SHULER TRACT FIRST ANNUAL MONITORING REPORT (2010)
Franklin County

Impact: US 98 at Wakulla River Bridge; Wakulla Co., 2.30-acre impact; **Nationwide Permit – SAJ-2007-5337 (IP-AWP) issued 11/10/2008**

Mitigation: Shuler Tract
Monitoring date: October 26, 2010

SCOPE

Thus far this mitigation project has been assigned to offset losses due to the construction at the US 98 Wakulla River Bridge which will result in the loss of 2.30 acres of bottomland hardwood forested wetlands.

MITIGATION PROJECT

To compensate for the loss of wetland function associated with the bridge construction herbaceous and forested wetland restoration and preservation will occur on Shuler Tract in Franklin County. The plan was reviewed and approved by the Interagency Review Team (IRT).

Background

The approximately 1,573-acre Shuler Tract lies within the Atlantic Coastal Plain-Apalachicola Coastal Lowlands and occupies a mosaic of upland, mesic, and wetland communities immediately adjacent to, and east of, County Road 67 approximately thirteen miles south of Hosford, Liberty County, Florida (see Figure 1). Lands throughout this physiogeographic region are typified by sandhills, pine flatwoods, swampy depressions, and minor and major drainages (*i. e.*, strand swamps). Locally, high sandhills contain a canopy of longleaf pine (*Pinus palustris*) and a conspicuous understory of scrub oaks mainly turkey oak (*Quercus laevis*). Lower and moister sites grade from high pinelands into pine flatwoods. These areas contain a canopy dominated by longleaf pine, but slash pine (*P. elliottii*) may also be present. Wetland drains are comprised of numerous vegetative assemblages including bay, cypress, and blackgum swamps depending on the specific moisture conditions. Transitional zones between upland and wetland systems are often dominated by titi (*Cyrilla* spp.).

Proposed Restoration Activities

This project includes two separate mitigation areas: the Restoration Area (461.75 acres) encompasses the western half of the tract; and the Preservation Area (1,108.28 acres) encompasses the eastern half (**Figure 1**). Activities proposed for the Restoration Area include hydrologic improvements, forestry thinning, and prescribed fire management. Proposed hydrologic efforts will focus on the installation of culverts and ditch plugs to re-establish the historic hydroperiod and vegetative community limits. Strand swamps will be further restored from existing pine plantations through thinning of longleaf pine. Prescribed fire will be used to stimulate native ground cover vegetation. Tree species present within existing adjacent strand swamps are anticipated to naturally succeed into these areas.

WORK SCHEDULE

Construction phase: To be determined

Monitoring: Annual.

SUCCESS CRITERIA

The project's success criteria are:

- No more than 1% coverage of invasive exotic and 5% nuisance native and non invasive exotic species unless otherwise specified in a management plan;
- Increase in appropriate herbaceous, shrub and/or tree species;
- Kind and total coverage of species appropriate for management goals; and
- Kind and total coverage of tree species appropriate for management goals.

To date, no restoration activities have been implemented. The focus of the Fall 2010 survey was to monitor whether any impacts have occurred within the Preservation or Restoration Areas since the last survey conducted during March 2010; no impacts were observed.

Conclusions

The results of the October 25, 2010 survey indicate no significant change in vegetative community structure since the previous survey conducted during March 2010. No evidence of recent land use activity including silvicultural (clearing, thinning, or planting) or pine straw harvesting was observed in either the Preservation or Restoration Areas. Vegetation in the upland planted pine areas was a mixture of upland early successional and mesic flatwoods/sandhill plant species. These communities included a dense mix of planted pine, native upland grasses (i.e. *Aristida stricta*, *Eragrostis* sp. and *Andropogon* sp.), and mesic shrubs (i.e. *Serenoa repens*, *Ilex glabra*, and *Myrica cerifera*). No exotic vegetation was observed in the Restoration Area.

No evidence of recent human activity or disturbance was observed throughout the various wetlands, e.g., bottomland forests and herbaceous sloughs. Some erosion, albeit minor, was observed along the steep-walled ditches located throughout the Restoration Area. No significant erosion was observed at associated culverts.

