### PMLevyCOLPEm Resource

From: Hambrick, Gordon A SAJ [Gordon.A.Hambrick@usace.army.mil]

**Sent:** Friday, January 20, 2012 11:20 AM

To: Bruner, Douglas

Subject: FW: PEF LNP Nuclear Plant Project - UMAM Forms (UNCLASSIFIED)
Attachments: LNP-SiteImpactsUMAM Forms.pdf; LNP Mitigation Sites UMAM Forms.pdf

Classification: UNCLASSIFIED

Caveats: NONE

Doug, FYI.

Don

Gordon A. (Don) Hambrick, III Senior Project Manager Panama City Permits Section US Army Corps of Engineers Jacksonville District 1002 West 23rd Street, Suite 350 Panama City, Florida 32401

Office: 850-763-0717, ext. 25

Fax: 850-872-0231

----Original Message----

From: Dierolf, Amy C. [mailto:Amy.Dierolf@pgnmail.com]

Sent: Tuesday, January 17, 2012 3:52 PM

To: Hambrick, Gordon A SAJ

Cc: Snead, Paul

Subject: PEF LNP Nuclear Plant Project - UMAM Forms

Don,

Per your request, please find 2 files with the UMAM forms for the LNP site impacts and the Mitigation Sites.

The LNP-SiteImpactsUMAM Forms.pdf file includes the impacts for the entire LNP site, barge slip area and blowdown pipeline.

The LNP Mitigation Sites UMAM Forms.pdf file is a consolidated file with the UMAM forms for all of the mitigation sites (Boarshead Ranch, Brooker Creek, Goethe, LNP site, Homosassa and Five Mile Creek).

The UMAM forms for the impacts for the transmission lines and substations were previously submitted in the notebooks submitted for the transmission lines and substations.

Please let us know if you have any questions.

Amy

Amy Dierolf

Lead Environmental Specialist

**Environmental Services** 

Progress Energy

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Classification: UNCLASSIFIED

Caveats: NONE

Hearing Identifier: Levy\_County\_COL\_Public

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Subject: FW: PEF LNP Nuclear Plant Project - UMAM Forms (UNCLASSIFIED)

 Sent Date:
 1/20/2012 11:20:00 AM

 Received Date:
 1/20/2012 11:20:32 AM

 From:
 Hambrick, Gordon A SAJ

Created By: Gordon.A.Hambrick@usace.army.mil

Recipients:

"Bruner, Douglas" < Douglas.Bruner@nrc.gov>

Tracking Status: None

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Files Size Date & Time

MESSAGE 1517 1/20/2012 11:20:32 AM

LNP-SiteImpactsUMAM Forms.pdf 491667 LNP Mitigation Sites UMAM Forms.pdf 974862

**Options** 

Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal

Expiration Date: Recipients Received:

Site/Project Name		Application Numbe			Assessment Area Name of	or Number
Progress Energy Florida - Le	vy Nuclear Plant		90 (Corps), PA08- (FDEP)	51C	Mixed Wetland Harwoo	od - Permanent Impacts
			,	1		T
FLUCFCs code	Further classification	tion (optional)		Impac	et or Mitigation Site?	Assessment Area Size (Acres)
617					IMPACT	4.5
						4.0
Basin/Watershed Name/Number	Affected Waterbody (Clas	es)	Special Classificati	ion (i.e.0	OFW, AP, other local/state/federa	I designation of importance)
Waccasassa and Withlacoochee	Class I	II				
Geographic relationship to and hydr	rologic connection with	wetlands, other su	urface water, upla	nds:		
Areas are surrounded by pine plant connected with each other or are in them.				•		•
Assessment area description						
High quality forested wetland domin maples, bays and cabbage palms w Community structure is transitional as Virginia creeper, dog fennel and uses. Strong evidence of cypress k	vith less coverage of na based on the coverage greenbrier. Although s	turally occurring c of slash pines and ome pines are na	onifer species (i.e d dense shrub lay turally occurring, r	., cypr ers (i.e	ress) likely due to loggin e., fetterbush) and oppo	g activities. rtunistic species such
Significant nearby features			Uniqueness (co landscape.)	nsider	ing the relative rarity in	relation to the regional
The AA is located south of Goethe and Waccasassa Bay State north of the Cross Florida Barge Ca Withlacoochee River. The AA abut and is surrounded by pine plantation property is bordered by U.S. 19 to the ast and north.	Preserve, and approxi anal, Lake Rousseau, and as a transmission corridon on the LNP property.	mately 1 mile nd the or to the west The LNP	апособро.,		None	
Functions			Mitigation for pre	vious	permit/other historic use	)
Functions include wildlife feeding a benefits, although limited by th	•				None	
Anticipated Wildlife Utilization Base that are representative of the asses					by Listed Species (List s C), type of use, and inte	
birds (passerine, raptor and wading etc.), amphil	g birds), small/medium i bians and reptiles	mammals (hogs,			wading birds (SSC)	
Observed Evidence of Wildlife Utiliz	zation (List species direc	ctly observed, or o	other signs such a	s tracl	ks, droppings, casings,	nests, etc.):
		hog root	ing			
Additional relevant factors:	_	_			_	
Assessment conducted by:			Assessment date	e(s):		
Entrix - VAF/DDS, ESI - Gary Howa	alt		Entrix - October 2	2009 tl	hru January 2010, ESI -	March 2011

## **IMPACT**

Site/Project Name		Application Number			a Name or Number	
Progress Energy Flo	orida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), I (FDEP)	PA08-51C	Mixed Wetlar	nd Harwood - Perma Impacts	anent
Impact or Mitigation		Assessment conducted by:		Assessment date		
II	MPACT	Entrix - VAF/DDS, ESI - Ga	ary Howalt		r 2009 thru January I - March 2011	/ 2010,
Sooring Cuidanas	Ontine al (40)	Madagata/7\	l NA:	nim al (4)	Not Decomb	(0)
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	IVII	nimal (4)	Not Present	(0)
indicator is based on	Condition is optimal and	optimal, but sufficient to	Minimal le	vel of support of	Condition is insuff	icient to
what would be suitable	fully supports wetland/surface water	maintain most	wetland	/surface water	provide wetland/s	surface
for the type of wetland or	functions	wetland/surface	fu	unctions	water functio	ns
surface water assessed		waterfunctions				
	opportunity for wildlife utiliz bordered by U.S. 19 to the abuts pine plantation to the	a is surrounded by pine plantati ation including foraging, refuge west, C.R. 40 to the south and e east, Goethe State Forest to t 1 mile north of the Cross Florid	and passa C.R. 33 to he north an	ge. The AA is wit the east and north d is situated 8 mil	h the LNP property	ty also of
	w/o pres or current - Mod years of silviculture practice	erate hydrology based on distues. No distinct water level indic seasonal high. Evidence of hy trees).	cators. SHV	V appears at or b	elow grade in some	areas
	w/o pres or current - High pond cypress, slash pines, naturally occurring conifers transitional based on the of species such as Virginia cr	quality forested wetland domir swamp tupelo, oaks, red mapl species (i.e., cypress) likely du overage of slash pines and der eeper, dog fennel and greenbri the surrounding land uses. Str	es, bays and e to logging use shrub lag er. Althoug	d cabbage palms activities. Comm yers (i.e., fetterbu h some pines are	with less coverage nunity structure is sh) and opportunist naturally occurring	of tic , many
	Preservation as mit Preservation adjustm Adjusted mitigation d	nent factor =		For impact asses	2.7000	
Delta = [with-current]	If mitigation  Time lag (t-factor) =		F	or mitigation asse	essment areas	
			RFG	= delta/(t-factor x	risk) =	
0.6	Pick factor -			,	,	

Site/Project Name		Application Number			Assessment Area Name	
Progress Energy Florida - Le	evy Nuclear Plant		90 (Corps), PA08-5 (FDEP)	51C		arwood - Temporary pacts
FLUCFCs code	Further classifica	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size (Acres)
617					IMPACT	0.3
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification	n (i.e.C	DFW, AP, other local/state/feder	al designation of importance)
Waccasassa	Class I	III				
Geographic relationship to and hyc Areas are surrounded by pine plan connected with each other or are in them. Assessment area description	tation and a mosaic of t	forested wetlands	that have been su	ıbjecte	00 0	•
·						
High quality forested wetland domi maples, bays and cabbage palms or Community structure is transitional as Virginia creeper, dog fennel and land uses. Strong evidence of cyp	with less coverage of na based on the coverage greenbrier. Although	aturally occurring e of slash pines ar some pines are na	conifer species (i.end dense shrub lay aturally occurring,	e., cyp /ers (i	oress) likely due to logo .e., fetterbush) and op	ging activities. portunistic species such
Significant nearby features			Uniqueness (cor	nsider	ing the relative rarity ir	relation to the regional
The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge Combination With Indian State and is surrounded by pine plantation property is bordered by U.S. 19 to 133 to the east and north.	e Preserve, and approx anal, Lake Rousseau, a its a transmission corrid on on the LNP property.	kimately 1 mile and the dor to the west . The LNP			None	
Functions			Mitigation for prev	/ious	permit/other historic us	e
Functions include wildlife feeding a benefits, although limited by the	- :				None	
Anticipated Wildlife Utilization Base that are representative of the asset					by Listed Species (List C), type of use, and int	•
birds (passerine, raptor and wadin etc.), amphi	g birds), small/medium bians and reptiles	mammals (hogs,			wading birds (SSC)	
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or	other signs such a	as trac	cks, droppings, casings	s, nests, etc.):
		hog root	ing			
Additional relevant factors:						
Assessment conducted by:			Assessment date	(s):		
Entrix - VAF/DDS, ESI - Gary How	alt				hru January 2010, ESI	- March 2011

	(333 2333	IMPACT	, - ,		
Site/Project Name		Application Number	D. 4.00 - 1.5		a Name or Number
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), (FDEP)	PA08-51C	Mixed Wetland Harwood - Temporary Impacts	
Impact or Mitigation		Assessment conducted by:		Assessment date	9:
IMPA	СТ	Entrix - VAF/DDS, ESI - Ga	ary Howalt		r 2009 thru January 2010, - March 2011
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	wetland/surface water provide v		Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support	opportunity for wildlife utilization bordered by U.S. 19 to the vabuts pine plantation to the Mexico and approximately 1 River.	is surrounded by pine plantati tion including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to mile north of the Cross Florio om temporary impact. Area to	e and passa I C.R. 33 to the north an da Barge Ca	ge. The AA is witl the east and north d is situated 8 mil anal, Lake Rousse	h the LNP property which n. The LNP property also es east of the Gulf of
.500(6)(b)Water Environment (n/a for uplands)  //o pres or current with 6	years of silviculture practice and 1-2 feet below historic s pine recruitment and dying t	erate hydrology based on distus. No distinct water level indi- easonal high. Evidence of hy rees). function anticipated. Area to	cators. SH\ drologic str	W appears at or be ess (i.e., transition	elow grade in some areas
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  //o pres or current with 7	pond cypress, slash pines, s naturally occurring conifer s transitional based on the co species such as Virginia cre appear to be recruits from the rooting throughout.	quality forested wetland domin swamp tupelo, oaks, red mapl pecies (i.e., cypress) likely du verage of slash pines and der eper, dog fennel and greenbr ne surrounding land uses. Str nity structure due to time lag	es, bays an e to logging nse shrub la ier. Althoug rong eviden	d cabbage palms activities. Comm yers (i.e., fetterbu gh some pines are ce of cypress logg	with less coverage of unity structure is sh) and opportunistic naturally occurring, many
Score = sum of above scores/30 (if uplands/20)	If preservation as mition  Preservation adjustment			For impact assess	sment areas
current or w/o pres with 0.6 0.56667	Adjusted mitigation de		FL =	delta x acres =	0.0100
	If mitigation		F	or mitigation asse	ssment areas
Delta = [with-current]	Time lag (t-factor) =				
0.033333333	Risk factor =		RFG	= delta/(t-factor x	risk) =

Site/Project Name Progress Energy Florida - Le	vy Nuclear Plant		er 90 (Corps), PA08-51C (FDEP)	e or Number wood(Logged) -Clearing r Impacts			
FLUCFCs code 617-1	Further classifica	ation (optional)	lmp	pact or Mitigation Site?	Assessment Area Size (Acres) 5.3		
Basin/Watershed Name/Number Waccasassa	Affected Waterbody (Clas		Special Classification (i.	e.OFW, AP, other local/state/feder	ral designation of importance)		
	ation and a mosaic of f	forested wetlands	that have been subject	cted to logging. Wetland	•		
disturbed from logging activities with although few cypress and hardwood including immature slash pine and of chain fern, red root, and various op	h stumps and furrows r d trees remaining and r oaks, sweetgum, fetterk portunistic species. Mo	remaining from thi most coverage pro bush, wax myrtle, ost cypress have t	nning activities. Simili- povided by transitional v saltbush, gallberry, bu been logged and other ment. Dead trees and	ar species as those four vegetation in the shrub l uttonbush, broomsedge, r trees have been logged d hog rooting also preva	nd in forested wetlands, ayer and groundcover maidencane, dog fennel, d indiscriminately as a lent.		
The AA is located south of Goethe S Mexico and Waccasassa Bay State north of the Cross Florida Barge Ca Withlacoochee River. The AA abut and is surrounded by pine plantatio property is bordered by U.S. 19 to to 33 to the east and north.	Preserve, and approxi anal, Lake Rousseau, a s a transmission corrid n on the LNP property.	imately 1 mile and the lor to the west . The LNP	Uniqueness (consis	None	III Telation to the regional		
Functions  Functions include wildlife feeding a	•		Mitigation for previou	ıs permit/other historic u None	se		
benefits, although limited by th Anticipated Wildlife Utilization Base that are representative of the asses	d on Literature Review	(List of species					
birds (passerine, raptor and wading etc.), amphil	g birds), small/medium bians and reptiles	mammals (hogs,	Special Classification (i.e.OFW, AP, other local/state/federal designation of importation in the surface water, uplands:  ands that have been subjected to logging. Wetlands are either direct antation. Furrows serve as conveyances allowing for water to travel in with less than 50% coverage of trees. Community structure is verificated in the structure is verificated by transitional vegetation in the shrub layer and grounder gritle, saltbush, gallberry, buttonbush, broomsedge, maidencane, dog ave been logged and other trees have been logged indiscriminately scruitment. Dead trees and hog rooting also prevalent.  Uniqueness (considering the relative rarity in relation to the relation of the relation for previous permit/other historic use rage  None  Anticipated Utilization by Listed Species (List species, their legicated to classification (E, T, SSC), type of use, and intensity of use of the composition of the relation of the relati		1		
Observed Evidence of Wildlife Utiliz	ation (List species dire	ectly observed, or hog root		acks, droppings, casing	s, nests, etc.):		
Additional relevant factors:  Assessment conducted by:			Assessment date(s):				
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011				

## **IMPACT**

Site/Project Name		Application Number		Assessment Are	a Name or Number	
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), F (FDEP)	PA08-51C	Mixed Wetland Harwood - Permanent Impacts		
Impact or Mitigation		Assessment conducted by:				
IMPAG	СТ	Entrix - VAF/DDS, ESI - Ga	ary Howalt	Assessment date: Entrix - October 2009 thru January ESI - March 2011  inimal (4) Not Present  evel of support of d/surface water Condition is insuffi provide wetland/s		
		T			T	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each indicator is based on	Condition is optimal and	Condition is less than optimal, but sufficient to	Minimal le	wel of support of	Condition is insufficient to	
what would be suitable	fully supports	maintain most		• •	provide wetland/surface	
for the type of wetland or	wetland/surface water	r wetland/surface functions			water functions	
surface water assessed	functions	waterfunctions				
	•					
.500(6)(a) Location and Landscape Support  v/o pres or current with 5	opportunity for wildlife utiliza bordered by U.S. 19 to the v abuts pine plantation to the	tion including foraging, refuge vest, C.R. 40 to the south and east, Goethe State Forest to t	and passa C.R. 33 to he north an	ge. The AA is wit the east and north d is situated 8 mil	h the LNP property which is n. The LNP property also es east of the Gulf of	
.500(6)(b)Water Environment (n/a for uplands)  v/o pres or current with 0	years of silviculture practice	<ul> <li>s. No distinct water level indiceasonal high. Evidence of hy</li> </ul>	ators. SHV	N appears at or b	elow grade in some areas	
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 7 0	pond cypress, slash pines, s naturally occurring conifer s transitional based on the co- species such as Virginia cre	swamp tupelo, oaks, red maple pecies (i.e., cypress) likely due verage of slash pines and den eper, dog fennel and greenbri	es, bays an e to logging se shrub la er. Althoug	d cabbage palms activities. Comm yers (i.e., fetterbu h some pines are	with less coverage of nunity structure is sh) and opportunistic naturally occurring, many	
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.6 0	If preservation as mitigeness of the preservation adjustments of the preservation adjustments of the preservation as mitigeness. The preservation as mitigeness of the preservation adjustments of the preservat	ent factor =		·		
Delta = [with-current]	If mitigation Time lag (t-factor) =		F	or mitigation asse	essment areas	
n 6	Pick factor =		RFG	= delta/(t-factor x	risk) =	

