

Florida Department of Transportation District One I-75 Brazilian Pepper Removal Project

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I-75 Brazilian Pepper Removal Project

Overview

- Remove Brazilian pepper (*Schinus terebinthifolius*) from the I-75 northbound and southbound ROW and the median.
 - Hillsborough/Manatee County line to the Collier County I-75 Toll Booth.
- BP removal began in December 2007 and was complete in October 2010.
- BP removed to reduce BP seed source and management costs.
- BP removed eliminated encroachment in ROW 'clear zones' & into a 10 foot wide maintenance lane along the ROW fence.
- BP removed to facilitate mowing where BP was in monocultures.
- Avoid wetlands and native plant species to the greatest extent possible.

I-75 Brazilian Pepper Removal Project

(Overview continued)

- BP was mulched in place.
- BP mulched used a rotary fecon mulching head mounted on light, heavy, & articulating arm machinery.
- BP trunks to be mulched to ground level and biomass was to be mulched leaving nothing > 2" in diameter and 6" in length.



Priority Exotic Plant Species

- Brazilian pepper was the only exotic species targeted for removal for this project.
- Florida Exotic Pest Council Category 1 tree and shrub species managed by FDOT I-75 Maintenance Contractor:
 - Australian Pine
 - Melaleuca
 - Carrotwood
 - Java Plum
 - Earleaf Acacia

Priority Exotic Animal Species

- No exotic animal species are currently managed within the I-75 Corridor or any FDOT ROW.
- Feral hogs (*Sus scrofa*) are a species that impact ROW management pose a threat to public safety (I-75 ROW fencing) in FDOT District One.



I-75 Brazilian Pepper Removal Project Location Map

I-75 Brazilian Pepper Removal Project

Pre-Project Monitoring

- BP was aerially delineated, field verified, and digitized on aerial maps to depict polygons of BP for location reference and quantifying acreages.
- BP acreages were quantified by County and each polygon was categorized as Dense, Moderate, Patchy, Scattered, or Sparse.

I-75 Brazilian Pepper Removal Project Aerial Mapping



I-75 Brazilian Pepper Removal Project

BP Acreages

Brazilian Pepper

<u>Coverage Class</u>	<u>Acres</u>
Dense	839.28
Moderate	448.56
Patchy	131.09
Scattered	405.24
<u>Sparse</u>	<u>166.46</u>
Total	1990.63

Brazilian Pepper

<u>County</u>	<u>Acres</u>
Manatee	242.38
Sarasota	838.11
Charlotte	228.07
Lee	422.41
<u>Collier</u>	<u>259.66</u>
Total	1990.63

I-75 Brazilian Pepper Removal Project Monitoring

- Contractor Vehicle and Signage Safety Requirement Inspections.
- Assess and report thoroughness of BP mulching Contractor
- Identify and report areas of BP to be manually treated
- Acted as liaison between BP contractor and I-75 maintenance contractor to identify and report damage to right-of-way fences, operational signs and devices that needed immediate attention.
- Identify and report BP mulching Contractor's area of treatment (as needed - daily, weekly, monthly)
- Identify and report BP regrowth following mulching
- Assess and report manual herbicide treatments
- Photographic Pre- and Post- Documentation

Pre- & Post- BP Removal



Pre- & Post- BP Removal



Pre- & Post- BP Removal





2006



2010

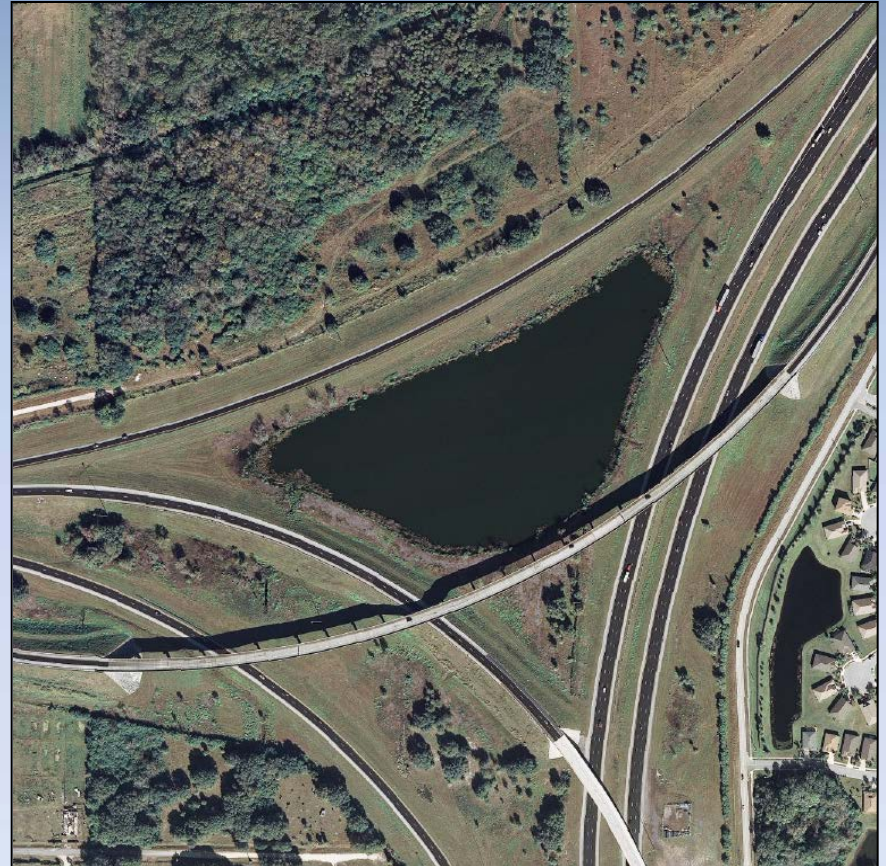
Pre- & Post- BP
Removal

Pre- & Post- BP Removal

2006



2010



I-75 Brazilian Pepper Removal Project Innovations and Successes

- Mulching mature BP in place was quick and relatively inexpensive, followed up by treating re-sprouts and seedlings worked into the current FDOT right-of-way maintenance treatment program.
- Largest FDOT Brazilian pepper removal project to date removing 1990 acres of mature Brazilian pepper.

I-75 Brazilian Pepper Removal Project

Needs & Gaps

- Monitor ROW's to insure exotics do not reestablish to their previous structure.
- Improve nuisance & exotic identification skills.
- Identify adjacent public and private property owners to undertake Brazilian pepper management.
- Provide public education material about available grant programs for the adjacent private and public land owners.
- Identify and prioritize invasive species in each FDOT District & lobby management to ensure budgeted funds are in place to control exotic species within ROW's.

I-75 Brazilian Pepper Removal Project Credits

- FDOT District One Secretary - **Stan Cann**
- FDOT District One District Maintenance Environmental Manager - **Robert Dwyer**
- Quest Ecology Inc. - David Gordon
- B.G. Katz Nursery
- Santa Cruz Landscaping
- DBI Services