

Third Annual Monitoring Report for the Juniper Creek Headwater Preserve (2008) ACOE Permit No. SAJ-2005-3585 (IP-DEB) (Chipola Watershed)

SCOPE

In order to mitigate for 3.90 acres of wetland impacts associated with the road widening of SR73 in Calhoun County,

PROPOSED MITIGATION

To mitigate for the impacts, the NFWMD enabled the acquisition, enhancement and perpetual preservation of a 30 acres of wetland and associated pine flatwoods buffer. The parcel was added to the Juniper Creek Headwater Preserve owned by the Bay County Conservancy. The Bay County Conservancy, Inc, is a land trust dedicated to the preservation of environmentally sensitive lands in northwest Florida. The Juniper Creek Headwater Preserve is located approximately 14 miles west of the impact site in the headwaters of Juniper Creek (Figure 1) and comprised of a mixed forested wetland and associated wet pine flatwoods (Figure 2). The parcel was acquired on March 7, 2006 and placed in a perpetual conservation easement.

Figure 1. Juniper Creek Headwater Preserve Location Map

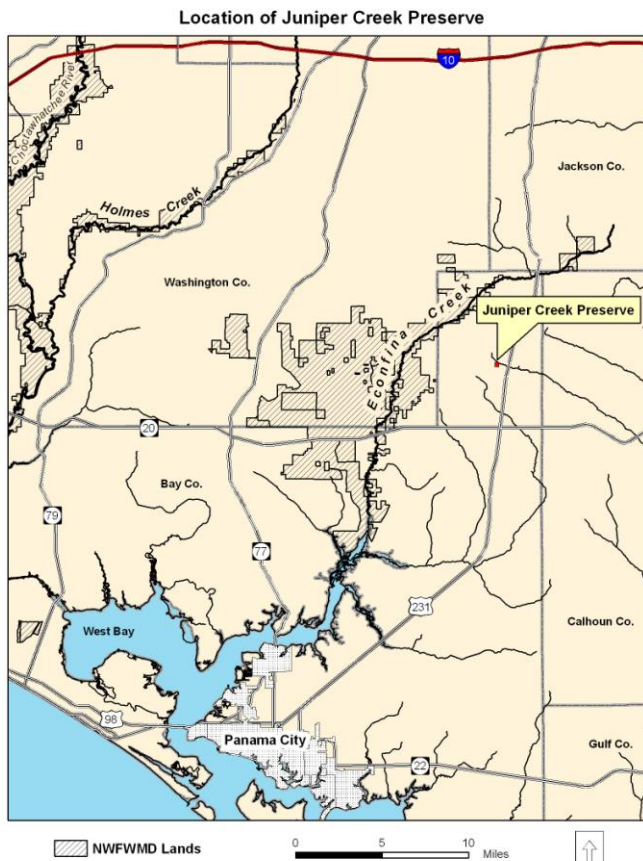
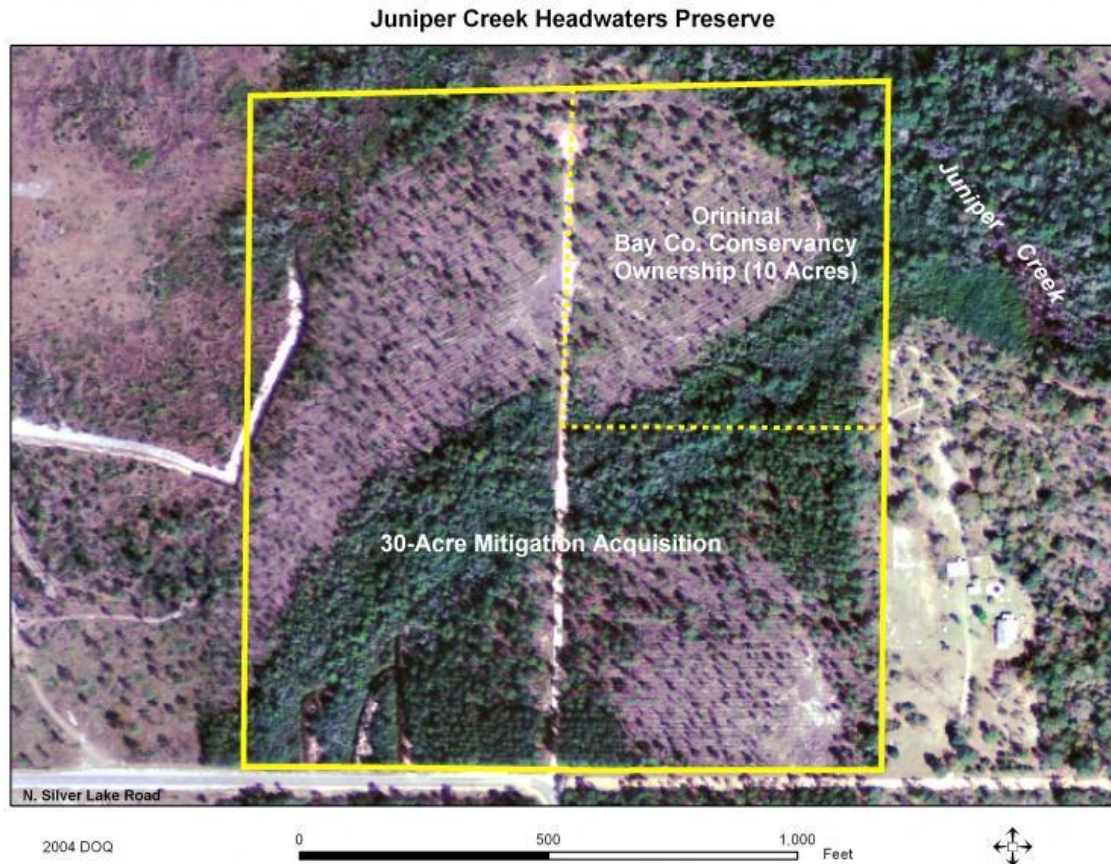