Site/Project Name		Application Number		Assessment Area Nam			
Progress Energy Florida - Lev	y Nuclear Plant		90 (Corps), PA08-51	Harwood(Logged) -			
0.	<u>-</u>		(FDEP)	Permar	ent Impacts		
FLUCFCs code	Further classifica	ation (optional)	In	npact or Mitigation Site?	Assessment Area Size (Acres)		
617-1				IMPACT	24.5		
Basin/Watershed Name/Number A Waccasassa	Affected Waterbody (Class   Class	,	Special Classification	I (i.e.OFW, AP, other local/state/fed	eral designation of importance)		
<u> </u>							
Geographic relationship to and hydro	ologic connection with	wetlands, other si	urface water, upland	S			
Areas are surrounded by pine planta connected with each other or are intention.							
Assessment area description							
Heavily logged forested wetland cha disturbed from logging activities with although few cypress and hardwood including immature slash pine and of chain fern, red root, and various opp result of thinning activities providing	a stumps and furrows r trees remaining and r aks, sweetgum, fetterb portunistic species. Mo	emaining from thir most coverage pro oush, wax myrtle, ost cypress have b	nning activities. Sim wided by transitional saltbush, gallberry, t been logged and oth	ilar species as those foun vegetation in the shrub la outtonbush, broomsedge, er trees have been logged	d in forested wetlands, ayer and groundcover maidencane, dog fennel, d indiscriminately as a		
Significant nearby features			Uniqueness (cons	idering the relative rarity i	n relation to the regional		
The AA is located south of Goethe S Mexico and Waccasassa Bay State north of the Cross Florida Barge Car Withlacoochee River. The AA abuts and is surrounded by pine plantation property is bordered by U.S. 19 to th 33 to the east and north.	Preserve, and approxi nal, Lake Rousseau, a s a transmission corrid n on the LNP property.	imately 1 mile and the or to the west The LNP		None			
Functions			Mitigation for previo	ous permit/other historic u	se		
Functions include wildlife feeding ar benefits, although limited by the				None			
Anticipated Wildlife Utilization Based that are representative of the assess			•	on by Listed Species (List SSC), type of use, and in			
birds (passerine, raptor and wading etc.), amphib	birds), small/medium bians and reptiles	mammals (hogs,		wading birds (SSC)			
Observed Evidence of Wildlife Utiliza	ation (List species dire	ectly observed, or	other signs such as	tracks, droppings, casings	s, nests, etc.):		
		hog root	ing				
Additional relevant factors:							
Assessment conducted by:			Assessment date(s	):			
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011				

		IMPACT				
Site/Project Name Progress Energy Florida	- Levy Nuclear Plant	Application Number SAJ-2008-00490 (Corps), (FDEP)			and Harwood(Logge	
Impact or Mitigation		Assessment conducted by:		Assessment date: Entrix - October 2009 thru Januers - Minimal (4)  Minimal (4)  Minimal (4)  Minimal (4)  Mot Preservet and surport of wetland/surface water functions  Thich provided minimal habitat and limited passage. The AA is with the LNP proper.  33 to the east and north. The LNP proper and is situated 8 miles east of the Garge Canal, Lake Rousseau and the With surger Canal, Lake Rousseau and the With surger canal and the wit	•	
IMPAG	СТ	Entrix - VAF/DDS, ESI - G	ary Howalt	Entrix - October 2009 thru January 2010 ESI - March 2011		
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present	(0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	wetland	surface water	Condition is insuff provide wetland/ water function	surface
.500(6)(a) Location and Landscape Support  //o pres or current with  0	opportunity for wildlife utilization bordered by U.S. 19 to the values pine plantation to the	ation including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to	e and passag I C.R. 33 to the north and	ge. The AA is with the east and north d is situated 8 mile	h the LNP property n. The LNP proper es east of the Gulf	ty also of
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 6	years of silviculture practice	s. No distinct water level indi seasonal high. Evidence of hy	cators. SHV	V appears at or be	elow grade in some	e areas
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 5	coverage of trees. Commuremaining from thinning acti hardwood trees remaining a groundcover including imma buttonbush, broomsedge, m cypress have been logged a	nity structure is very disturbed vities. Similar species as tho nd most coverage provided bature slash pine and oaks, swadencane, dog fennel, chain and other trees have been log	I from loggin se found in f y transitiona eetgum, fette fern, red roo ged indiscrir	g activities with storested wetlands, I vegetation in the erbush, wax myrtlebt, and various opninately as a resu	tumps and furrows, although few cypnes shrub layer and e, saltbush, gallber portunistic species at thinning activit	ress and rry, s. Most
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.5  0	If preservation as mitigation adjustments  Adjusted mitigation de	ent factor =		·	sment areas	
Delta = [with-current]	If mitigation  Time lag (t-factor) =		F	or mitigation asse	ssment areas	
0.5	Risk factor =		RFG	= delta/(t-factor x	risk) =	

Site/Project Name		Application Number			Assessment Area Name	or Number
Progress Energy Florida - Lo	evy Nuclear Plant		90 (Corps), PA08- (FDEP)	51C		od(Logged) -Temporary acts
FLUCFCs code	Further classifica	ition (optional)		Impact	or Mitigation Site?	Assessment Area Size
617-1					IMPACT	(Acres)
017-1					IMPACT	7.1
Basin/Watershed Name/Number	Affected Waterbody (Class	ss)	Special Classificati	ion (i.e.O	PFW, AP, other local/state/federa	al designation of importance)
Waccasassa	Class I	III				
Geographic relationship to and hyd	•					
Areas are surrounded by pine plan						
connected with each other or are in	nterconnected through h	iydric pine plantati	on. Furrows serv	e as co	onveyances allowing to	r water to travel along
them.						
Assessment area description						
Heavily logged forested wetland ch	naracterized by transition	nal vegetation with	less than 50% co	overage	e of trees Community	structure is very
disturbed from logging activities with						
although few cypress and hardwoo						
including immature slash pine and	oaks, sweetgum, fetterb	oush, wax myrtle,	saltbush, gallberry	, butto	nbush, broomsedge, m	aidencane, dog fennel,
chain fern, red root, and various op						
result of thinning activities providing	g less of a seed source	for natural recruitr	ment. Dead trees	and ho	ng rooting also prevaler	nt.
Significant nearby features			Uniqueness (se	noidori	ng the relative regity in	relation to the regional
,	01-1-51-01		Uniqueness (co	ilisidell	ing the relative ranty in	relation to the regional
The AA is located south of Goethe						
Mexico and Waccasassa Bay State north of the Cross Florida Barge C		•				
Withlacoochee River. The AA abu					None	
and is surrounded by pine plantation					140110	
property is bordered by U.S. 19 to						
33 to the east and north.	, , , , , , , , , , , , , , , , , , , ,					
Functions			Mitigation for pre	vious p	ermit/other historic use	)
Functions include wildlife feeding a					None	
benefits, although limited by the	he surrounding silvicultu	ire practices.				
Anticipated Wildlife Utilization Base	ed on Literature Review	(List of species	Anticinated Litiliza	ation h	y Listed Species (List s	nacias thair land
that are representative of the asset			·		c), type of use, and inte	
	comone area ana reacci	idaly expected to	oldcomodilon (E,	,, 000	), typo or doo, and into	money or doo or tho
binds (see seeins see standard and consider						
birds (passerine, raptor and wadir	ibians and reptiles	mammais (nogs,			wading birds (SSC)	
etc.), ampri	ibians and reptiles					
Observed Evidence of Wildlife Hill	ization /List aposica dire	athy abaamiad an	thar aigns ayab a	o trool	o dranninga againga	nacta ata \
Observed Evidence of Wildlife Utili	zation (List species dire	city observed, or t	other signs such a	is track	s, droppings, casings,	nesis, etc.).
			_			
		hog root	ing			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
Entrix - VAF/DDS, ESI - Gary How	valt .		Entrix - October 2	2009 th	nru January 2010, ESI -	March 2011

		IMPACT				
Site/Project Name Progress Energy Florida	- Levy Nuclear Plant	Application Number SAJ-2008-00490 (Corps), (FDEP)	PA08-51C	Mixed Wetla	a Name or Numbe and Harwood(Logg porary Impacts	
Impact or Mitigation		Assessment conducted by:		Assessment date:		
IMPA	СТ	Entrix - VAF/DDS, ESI - Gary Howalt ESI - March 201				ry 2010,
Scoring Guidance	Ontimal (10)	Madarata/7)	N/I	nimal (4)	Not Dresent	t (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7)  Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal le	evel of support of l/surface water unctions	Not Present  Condition is insu provide wetland water functi	fficient to
.500(6)(a) Location and Landscape Support  //o pres or current with 4	opportunity for wildlife utilization bordered by U.S. 19 to the vabuts pine plantation to the Mexico and approximately 1 River.	is surrounded by pine plantati tition including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to t mile north of the Cross Floric om temporary impact. Area to	e and passa I C.R. 33 to the north an da Barge Ca	ge. The AA is wit the east and north id is situated 8 mil anal, Lake Rousse	h the LNP property n. The LNP prope es east of the Gul	rty also f of
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 6	years of silviculture practice and 1-2 feet below historic s pine recruitment and dying t	erate hydrology based on distus. No distinct water level indiceasonal high. Evidence of hyrees). function anticipated. Area to	cators. SH\ drologic str	W appears at or bess (i.e., transition	elow grade in som	e areas
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 5	coverage of trees. Commur remaining from thinning acti hardwood trees remaining a groundcover including imma buttonbush, broomsedge, m cypress have been logged a providing less of a seed sou	ily logged forested wetland ch nity structure is very disturbed vities. Similar species as thos nd most coverage provided b ature slash pine and oaks, swe laidencane, dog fennel, chain and other trees have been log- irce for natural recruitment. D inity structure due to time lag	from loggir se found in y transitiona eetgum, fett fern, red ro ged indiscri lead trees a	ng activities with siforested wetlands al vegetation in the erbush, wax myrtlot, and various opminately as a resund hog rooting als	tumps and furrows, although few cype shrub layer and e, saltbush, gallbe portunistic species at the of thinning activ	oress and erry, s. Most
Score = sum of above scores/30	If preservation as mitig	gation	_	For impact asses	ement areas	ī
(if uplands/20) current or w/o pres with  0.5  0.46667	Preservation adjustme	ent factor =		delta x acres =	0.2367	
	If mitigation					Ī
Delta = [with-current]	Time lag (t-factor) =		F	or mitigation asse	essment areas	

RFG = delta/(t-factor x risk) =

0.033333333

Risk factor =

Site/Project Name		Application Numbe			Assessment Area Name	or Number
Progress Energy Florida - Lo	evy Nuclear Plant		90 (Corps), PA08- (FDEP)	51C	Cypress - Clea	ring Only Impacts
FLUCFCs code	Further election	ation (antional)		l	A and Milliand Company	Ta
FLUCFUS code	Further classifica	ation (optional)		Impac	ct or Mitigation Site?	Assessment Area Size (Acres)
621					IMPACT	1.2
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification	on (i.e.C	DFW, AP, other local/state/federa	Il designation of importance)
Waccasassa & Withlacoochee	Class	III				
	<u> </u>					
Geographic relationship to and hyd Areas are surrounded by pine plan connected with each other or are in them.	itation and a mosaic of f	forested wetlands t	that have been sul	bjecte		
Assessment area description						
High quality cypress swamp domin tupelo and red maple. Understory gallberry. Groundcover species inc Virginia chain fern, red root and bro stumps) and hog rooting in some a	vegetation consists of Volude saw grass, maiden oomsedge scattered thro	Virginia willow, dog ncane, lance-leafed roughout the under	hobble, dahoon h d arrowhead, picke story. Evidence o	olly, b erel we	outtonbush, wax myrtle, eed, lizard's tail, royal f	fetterbush and ern, cinnamon fern,
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge C. Withlacoochee River. The AA abu is surrounded by pine plantation or bordered by U.S. 19 to the west, C east and north.	e Preserve, and approxicanal, Lake Rousseau, auts a transmission corridate the LNP property. The	imately 1 mile and the lor to the west and e LNP property is			None	
Functions	-	-	Mitigation for pre	vious	permit/other historic us	e
Functions include wildlife feeding benefits, although limited by the	•				None	
Anticipated Wildlife Utilization Base that are representative of the asset			•		by Listed Species (List s C), type of use, and into	
birds (passerine, raptor and wadin etc.), amph	ng birds), small/medium iibians and reptiles	mammals (hogs,			wading birds (SSC)	
Observed Evidence of Wildlife Utili	ization (List species dire	ectly observed, or o	ther signs such a	s tracl	ks, droppings, casings,	nests, etc.):
		hog root	ing			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
Entrix - VAF/DDS, ESI - Gary How	alt		Entrix - October 2	2009 tl	hru January 2010, ESI	- March 2011

## **IMPACT**

Site/Project Name		Application Number			a Name or Number	
Progress Energy Flo	orida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), I (FDEP)	PA08-51C	Mixed Wetlar	nd Harwood - Perma Impacts	anent
Impact or Mitigation		Assessment conducted by:		Assessment date		
II	MPACT	Entrix - VAF/DDS, ESI - Ga	ary Howalt		r 2009 thru January I - March 2011	/ 2010,
Sooring Cuidanas	Ontine al (40)	Madagata/7\	l NA:	nim al (4)	Not Decomb	(0)
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	IVII	nimal (4)	Not Present	(0)
indicator is based on	Condition is optimal and	optimal, but sufficient to	Minimal le	vel of support of	Condition is insuff	icient to
what would be suitable	fully supports wetland/surface water	maintain most	wetland	/surface water	provide wetland/s	surface
for the type of wetland or	functions	wetland/surface	fu	unctions	water functio	ns
surface water assessed		waterfunctions				
	opportunity for wildlife utiliz bordered by U.S. 19 to the abuts pine plantation to the	a is surrounded by pine plantati ation including foraging, refuge west, C.R. 40 to the south and e east, Goethe State Forest to t 1 mile north of the Cross Florid	and passa C.R. 33 to he north an	ge. The AA is wit the east and north d is situated 8 mil	h the LNP property	ty also of
	w/o pres or current - Mod years of silviculture practice	erate hydrology based on distues. No distinct water level indic seasonal high. Evidence of hy trees).	cators. SHV	V appears at or b	elow grade in some	areas
	w/o pres or current - High pond cypress, slash pines, naturally occurring conifers transitional based on the of species such as Virginia cr	quality forested wetland domir swamp tupelo, oaks, red mapl species (i.e., cypress) likely du overage of slash pines and der eeper, dog fennel and greenbri the surrounding land uses. Str	es, bays and e to logging use shrub lag er. Althoug	d cabbage palms activities. Comm yers (i.e., fetterbu h some pines are	with less coverage nunity structure is sh) and opportunist naturally occurring	of tic , many
	Preservation as mit Preservation adjustm Adjusted mitigation d	nent factor =		For impact asses	2.7000	
Delta = [with-current]	If mitigation  Time lag (t-factor) =		F	or mitigation asse	essment areas	
			RFG	= delta/(t-factor x	risk) =	
0.6	Pick factor -			,	,	

Site/Project Name		Application Numbe					
Progress Energy Florida - Lo	evy Nuclear Plant		90 (Corps), PA08-51C (FDEP) Cypress - Perma		manent Impacts		
FLUCFCs code	Further classifica	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size (Acres)	
621					IMPACT	31.3	
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification (i.e.OFW, AP, other local/state/federal designation of imp				
Waccasassa & Withlacoochee	Class	III					
Geographic relationship to and hyd Areas are surrounded by pine plan connected with each other or are in them.	tation and a mosaic of f	forested wetlands t	that have been sub	ojected			
Assessment area description		-4		المناسسة		h	
High quality cypress swamp domin tupelo and red maple. Understory gallberry. Groundcover species inc Virginia chain fern, red root and bro stumps) and hog rooting in some a	vegetation consists of Nobled saw grass, maider comsedge scattered through	Virginia willow, dog ncane, lance-leafe oughout the under	hobble, dahoon h d arrowhead, picke story. Evidence o	olly, be	uttonbush, wax myrtle, eed, lizard's tail, royal f	fetterbush and ern, cinnamon fern,	
Significant nearby features The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge C Withlacoochee River. The AA abu is surrounded by pine plantation or bordered by U.S. 19 to the west, C east and north.	e Preserve, and approxi anal, Lake Rousseau, a its a transmission corrid n the LNP property. The	imately 1 mile and the lor to the west and e LNP property is	Uniqueness (co	nsideri	ing the relative rarity in	relation to the regional	
Functions			Mitigation for prev	vious p	permit/other historic us	е	
Functions include wildlife feeding a benefits, although limited by the			None				
Anticipated Wildlife Utilization Base that are representative of the asset		•	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the				
birds (passerine, raptor and wadin etc.), amph	ng birds), small/medium ibians and reptiles	mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or o	other signs such a	s track	s, droppings, casings,	nests, etc.):	
		hog root	ing				
Additional relevant factors:							
Audulional relevant factors.							
Assessment conducted by:			Assessment date	(s):			
Entrix - VAF/DDS, ESI - Gary How	alt		Entrix - October 2	2009 th	nru January 2010, ESI	- March 2011	

