Palisade, CO 81526.

You may also turn your permission slip to any of the following locations: **Palisade Town Hall or the CDA Insectary.**

Control Tactics

- **Chemical control**
 - Imidacloprid treatment of turf (Merit 0.5G)
 - Foliar treatment of Virginia creeper
 - since 2006
- **Mass Trapping**
- **Drydown**

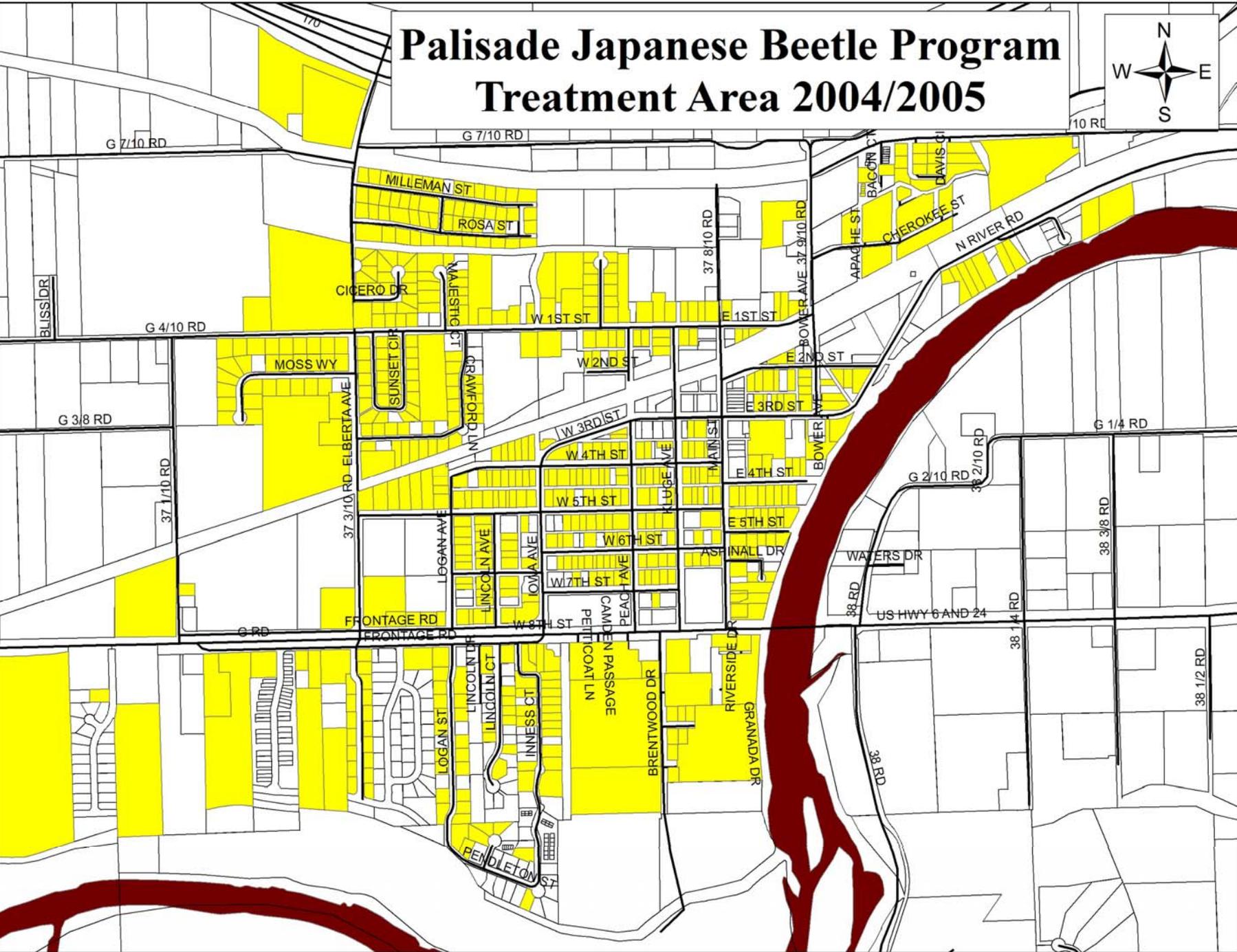


JB Damage to Landscape Plants

The only JB damage observed has been on Virginia creeper, rose and a single grape vine. Damage has been minimal.