Figure 2. Juniper Creek Headwater Preserve



SITE DESCRIPTION AND AND RESTORATION ACTIVITIES

The 30 acres consists of 9 acres of mixed forested wetlands dominated by silver bay (*Magnolia virginiana*), Cypress (*Taxodium ascendens*) and slash pine (*Pinus elliottii*), and 21 acres of pine flatwoods that grade from mesic to hydric. A species list was developed for the property in the fall of 2006 and updated during the site visit during the fall of 2007 and 2008 (Table 1 and 2). During 2006, a few popcorn trees (*Sapium sebiferum*) were observed during the site visit along the edge of Juniper Creek. These were eradicated in March of 2007 by local volunteers. In addition in 2007, white goods dumped at the entrance and internally were removed by volunteers on a clean up day in March 2007. In 2008, no exotics were observed within the project area. In 2007, the entrance road was closed and the Juniper Creek Headwater Preserve sign was installed. The majority of mitigation activities have been completed for this site. In 2009, nuisance and exotic species will continue to be monitored and a fuel reduction burn is scheduled for fall 2008. Representative photos have been included from the fall 2008 site inspection (Figures 3-8).

Mitigation consists of 1) acquisition of 30 acres of the Ander's parcel (**Completed 3/06**), 2) recording of a conservation easement and transfer to the Bay County Conservancy (**Completed 3/06**), 3) removal of small trash pile on the norther boundary of the property (**Completed 3/07**), 4) prescribed fire or other brush reduction methods on mesic and hydric pine flatwoods (**Scheduled fall 2008**), 5) eradication and long term management of popcorn tree and any other

invasive exotic plant species (**Complete and ongoing**), 6) restriction of vehicle access (**Competed 3/07**), and 7) stabilization or abandonment of dirt access road (**Abandoned 3/07**).