	(555 5550	IMPACT	, ,		
Site/Project Name		Application Number		Assessment Area	a Name or Number
Progress Energy Florid	a - Levy Nuclear Plant	SAJ-2008-00490 (Corps), (FDEP)	PA08-51C	Cypress - Permanent Impacts	
Impact or Mitigation	ACT	Assessment conducted by: Entrix - VAF/DDS, ESI - Ga	ary Howalt		e: r 2009 thru January 20 l - March 2011
Scoring Guidance	Optimal (10)	Moderate(7)	M	inimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal (4)  Minimal level of support of wetland/surface water functions		Condition is insufficie provide wetland/surf water functions
.500(6)(a) Location and Landscape Support  //o pres or current with	opportunity for wildlife utilization bordered by U.S. 19 to the values pine plantation to the	is surrounded by pine plantati tion including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to mile north of the Cross Florio	e and passa I C.R. 33 to the north an	ge. The AA is with the east and north nd is situated 8 mil	h the LNP property whi n. The LNP property a es east of the Gulf of
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 6 0	w/o pres or current - No st structure suggest moderate	anding water in most areas, b /good hydrology. Some wetla onal vegetation, pine coverag	nds still hav	e evidence of hyd	•
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 7 0	w/o pres or current -High of species including slash pine consists of Virginia willow, d Groundcover species include fern, cinnamon fern, Virginia	quality cypress swamp domina a, sweet bay, swamp bay, swa log hobble, dahoon holly, butt le saw grass, maidencane, lar a chain fern, red root and broo press logging (i.e., stumps) a	mp tupelo a onbush, was nce-leafed a omsedge sca	and red maple. Un x myrtle, fetterbusl irrowhead, pickere attered throughout	nderstory vegetation h and gallberry. Il weed, lizard's tail, roy the understory. Evide
Score = sum of above scores/30	If preservation as mitig	gation	<u> </u>	For impact assess	sment areas
current vi with	Preservation adjustme  Adjusted mitigation de	ent factor =	FL =	delta x acres =	17.7367
<u>                                       </u>	<b>_</b>				
Dalta - India	If mitigation		F	or mitigation asse	ssment areas
Delta = [with-current]	Time lag (t-factor) =				

RFG = delta/(t-factor x risk) =

0.566666667

Risk factor =

		Application Number			Assessment Area Name or Number		
Progress Energy Florida - L	evy Nuclear Plant		90 (Corps), PA08- (FDEP)	51C	Cypress - Ten	nporary Impacts	
FILLOFO	[F	- t' ( t' 1)		I.		T	
FLUCFCs code	Further classification	ation (optional)		Impa	ct or Mitigation Site?	Assessment Area Size (Acres)	
621					IMPACT	9	
Basin/Watershed Name/Number	Affected Waterbody (Cla	ass)	Special Classificati	ion (i.e.	OFW, AP, other local/state/feder	al designation of importance)	
Waccasassa & Withlacoochee	Class	III					
	.		l				
Geographic relationship to and hy	drologic connection with	h wetlands, other	surface water, upl	ands			
Areas are surrounded by pine plate connected with each other or are them.							
Assessment area description							
High quality cypress swamp domi swamp tupelo and red maple. Un and gallberry. Groundcover specie fern, Virginia chain fern, red root a stumps) and hog rooting in some	derstory vegetation con es include saw grass, m and broomsedge scatter	nsists of Virginia winaidencane, lance- red throughout the	illow, dog hobble, -leafed arrowhead understory. Evid	dahoo , picke	on holly, buttonbush, wa erel weed, lizard's tail, r	ax myrtle, fetterbush oyal fern, cinnamon	
Significant nearby features			Uniqueness (co	nside	ring the relative rarity ir	relation to the regional	
The AA is located south of Goeth Mexico and Waccasassa Bay Sta north of the Cross Florida Barge ( Withlacoochee River. The AA ab and is surrounded by pine plantat property is bordered by U.S. 19 to 33 to the east and north.	te Preserve, and approx Canal, Lake Rousseau, uts a transmission corri ion on the LNP property	ximately 1 mile and the dor to the west y. The LNP			None		
Functions			Mitigation for pre	vious	permit/other historic us	e	
Functions include wildlife feeding benefits, although limited by t			None				
Anticipated Wildlife Utilization Bas that are representative of the asse			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the				
birds (passerine, raptor and wadii etc.), amph	ng birds), small/medium nibians and reptiles	ı mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Uti	ilization (List species dir	rectly observed, or	other signs such	as tra	cks, droppings, casings	s, nests, etc.):	
		la a consecutiv	C				
		hog root	ung				
Additional relevant factors:							
Assessment conducted by:			Assessment date	2(e)·			
	walt			` '	hm. lanuam: 2040, FOL	Morob 2014	
Entrix - VAF/DDS, ESI - Gary Hov	vail		⊏⊓t⊓x - October	∠UU9 t	hru January 2010, ESI	- IVIATON ZUTT	

		IMPACT				
Site/Project Name		Application Number		Assessment Area Name or Number		
Progress Energy Florida	<ul> <li>Levy Nuclear Plant</li> </ul>	SAJ-2008-00490 (Corps), PA08-51C (FDEP)		Cypress - Temporary Impacts		
Impact or Mitigation		Assessment conducted by:		Assessment date	):	
IMPAG	СТ	Entrix - VAF/DDS, ESI - Ga	ary Howalt		r 2009 thru January 2010, - March 2011	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions		Condition is insufficient to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support  v/o pres or current with 4	opportunity for wildlife utiliza bordered by U.S. 19 to the v abuts pine plantation to the Mexico and approximately 1 River.	is surrounded by pine plantation including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to to mile north of the Cross Floridom temporary impact. Area to	and passa C.R. 33 to he north an la Barge Ca	ge. The AA is with the east and north d is situated 8 mil- nal, Lake Rousse	n the LNP property which is n. The LNP property also es east of the Gulf of	
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 6	structure suggest moderate/ silviculture based on transiti	anding water in most areas, b /good hydrology. Some wetlar onal vegetation, pine coverag function anticipated. Area to	nds still hav e and dying	e evidence of hyd trees.		
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with  7	species including slash pine consists of Virginia willow, d Groundcover species includ fern, cinnamon fern, Virginia of transitional vegetation, cystructure overall.	quality cypress swamp domina , sweet bay, swamp bay, swar og hobble, dahoon holly, butto e saw grass, maidencane, lan o chain fern, red root and broo press logging (i.e., stumps) ar nity structure due to time lag f	mp tupelo a onbush, wax ice-leafed a msedge sca nd hog rooti	nd red maple. Un myrtle, fetterbush rrowhead, pickere attered throughout ing in some areas	derstory vegetation n and gallberry. I weed, lizard's tail, royal the understory. Evidence	
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.56667 0.53333	If preservation as mitigation adjustments  Adjusted mitigation de	ent factor =		For impact assess delta x acres =	0.3000	

If mitigation Delta = [with-current] Time lag (t-factor) = 0.033333333 Risk factor =

For mitigation assessment areas RFG = delta/(t-factor x risk) =

Site/Project Name Application Number							
Progress Energy Florida - Le	evy Nuclear Plant		90 (Corps), PA08- (FDEP)	51C	Cypress (Logged)- (	Clearing Only Impacts	
ELUCEO:d-	Trumbor algorities	-ti (-ntional)		T		T	
FLUCFCs code	Further classifica	ation (optional)		Impac	ct or Mitigation Site?	Assessment Area Size (Acres)	
621-1					IMPACT	, ,	
						30.8	
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification	on (i.e.C	OFW, AP, other local/state/federal	I designation of importance)	
Waccasassa & Withlacoochee	Class I	,	'	•			
Waddadada a Thinadada	Oldos.						
Geographic relationship to and hyd Areas are surrounded by pine plant connected with each other or are in them.	tation and a mosaic of fo	forested wetlands t	that have been sul	bjected			
Assessment area description							
Heavily logged cypress swamp cha disturbed from logging activities wit cypress swamps, although few cypr and groundcover including immatur maidencane, dog fennel, chain fern	th stumps and furrows re ress remaining (little see re slash pine and oaks,	remaining from thir eed source) and mo sweetgum, fetterb	nning activities. Si ost coverage provi oush, wax myrtle, s	milar s ided by saltbus	species composition as by transitional vegetation sh, gallberry, buttonbusl	those found in n in the shrub layer h, broomsedge,	
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional	
The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge Ca Withlacoochee River. The AA abul is surrounded by pine plantation on bordered by U.S. 19 to the west, C. east and north.	e Preserve, and approxil anal, Lake Rousseau, a its a transmission corrido n the LNP property. The	imately 1 mile and the lor to the west and e LNP property is			None		
Functions			Mitigation for pre	vious	permit/other historic use	е	
Functions include wildlife feeding a benefits, although limited by the	•		None				
Anticipated Wildlife Utilization Base			Anticipated Utilization by Listed Species (List species, their legal				
that are representative of the asses	SSMent area and reason	lably expected to	classification (E, T, SSC), type of use, and intensity of use of the				
birds (passerine, raptor and wadin etc.), amphi	ng birds), small/medium ibians and reptiles	mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Utilia	zation (List species dire	ectly observed, or o	other signs such a	s track	ks, droppings, casings,	nests, etc.):	
		hog root	tina				
			9				
Additional relevant factors:							
Additional relevant factors.							
Assessment conducted by:			Assessment date	e(s):			
Entrix - VAF/DDS, ESI - Gary Howa	alt		Entrix - October 2	2009 tl	hru January 2010, ESI -	- March 2011	

		IMPACT				
Site/Project Name		Application Number SAJ-2008-00490 (Corps), F	DA08.510		a Name or Number	
Progress Energy Florida	- Levy Nuclear Plant	(FDEP)	-A00-51C	Cypress (Logged)- Clearing Only Impacts		
Impact or Mitigation		Assessment conducted by:		Assessment date	t date:	
IMPA	СТ	Entrix - VAF/DDS, ESI - Ga	ary Howalt		Entrix - October 2009 thru January 2010, ESI - March 2011	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions		Condition is insufficient to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support  v/o pres or current with 4	opportunity for wildlife utiliza bordered by U.S. 19 to the v abuts pine plantation to the	is surrounded by pine plantation including foraging, refuge vest, C.R. 40 to the south and east, Goethe State Forest to to mile north of the Cross Floridom clearing only.	and passa C.R. 33 to he north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property which is n. The LNP property also es east of the Gulf of	
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 6	structure suggest moderate/	anding water in most areas, b 'good hydrology. Some wetlar onal vegetation, pine coverag function anticipated.	nds still hav	e evidence of hyd		
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 5	coverage of trees. Commun remaining from thinning active cypress remaining (little see and groundcover including in buttonbush, broomsedge, matrees and hog rooting also p	y logged cypress swamp char ity structure is very disturbed vities. Similar species compos d source) and most coverage mmature slash pine and oaks, aidencane, dog fennel, chain revalent. nity structure due to conversion	from logging sition as tho provided by , sweetgum fern, red ro	g activities with structions of section of the sect	umps and furrows ss swamps, although few station in the shrub layer myrtle, saltbush, gallberry, portunistic species . Dead	
Score = sum of above scores/30 (if uplands/20)	If preservation as mitig			For impact assess	sment areas	
current vr w/o pres with  0.5 0.43333	Preservation adjustme Adjusted mitigation de		FL =	delta x acres =	2.0533	
	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					

RFG = delta/(t-factor x risk) =

0.06666667

Risk factor =

Site/Project Name Application		Application Numbe				or Number	
Progress Energy Florida - Lo	evy Nuclear Plant		90 (Corps), PA08- (FDEP)	51C	Cypress (Logged)	- Permanent Impacts	
FLUCFCs code 621-1	Further classifica	ation (optional)		Impac	et or Mitigation Site?	Assessment Area Size (Acres) 73.5	
Basin/Watershed Name/Number Waccasassa & Withlacoochee	Affected Waterbody (Class	•	Special Classification	on (i.e.O	PFW, AP, other local/state/federa	Il designation of importance)	
Geographic relationship to and hyd Areas are surrounded by pine plan connected with each other or are in them.	tation and a mosaic of f	orested wetlands t	that have been sul	bjected			
Assessment area description  Heavily logged cypress swamp chadisturbed from logging activities wit cypress swamps, although few cypand groundcover including immatumaidencane, dog fennel, chain ferr	th stumps and furrows r ress remaining (little se re slash pine and oaks,	remaining from thing ed source) and mo sweetgum, fetterb	nning activities. Si ost coverage provi oush, wax myrtle, s	milar s ided by saltbus	species composition as y transitional vegetation sh, gallberry, buttonbus	those found in n in the shrub layer h, broomsedge,	
Significant nearby features The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge Ci Withlacoochee River. The AA abu is surrounded by pine plantation on bordered by U.S. 19 to the west, C. east and north.	e Preserve, and approxi anal, Lake Rousseau, a ts a transmission corrid the LNP property. The	mately 1 mile and the or to the west and E LNP property is		nsider	ing the relative rarity in None	relation to the regional	
Functions			Mitigation for pre	vious p	permit/other historic us	e	
Functions include wildlife feeding a benefits, although limited by the	• .				None		
Anticipated Wildlife Utilization Base that are representative of the asses		•	·		y Listed Species (List s C), type of use, and into		
birds (passerine, raptor and wadin etc.), amph	ng birds), small/medium ibians and reptiles	mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or o	other signs such a	s track	ks, droppings, casings,	nests, etc.):	
		hog root	iing				
Additional relevant factors:  Assessment conducted by:			Assessment date				
Entrix - VAF/DDS, ESI - Gary Howa	alt		Entrix - October 2	2009 th	nru January 2010, ESI	- March 2011	

		·	IMPACT	•			
Site/Project Name			Application Number		Assessment Area	a Name or Number	
Progress Ene	ergy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), I (FDEP)	PA08-51C	Cypress (Logged) - Permanent Impacts		
Impact or Mitigation			Assessment conducted by:		Assessment date		
	IMPA	СТ	Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011	
Scoring Guidance	e.	Optimal (10)	Moderate(7)	l Mi	nimal (4)	Not Present (0)	
The scoring of each		• • • • • • • • • • • • • • • • • • • •	Condition is less than		IIIII (4)	HOLITESCHE (0)	
indicator is based of what would be suita for the type of wetlan surface water asses	on ible nd or	Condition is optimal and fully supports wetland/surface water functions	optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions		Condition is insufficient to provide wetland/surface water functions	
.500(6)(a) Locat Landscape Su  //o pres or current 4		opportunity for wildlife utilizate bordered by U.S. 19 to the values pine plantation to the	is surrounded by pine plantati ation including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to t mile north of the Cross Florio	and passa C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property which  n. The LNP property also  es east of the Gulf of	
.500(6)(b)Water En (n/a for uplar //o pres or current 6		structure suggest moderate	anding water in most areas, b /good hydrology. Some wetla onal vegetation, pine coverag	nds still hav	e evidence of hyd	<del>_</del>	
.500(6)(c)Communi  1. Vegetation a 2. Benthic Com  //o pres or  current 5	and/or	coverage of trees. Commun remaining from thinning acti cypress remaining (little see and groundcover including i	ly logged cypress swamp char ity structure is very disturbed vities. Similar species composed and source) and most coverage mmature slash pine and oaks naidencane, dog fennel, chain prevalent.	from logging sition as tho provided by , sweetgum	g activities with str se found in cypres y transitional vege , fetterbush, wax r	umps and furrows ss swamps, although few station in the shrub layer nyrtle, saltbush, gallberry	
Score = sum of above	e scores/30	If preservation as mitig	gation		For impact asses	sment areas	
(if uplands/2		Preservation adjustme			pace acces		
current		r reservation adjustme	entractor –	FI =	delta x acres =	36.7500	
r w/o pres	with	Adjusted mitigation de	elta =	ا ا		55 550	
0.5	0						
	•	<u> </u>					
		If mitigation		F	or mitigation asse	essment areas	
D 11 F 11	47	Time - 1 (4 f4)			<u> </u>		

RFG = delta/(t-factor x risk) =

Time lag (t-factor) =

Risk factor =

Delta = [with-current]