Species Name	**Common Name**	**Upland**	**Wetland**
Agalinis fasciculate	beach false foxglove	X	
Alnus serrulata	hazel alder		X
Andropogon virginicus var. *glaucus*	annual ragweed	X	
Aristida stricta	pineland threeawn	X	
Arundinaria gigantea	giant cane	X	
Carpinus caroliniana	American hornbeam		X
Centella asiatica	spadeleaf	X	
Clethra alnifolia	coastal sweetpepperbush		X
Cyrilla racemiflora	swamp titi	X	X
Dichanthelium sp.	rosette grass		X
Eragrostis sp.	lovegrass	X	
Eupatorium capillifolium	dogfennel	X	
Eupatorium compositifolium	yankeeweed	X	
Eupatorium mohrii	Mohr's thoroughwort	X	
Euthamia caroliniana	slender goldentop	X	
Helianthus angustifolius	swamp sunflower	X	
Hypericum fasciculatum	peelbark St. Johnswort		X
Hypericum reductum	atlantic St. Johnswort	X	
Ilex cassine	dahoon		X
Ilex coriacea	large gallberry		X
Ilex glabra	inkberry	X	
Ilex opaca	American holly		X
Juncus sp.	rush		X

Species Name	**Common Name**	**Upland**	**Wetland**
Lachnocaulon anceps	whitehead bogbutton	X	
Liatris graminifolia	shaggy blazing star	X	
Liquidambar styraciflua	sweetgum		X
Liriodendron tulipifera	Tulip tree		X
Lycopodium prostratum	featherstem clubmoss	X	
Lyonia ferruginea	rusty staggerbush	X	
Lyonia fruticosa	coastal plain staggerbush	X	
Lyonia lucida	fetterbush lyonia		X
Magnolia grandiflora	southern magnolia		X
Magnolia virginiana	sweetbay		X
Myrica cerifera	wax myrtle	X	
Nyssa biflora	swamp tupelo		X
Oldenlandia uniflora	clustered mille graines	X	
Osmunda cinnamomea	cinnamon ferm		X
Panicum verrucosum	warty panicgrass	X	
Paspalum sp.	crowngrass	X	
Persea palustris	swamp bay		X
Pinus elliottii	slash pin	X	
Pinus glabra	spruce pine		X
Pinus glauca	white spruce		X
Pinus palustris	longleaf pine	X	
Pinus taeda	loblolly pine	X	
Polygala lutea	orange milkwort	X	
Pteridium aquilinum	western brackenfern	X	
Quercus lyrata	overcup oak		X
Quercus nigra	water oak		X
Rhus coppalinum	winged sumac	X	
Rhynchospora chalarocephala	loosehead beaksedge		X
Rhynchospora fascicularis	fascicled beaksedge		X
Rubus cuneifolius	sand blackberry	X	
Sabal minor	dwarf palmetto		X
Sabatia brevifolia	shortleaf rose gentian	X	
Scirpus cyperinus	woolgrass		X
Serenoa repens	saw palmetto	X	
Seymeria pectinata	piedmont blacksenna	X	
Smilax glauca	cat greenbrier	X	
Smilax laurifolia	laurel greenbrier		X
Solidago odora	anisescented goldenrod	X	
Solidago rugosa	wrinkleleaf goldenrod	X	
Symplocos tincitoria	common sweetleaf		X
Utricularia sp.	bladderwort		X
Vaccinium arboreum	farkleberry		X
Vaccinium corymbosum	highbush blueberry		X
Vaccinium elliottii	Elliott's blueberry		X
Vaccinium myrsinites	shiny blueberry	X	
Vaccinium staminium	deerberry	X	
Woodwardia areolata	netted chainfern		X
Xyris fimbriata	fringed yelloweyed grass		X
Xyris jupicai	Richard's yelloweyed grass		X