SUCCESS CRITERIA

Success Criteria consist of the following:

- 1) Acquisition of 30 acres of the Anders property, recording of a conservation easement, and transfer of the ownership to the Bay County Conservancy. **Completed March 7, 2006**
- 2) Nuisance vegetation less than 5% cover for the duration of the permit
Competed September 2006 and November 2007. There have been no nuisance species vegetation observed on the property in 2008.
- 3) Exotic vegetation less than 1% cover per acre for the duration of the permit.
Completed September 2006 and November 2007. Exotic species cover was less than 1% in 2006 and the few observed popcorn trees were removed on March 2007. No additional exotic species have been observed.
- 4) A one time burn. **Three different attempts have been made to coordinate with the Bay County Conservancy to allow a burn on the site. However, the Conservancy has not consented to the fire due to insurance liability. The District will continue to work with the Conservancy to encourage burning on the property.**

Table 1. Species list for the Juniper Creek Headwater Preserve: Wet Pine Flatwoods

Scientific Name	Common Name	Tree	Shrub	Vine	Herb	Occurrence
<i>Acer rubrum</i>	Red maple	X				Occasional
<i>Agalinis purpurea</i>	Purple false foxgloves				X	Occasional
<i>Andropogon virginicus</i>	Broom sedge				X	Common
<i>Andropogon virginicus</i> <i>var. glauca</i>	Blue Stem				X	Occasional
<i>Aristida stricta</i> <i>var.</i> <i>beyrichiana</i>	Wiregrass				X	Occasional
<i>Aronia arbutifolia</i>	Red chokeberry		X			Occasional
<i>Aster wateri</i>	Walter's aster				X	Occasional
<i>Carex jorii</i>	Caric sedge				X	Occasional
<i>Carphephorus paniculatus</i>	Hairy trilisa				X	Common
<i>Centella asiatica</i>	Centella				X	Occasional
<i>Clethra alinfolia</i>	Clethra		X			Common
<i>Cliftonia monophylla</i>	Black ti ti		X			Common
<i>Coreopsis</i> spp.	Tickseed				X	Occasional
<i>Crysopsis scabrella</i>	Goldenaster				X	Occasional
<i>Cyrilla racemiflora</i>	Titi		X			Rare
<i>Dicanthelium scoparium</i>	Panic grass				X	Occasional
<i>Drosera brevifolia</i>	Dwarf sundew				X	Rare
<i>Eriocaulon decangulare</i>	Common pipewort				X	Occasional
<i>Eupatorium capillifolium</i>	Dog fennel				X	Occasional
<i>Eupatorium mohrii</i>	Eupatorium				X	Rare
<i>Euthamia caroliniana</i>	Flat-topped goldenrod				X	Occasional
<i>Fiurena pumila</i>	Umbrella grass				X	Occasional
<i>Gaylussacia dumosa</i>	Dwarf huckleberry		X			Common
<i>Gelsemium sempervirens</i>	Florida jasmine			X		Common
<i>Gnaphalium</i> <i>pensylvanicum</i>	Cudweed				X	Occasional
<i>Hydrocotyle umbellata</i>	Water pennywort				X	Common
<i>Hypericum cistifolium</i>	Hypericum				X	Common
<i>Hypericum crux-andreae</i>	St. Peter's wort				X	Occasional
<i>Hypericum galiodes</i>	St. John's wort		X		X	Common
<i>Hypericum gentinoides</i>	Pineweed				X	Occasional
<i>Hypericum</i> spp.	St. John's wort		X			Common
<i>Ilex coriacea</i>	Large gallberry		X			Occasional
<i>Ilex glabra</i>	Gall berry		X			Common
<i>Ilex opaca</i>	American holly	X				Occasional
<i>Ilex vomitoria</i>	Yaupon		X			Occasional
<i>Lachnanthes caroliniana</i>	Redroot				X	Occasional
<i>Lachnocaulon anceps</i>	Whitedhead bog button				X	Occasional
<i>Lobelia amoena</i>	Southern lobelia				X	Occasional
<i>Ludwigia alternifolia</i>	Seed box				X	Occasional
<i>Ludwigia pilosa</i>	Hairy seed box				X	Occasional
<i>Lycopodium alopecuroides</i>	Foxtail club moss				X	Common
<i>Lycopodium apressum</i>	Southern club moss				X	Occasional
<i>Lycopodium cernum</i> **	Nodding club moss				X	Rare
<i>Magnolia grandiflora</i>	Southern magnolia	X				Rare
<i>Magnolia virginiana</i>	Silver bay	X				Occasional
<i>Myrica cerifera</i>	Wax myrtle		X			Occasional
<i>Nyssa sylvatica</i> <i>var. biflora</i>	Black gum	X				Common
<i>Osmunda cinnamomea</i>	Cinnamon fern				X	Occasional