0.5

Site/Project Name		Application Number			Assessment Area Name	or Number	
Progress Energy Florida - Le	vy Nuclear Plant		90 (Corps), PA08- (FDEP)	Cypress (Logged) - Temporary Impacts			
FLUCFCs code 621-1	Further classifica	ation (optional)		Impac	et or Mitigation Site?	Assessment Area Size (Acres) 7.5	
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classificati	on (i.e.(	OFW, AP, other local/state/federa	al designation of importance)	
Waccasassa & Withlacoochee	Class I	,					
Geographic relationship to and hyd	rologic connection with	wetlands, other s	surface water, upla	ands		_	
Areas are surrounded by pine plant connected with each other or are in them.							
Assessment area description							
Heavily logged cypress swamp chadisturbed from logging activities wit cypress swamps, although few cypand groundcover including immatur maidencane, dog fennel, chain ferr	th stumps and furrows in the seremaining (little sere slash pine and oaks,	remaining from thi eed source) and m , sweetgum, fetter	inning activities. S nost coverage prob bush, wax myrtle,	imilar vided saltbu	species composition a by transitional vegetation ush, gallberry, buttonbu	s those found in on in the shrub layer sh, broomsedge,	
Significant nearby features			Uniqueness (co	nside	ring the relative rarity in	relation to the regional	
The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge Ca Withlacoochee River. The AA abu and is surrounded by pine plantatic property is bordered by U.S. 19 to t 33 to the east and north.	e Preserve, and approx anal, Lake Rousseau, a ts a transmission corrid on on the LNP property.	timately 1 mile and the dor to the west . The LNP			None		
Functions			Mitigation for pre	vious	permit/other historic us	е	
Functions include wildlife feeding a benefits, although limited by th	• .				None		
Anticipated Wildlife Utilization Base that are representative of the asses			•		by Listed Species (List of C), type of use, and into		
birds (passerine, raptor and wading etc.), amphil	g birds), small/medium pians and reptiles	mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or	other signs such	as tra	cks, droppings, casings	s, nests, etc.):	
		hog root	iing				
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Entrix - VAF/DDS. ESI - Gary Howa	alt		Entrix - October 2	2009 t	hru January 2010. ESI	- March 2011	

		IMPACT				
Site/Project Name		Application Number		Assessment Area	a Name or Number	
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), F (FDEP)	PA08-51C Cypress (L		gged) - Temporary Impacts	
mpact or Mitigation		Assessment conducted by:		Assessment date	):	
IMPAG	СТ	Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011	
Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)  Minimal level of support of wetland/surface water functions		Not Present (0	))
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions			Condition is insuffici- provide wetland/sur water functions	rface
.500(6)(a) Location and Landscape Support  /o pres or current with 4	opportunity for wildlife utiliza bordered by U.S. 19 to the v abuts pine plantation to the	is surrounded by pine plantatic tion including foraging, refuge vest, C.R. 40 to the south and east, Goethe State Forest to the mile north of the Cross Florid om temporary impacts.	and passa C.R. 33 to ne north an	ge. The AA is with the east and north d is situated 8 mil	n the LNP property what. The LNP property are east of the Gulf of	also
.500(6)(b)Water Environment (n/a for uplands)  /o pres or current with 6	structure suggest moderate/	anding water in most areas, bu /good hydrology. Some wetlar onal vegetation, pine coverage function anticipated.	nds still hav	e evidence of hyd		ty
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  //o pres or current with 5 4	coverage of trees. Commun remaining from thinning active cypress remaining (little see and groundcover including in buttonbush, broomsedge, mutrees and hog rooting also p	y logged cypress swamp char ity structure is very disturbed to vities. Similar species composed d source) and most coverage mmature slash pine and oaks, aidencane, dog fennel, chain revalent. nity structure due to time lag f	rom logging ition as tho provided by sweetgum fern, red ro	g activities with str se found in cypres y transitional vege , fetterbush, wax r ot, and various op	umps and furrows ss swamps, although tation in the shrub lay nyrtle, saltbush, gallbo	few er erry,
Score = sum of above scores/30	If preservation as mitig Preservation adjustme Adjusted mitigation de	ent factor =		For impact assess	o.2500	

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

Delta = [with-current]

0.033333333

If mitigation

Risk factor =

Time lag (t-factor) =

Site/Project Name Application					Assessment Area Name	or Number	
Progress Energy Florida - Le	vy Nuclear Plant		90 (Corps), PA08- FDEP)	51C	Wet Planted Pine - 0	Clearing Only Impacts	
FLUCFCs code 629	Further classificat	tion (optional)		Impac	et or Mitigation Site?	Assessment Area Size (Acres) 11.5	
Basin/Watershed Name/Number	Affected Waterbody (Clas	20)	Special Classificati	on /: - /	OFW, AP, other local/state/federa	designation of incomes.	
Waccasassa & Withlacoochee	Class II	,	Special Glassificati	Off (i.e.	OFW, AP, other local/state/redera	i designation of importance)	
Geographic relationship to and hydromaphic and surrounded by pine plant connected with each other or are in them.	ation and a mosaic of fo	orested wetlands t	that have been su	bjecte			
Assessment area description							
Hydric planted pine area surrounder areas, but generally consists of plar growing in the furrows and at interfamaidencane, sedges, yellow-eyed gvegetation other than pines, while o also show evidence of hog rooting.	nted pine (predom. slash ace of wetlands includin grass, beakrush, brooms	h pine), bedded a g wax myrtle, salt sedge and soft rus	nd furrowed, with bush, fetterbush, l sh. Some areas ha	occasi button ave no	ional shrubs and wet probush, redroot, Virginia of structure and are comp	airie/marsh species chain fern, pletely devoid of	
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional	
The AA is located south of Goethe State Forest, 8 miles east of the G Mexico and Waccasassa Bay State Preserve, and approximately 1 mi north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the we and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and 33 to the east and north.			None				
Functions			Mitigation for pre-	vious	permit/other historic use	)	
Functions include wildlife feeding a benefits, although limited by th	• .				None		
Anticipated Wildlife Utilization Base that are representative of the asses			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the				
birds (passerine, raptor and wading etc.), amphil	g birds), small/medium i pians and reptiles	mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Utiliz	ation (List species direc	ctly observed, or o	ther signs such a	s tracl	ks, droppings, casings,	nests, etc.):	
		hog root	ing				
Additional relevant factors:					_		
Assessment conducted by:			Assessment date	e(s):			
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011				

	·	IMPACT	•			
Site/Project Name		Application Number		Assessment Area Name or Number		
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), I (FDEP)	PA08-51C	Wet Planted Pir	Wet Planted Pine - Clearing Only Impacts	
Impact or Mitigation	ct or Mitigation Asse			Assessment date		
IMPA	CT	Entrix - VAF/DDS, ESI - Ga	ary Howalt		Entrix - October 2009 thru January 2010, ESI - March 2011	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions		Condition is insufficient provide wetland/surfac water functions	
.500(6)(a) Location and Landscape Support  v/o pres or current with 5	opportunity for wildlife utiliza bordered by U.S. 19 to the v abuts pine plantation to the	is surrounded by pine plantati tion including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to t mile north of the Cross Floric om clearing only.	e and passa I C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 miles	n the LNP property which n. The LNP property also es east of the Gulf of	
.500(6)(b)Water Environment (n/a for uplands)  V/o pres or current with	structure suggest moderate/	anding water in most areas, b /good hydrology. Some wetla onal vegetation, pine coverag function anticipated.	nds still hav	e evidence of hyd		
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with  4 2	activities. Community structi slash pine), bedded and furr and at interface of wetlands maidencane, sedges, yellow and are completely devoid of of fire suppression. Areas pi	planted pine area surrounder ure varies throughout these are cowed, with occasional shrubs including wax myrtle, saltbusl v-eyed grass, beakrush, broon of vegetation other than pines, rovide minimal wildlife habitat nity structure due to conversion	reas, but ge and wet pron, fetterbush nsedge and while other and also sh	enerally consists of airie/marsh specien, buttonbush, red soft rush. Some a r areas are highly now evidence of ho	f planted pine (predom. s growing in the furrows root, Virginia chain fern, areas have no structure overgrown and show sigr og rooting.	
Score = sum of above scores/30	If preservation as mitig	aation.		For impact asses	sment areas	
(if uplands/20)  current or w/o pres with  0.43333 0.36667	Preservation adjustme	ent factor =	FL =	delta x acres =	0.7667	
	1					
Dalla = 5, 99	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					

RFG = delta/(t-factor x risk) =

Risk factor =

0.06666667

Site/Project Name		Application Numbe		Assessment Area Nam	ne or Number		
Progress Energy Florida - Levy Nuclear Plant SAJ-2008-00			90 (Corps), PA08-5 <sup>,</sup> (FDEP)	e - Permanent Impacts			
FLUCFCs code 629	Further classifica	cation (optional)		mpact or Mitigation Site?	Assessment Area Size (Acres) 135.2		
	<u> </u>		•				
Basin/Watershed Name/Number Af Waccasassa & Withlacoochee	ffected Waterbody (Class I		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)				
Geographic relationship to and hydrol	logic connection with	wotlands other su	urfaco wator unland	de .			
Areas are surrounded by pine plantat connected with each other or are inte them.	ion and a mosaic of fo	orested wetlands t	that have been subj	ected to logging. Wetland			
Assessment area description							
Hydric planted pine area surrounded areas, but generally consists of plante growing in the furrows and at interfact maidencane, sedges, yellow-eyed gravegetation other than pines, while oth also show evidence of hog rooting.	ed pine (predom. slas e of wetlands includir ass, beakrush, broom	sh pine), bedded a ng wax myrtle, salt nsedge and soft rus	nd furrowed, with on the state of the state	ccasional shrubs and wet uttonbush, redroot, Virgini ve no structure and are co	prairie/marsh species ia chain fern, ompletely devoid of		
Significant nearby features The AA is located south of Goethe St Mexico and Waccasassa Bay State F north of the Cross Florida Barge Can Withlacoochee River. The AA abuts and is surrounded by pine plantation property is bordered by U.S. 19 to the 33 to the east and north.	Preserve, and approxi al, Lake Rousseau, a a transmission corrido on the LNP property.	imately 1 mile and the or to the west The LNP	Uniqueness (cons	sidering the relative rarity  None	in relation to the regional		
Functions			Mitigation for previ	ous permit/other historic u	use		
Functions include wildlife feeding and benefits, although limited by the				None			
Anticipated Wildlife Utilization Based that are representative of the assessr			·	ion by Listed Species (Lis , SSC), type of use, and i			
birds (passerine, raptor and wading letc.), amphibia	birds), small/medium ans and reptiles	mammals (hogs,		wading birds (SSC	;)		
Observed Evidence of Wildlife Utiliza	tion (List species dire	ctly observed, or o	I other signs such as	tracks, droppings, casing	s, nests, etc.):		
		hog root	ing				
Additional relevant factors:							
			Ta				
Assessment conducted by:			Assessment date(s	•			
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 20	09 thru January 2010, ES	3I - March 2011		

		IMPACT				
Site/Project Name Progress Energy Florida	- Levy Nuclear Plant	Application Number SAJ-2008-00490 (Corps), F	PA08-51C	Assessment Area Name or Number Wet Planted Pine - Permanent Impacts		
Impact or Mitigation IMPA	Assessment conducted by: Entrix - VAF/DDS, ESI - Gary Howalt			Assessment date: Entrix - October 2009 thru January 2010, ESI - March 2011		
Scoring Guidance	Optimal (10)	Moderate(7) Minimal (4)			Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions  Minimal level of support of wetland/surface water functions  Technical (a) Condition is insufficien provide wetland/surface provide wetland/surface functions				
.500(6)(a) Location and Landscape Support  v/o pres or current with  5 0	wildlife utilization including for to the west, C.R. 40 to the s east, Goethe State Forest to	is surrounded by pine plantation oraging, refuge and passage. South and C.R. 33 to the east a bothe north and is situated 8 minal, Lake Rousseau and the W	The AA is wand north. The east of the	rith the LNP prope he LNP property a he Gulf of Mexico	rty which is bordered by U.S. Iso abuts pine plantation to th	
.500(6)(b)Water Environment (n/a for uplands)  v/o pres or current with		canding water in most areas, bu rology. Some wetlands still ha coverage and dying trees.				
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 4 0	Community structure varies and furrowed, with occasion including wax myrtle, saltbus grass, beakrush, broomseds	c planted pine area surrounded throughout these areas, but ge al shrubs and wet prairie/mars sh, fetterbush, buttonbush, red ge and soft rush. Some areas h s are highly overgrown and sho nce of hog rooting.	enerally cons h species gi root, Virginia have no stru	sists of planted pir rowing in the furro a chain fern, maide acture and are com	le (predom. slash pine), bedde ws and at interface of wetland encane, sedges, yellow-eyed pletely devoid of vegetation o	
Score = sum of above scores/30	If nyonayation as mitig	ration		For impost one	accoment areas	
(if uplands/20)  current  or w/o pres with	If preservation as mitig		F1 -	For impact ass	58.5867	

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

Form 62-345.900(2), F.A.C. [02-04-2004]

Delta = [with-current]

0.433333333

If mitigation

Risk factor =

Time lag (t-factor) =

Site/Project Name Progress Energy Florida - Le	Assessment Area Name or Number (FDEP)  Assessment Area Name or Number  Wet Planted Pine - Temporary Imp				
		1	(FDEF)		
FLUCFCs code Further classification (optional) 629			I	mpact or Mitigation Site?	Assessment Area Size (Acres)
023				IIVII 7101	26.2
Basin/Watershed Name/Number	Affected Waterbody (Cla	(22)	Special Classification	n (i.e.OFW, AP, other local/state/fe	deral designation of importance)
Waccasassa & Withlacoochee	Class		Opecial olassilication	T (i.e.of W, Al , other local/statemen	rerai designation of importance)
Geographic relationship to and hydrony Areas are surrounded by pine plant connected with each other or are in them.	ation and a mosaic of	forested wetlands	that have been sul	ojected to logging. Wetlar	•
Assessment area description					
Hydric planted pine area surrounder areas, but generally consists of plar growing in the furrows and at interfamaidencane, sedges, yellow-eyed gvegetation other than pines, while of and also show evidence of hog root	nted pine (predom. sla ace of wetlands includi grass, beakrush, broon other areas are highly o	ish pine), bedded ing wax myrtle, sa msedge and soft ru	and furrowed, with Itbush, fetterbush, t ush. Some areas ha	occasional shrubs and we outtonbush, redroot, Virginave no structure and are o	et prairie/marsh species nia chain fern, completely devoid of
Significant nearby features			Uniqueness (con	sidering the relative rarity	in relation to the regional
The AA is located south of Goethe is Mexico and Waccasassa Bay State north of the Cross Florida Barge Ca Withlacoochee River. The AA abut and is surrounded by pine plantation property is bordered by U.S. 19 to the to the east and north.	e Preserve, and approx anal, Lake Rousseau, a as a transmission corric n on the LNP property	ximately 1 mile and the dor to the west . The LNP		None	
Functions			Mitigation for prev	ious permit/other historic	use
Functions include wildlife feeding at benefits, although limited by the	• .			None	
Anticipated Wildlife Utilization Base that are representative of the asses				tion by Listed Species (Li , SSC), type of use, and	
birds (passerine, raptor and wading etc.), amphib	g birds), small/medium pians and reptiles	mammals (hogs,		wading birds (SSC	·)
Observed Evidence of Wildlife Utiliz	zation (List species dire	ectly observed, or	other signs such a	s tracks, droppings, casir	igs, nests, etc.):
		hog root	ting		
Additional relevant factors:					
Assessment conducted by:			Assessment date(	s):	
Entrix - VAF/DDS, ESI - Gary Howa	ılt		Entrix - October 20	009 thru January 2010, E	SI - March 2011

### PART II - Quantification of Assessment Area

w/o pres or current - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity

## **IMPACT**

Site/Project Name	Application Number		Assessment Area Name or Number		
Progress Energy Flor	SAJ-2008-00490 (Corps), PA08-51C (FDEP)		Wet Planted Pine - Temporary Impacts		
Impact or Mitigation		Assessment conducted by:	Assessment date:		
IM	Entrix - VAF/DDS, ESI - Ga	ary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011		
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on	Condition is optimal and	Condition is less than optimal, but sufficient to	Minimal le	evel of support of	Condition is insufficient to

what would be s for the type of we surface water as	tland or	wetland/surface water functions maintain most wetland/surface water functions wetland/surface water functions wetland/surface water functions wetland/surface water functions							
.500(6)(a) Location and Landscape Support  w/o pres or current - Area is surrounded by pine plantation which provided minimal habitat and limite opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP proportion bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP proportion plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the William Proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proportion including foraging, refuge and passage. The AA is with the LNP proport						h the LNP property which is h. The LNP property also les east of the Gulf of			
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current - No standing water in most areas, but water level indicators, hydric soils and comstructure suggest moderate/good hydrology. Some wetlands still have evidence of hydrologic stress from silviculture based on transitional vegetation, pine coverage and dying trees.  with - No loss in hydrologic function anticipated.						-			
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with  4 3			activities. Community structu slash pine), bedded and furro and at interface of wetlands i maidencane, sedges, yellow- and are completely devoid of of fire suppression. Areas pro	planted pine area surrounded re varies throughout these ar owed, with occasional shrubs ncluding wax myrtle, saltbush- eyed grass, beakrush, broom vegetation other than pines, ovide minimal wildlife habitat a hity structure due to time lag f	eas, but generally consists o and wet prairie/marsh specie , fetterbush, buttonbush, red sedge and soft rush. Some a while other areas are highly and also show evidence of ho	f planted pine (predom. es growing in the furrows root, Virginia chain fern, areas have no structure overgrown and show signs			

(if uplands/20) current or w/o pres  0.42323	Score = sum of above scores/30						
or w/o pres with	(if uplands/20)						
	current						
0.42222	or w/o pres	3	with				
0.43333	0.43333		0.4				