Palisade Japanese Beetle Program Treatment Area 2004/2005



Virginia Creeper sprays in 2006-2007



Turf Drydown - July/Aug



Impacts 1st/2nd
instar larvae at
susceptible stage

Enforcement is
an issue!

2004 - 3

2005 - 2

2006 - 0

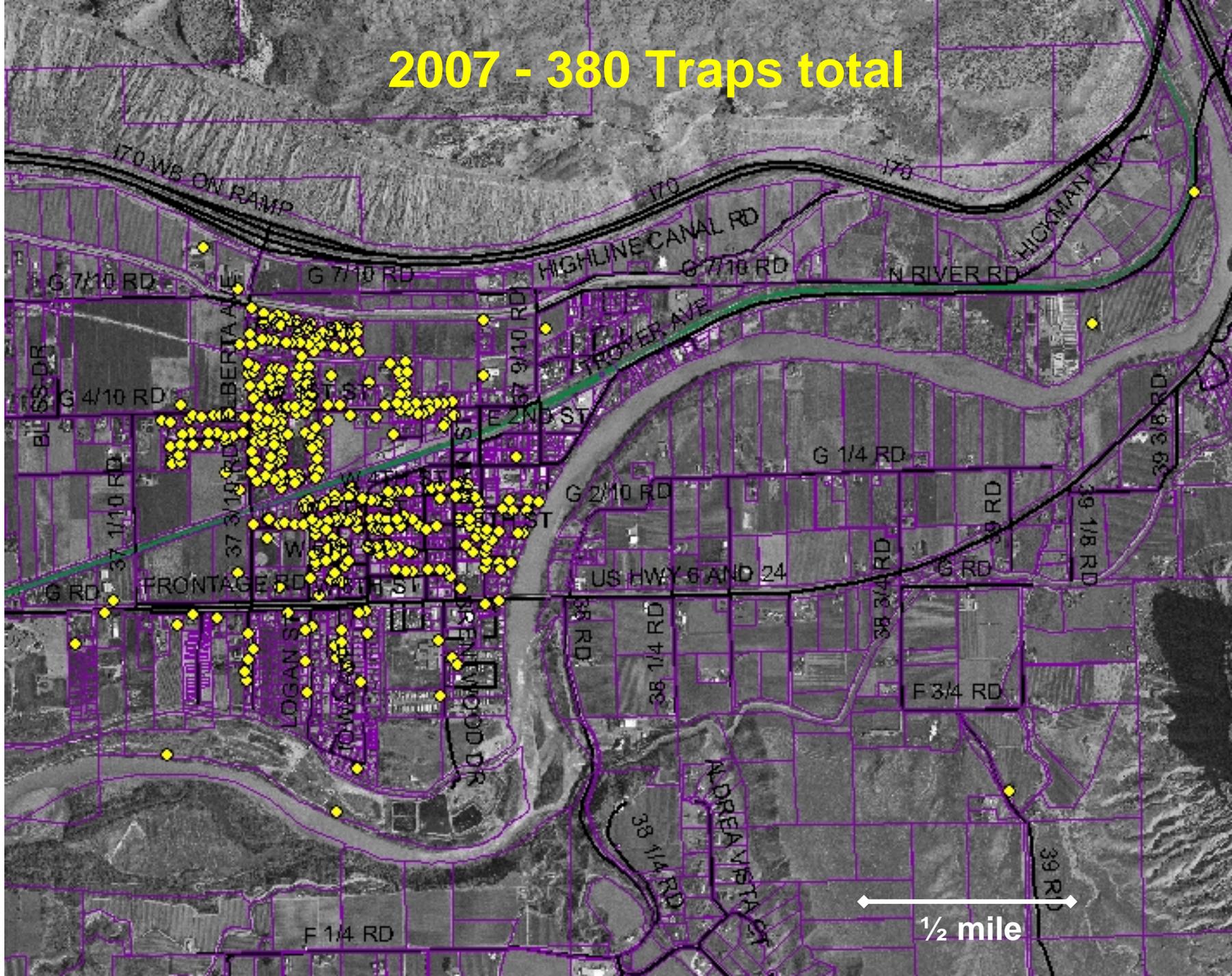
2007 - 0