<i>Persea borbonia</i>	Red Bay	X				Occasional
<i>Pinus elliotii</i>	Slash pine	X				Common
<i>Pluchea rosea</i>	Pluchea				X	Occasional
<i>Polygonella gracilis</i>	Wireweed				X	Rare
<i>Polygonum spp.</i>	Smartweed				X	Occasional
<i>Pteridium aquilinum</i>	Brachen fern				X	Occasional
<i>Pterocaulon Virgatum</i>	Black root				X	Rare
<i>Quercus elliotii</i>	Running oak		X			Common
<i>Quercus laurifolia</i>	Swamp laurel oak	X				Common
<i>Quercus nigra</i>	Water Oak	X				Common
<i>Rhexia alifanus</i>	Tall meadow beauty				X	Occasional
<i>Rhexia mariana</i>	Pale meadow beauty				X	Occasional
<i>Rhus copallina</i>	Sumac		X			Occasional
<i>Rhynchospora mileacea</i>	Rhynchospora				X	Occasional
<i>Rubus cuneifolius</i>	Sand blackberry		X			Occasional
<i>Sabatia brevifolia</i>	Narrow-leaved sabatia				X	Occasional
<i>Sapium sebiferum***</i>	Popcorn tree	X				Rare
<i>Serenoa repens</i>	Saw palmetto		X			Occasional
<i>Smilax laurifolia</i>	Catbriar			X		Common
<i>Smilax smallii</i>	Greenbriar			X		Occasional
<i>Solidago fistulosa</i>	Pine barren goldenrod				X	Occasional
<i>Solidago odora var. chapmanii</i>	Goldenrod				X	Occasional
<i>Sphagnum spp.</i>	Sphagnum moss				X	Occasional
<i>Vaccinium myrsinites</i>	Shiny blueberry		X			Occasional
<i>Vaccinium arboreum</i>	Sparkleberry	X	X			Occasional
<i>Vaccinium corymbosum</i>	High bush blueberry		X			Occasional
<i>Verbesina chapmanii*</i>	Chapman's crownbeard				X	Occasional
<i>Vernonia novaboracensis</i>	Ironweed				X	Occasional
<i>Viola lanceolata</i>	Lance-leaved violet				X	Rare
<i>Vitus rotundifolia</i>	Muscadine grape			X		Occasional
<i>Xyris spp.</i>	Yellow-eyed grass				X	Occasional

* State Threatened Species, ** State Commercially Exploited Species, *** Nuisance exotic species