If preservation as mitigation,	
Preservation adjustment factor =	
Adjusted mitigation delta =	

For impact assessment areas						
FL = delta x acres =	0.8733					

Delta = [with-current]
0.033333333

If mitigation
Time lag (t-factor) =
Risk factor =

For mitigation assessment areas
RFG = delta/(t-factor x risk) =

Site/Project Name Application Numb							
Progress Energy Florida - Lev		* * *			Mixed - Clearing Only pacts		
		,	,	,	•		
FLUCFCs code	Further classifica	tion (optional)		Impact	t or Mitigation Site?	Assessment Area Size (Acres)	
630					IMPACT	46.9	
			'			•	
Basin/Watershed Name/Number A	Affected Waterbody (Clas	ss)	Special Classification	n (i.e.Ol	FW, AP, other local/state/federa	I designation of importance)	
Waccasassa & Withlacoochee	Class I	III					
Geographic relationship to and hydro	ologic connection with	wetlands, other s	urface water, uplar	nds			
Areas are surrounded by pine planta connected with each other or are interest.							
Assessment area description							
This forested community is dominate oaks, red maple, bays, and cabbage fetterbush, saltbush, buttonbush, wa broomsedge, redroot, iris, beakrush, Community structure is transitioning such as Virginia creeper, dog fennel	e palms. The understor ix myrtle, titi, pop ash, , soft rush, chain fern, based on the coverag	ry consists of Virgi persimmon and ya sawgrass, sand co le of slash pines a	inia willow, dahoon aupon holly. Groun ordgrass, cinnamo and dense shrub la	n holly, ndcove on fern yers (i	hackberry, sweet guner consists of sedges, land various opporture.e., fetterbush) and op	n, loblolly bay, gallberry, bushy bluestem, nistic species. portunistic species	
Significant nearby features			Uniqueness (cor	nsideri	ing the relative rarity in	relation to the regional	
The AA is located south of Goethe S Mexico and Waccasassa Bay State north of the Cross Florida Barge Car Withlacoochee River. The AA abuts and is surrounded by pine plantation property is bordered by U.S. 19 to th 33 to the east and north.	Preserve, and approxinal, Lake Rousseau, as a transmission corridon on the LNP property.	mately 1 mile nd the or to the west The LNP			None		
Functions			Mitigation for prev	ious p	ermit/other historic us	е	
Functions include wildlife feeding ar benefits, although limited by the					None		
Anticipated Wildlife Utilization Based					y Listed Species (List		
that are representative of the assess	ment area and reasor	nably expected to	classification (E, 7	T, SSC	c), type of use, and into	ensity of use of the	
birds (passerine, raptor and wading etc.), amphib	birds), small/medium ians and reptiles	mammals (hogs,			wading birds (SSC)		
Observed Evidence of Wildlife Utiliza	ation (List species dire	ctly observed, or	other signs such a	s track	s, droppings, casings	, nests, etc.):	
		hog root	ing				
Additional relevant factors:							
Assessment conducted by:			Assessment date	(s):			
Entrix - VAF/DDS, ESI - Gary Howal	t		Entrix - October 2	009 th	ru January 2010, ESI	- March 2011	

	(See Section	115 02-343.300 and .000,	1 .A.C.)		
		IMPACT			
Site/Project Name		Application Number		Assessment Area	a Name or Number
Progress Energy Florida - Levy Nuclear Plant		SAJ-2008-00490 (Corps), PA08-51C (FDEP)		Wetland Forested Mixed - Clearing Only Impacts	
Impact or Mitigation		Assessment conducted by:		Assessment date	
IMPACT		Entrix - VAF/DDS, ESI - Gary Howalt		Entrix - October 2009 thru January 2010, ESI - March 2011	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	d Condition is less than optimal, but sufficient to maintain most wetland/surface water of		Condition is insufficient to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support  w/o pres or current with 5	opportunity for wildlife utiliza bordered by U.S. 19 to the v abuts pine plantation to the	is surrounded by pine plantation including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to to mile north of the Cross Floridom clearing only.	and passa C.R. 33 to he north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property which in. The LNP property also es east of the Gulf of
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 7	structure suggest moderate/	anding water in most areas, b good hydrology. Some wetlar onal vegetation, pine coverag function anticipated.	nds still hav	e evidence of hyd	•
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or  current with  8  5	including pond cypress, slas consists of Virginia willow, d buttonbush, wax myrtle, titi, bluestem, broomsedge, redi and various opportunistic sp dense shrub layers (i.e., fett greenbrier. Strong evidence	prested community is dominated pines, swamp tupelo, oaks, ahoon holly, hackberry, sweet pop ash, persimmon and yauproot, iris, beakrush, soft rush, becies. Community structure is erbush) and opportunistic sper of cypress logging (i.e., stuminity structure due to conversion	red maple, gum, loblo con holly. G chain fern, transitionir cies such a ps) and hog	bays, and cabbag lly bay, gallberry, to proundcover consists awgrass, sand congrass, sand congrass based on the constitution of the constitution o	ge palms. The understory fetterbush, saltbush, sts of sedges, bushy ordgrass, cinnamon fern, overage of slash pines and, dog fennel and ut.
Score = sum of above scores/30	If preservation as mitig	gation,		For impact assess	sment areas
(if uplands/20) current	Preservation adjustme		FI =	delta x acres =	4.6900
or w/o pres with 0.66667 0.56667	Adjusted mitigation de	elta =			1.0000
	<u></u>				
	If mitigation		F	or mitigation asse	ssment areas
Delta = [with-current]	Time lag (t-factor) =				
0.1	Risk factor =		RFG	= delta/(t-factor x	risk) =

Site/Project Name Progress Energy Florida - Levy Nuclear Plant			00490 (Corps), PA08-51C Wetland Forested Mixed - Perman					
			(FDEP)		·			
FLUCFCs code 630	Further classifica	tion (optional)	lmį	pact or Mitigation Site?	Assessment Area Size (Acres)			
					43.3			
Basin/Watershed Name/Number Waccasassa, Withlacoochee & Upper Coastal	ccasassa, Withlacoochee & Class III			Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)				
Geographic relationship to and hyd	Irologic connection with	wetlands, other s	urface water, uplands	<u> </u>				
Areas are surrounded by pine plan connected with each other or are ir them.								
Assessment area description								
This forested community is domina oaks, red maple, bays, and cabbag fetterbush, saltbush, buttonbush, w broomsedge, redroot, iris, beakrusl Community structure is transitioning such as Virginia creeper, dog fenne	ge palms. The understor wax myrtle, titi, pop ash, h, soft rush, chain fern, g based on the coverag	y consists of Virgi persimmon and ya sawgrass, sand c le of slash pines a	inia willow, dahoon ho aupon holly. Groundo ordgrass, cinnamon f ınd dense shrub layer	olly, hackberry, sweet gu over consists of sedges ern, and various opportus (i.e., fetterbush) and o	m, loblolly bay, gallberry, bushy bluestem, inistic species. pportunistic species			
Significant nearby features			Uniqueness (consid	dering the relative rarity	in relation to the regional			
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.			None					
Functions			Mitigation for previou	us permit/other historic u	se			
Functions include wildlife feeding a benefits, although limited by the	• .			None				
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the					
birds (passerine, raptor and wading birds), small/medium mammals (hogs etc.), amphibians and reptiles			wading birds (SSC)					
Observed Evidence of Wildlife Utilia	zation (List species dire	ectly observed, or	other signs such as tr	acks, droppings, casing	s, nests, etc.):			
		hog root	ing					
Additional relevant factors:								
Assessment conducted by:			Assessment date(s):	:				
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011					

		IMPACT				
Site/Project Name Progress Energy Florida - Levy Nuclear Plant		Application Number SAJ-2008-00490 (Corps), (FDEP)	PA08-51C	Assessment Area Name or Number Wetland Forested Mixed - Permanent Impacts		ent
Impact or Mitigation		Assessment conducted by:		Assessment date		
IMPACT		Entrix - VAF/DDS, ESI - G	ary Howalt	Entrix - October 2009 thru January 2010, ESI - March 2011		
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0	)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions		Condition is insufficie provide wetland/sur water functions	ent to
	opportunity for wildlife utiliz bordered by U.S. 19 to the abuts pine plantation to the	a is surrounded by pine plantat cation including foraging, refug- west, C.R. 40 to the south and e east, Goethe State Forest to 1 mile north of the Cross Flori	e and passa d C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property wh n. The LNP property a es east of the Gulf of	also
	w/o pres or current - No s structure suggest moderate	standing water in most areas, be/good hydrology. Some wetlational vegetation, pine coveraç	ands still hav	e evidence of hyd		У
	including pond cypress, sla consists of Virginia willow, buttonbush, wax myrtle, titi bluestem, broomsedge, red and various opportunistic s dense shrub layers (i.e., fe	forested community is domina ash pines, swamp tupelo, oaks dahoon holly, hackberry, swee , pop ash, persimmon and yau droot, iris, beakrush, soft rush, species. Community structure i tterbush) and opportunistic spi e of cypress logging (i.e., sturn	, red maple, et gum, loblol ipon holly. G chain fern, s s transitionin ecies such a	bays, and cabbag ly bay, gallberry, roundcover consi- sawgrass, sand con g based on the consist Virginia creeper	ge palms. The underst fetterbush, saltbush, sts of sedges, bushy ordgrass, cinnamon fe overage of slash pines , dog fennel and	ern,
	If preservation as mit Preservation adjustm Adjusted mitigation d	nent factor =		For impact asses	28.8667	
	If mitigation			or mitigation as	coment are -	
Delta = [with-current]	Time lag (t-factor) =		F-	or mitigation asse	ssment areas	
0.66666667	Dick factor =		RFG	= delta/(t-factor x	risk) =	

0.66666667

Risk factor =

Site/Project Name Progress Energy Florida - Levy Nuclear Plant		Application Number SAJ-2008-00490 (Corps), PA08-5		Assessment Area Name or Number  Wetland Forested Mixed - Temporary Impacts		
Progress Energy Florida - Levy	y Nuclear Plant		(FDEP)	Welland Forested Mix	ed - Temporary Impacts	
FLUCFCs code 630	Further classificat	tion (optional)	I	mpact or Mitigation Site?	Assessment Area Size (Acres)	
					1	
Basin/Watershed Name/Number Ai Waccasassa & Withlacoochee	ffected Waterbody (Clas Class I		Special Classification	n (i.e.OFW, AP, other local/state/federa	al designation of importance)	
Geographic relationship to and hydrol	logic connection with v	wetlands. other su	rface water, upland	S		
Areas are surrounded by pine plantatic connected with each other or are interthem.	ion and a mosaic of fo	orested wetlands to	hat have been subje	ected to logging. Wetlands a	•	
Assessment area description						
This forested community is dominated oaks, red maple, bays, and cabbage fetterbush, saltbush, buttonbush, wax broomsedge, redroot, iris, beakrush, structure is transitioning based on the creeper, dog fennel and greenbrier.	palms. The understory myrtle, titi, pop ash, p soft rush, chain fern, s coverage of slash pir	y consists of Virgir persimmon and ya sawgrass, sand co nes and dense shi	nia willow, dahoon hupon holly. Ground ordgrass, cinnamon ord layers (i.e., fette	olly, hackberry, sweet gum, cover consists of sedges, but fern, and various opportunis rbush) and opportunistic spo	loblolly bay, gallberry, ushy bluestem, stic species. Community	
Significant nearby features			Uniqueness (cons	sidering the relative rarity in	relation to the regional	
The AA is located south of Goethe State Forest, 8 miles east of the Gulf of Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west and is surrounded by pine plantation on the LNP property. The LNP property is bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.			None			
Functions			Mitigation for previ	ous permit/other historic use	е	
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.			None			
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the			
birds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles			wading birds (SSC)			
Observed Evidence of Wildlife Utilizar	tion (List species direc	ctly observed, or o	ther signs such as	racks, droppings, casings, r	nests, etc.):	
		hog root	ing			
Additional relevant factors:						
Assessment conducted by:			Assessment date(	s):		
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011			

	IMPACT			
Site/Project Name Progress Energy Florida - Levy Nuclear Plant	Application Number SAJ-2008-00490 (Corps) (FDEP)	, PA08-51C		a Name or Number ested Mixed - Temporary Impacts
Impact or Mitigation IMPACT	Assessment conducted by:	Assessment conducted by:  Entrix - VAF/DDS, ESI - Gary Howalt  Assessment date:  Entrix - October 2009 thru & ESI - March 2009		
Scoring Guidance Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed  Condition is optimal (10)  Condition is optimal (10)  fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water provide wetland/s			
Landscape Support  Landscape Support  v/o pres or  current  Landscape Support  with  opportunity for wildlife to bordered by U.S. 19 to abuts pine plantation to Mexico and approxima River.	Area is surrounded by pine planta utilization including foraging, refugo the west, C.R. 40 to the south are to the east, Goethe State Forest to tately 1 mile north of the Cross Floruted from temporary impacts.	ge and passand C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property which is n. The LNP property also es east of the Gulf of
structure suggest mod silviculture based on tr	No standing water in most areas, lerate/good hydrology. Some wetl ransitional vegetation, pine covera ologic function anticipated.	ands still hav	e evidence of hyd	
including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense shrub layers (i.e. current with including pond cypress consists of Virginia will buttonbush, wax myrtle bluestem, broomsedge and various opportunis dense consists of virginia will be a consistent with the current with the consistent will be a consistent will be a consistent with the consistent will be a consi	This forested community is dominals, slash pines, swamp tupelo, oaksow, dahoon holly, hackberry, swee, titi, pop ash, persimmon and yae, redroot, iris, beakrush, soft rush stic species. Community structure a., fetterbush) and opportunistic species to goging (i.e., sturommunity structure due to time lagorithms.	s, red maple, et gum, loblo upon holly. G , chain fern, is transitionir pecies such a mps) and hog	bays, and cabbag lly bay, gallberry, to roundcover consists sawgrass, sand congrass, sand congrass based on the constitution of the constitution o	ge palms. The understory fetterbush, saltbush, sts of sedges, bushy ordgrass, cinnamon fern, overage of slash pines and dog fennel and
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.66667  0.63333	ustment factor =		For impact assess delta x acres =	o.3000

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

Delta = [with-current]

0.033333333

If mitigation

Risk factor =

Time lag (t-factor) =

,		Application Numbe					
Progress Energy Florida - Levy N	luclear Plant		(FDEP) Wetland Forested Mixed (Logg (FDEP) Only Impacts				
FLUCFCs code	Further classificat	tion (ontional)	1	Imnost	or Mitigation Cita?	Assessment Area Size	
FLOOF CS code	utiliei ciassilicai	lion (optional)		ппрасі	or Mitigation Site?	(Acres)	
630-1					IMPACT	14.6	
			<u> </u>			ļ	
Basin/Watershed Name/Number Affect	cted Waterbody (Clas	is)	Special Classification	n (i.e.Of	FW, AP, other local/state/federa	I designation of importance)	
Waccasassa & Withlacoochee	Class I	II					
Geographic relationship to and hydrolog	jic connection with v	vetlands, other su	rface water, upland	ds			
Areas are surrounded by pine plantation connected with each other or are interce them.						•	
Assessment area description							
Heavily logged forested wetland charact disturbed from logging activities with stu forested wetlands, although few cypress and groundcover including immature sla maidencane, dog fennel, chain fern, red indiscriminately as a result of thinning ac	umps and furrows re and hardwood tree ash pine and oaks, s I root, and various o	emaining from thin es remaining and r sweetgum, fetterb pportunistic speci	ning activities. Sim most coverage provush, wax myrtle, sa es. Most cypress h	ilar sp vided b altbush ave be	ecies composition as t by transitional vegetation, gallberry, buttonbush een logged and other tr	hose found in on in the shrub layer , broomsedge, ees have been logged	
Significant nearby features			Uniqueness (con	siderir	ng the relative rarity in	relation to the regional	
The AA is located south of Goethe State Forest, 8 miles east of the Gulf o Mexico and Waccasassa Bay State Preserve, and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau, and the Withlacoochee River. The AA abuts a transmission corridor to the west a is surrounded by pine plantation on the LNP property. The LNP property i bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north.		nately 1 mile nd the or to the west and LNP property is	None				
Functions			Mitigation for prev	ious p	ermit/other historic use		
Functions include wildlife feeding and rebenefits, although limited by the su			None				
Anticipated Wildlife Utilization Based on that are representative of the assessment			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the				
birds (passerine, raptor and wading bir etc.), amphibians	**	mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Utilization	n (List species direc	ctly observed, or o	ther signs such as	tracks	, droppings, casings, r	ests, etc.):	
		hog root	ing				
Additional relevant factors:							
Assessment conducted by:			Assessment date(	(s):			
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011				

