Post Application Monitoring of Herbicide Projects: 
*Primary Concerns of a Site Manager*

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Outline

• Review of Contract Deliverables
• Example Post-Herbicide Project Reviews
  Excellent, Inadequate, Unacceptable
• Takeaways
• Acknowledgements
Contract Deliverables

1. Treat 100% of all target species within designated areas (100% Coverage-no gaps)

2. Minimum 95% Control of all target species, preventing re-sprouting within project area (95% Control)

3. Only treat target species, minimize non-target damage
Excellent Control

old world climbing fern

guineagrass

cogongrass

carrotwood
Inadequate Control

old world climbing fern

Brazilian pepper

cogongrass
Inadequate Control - *Shoebutton ardisia*

Poor long-term control of target species due to too weak of active ingredient.
Inadequate Control-
Shoebutton ardisia

Poor long-term control of target species due to too weak of active ingredient.
Unacceptable Control-Example 1

Downy rose-myrtle & saw palmettos

Extensive death of saw palmetto from downy rose-myrtle treatment.

Note condition of pines in mid-ground (not due to treatment).
Unacceptable Control-Example 2
Brazilian pepper & Willows
Unacceptable Control-Example 3

Foliar application of Garlon 4

Inappropriate equipment used. Inappropriate application of herbicide. Note damage to native Fakahatchee grass.
Unacceptable Control-Example 3

Foliar application of Garlon 4

Inappropriate equipment used.
Inappropriate application of herbicide.
Unacceptable Control-Example 4

*When it gets tough, “Walk on by…”*
Unacceptable Control-Example 4

When it gets tough, “Walk on by...”
Unacceptable Control-Example 4

When it gets tough, “Walk on by...”
Unacceptable Control-Example 5

When it gets tough, “Walk on by...”
Unacceptable Control-Example 5

*If you can’t treat it, burn it!*

~230 acres
• Land management agency employees susceptible to use inappropriate herbicide techniques in-house
  - Example: Imazapyr under live oaks
  - Example: Herbiciding canal embankment
  - Example: No dye used on staggered project
Treating invasive plants is a tough job

Contractors focused on meeting two main deliverables:
- 100% Coverage, 95% Control of targets (targets only)

Site manager needs to be diligent in checking for contract compliance
- However, must be able to exclude other environmental factors affecting vegetation
- Needs to make sure own in-house staff aren’t causing harm as well due to improper herbicide use

Acknowledge that most projects result in good work
Acknowledgements

• Florida Natural Areas Inventory
• Florida Fish & Wildlife Conservation Commission
  - Invasive Plant Management Section
• All land management agencies in Florida
  - Have too much to do with too little resources
  "And most of all..."
• Contractors, who each year improve thousands upon thousands of acres of Florida’s wildlands by controlling invasive plant species!
They appreciate your efforts too!