Table 2. Species List for Juniper Creek Headwater Preserve: Intermittent Stream

Scientific Name	Common Name	Tree	Shrub	Vine	Herb	Occurrence
<i>Andropogon virginicus</i>	Broom sedge				X	Occasional
<i>Andropogon virginicus</i> var. <i>glauca</i>	Blue stem				X	Occasional
<i>Aronia arbutifolia</i>	Red chokeberry		X			Occasional
<i>Arundinaria gigantea</i>	Switchcane				X	Occasional
<i>Baccharis glomeruliflora</i>	Groundsel tree		X			Occasional
<i>Carex jorii</i>	Caric sedge				X	Occasional
<i>Centella asiatica</i>	Centella				X	Occasional
<i>Cephalanthus occidentalis</i>	Button bush		X			Occasional
<i>Clethra alinfolia</i>	Clethra		X			Common
<i>Cliftonia monophylla</i>	Black ti ti		X			Common
<i>Cyrilla racemiflora</i>	Tit		X			Rare
<i>Dicanthelium scoparium</i>	Panic grass				X	Common
<i>Drosera brevifolia</i>	Dwarf sundew				X	Rare
<i>Eriocaulon decangulare</i>	Common pipewort				X	Occasional
<i>Eupatorium capillifolium</i>	Dog fennel				X	Occasional
<i>Euthamia caroliniana</i>	Flat-topped goldenrod				X	Rare
<i>Fiurena pumila</i>	Umbrella grass				X	Occasional
<i>Hydrocotyle umbellata</i>	Water pennywort				X	Rare
<i>Hypericum cistifolium</i>	Hypericum				X	Occasional
<i>Hypericum crux-andreae</i>	St. Peter's wort				X	Occasional
<i>Hypericum galiodes</i>	St. John's wort		X		X	Common
<i>Hypericum gentinoides</i>	Pineweed				X	Occasional
<i>Hypericum</i> spp.	St. John's wort		X			Common
<i>Ilex coriacea</i>	Large gallberry		X			Occasional
<i>Ilex glabra</i>	Gall berry		X			Occasional
<i>Lachnanthes caroliniana</i>	Redroot				X	Occasional
<i>Lachnocaulon anceps</i>	Whitedhead bog button				X	Occasional
<i>Lobelia amoena</i>	Southern lobelia				X	Occasional
<i>Ludwigia alternifolia</i>	Seed box				X	Occasional
<i>Ludwigia pilosa</i>	Hairy seed box				X	Common
<i>Lycopodium alopecuroides</i>	Foxtail club moss				X	Occasional
<i>Magnolia virginiana</i>	Silver bay	X				Occasional
<i>Myrica cerifera</i>	Wax-myrtle		X			Occasional
<i>Myrica inodorata</i>	Odorless wax-myrtle		X			Common
<i>Nyssa sylvatica</i> var. <i>biflora</i>	Black gum	X				Common
<i>Osmunda cinnamomea</i>	Cinnamon fern				X	Occasional
<i>Pinus elliotii</i>	Slash pine	X				Occasional
<i>Pinus serotina</i>	Pond pine	X				Rare
<i>Plantanus occidentalis</i>	Sycamore	X				Occasional
<i>Polygonum</i> spp.	Smartweed				X	Occasional
<i>Polyprenum procumbens</i>	Rustweed				X	Occasional
<i>Quercus nigra</i>	Water oak	X				Occasional
<i>Rhexia alifanus</i>	Tall meadow beauty				X	Occasional
<i>Rhynchospora mileacea</i>	Rhynchospora				X	Occasional
<i>Rubus cuneifolius</i>	Sand blackberry		X			Occasional
<i>Salix caroliniana</i>	Willow	X				Rare
<i>Sapium sebiferum</i> ***	Popcorn tree	X				Rare
<i>Sarracenia leucophylla</i> ****	White-top pitcher plant				X	Occasional
<i>Serenoa repens</i>	Saw palmetto		X			Occasional
<i>Smilax laurifolia</i>	Catbriar			X		Common
<i>Smilax smallii</i>	Greenbriar			X		Occasional
<i>Sphagnum</i> spp.	Sphagnum moss				X	Occasional
<i>Taxodium acedens</i>	Pond cypress	X				Occasional
<i>Vaccinium corymbosum</i>	High bush blueberry		X			Occasional
<i>Xyris</i> spp.	Yellow-eyed grass				X	Occasional

*** Nuisance exotic species. **** State endangered species



Figure 3. Juniper Creek Headwater Preserve Sign



Figure 4. Wet pine flatwoods (September 21, 2008)



Figure 5. Wiregrass in wet pine flatwoods (September 21,2008)



Figure 6. Wet pine flatwoods (September 21,2008)



Figure 7. Wet pine flatwoods access road (September 2008)



Figure 8. Juniper Creek forested wetland