		IMPACT				
Site/Project Name Progress Energy Florid	Site/Project Name Progress Energy Florida - Levy Nuclear Plant		PA08-51C	Wetland For	a Name or Number ested Mixed (Logged) - ng Only Impacts	
Impact or Mitigation		(FDEP) Assessment conducted by:		Assessment date	· · ·	
IMF	PACT	Entrix - VAF/DDS, ESI - G	ary Howalt		r 2009 thru January 201 - March 2011	0,
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	to Minimal level of support of wetland/surface water Condition is ins		Condition is insufficien provide wetland/surfa water functions	
.500(6)(a) Location and Landscape Support  v/o pres or current with 4 4	opportunity for wildlife utilization bordered by U.S. 19 to the abuts pine plantation to the	is surrounded by pine plantat ation including foraging, refug west, C.R. 40 to the south and east, Goethe State Forest to 1 mile north of the Cross Flori- rom clearing only.	e and passa d C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 mil	n the LNP property whic n. The LNP property als es east of the Gulf of	80
.500(6)(b)Water Environmer (n/a for uplands)  w/o pres or current with 7	w/o pres or current - No st structure suggest moderate	tanding water in most areas, to some wetlational vegetation, pine coverage function anticipated.	ands still hav	e evidence of hyd		
.500(6)(c)Community structu  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 6 4	coverage of trees. Communication remaining from thinning acticities and groundcover including buttonbush, broomsedge, many cypress have been logged approviding less of a seed sour	ily logged forested wetland ch nity structure is very disturbed ivities. Similar species compo s remaining and most coveraç mature slash pine and oaks, s naidencane, dog fennel, chair and other trees have been log urce for natural recruitment. D unity structure due to convers	from logging sition as tho ge provided I sweetgum, fe a fern, red rou ged indiscrint lead trees ar	g activities with struction of the struc	umps and furrows ed wetlands, although fe letation in the shrub laye rtle, saltbush, gallberry, portunistic species. Mos lt of thinning activities o prevalent.	ew er
Score = sum of above scores/36 (if uplands/20) current or w/o pres with 0.56667 0.5	Preservation adjustme	ent factor =		For impact assess delta x acres =	0.9733	
	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					
0.06666667	Pick factor =	RFG = delta/(t-factor x risk) =				

0.06666667

Risk factor =

Site/Project Name Progress Energy Florida - Lev	y Nuclear Plant		r 90 (Corps), PA08-51C (FDEP)		e or Number ed Mixed (Logged) - nent Impacts		
FLUCFCs code 630-1	Further classifica	ation (optional)	Impa	act or Mitigation Site?	Assessment Area Size (Acres) 89.1		
Basin/Watershed Name/Number A	affected Waterbody (Clas		Special Classification (i.e.	e.OFW, AP, other local/state/fede	ral designation of importance)		
Waccasassa & Withlacoochee	Class I		Openial Oldesineaton (i.e.	.or w, ra , outer localisationede	ar designation of importance)		
Geographic relationship to and hydro	ologic connection with	wetlands, other s	urface water, uplands				
Areas are surrounded by pine planta connected with each other or are intenthem.			-		=		
Assessment area description							
Heavily logged forested wetland chardisturbed from logging activities with forested wetlands, although few cypr and groundcover including immature maidencane, dog fennel, chain fern, logged indiscriminately as a result of prevalent.	stumps and furrows ress and hardwood trees and pine and oaks, red root, and various	remaining from thing ees remaining and , sweetgum, fetterb opportunistic spec	nning activities. Similar most coverage provid bush, wax myrtle, saltb cies. Most cypress hav eed source for natural i	r species composition a led by transitional vege rush, gallberry, buttonb e been logged and oth recruitment. Dead trees	as those found in tation in the shrub layer ush, broomsedge, er trees have been s and hog rooting also		
Significant nearby features			Uniqueness (conside	ering the relative rarity	in relation to the regional		
The AA is located south of Goethe S Mexico and Waccasassa Bay State F north of the Cross Florida Barge Can Withlacoochee River. The AA abuts and is surrounded by pine plantation property is bordered by U.S. 19 to the 33 to the east and north.	Preserve, and approxinal, Lake Rousseau, a a transmission corrido on the LNP property.	imately 1 mile and the lor to the west . The LNP		None			
Functions			Mitigation for previous	s permit/other historic u	ise		
Functions include wildlife feeding an benefits, although limited by the	• .			None			
Anticipated Wildlife Utilization Based that are representative of the assess				by Listed Species (Lis SC), type of use, and ir			
birds (passerine, raptor and wading etc.), amphibi	birds), small/medium ians and reptiles	mammals (hogs,	wading birds (SSC)				
Observed Evidence of Wildlife Utiliza	ation (List species dire	ectly observed, or	other signs such as tra	acks, droppings, casing	s, nests, etc.):		
		hog root	ing				
Additional relevant factors:							
Assessment conducted by:			Assessment date(s):				
Entrix - VAF/DDS, ESI - Gary Howalt	i		Entrix - October 2009	thru January 2010, ES	I - March 2011		

		IMPACT				
Site/Project Name Progress Energy Florid	Application Number SAJ-2008-00490 (Corps),	PA08-51C	Assessment Area Name or Number Wetland Forested Mixed (Logged) -		) -	
Impact or Mitigation	•	(FDEP) Assessment conducted by:		Assessment date	nanent Impacts e:	
IMP	ACT	Entrix - VAF/DDS, ESI - G	ary Howalt	w/o pres or curre	ent - Area is surrounden which provided minir	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0	)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water provide		Condition is insufficie provide wetland/sur water functions	ent to
.500(6)(a) Location and Landscape Support  w/o pres or current with  4  0	opportunity for wildlife utilization bordered by U.S. 19 to the abuts pine plantation to the	is surrounded by pine plantat ation including foraging, refuga west, C.R. 40 to the south and east, Goethe State Forest to 1 mile north of the Cross Florid	e and passa d C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property wh n. The LNP property a es east of the Gulf of	also
.500(6)(b)Water Environment (n/a for uplands)  v/o pres or current with 7	w/o pres or current - No st structure suggest moderate	tanding water in most areas, b good hydrology. Some wetla ional vegetation, pine coveraç	ands still hav	e evidence of hyd		у
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  //o pres or current with 6 0	coverage of trees. Commun remaining from thinning acti cypress and hardwood trees and groundcover including a buttonbush, broomsedge, m cypress have been logged a	ily logged forested wetland ch nity structure is very disturbed ivities. Similar species compo s remaining and most coveraç mature slash pine and oaks, s naidencane, dog fennel, chain and other trees have been log urce for natural recruitment. D	from logging sition as tho- ge provided be sweetgum, fe i fern, red roo iged indiscrir	g activities with structions of the structure of the stru	umps and furrows ed wetlands, although getation in the shrub la rtle, saltbush, gallberr portunistic species. M alt of thinning activities	n few ayer 'y, Most
Score = sum of above scores/30  (if uplands/20)  current or w/o pres with  0.56667  0	If preservation as miti Preservation adjustme Adjusted mitigation de	ent factor =		For impact asses	50.4900	
	If mitigation		F	or mitigation asse	essment areas	
Delta = [with-current]	Time lag (t-factor) =					
0.56666667	Pick factor -		RFG	= delta/(t-factor x	risk) =	

Risk factor =

0.566666667

Site/Project Name Progress Energy Florida - Lev	y Nuclear Plant		er 90 (Corps), PA08-51 (FDEP)		ne or Number ted Mixed (Logged) - rary Impacts
FLUCFCs code 630-1	Further classifica	tion (optional)	In	npact or Mitigation Site?	Assessment Area Size (Acres)
					0.0
Basin/Watershed Name/Number  Waccasassa & Withlacoochee	Affected Waterbody (Clas Class I		Special Classification	(i.e.OFW, AP, other local/state/fede	eral designation of importance)
Geographic relationship to and hydro	ologic connection with	wetlands, other s	surface water, upland	ls	
Areas are surrounded by pine planta connected with each other or are interest.					
Assessment area description					
Heavily logged forested wetland chad isturbed from logging activities with forested wetlands, although few cypland groundcover including immature maidencane, dog fennel, chain fern, logged indiscriminately as a result of prevalent.	stumps and furrows ress and hardwood trees and pine and oaks, red root, and various	emaining from thi es remaining and sweetgum, fetter opportunistic spe	nning activities. Simi I most coverage prob bush, wax myrtle, sa cies. Most cypress h	lar species composition a vided by transitional vege Itbush, gallberry, buttonb ave been logged and oth	as those found in etation in the shrub layer ush, broomsedge, er trees have been
Significant nearby features			Uniqueness (cons	idering the relative rarity	in relation to the regional
The AA is located south of Goethe S Mexico and Waccasassa Bay State north of the Cross Florida Barge Car Withlacoochee River. The AA abuts and is surrounded by pine plantation property is bordered by U.S. 19 to th 33 to the east and north.	Preserve, and approxinal, Lake Rousseau, as a transmission corridon on the LNP property.	mately 1 mile nd the or to the west The LNP		None	
Functions			Mitigation for previous	ous permit/other historic ι	ıse
Functions include wildlife feeding ar benefits, although limited by the	• .			None	
Anticipated Wildlife Utilization Based that are representative of the assess		•		on by Listed Species (Lis SSC), type of use, and ir	
birds (passerine, raptor and wading etc.), amphib	birds), small/medium ians and reptiles	mammals (hogs,		wading birds (SSC	)
Observed Evidence of Wildlife Utiliza	ation (List species dire	ctly observed, or	other signs such as	tracks, droppings, casing	gs, nests, etc.):
		hog roo	ting		
Additional relevant factors:					
Assessment conducted by:  Entrix - VAF/DDS_ESL- Gary Howal	<b>.</b>		Assessment date(s	): 09 thru January 2010  ES	SL March 2011

		IMPACT					
Site/Project Name		Application Number Assessment Area Name or Nu				∍r	
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), PA08-51C (FDEP)			ested Mixed (Loge porary Impacts	ged) -	
Impact or Mitigation		Assessment conducted by:		Assessment date:			
IMPA	СТ	Entrix - VAF/DDS, ESI - Ga	ary Howalt		r 2009 thru Janua I - March 2011	ry 2010,	
Scoring Guidance	Optimal (10)	Moderate(7)	oderate(7) Minimal (4)			t (0)	
The scoring of each		Condition is less than	William (4)		Not Presen	<u>· (0)</u>	
indicator is based on	Condition is optimal and fully supports	optimal, but sufficient to	Minimal le	evel of support of	Condition is insu	ifficient to	
what would be suitable	wetland/surface water	maintain most	wetland/surface water provide wetl		provide wetland		
for the type of wetland or	functions	wetland/surface water	fı	unctions	water funct	ions	
surface water assessed		functions	functions				
<ul> <li>.500(6)(a) Location and Landscape Support</li> <li>w/o pres or current - Area is surrounded by pine plantation which provided minimal habitat and limited opportunity for wildlife utilization including foraging, refuge and passage. The AA is with the LNP property which bordered by U.S. 19 to the west, C.R. 40 to the south and C.R. 33 to the east and north. The LNP property also abuts pine plantation to the east, Goethe State Forest to the north and is situated 8 miles east of the Gulf of Mexico and approximately 1 mile north of the Cross Florida Barge Canal, Lake Rousseau and the Withlacooche River.</li> <li>with - No loss anticipated from temporary impacts.</li> </ul>					erty also If of		
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 7	structure suggest moderate/	anding water in most areas, b /good hydrology. Some wetla onal vegetation, pine coverag function anticipated.	nds still hav	e evidence of hyd			
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 6 5	coverage of trees. Commun remaining from thinning activity cypress and hardwood trees and groundcover including rebuttonbush, broomsedge, motypress have been logged a providing less of a seed sou	ly logged forested wetland chaity structure is very disturbed vities. Similar species compos remaining and most coverage nature slash pine and oaks, suidencane, dog fennel, chain and other trees have been log rice for natural recruitment. Donity structure due to time lag	from logging sition as tho ge provided weetgum, for fern, red ro ged indiscripted trees ar	g activities with sti se found in forest by transitional veg etterbush, wax my ot, and various op minately as a resu nd hog rooting also	umps and furrows ed wetlands, altho getation in the shri rtle, saltbush, gall portunistic specie alt of thinning activ	bugh few ub layer berry, es. Most	
Score = sum of above scores/30 (if uplands/20)	If preservation as mitig		<u> </u>	For impact asses	sment areas	Á	
current	Preservation adjustme	ent factor =				1	
or w/o pres with	A discrete to the time to	14	FL =	delta x acres =	0.2267	1	
0.56667 0.53333	Adjusted mitigation de	ilta =				1	
0.33333						•	
<del></del>	16 10 11		_				
	If mitigation		F	or mitigation asse	ssment areas	1	
Delta = [with-current]	Time lag (t-factor) =					i	

RFG = delta/(t-factor x risk) =

0.033333333

Risk factor =

Site/Project Name Applica								
Progress Energy Florida - L	evy Nuclear Plant		90 (Corps), PA08- (FDEP)	51C	Freshwater Marsh	- Permanent Impact		
ELUGEO I				1.		Т		
FLUCFCs code	Further classifica	ation (optional)		Impac	et or Mitigation Site?	Assessment Area Size (Acres)		
640					IMPACT	1.3		
Basin/Watershed Name/Number	Affected Waterbody (Class	ss)	Special Classification	ecial Classification (i.e.OFW, AP, other local/state/federal designation of importance)				
Upper Coastal	Class	III						
Geographic relationship to and hyd	drologic connection with	wetlands, other su	urface water, uplar	nds				
These wetlands are the adjacent fi immediately south, west and north	•				ned powerline right of v	vay. They are		
Assessment area description								
These low quality freshwater vege shrubs because of the continual m ( <i>Rhyncospora</i> spp.), cattails ( <i>Typi</i> powerline right of way.	nowing of the right of way	y. Specifically, the	community is con	npose	d of arrowhead (Sagitta	aria lancifolia), beakrush		
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional		
The AA is located south of Goethe Mexico and Waccasassa Bay Stat north of the Cross Florida Barge C Withlacoochee River. The AA abuis surrounded by pine plantation of bordered by U.S. 19 to the west, C east and north.	te Preserve, and approxicanal, Lake Rousseau, auts a transmission corriding the LNP property. The	imately 1 mile and the lor to the west and e LNP property is			None			
Functions			Mitigation for pre-	vious	permit/other historic us	e		
Functions include wildlife feeding benefits, although limited by t			None					
Anticipated Wildlife Utilization Bas that are representative of the asse			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the					
birds (passerine, raptor and wadin etc.), amph	ng birds), small/medium nibians and reptiles	mammals (hogs,	wading birds (SSC)					
Observed Evidence of Wildlife Util	ization (List species dire	ectly observed, or	other signs such a	s tracl	ks, droppings, casings,	nests, etc.):		
		hog root	iing					
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Gary Howalt, Michael Stowe & Bre	ett Anderson - FSI		09/16/11	. ,				
Jai y 1 lowait, michael Stowe & Die	M ANGEISON - ESI		03/10/11					

		IMPACT				
Site/Project Name Progress Energy Florida	- Levy Nuclear Plant	Application Number SAJ-2008-00490 (Corps), F (FDEP)			a Name or Numbe arsh - Permanent	
Impact or Mitigation	СТ	Assessment conducted by: Gary Howalt, Michael Stow Anderson - ESI		Assessment date: 9/16/2011		
Scoring Guidance	Optimal (10)	Moderate(7)	Min	nimal (4)	Not Presen	t (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Wetland is saturated and hydric indicators and soils were observed. However rutting of the areas from the continual mowing of these	nd oils Minimal level of support of ver wetland/surface water provide wetland hather functions water functions			ifficient to
.500(6)(a) Location and Landscape Support  //o pres or current with 3 0	Low quality wetland in a ma	intained powerline right of way Power		nt on three side t	to the Crystal Rive	r Nuclear
.500(6)(b)Water Environment (n/a for uplands)  //o pres or current with 0		d hydric indicators and soils w ese areas and a dirt access ro				
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 5		ed of arrowhead ( <i>Sagittaria lar</i> various panic grasses ( <i>Panicu</i>				s (Typha
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.4 0	If preservation as mitigation adjustments  Adjusted mitigation de	ent factor =		For impact assess	o.5200	
Delta = [with-current]	If mitigation Time lag (t-factor) =		Fo	or mitigation asse	essment areas	