Appendix A. Photographic Documentation

1. Pine plantation in the eastern portion of the restoration area.

2. Existing culvert through pine plantation in western portion of the restoration area

3. Clearcut field in restoration area, groundcover consists of many native flatwoods species

4. Longleaf and slash pine plantation in restoration area

5. Herbaceous slough with old disturbance in restoration area

6. Bottomland forest in restoration area

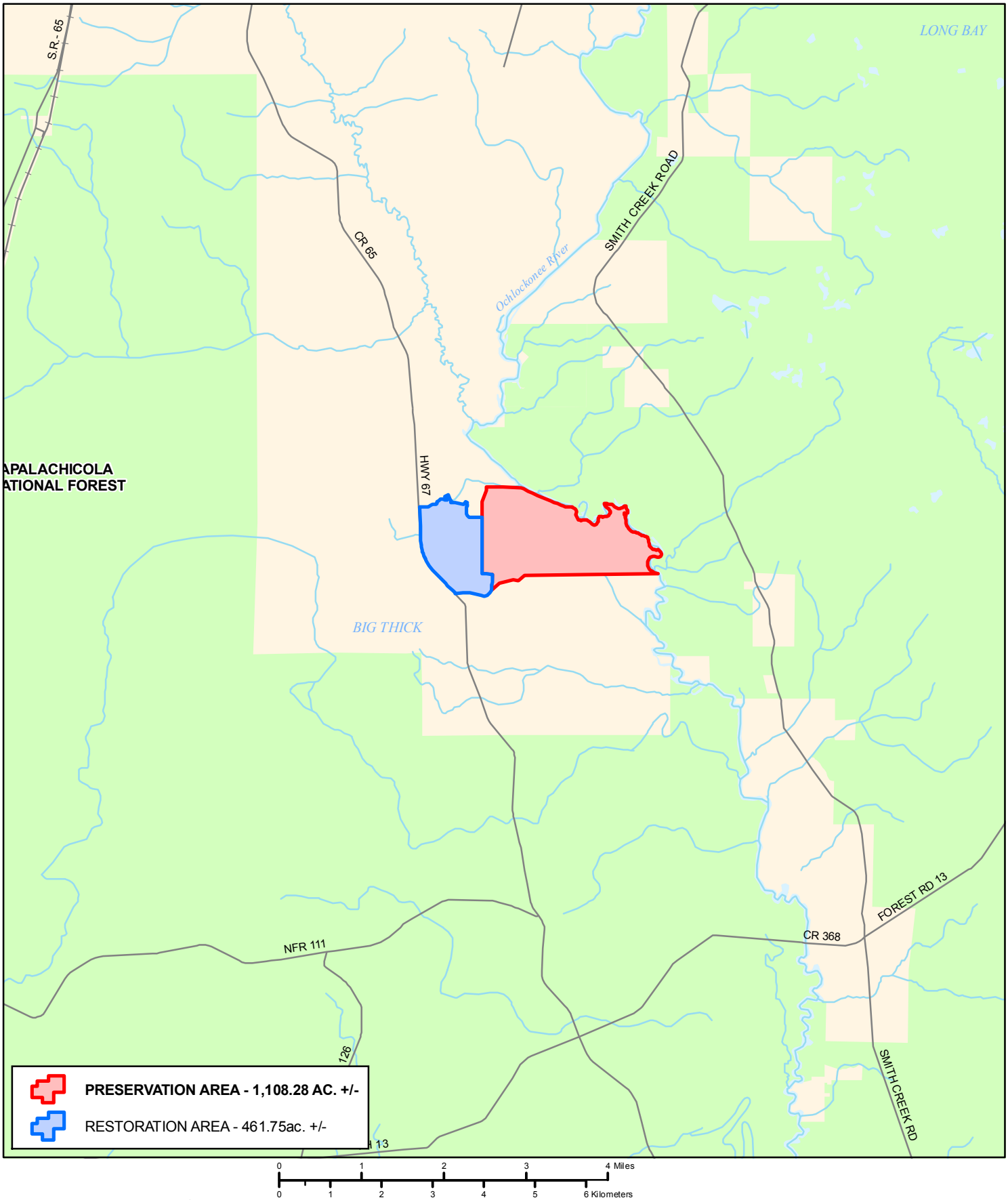

Figure 1 - Location Map

Shuler Mitigation Tract
Liberty County, Florida

Image: NONE

Sec 02, 03,04, 09 AND 10
Twp 03 S
Rng 05 W

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Coordinate System: NAD 1983 SPLFNF

Date: 03/30/2010 Rev. Date: xx/xx/xx PM: RJD GIS Analyst: JPB Map Document: FIGURE1_LOCATION.mxd Project Number: 4240-015 PDF Document: FIGURE1_LOCATION.pdf Plot Size: 8.5 x 11