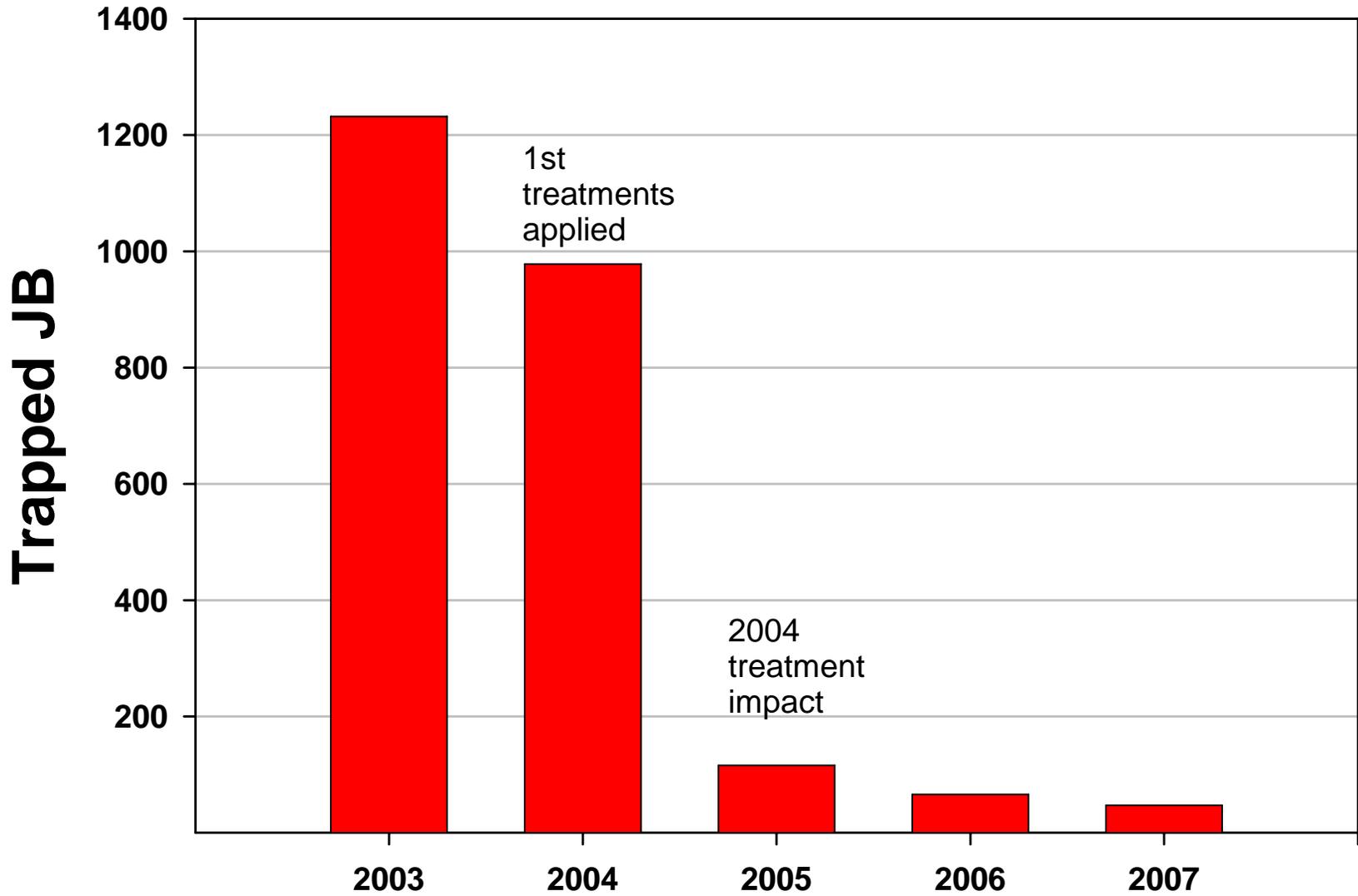
JB Trapping

- **350 – 500 traps / year**
- **Floral lure / sex pheromone**
 - lures changed 1X during season
 - June 1 – Sep 30
- **Population monitoring**
 - 2002 - 2007
- **Distribution survey**
 - County-wide survey
 - Master Gardeners
- **2500+ JB trapped**