RFG = delta/(t-factor x risk) =

0.4

Risk factor =

Site/Project Name Application Number					or Number	
Progress Energy Florida - Levy	/ Nuclear Plant		490 (Corps), PA08-51C Freshwater Marsh - Permanent (FDEP)		- Permanent Impact	
FLUCFCs code 641	Further classifica	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size (Acres) 3.6
Basin/Watershed Name/Number Af Waccasassa, Withlacoochee & Upper Coastal	ffected Waterbody (Class	•	Special Classification	on (i.e.O	FW, AP, other local/state/federa	I designation of importance)
Geographic relationship to and hydrol Areas are surrounded by pine plantati connected with each other or are inter them.	ion and a mosaic of f	orested wetlands t	hat have been sub	bjected		
Assessment area description  Successional marsh community conv. likely associated with poor hydrology; fireflag in the core with maidencane, r myrtle in the outer zones. Disturbed a	and therefore, provid rushes, beakrushes, s	de minimal wildlife sedges, yellow-eye	habitat. Vegetatio	n cons utton, l	sists of pickerelweed, so buttonbush, St. John's	martweed, cattail and
Significant nearby features  The AA is located south of Goethe State Mexico and Waccasassa Bay State Proorth of the Cross Florida Barge Cana Withlacoochee River. The AA abuts a is surrounded by pine plantation on the bordered by U.S. 19 to the west, C.R. east and north.	Preserve, and approxi al, Lake Rousseau, a a transmission corrid te LNP property. The	imately 1 mile and the or to the west and a LNP property is		nsider	ing the relative rarity in None	relation to the regional
Functions			Mitigation for pre	vious p	permit/other historic use	<del></del>
Functions include wildlife feeding and benefits, although limited by the			None			
Anticipated Wildlife Utilization Based that are representative of the assessn		•	•		y Listed Species (List s C), type of use, and inte	
birds (passerine, raptor and wading t etc.), amphibia	pirds), small/medium ans and reptiles	mammals (hogs,			wading birds (SSC)	
Observed Evidence of Wildlife Utilizat	tion (List species dire	ectly observed, or o	other signs such a	s track	s, droppings, casings,	nests, etc.):
		hog root	ing			
Additional relevant factors:  Assessment conducted by:			Assessment date	e(s):		
Entrix - VAF/DDS, ESI - Gary Howalt			Entrix - October 2009 thru January 2010, ESI - March 2011			

		IMPACT				
Site/Project Name		Application Number		Assessment Area Name or Number		
Progress Energy Florid	a - Levy Nuclear Plant	SAJ-2008-00490 (Corps), (FDEP)	PA08-51C Freshwate	Freshwater Marsh - Permanent Impact		
Impact or Mitigation		Assessment conducted by:	Assessment			
IMP	ACT	Entrix - VAF/DDS, ESI - Ga	ary Howalt Entrix - Oct	ober 2009 thru January 2010, ESI - March 2011		
Occasion of Occidence	0 (1 1 (40)		1 1/4	1 (0)		
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	Minimal (4)	Not Present (0)		
indicator is based on	Condition is optimal and	optimal, but sufficient to	Minimal level of support	of Condition is insufficient to		
what would be suitable	fully supports wetland/surface water	maintain most	wetland/surface water	'		
for the type of wetland or	functions	wetland/surface water	functions	water functions		
surface water assessed		functions				
.500(6)(a) Location and Landscape Support  w/o pres or current with 3 0  .500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 5 0	opportunity for wildlife utilization bordered by U.S. 19 to the values pine plantation to the Mexico and approximately 1 River.  with -  w/o pres or current - No st structure suggest moderate	west, C.R. 40 to the south and east, Goethe State Forest to t	e and passage. The AA is I C.R. 33 to the east and rather north and is situated 8 da Barge Canal, Lake Route tut water level indicators, Indes still have evidence of	with the LNP property which is north. The LNP property also miles east of the Gulf of asseau and the Withlacoochee		
.500(6)(c)Community structur  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 5 0	w/o pres or current -Succe logging. Most have limited s provide minimal wildlife hab with maidencane, rushes, b	essional marsh community cor structure and poor zonation lik itat. Vegetation consists of pic eakrushes, sedges, yellow-ey the outer zones. Disturbed are	ely associated with poor h kerelweed, smartweed, ca ed grasses, bog button, b	ydrology; and therefore, attail and fireflag in the core		
Score = sum of above scores/30  (if uplands/20)  current or w/o pres with  0.43333  0	If preservation as mitigation adjustments  Adjusted mitigation de	ent factor =	For impact as	= 1.5600		
	If mitigation		For mitigation a	ecocement areas		

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

Time lag (t-factor) =

Risk factor =

Delta = [with-current]

0.433333333

Site/Project Name		Application Numbe				or Number
Progress Energy Florida - L	evy Nuclear Plant		0 (Corps), PA08-51C Freshwater Marsh - Temporary		- Temporary Impact	
FLUCFCs code	Further classifica	ation (optional)		Impac	ct or Mitigation Site?	Assessment Area Size
641					IMPACT	(Acres)
041					IMPACI	0.4
Basin/Watershed Name/Number	Affected Waterbody (Class	ss)	Special Classification	on (i.e.C	DFW, AP, other local/state/federa	I designation of importance)
Waccasassa	Class	III				
0	da - 1					
Geographic relationship to and hyc Areas are surrounded by pine plan connected with each other or are in them.	tation and a mosaic of f	forested wetlands t	hat have been sub	bjecte		
Assessment area description						
Successional marsh community co likely associated with poor hydrolog fireflag in the core with maidencan myrtle in the outer zones. Disturbe	gy; and therefore, provide, rushes, s	de minimal wildlife sedges, yellow-eye	habitat. Vegetationed grasses, bog bu	n consutton,	sists of pickerelweed, so buttonbush, St. John's	martweed, cattail and
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge C Withlacoochee River. The AA abu is surrounded by pine plantation or bordered by U.S. 19 to the west, C east and north.	e Preserve, and approxicanal, Lake Rousseau, auts a transmission corridenthe LNP property. The	imately 1 mile and the lor to the west and a LNP property is			None	
Functions			Mitigation for pre	vious	permit/other historic use	e
Functions include wildlife feeding benefits, although limited by the	• .				None	
Anticipated Wildlife Utilization Base that are representative of the asset		•			by Listed Species (List s C), type of use, and into	
birds (passerine, raptor and wadir etc.), amph	ng birds), small/medium nibians and reptiles	mammals (hogs,			wading birds (SSC)	
Observed Evidence of Wildlife Utili	ization (List species dire	ectly observed, or o	other signs such a	s tracl	ks, droppings, casings,	nests, etc.):
		hog root	ing			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s).		
Entrix - VAF/DDS. ESI - Garv Howalt  Entrix - VAF/DDS. ESI - Garv Howalt  Entrix - October 2009 thru January 2010. ESI - March 201				- March 2011		

	·	IMPACT	•		
Site/Project Name		Application Number		Assessment Are	a Name or Number
Progress Energy FI	orida - Levy Nuclear Plant	SAJ-2008-00490 (Corps), (FDEP)	), PA08-51C Freshwater Marsh - Temporar		arsh - Temporary Impact
Impact or Mitigation		Assessment conducted by:		Assessment date	
l	MPACT	Entrix - VAF/DDS, ESI - Ga	ary Howalt		r 2009 thru January 2010, ⊢- March 2011
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal le	evel of support of l/surface water unctions	Condition is insufficient t provide wetland/surface water functions
	opportunity for wildlife utilization bordered by U.S. 19 to the abuts pine plantation to the	is surrounded by pine plantati ation including foraging, refuge west, C.R. 40 to the south and east, Goethe State Forest to b 1 mile north of the Cross Floric rom temporary impacts.	e and passa I C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property which  n. The LNP property also  es east of the Gulf of
	w/o pres or current - No st structure suggest moderate	tanding water in most areas, b /good hydrology. Some wetla ional vegetation, pine coverag function anticipated.	nds still hav	e evidence of hyd	,
	w/o pres or current -Succe logging. Most have limited s provide minimal wildlife hab with maidencane, rushes, b saltbush and wax myrtle in t dog fennel, and ragweed.	essional marsh community cor structure and poor zonation lik itat. Vegetation consists of pic eakrushes, sedges, yellow-ey the outer zones. Disturbed are unity structure due to time lag	ely associat ckerelweed, ed grasses, eas also con	ed with poor hydro smartweed, cattai bog button, button tain broomsedge,	ology; and therefore, I and fireflag in the core nbush, St. John's wort,
	ith Adjusted mitigation de	ent factor =	FL =	For impact asses delta x acres =	o.0133
Delta = [with-current]	If mitigation Time lag (t-factor) =		F	or mitigation asse	ssment areas

RFG = delta/(t-factor x risk) =

0.033333333

Risk factor =

Site/Project Name Progress Energy Florida - Le	vy Nuclear Plant		er 90 (Corps), PA08-51 (FDEP)	C Assessment Area Nam Wet Prairie -	ne or Number Permanent Impact	
FLUCFCs code 643	Further classifica	ation (optional)	In	npact or Mitigation Site?	Assessment Area Size (Acres)	
David OM at any last Name (Name Inc.)	A. (C 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	>	0			
Basin/Watershed Name/Number  Waccasassa	Affected Waterbody (Class		Special Classification	(i.e.OFW, AP, other local/state/fed	eral designation of importance)	
Geographic relationship to and hydr	ologic connection with	wetlands others	surface water uplan	ds		
Areas are surrounded by pine planta connected with each other or are in them.	ation and a mosaic of	forested wetlands	that have been sub	jected to logging. Wetlan		
Assessment area description						
Successional wet prairie community beds/furrows are still evident in som grasses, redroot, bog buttons, red luand wax myrtle also occur.	ne areas. Vegetation c	onsists of maiden	cane, blue maidenc	ane, bushy bluestem, sar	nd cordgrass, yelloweyed	
Significant nearby features			Uniqueness (cons	sidering the relative rarity	in relation to the regional	
The AA is located south of Goethe's Mexico and Waccasassa Bay State north of the Cross Florida Barge Ca Withlacoochee River. The AA abut and is surrounded by pine plantation property is bordered by U.S. 19 to the to the east and north.	Preserve, and approximal, Lake Rousseau, as a transmission corridge on the LNP property.	kimately 1 mile and the dor to the west . The LNP		None		
Functions			Mitigation for previo	ous permit/other historic u	ıse	
Functions include wildlife feeding an benefits, although limited by the				None		
Anticipated Wildlife Utilization Base that are representative of the asses				ion by Listed Species (Lis SSC), type of use, and in		
birds (passerine, raptor and wading etc.), amphib	birds), small/medium ians and reptiles	mammals (hogs,		wading birds (SSC)	)	
Observed Evidence of Wildlife Utiliz	ation (List species dire	ectly observed, or	other signs such as	tracks, droppings, casing	gs, nests, etc.):	
		hog root	ting			
Additional relevant factors:						
Assessment conducted by:			Assessment date(s	3):		
Entrix - VAF/DDS, ESI - Gary Howa	It		Entrix - October 2009 thru January 2010, ESI - March 2011			

### **IMPACT**

		IMPACI				
Site/Project Name		Application Number		Assessment Area	a Name or Numbe	er
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), F (FDEP)	PA08-51C	Wet Prairie - Permanent Impa		act
Impact or Mitigation		Assessment conducted by:		Assessment date		
IMPAC	СТ	Entrix - VAF/DDS, ESI - Ga	ary Howalt		r 2009 thru Janua I - March 2011	ry 2010,
Cooring Cuidones	Ontine -1 (40)	Madausts (7)		!	Nat Danasan	4 (0)
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	IVII	nimal (4)	Not Present	τ (υ)
indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	optimal, but sufficient to maintain most wetland/surface water functions	wetland	evel of support of /surface water unctions	Condition is insu provide wetland water functi	/surface
.500(6)(a) Location and Landscape Support  w/o pres or current with 3	opportunity for wildlife utiliza bordered by U.S. 19 to the washington abouts pine plantation to the washington to the washington to the washington to the washington and washington to the wash	is surrounded by pine plantati- tion including foraging, refuge vest, C.R. 40 to the south and east, Goethe State Forest to t mile north of the Cross Florid	and passa C.R. 33 to he north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property n. The LNP prope les east of the Gul	rty also f of
.500(6)(b)Water Environment (n/a for uplands)  w/o pres or current with 6 0	structure suggest moderate/	anding water in most areas, b good hydrology. Some wetlar onal vegetation, pine coverag	nds still hav	e evidence of hyd		•
1. Vegetation and/or 2. Benthic Community  v/o pres or current with  0	logging. Most have limited s provide minimal wildlife habi with maidencane, rushes, be	ssional marsh community cor tructure and poor zonation like tat. Vegetation consists of pic eakrushes, sedges, yellow-eye he outer zones. Disturbed are	ely associate kerelweed, ed grasses,	ed with poor hydro smartweed, cattai bog button, butto	ology; and therefo il and fireflag in the nbush, St. John's	re, e core wort,
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.5	If preservation as mitig Preservation adjustme Adjusted mitigation de	ent factor =		For impact assess	sment areas 1.0000	

For mitigation assessment areas

RFG = delta/(t-factor x risk) =

Delta = [with-current]

0.5

If mitigation

Risk factor =

Time lag (t-factor) =

Site/Project Name		Application Number		Assessment Area Nam	e or Number		
Progress Energy Florida - L	evy Nuclear Plant		90 (Corps), PA08-51C Wet Prairie - Temporary Impa				
FLUCFCs code 643	Further classifica	ation (optional)	lı	mpact or Mitigation Site?	Assessment Area Size (Acres) 0.9		
Basin/Watershed Name/Number	Affected Waterbody (Clas	00)	Special Classification	(i a OFW) AD ather lacely state (forder			
Waccasassa	Class	,	Special Classification (i.e.OFW, AP, other local/state/federal designation of important				
Geographic relationship to and hyd	drologic connection with	wetlands other si	ırface water unland	<b>S</b>			
Areas are surrounded by pine plan connected with each other or are in them.	tation and a mosaic of f	forested wetlands	that have been subj	ected to logging. Wetlands	,		
Assessment area description							
Successional wet prairie communit beds/furrows are still evident in sor grasses, redroot, bog buttons, red wax myrtle also occur.	me areas. Vegetation co	onsists of maidenc	ane, blue maidenca	ne, bushy bluestem, sand	cordgrass, yelloweyed		
Significant nearby features			Uniqueness (cons	sidering the relative rarity i	n relation to the regional		
The AA is located south of Goethe Mexico and Waccasassa Bay Statnorth of the Cross Florida Barge C Withlacoochee River. The AA abu is surrounded by pine plantation or bordered by U.S. 19 to the west, C east and north.	e Preserve, and approxi anal, Lake Rousseau, a its a transmission corrid n the LNP property. The	imately 1 mile and the lor to the west and e LNP property is		None			
Functions			Mitigation for previ	ous permit/other historic u	se		
9	tions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture practices.				None		
Anticipated Wildlife Utilization Base that are representative of the asse							
, ,	ds (passerine, raptor and wading birds), small/medium mammals (hogs, etc.), amphibians and reptiles				wading birds (SSC)		
Observed Evidence of Wildlife Util	ization (List species dire	ectly observed, or	other signs such as	tracks, droppings, casings	, nests, etc.):		
		hog roof	ting				
Additional relevant factors:							
			I Annual Table 1				
Assessment conducted by:			Assessment date(s	•			
Entrix - VAF/DDS, ESI - Gary How	alt		Entrix - October 20	09 thru January 2010, ES	i - March 2011		

		IMPACT	•		
Site/Project Name		Application Number		Assessment Area	a Name or Number
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), (FDEP)	s), PA08-51C Wet Prairie - Temporary Ir		e - Temporary Impact
Impact or Mitigation IMPA	СТ	` '		Entrix - October 2009 thru January	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal le	evel of support of //surface water unctions	Condition is insufficient provide wetland/surfac water functions
.500(6)(a) Location and Landscape Support	opportunity for wildlife utilizal bordered by U.S. 19 to the values pine plantation to the	is surrounded by pine plantati tion including foraging, refuge vest, C.R. 40 to the south and east, Goethe State Forest to t mile north of the Cross Floric om temporary impacts.	e and passa I C.R. 33 to the north an	ge. The AA is with the east and north d is situated 8 mil	h the LNP property which
.500(6)(b)Water Environment (n/a for uplands)  //o pres or current with 6	structure suggest moderate/	anding water in most areas, b /good hydrology. Some wetla onal vegetation, pine coverag function anticipated.	nds still hav	e evidence of hyd	
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  //o pres or current with 6 5	w/o pres or current -Succe logging. No defined structure maidencane, blue maidenca ludwigia, rushes, beakrushe wax myrtle also occur.	essional wet prairie community e or zonation and beds/furrow ane, bushy bluestem, sand co s, and sedges. Scattered bus nity structure due to time lag	s are still ev rdgrass, yel hes such as	vident in some are loweyed grasses, s buttonbush, St	as. Vegetation consists or redroot, bog buttons, red
Score = sum of above scores/30	If preservation as mitig	ration	<del></del>	For impact asses	sment areas
(if uplands/20)  current r w/o pres	Preservation adjustme Adjusted mitigation de	ent factor =	FL =	delta x acres =	0.0300
Delta = [with-current]	If mitigation Time lag (t-factor) =		F	or mitigation asse	ssment areas