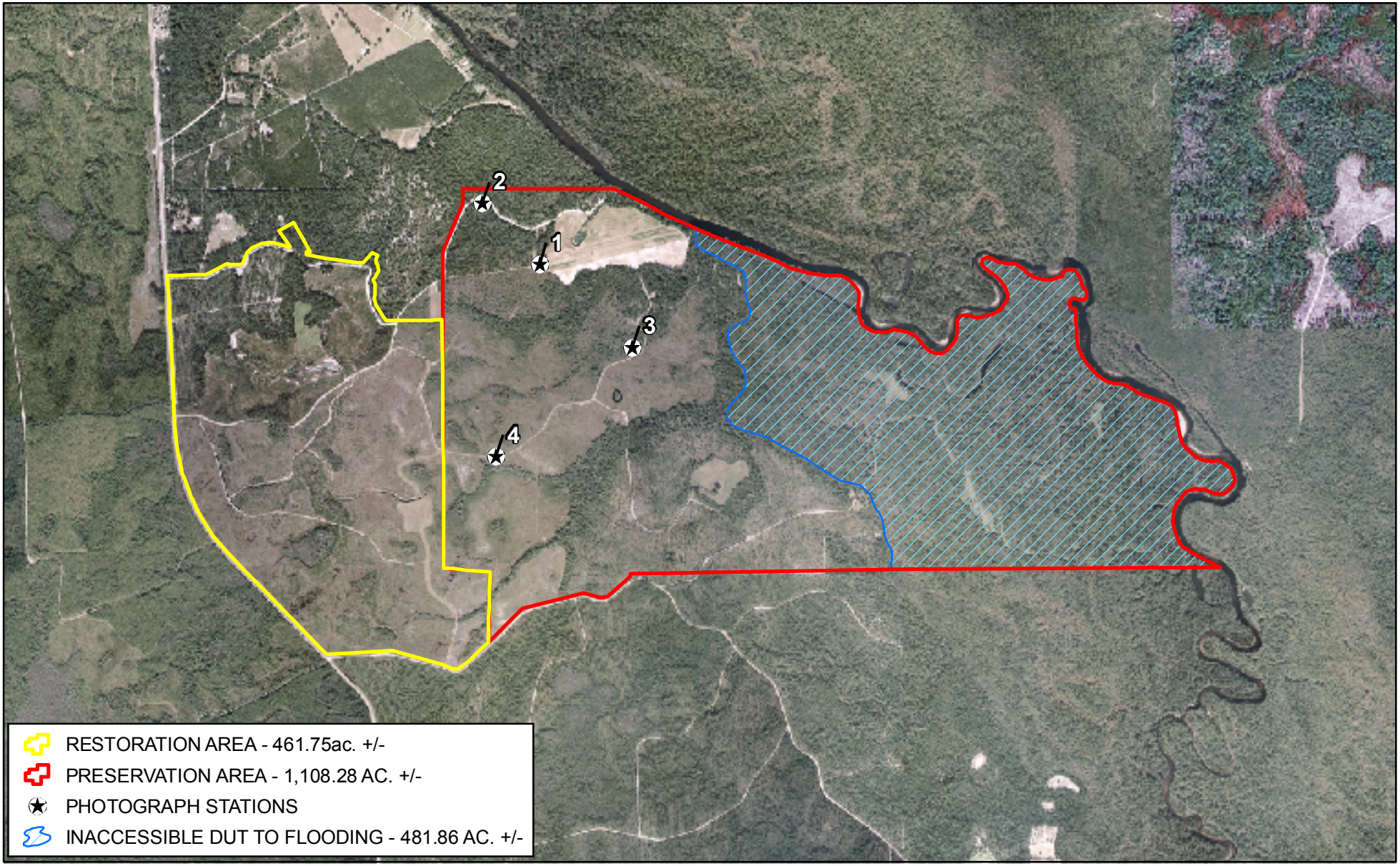

Figure 2 - Spring 2010 Mitigation Monitoring Map

Shuler Mitigation Tract
Liberty County, Florida

Image: 2007 NC

Sec 02, 03,04, 09 AND 10
Twp 03 S
Rng 05 W

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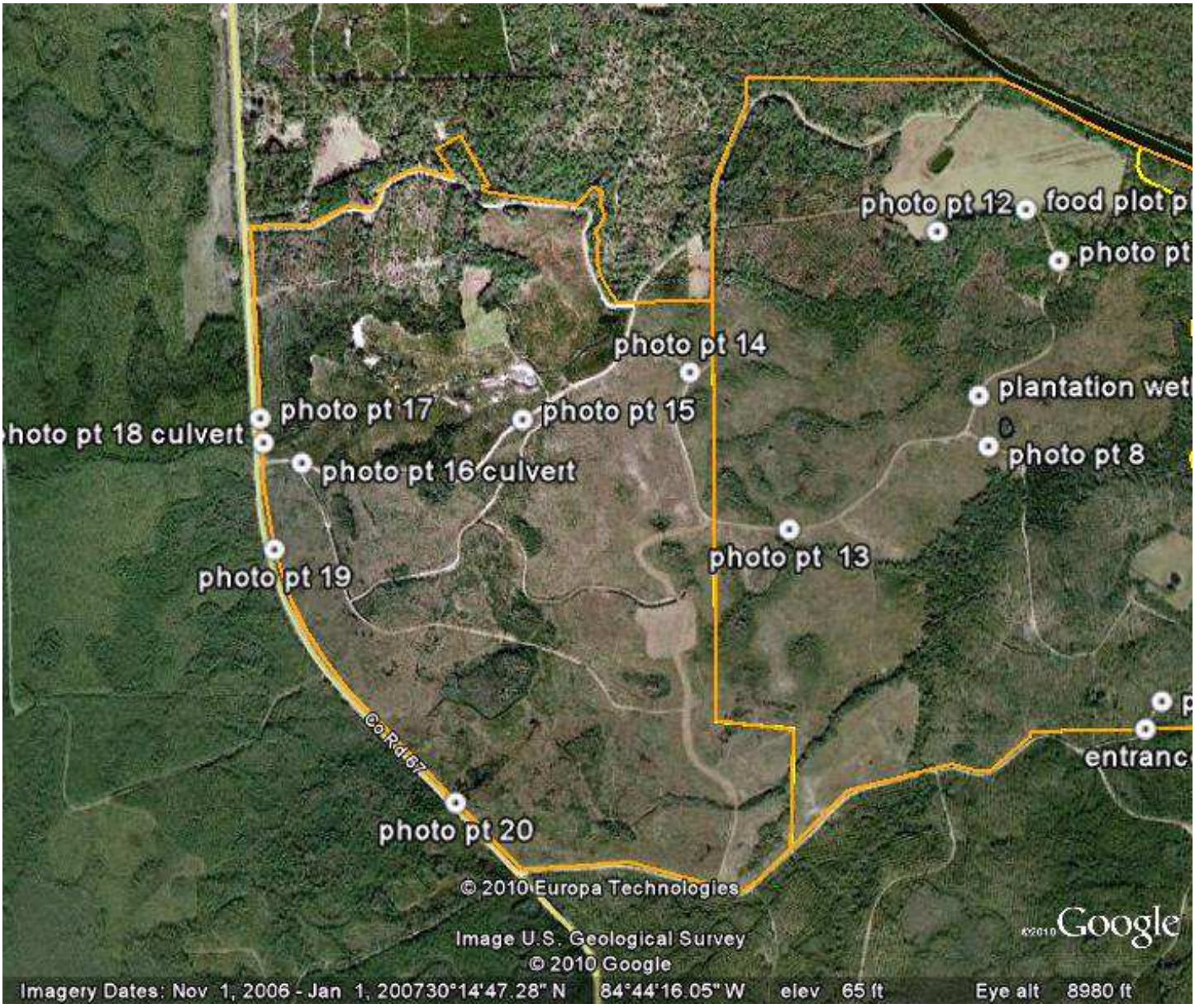
Date: 03/30/2010 Rev. Date: xx/xx/xx PM: RJD GIS Analyst: JPB Map Document: FIGURE2_MITMON.mxd Project Number: 4240-015 PDF Document: FIGURE2_MITMON.pdf Plot Size: 8.5 x 11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food plot p
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Co Rd 67
photo pt 20
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