2007 - 380 Traps total







JB Program Palisade 2005



- Females 2005
- Males 2005
- Treatment Area



JB Program Palisade 2005

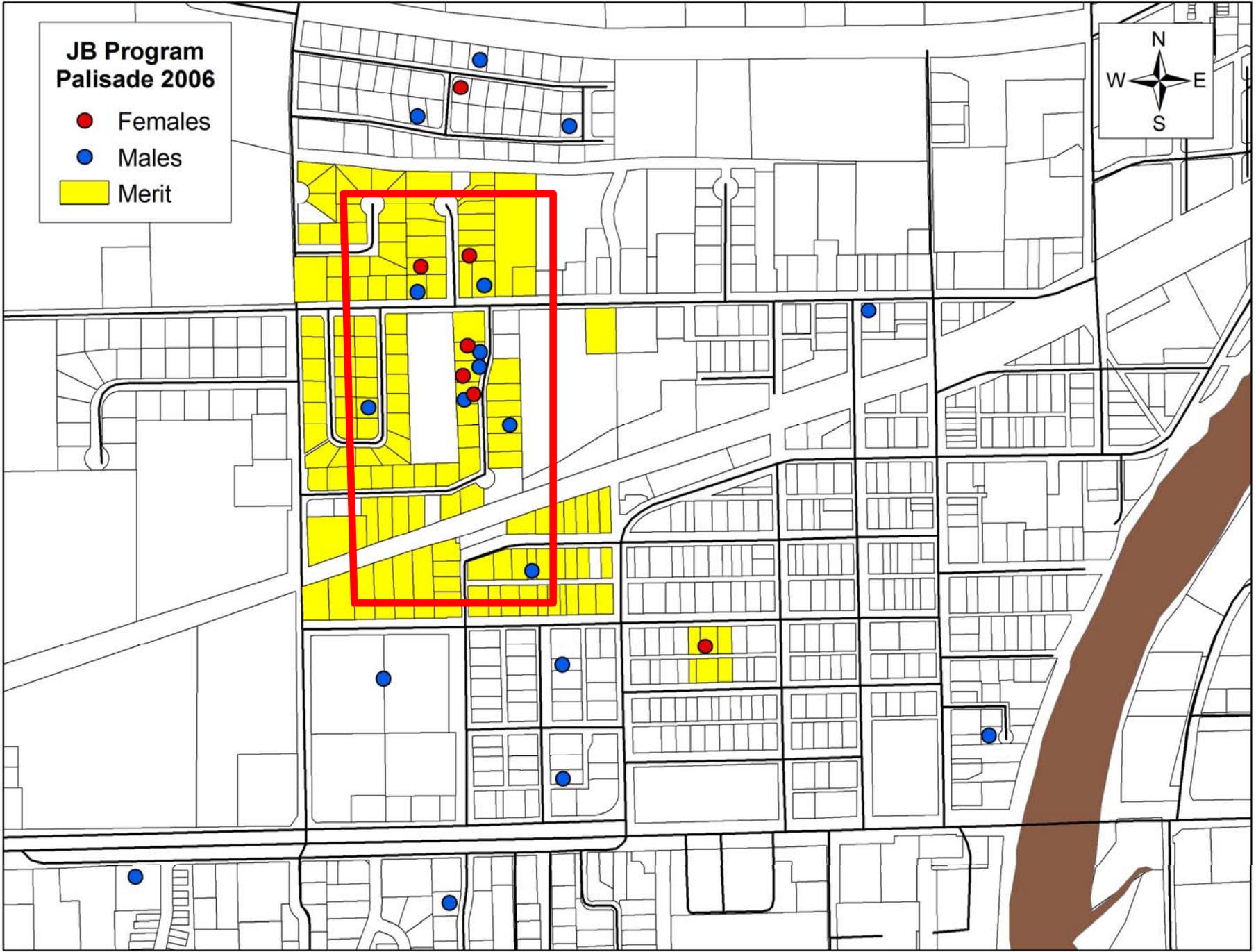


- Females
- Males
- Merit
- Dylox



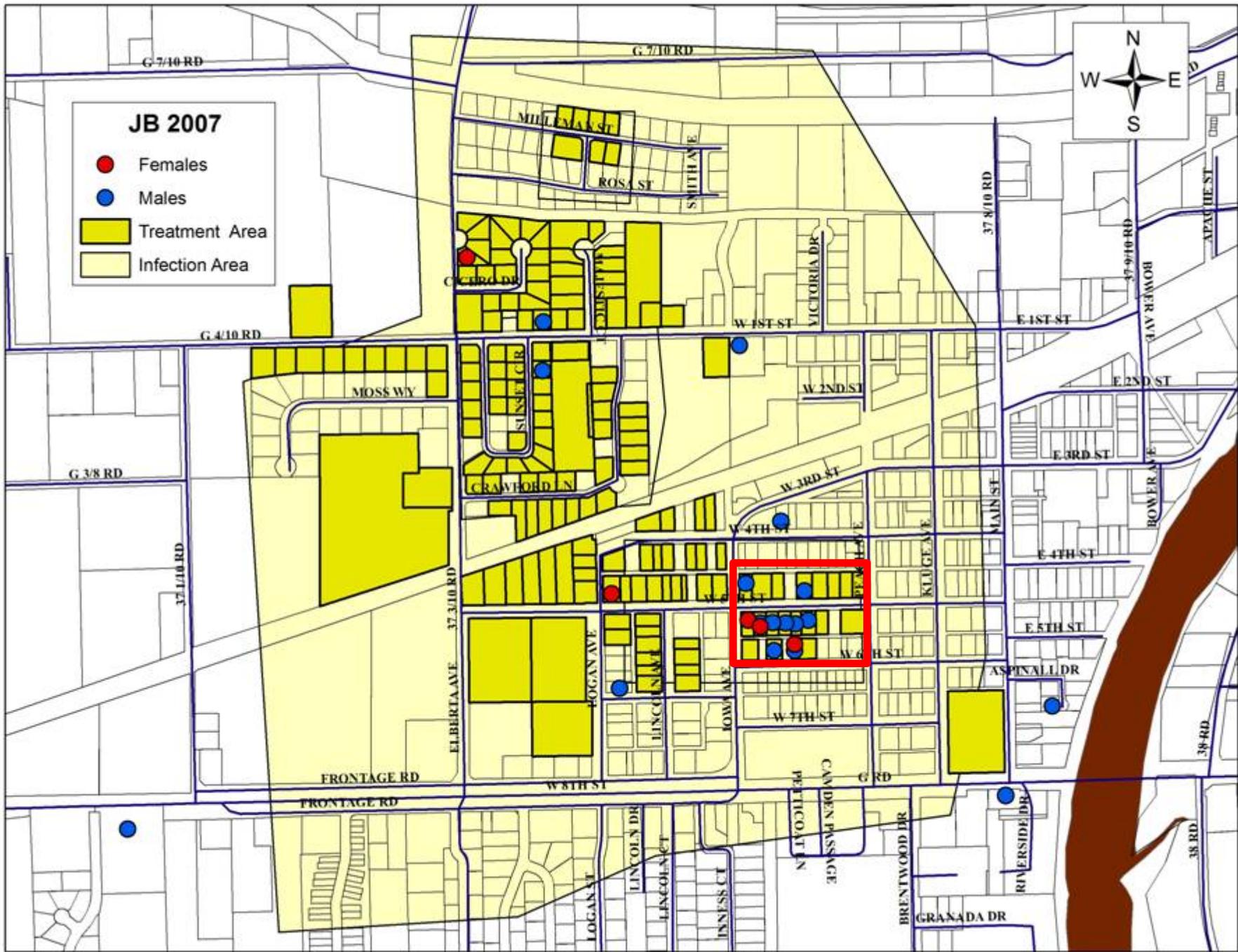
**JB Program
Palisade 2006**

- Females
- Males
- Merit

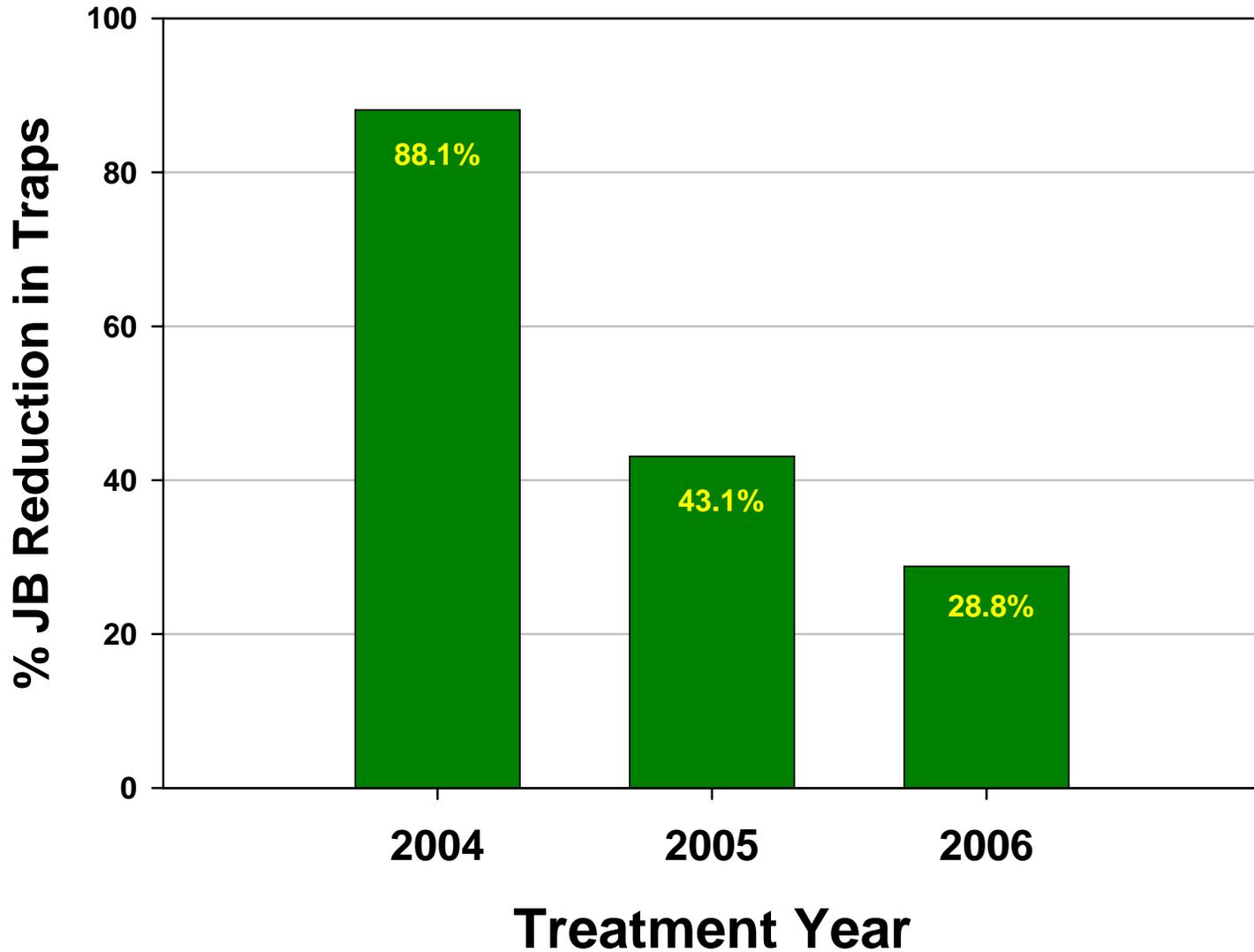


JB 2007

- Females
- Males
- Treatment Area
- Infection Area



Treatment Impact by Year



Program cost

Coordinator is greatest cost

Specialty crops grants – 2004/05 \$25,000

UGVPCD has spent \$40,000 - 2006/07

CDA has donated traps/lures

Bayer donated 10,000 lb Merit 0.5G

TruGreen ChemLawn donated 2004 application

In-kind support from many entities

Total cash cost has been < \$100,000

2008 Plans

- **Continue & possibly expand trap monitoring**
- **Continue treatment of lawns?**
- **Expand treatment of Virginia creeper**
- **Treat trees/ other landscaping with Merit?**

- **Fund raising for chemical & application**

Questions?

- **How long may it take to achieve eradication? Are we on the right track?**
 - When do we admit eradication may not be possible?
- **What other methods of control could we implement?**
 - If we give up on eradication, does it open other options?
- **Should we worry about errant males?**
 - Should we treat properties where we collect females?
- **Why is there such a skewed female to male ratio?**
- **Many, many, many others!!**