RFG = delta/(t-factor x risk) =

0.033333333

Risk factor =

Site/Project Name		Application Number	er	Į.	Assessment Area Name	or Number
Progress Energy Florida - Le	evy Nuclear Plant	SAJ-2008-0049	490 (Corps), PA08-51C (FDEP) Streams and Waterways - Perm			
FLUCFCs code 510	Further classifica	ation (optional)		Impact	or Mitigation Site?	Assessment Area Size (Acres) 2.6
Basin/Watershed Name/Number	Affected Waterbody (Cla	ss)	Special Classificati	tion (i.e.Of	FW, AP, other local/state/federa	al designation of importance)
Withlacoochee & Upper Coastal	Class	III				
Geographic relationship to and hyd						
Areas are within the Cross Florida	Barge Canal, the Inglis	Lock Diversion Ca	anal and the Cryst	tal Rive	r Energy Complex Ma	in Discharge Canal.
Assessment area description  Open water within the Cross Florida	a Barge Canal, the Ingli	is Lock Diversion	Canal and the Cry	ystal Riv	er Energy Complex M	1ain Discharge Canal.
Significant nearby features			Uniqueness (co	onsiderir	ng the relative rarity in	relation to the regional
The AA is located south of Goethe Mexico and Waccasassa Bay State north of the Cross Florida Barge Ca Withlacoochee River. The AA abuland is surrounded by pine plantatic property is bordered by U.S. 19 to 133 to the east and north.	e Preserve, and approx anal, Lake Rousseau, a ts a transmission corrid in on the LNP property.	imately 1 mile and the or to the west The LNP			None	
Functions			Mitigation for pre	evious p	ermit/other historic us	е
Functions include feeding and re along with some water	efuge for some aquatic quality and storage ber				None	
Anticipated Wildlife Utilization Base that are representative of the asset		,			/ Listed Species (List st), type of use, and into	
fish, birds (passerine, raptor and	wading birds), amphibi	ans and reptiles		wad	ling birds (SSC), mana	atee
Observed Evidence of Wildlife Utili.	zation (List species dire	ectly observed, or	I other signs such a	as track	s, droppings, casings	, nests, etc.):
Additional relevant factors:						
Auditional relevant lactors.						
Assessment conducted by:			Assessment date	e(s):		
Entrix - VAF/DDS, ESI - Gary Howa	alt		Entrix - October 2	2009 th	ru January 2010, ESI	- March 2011

### **IMPACT**

		IMPACI				
Site/Project Name		Application Number		Assessment Area	a Name or Number	-
Progress Energy Florid	a - Levy Nuclear Plant	SAJ-2008-00490 (Corps), I (FDEP)	PA08-51C	Streams and	Waterways - Perma Impact	inent
Impact or Mitigation		Assessment conducted by:	Assessment date:			
IMP	ACT	Entrix - VAF/DDS, ESI - Ga	ary Howalt	Entrix - October 2009 thru Ja ESI - March 2011		2010,
Scoring Guidance	Optimal (10)	Moderate(7)	I M	inimal (4)	Not Drocont	(0)
The scoring of each	Optimal (10)	Condition is less than	IVI	mimai (4)	Not Present	(0)
indicator is based on	Condition is optimal and	optimal, but sufficient to	Minimal le	evel of support of	Condition is insuffi	icient to
what would be suitable	fully supports wetland/surface water	maintain most	wetland	l/surface water	provide wetland/s	
for the type of wetland or	functions	wetland/surface water	f	unctions	water function	ns
surface water assessed		functions				
.500(6)(a) Location and Landscape Support  w/o pres or current with		No mitigation require/necess	sary for ope	n water impacts.		
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with						
.500(6)(c)Community structure	9					
Vegetation and/or     Benthic Community						
v/o pres or						
current with	-					
Score = sum of above scores/30 (if uplands/20)				For impact asses	sment areas	
current	Preservation adjustme	ent factor =				
or w/o pres with	Adjusted mitigation de	olto =	FL =	delta x acres =	0.0000	
0 0	Adjusted mitigation de	ella –				
	If mitigation		F	For mitigation asse	essment areas	
Delta = [with-current]	Time lag (t-factor) =		REG	= delta/(t-factor x	risk) =	
0	Risk factor =		i d	acita/(t-lactol X	non)	

Site/Project Name		Application Numbe			Assessment Area Name	or Number	
Progress Energy Florida - Le	evy Nuclear Plant		190 (Corps), PA08-51C Upland Cut Ditch - Permanen			- Permanent Impact	
		•			•		
FLUCFCs code	Further classifica	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size	
544					IMPAOT	(Acres)	
511					IMPACT	0.1	
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification	on (i.e.C	DFW, AP, other local/state/federa	al designation of importance)	
Upper Coastal	Class I	III					
Geographic relationship to and hyd	drologic connection with	wetlands, other s	surface water. upla	ands			
Areas are surrounded by pine plan connected with each other or are in them.	tation and a mosaic of	forested wetlands	that have been s	ubject		-	
Assessment area description							
Upland cut ditch that doesn't suppo	ort wetland vegetation.						
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	n relation to the regional	
The AA is located south of Goethe Mexico and Waccasassa Bay Statinorth of the Cross Florida Barge C. Withlacoochee River. The AA abuand is surrounded by pine plantatic property is bordered by U.S. 19 to 33 to the east and north.	e Preserve, and approx anal, Lake Rousseau, a its a transmission corric on on the LNP property.	kimately 1 mile and the dor to the west . The LNP			None		
Functions			Mitigation for pre	vious	permit/other historic us	se	
Functions include wildlife feeding a benefits, although limited by the	, ,	None					
Anticipated Wildlife Utilization Base			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the				
that are representative of the asse	ssmem area and reaso	mably expected	classification (E,	1, 33	C), type of use, and in	tensity of use of the	
birds (passerine, raptor and wading etc.), amphi	g birds), small/medium ibians and reptiles	mammals (hogs,			wading birds (SSC)		
Observed Evidence of Wildlife Utili	ization (List species dire	ectly observed, or	other signs such	as tra	cks, droppings, casing	s, nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Entrix - VAF/DDS, ESI - Gary How	alt				hru January 2010, ESI	- March 2011	

		IMPACT				
Site/Project Name		Application Number		Assessment Area	a Name or Numbe	r
Progress Energy Florida	- Levy Nuclear Plant	SAJ-2008-00490 (Corps), (FDEP)	PA08-51C	Upland Cut D	itch - Permanent I	mpact
Impact or Mitigation		Assessment conducted by:		Assessment date		
IMPA	СТ	Entrix - VAF/DDS, ESI - G	Bary Howalt		r 2009 thru Januar I - March 2011	y 2010,
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present	(0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal le	evel of support of /surface water unctions	Condition is insuf provide wetland/ water function	fficient to /surface
.500(6)(a) Location and Landscape Support  //o pres or current with		No mitigation required for in	mpacts to upl	and cut ditches.		
.500(6)(b)Water Environment (n/a for uplands) v/o pres or current with						
.500(6)(c)Community structure						
Vegetation and/or     Benthic Community						
wo pres or current with	_					
Score = sum of above scores/30	If preservation as miti	gation		For impact assess	ement areas	
current or w/o pres  with	Preservation adjustment Adjusted mitigation de	ent factor =		delta x acres =	0.0000	
	<u></u>					-
	If mitigation		F	or mitigation asse	ssment areas	1
Delta = [with-current]	Time lag (t-factor) =					ı

RFG = delta/(t-factor x risk) =

0

Risk factor =

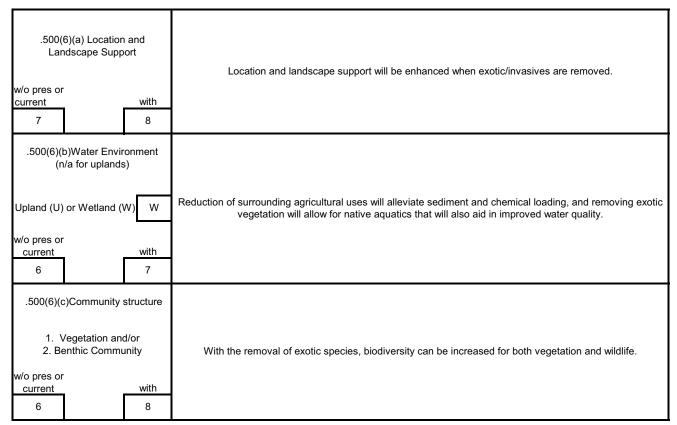
Site/Project Name			Application Numbe	r		Assessment Area Name	or Number
Boarshead Ra	nch			90 (Corps), PA08- (FDEP)	51C		e North, Herbaceous Q Enhancement
FLUCFCs code		Further classifica	tion (ontional)		Impac	ct or Mitigation Site?	Assessment Area Size
1 2001 03 0006		T di ti loi diadoni.da	tion (optional)		IIIIpac	it of willigation ofte:	(Acres)
520						MITIGATION	2.4
Basin/Watershed Name/Number	Affect	ted Waterbody (Clas	<u>.</u>	Special Classificati	ion (j.e.(	OFW, AP, other local/state/federa	al designation of importance)
Withlacoochee		Class I		Органа			, , , , , ,
Geographic relationship to and hyd Boarshead Ranch is located near east and the headwaters of the Hi	the s	outhwest corner or ough River to the	of the Green Swan	np, it abuts the Wi is hydrologically c	ithlacc		
Assessment area description This lake community was form surrounding lakes via a ditch. It dominated by water hyacinth and frog fruit. The area is being	is als	o connected to off e pickerelweed. Si	fsite wetlands to th ide slopes are dor	he north. The area minated by pastur more functional we	a cons e gras etland	sists of open water with a sses including bermuda characterized as a flaty	a floating vegetation grass, dog fennel, and vood prairie lake.
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
•	River, \ reserv lands	ed	ver, and state			None	
Functions				Mitigation for pre	vious	permit/other historic use	Э
wildlife refuge and	foragi	ng, water treatme	nt				
Anticipated Wildlife Utilization Base that are representative of the asse						by Listed Species (List s	
wading birds, reptiles, amphibians, large/medium mammals, possible fish habitat				Wading birds (SSC), Osprey (SSC), Bald eagle (T)			
Observed Evidence of Wildlife Utili	izatior	ı (List species dire	ctly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
american	alliga	tor, osprey, bald e	agle, yellow slide	r, black racer, wat	er mo	ccasin, brim and bass	
Additional relevant factors:							
Historic marsh system excavated f	or pea	at mining					
Assessment conducted by:				Assessment date	e(s):		
AMF/VAF-Entrix; Shannon Julien/J	Joe Br	inson - ESI		2/10/10-Entrix, 3/	/20-23	3/11-ESI	

### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Boarshead Ranch	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Activity Area 1, Lake North, Herbaceous Preservation/WQ Enhancement
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI	2/10/10-Entrix, 3/20-23/11-ESI

Scoring Guidance
The scoring of each
indicator is based on what
indicator is based on what would be suitable for the
type of wetland or surface
water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions



Score = sum of above scores/30			
(if uplands/20)			
current			
or w/o pres		with	
0.6333		0.7667	

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	0.7
Adjusted mitigation delta =	0.093333
*use 1.0 for creation	- · · · · · · · · · · · · · · · · · · ·

For impact assessment areas		
FL = delta x acres =		

0.133333333

If mitigation (creation or enhancement)			
Time	Years	t-factor =	1.14
Lag	5	t-lactor =	1.14
*	1		
(1 to 3	'		

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.0819	

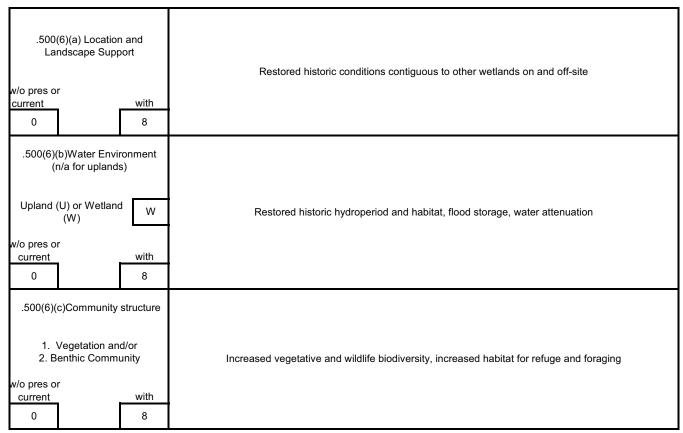
\*use 1.0 for preservation

Site/Project Name		Application Numbe					
Boarshead Ranch			90 (Corps), PA08-51C		Activity Area 1, Cropland and Pastureland, Forested Creation		
				(FDEP)		Forested	Creation
FLUCFCs code	Further class	ssificat	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size
240						MITICATION	(Acres)
210						MITIGATION	6.8
Basin/Watershed Name/Number	Affected Waterbody	dy (Class	s)	Special Classificati	on (i.e.0	OFW, AP, other local/state/federal	I designation of importance)
Withlacoochee		N/A					
				<u> </u>			
Geographic relationship to and hyd Boarshead Ranch is located near east and the headwaters of the Hi	the southwest co	orner of	f the Green Swan	np, it abuts the Wi is hydrologically c	ithlaco		
Assessment area description							
This area consists of pasturela	nd and is being ta		d for wetland crea swamp/hardwood		mixed	d forested system chara	cterized by a dome
		3	3Wamp/naruwoou	Community.			
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Green Swamp, Hillsborough R	liver, Withlacooch	nee Riv	er. and state				
	erved lands.		,				
Functions				Mitigation for previous permit/other historic use			
						<b>PO</b>	
Wildlife refuge and	foraging, water tre	reatmei	nt				
	• -						
Anticipated Wildlife Utilization Base						by Listed Species (List s	
that are representative of the asses	ssment area and i	reason	nably expected to	classification (E,	T, SS	C), type of use, and inte	ensity of use of the
small, medium, large mammal	s, wading birds, re	reptiles	, amphibians	Wading birds (SSC)			
Observed Evidence of Wildlife Utilia	zation (List specie	es dire	ctly observed, or	other signs such a	as trac	ks. droppings, casings,	nests, etc.):
			,			, <sub>1</sub> ,	, , ,
		5	Sandhill cranes, s	nowy egrets			
					( )		
Assessment conducted by:			Assessment date(s):				
AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI			2/10/10-Entrix, 3/	/20-23	i/11-ESI		

### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Boarshead Ranch	SAJ-2008-00490 (Corps), PA08-51C	Activity Area 1, Cropland and
Boarshead Ranch	(FDEP)	Pastureland, Forested Creation
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI	2/10/10-Entrix, 3/20-23/11-ESI

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions



Score = sum of above scores/30				
Score -	Score – Sum of above scores/30			
(if uplands/20)				
current				
or w/o pres	3	with		
0.0000		0.8000		

If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment areas			
FL = delta x acres =			

Delta = [with-current]
0.8

If mitigation (creation or enhancement)						
Time	Years	1.92				
Lag	21 – 25	t-factor =	1.92			
*	1.5					
(1 to 3	1.5					

For mitigation assessment areas

RFG = delta/(t-factor x risk) = 0.2778

\*use 1.0 for preservation

		Assessment Area Name or Number				
Boarshead Ra	Boarshead Ranch SAJ-2008-00490 (Corps), P.			8-51C Activity Area 1, Cropland and Pastul Herbaceous Creation/Enhancem		
			(FDEP)		nerbaceous Crea	uon/Ennancement
FLUCFCs code	Further classification	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size
210					MITIGATION	(Acres)
210					WIITIG/THOIT	2.4
Design / Matayahad Nama / Numbay	Affactad Waterbady (Cla		Consist Classificati	lan / c		
Basin/Watershed Name/Number	Affected Waterbody (Cla	SS)	Special Classificati	ION (i.e.C	DFW, AP, other local/state/federa	il designation of importance)
Withlacoochee						
Geographic relationship to and hyd	drologic connection with	wetlands others	surface water unla	ands		
Boarshead Ranch is located near					ochee River and state-	preserved lands to the
east and the headwaters of the H	illsborough River to the			onnect	ted to an offsite wetland	d and is surrounded by
Assessment area description		improved p	asture.			
This area consists of pasturela	and and is being targete	ed for wetland crea	ition to establish a	mixed	d forested system chara	acterized by a dome
		swamp/hardwood	I community.			
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
Green Swamp, Hillsborough F	River Withlacoochee Ri	iver and state				
•	erved lands.	iver, and state				
Functions			Mitigation for pre	vious	permit/other historic use	 e
Wildlife refuge and	foraging, water treatme	ent				
Anticipated Wildlife Utilization Bas			· ·		y Listed Species (List s	
that are representative of the asse	essment area and reaso	nably expected to	classification (E,	1, 550	), type of use, and inte	ensity of use of the
small, medium, large mamma	ls, wading birds, reptile	s, amphibians	Wading birds (SSC)			
Observed Evidence of Wildlife Util	ization (List species dir	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
		None	•			
		None	•			
Additional relevant factors:						
			1.	, ,		
Assessment conducted by:			Assessment date	` '		
AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI			2/10/10-Entrix, 3	/20-23	/11-ESI	

		MITIGATION			
Site/Project Name		Application Number			a Name or Number
Boarshead Ranch		SAJ-2008-00490 (Corps), PA08-51C (FDEP)		Activity Area 1, Cropland and Pastureland, Herbaceous Creation/Enhancement	
Impact or Mitigation		<b>-</b>		Assessment date:	
Mitigati	on	AMF/VAF-Entrix; Shannon Brinson - ESI	Julien/Joe	2/10/10-Entrix, 3/20-23/11-ESI	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most Wetland/		evel of support of /surface water unctions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  w/o pres or current with  8	Restored historic wetland contiguous to on and off-site wetlands			s	
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current with 7	W Restore historic hydroperiods				
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with  0 8	Increased biodiversity, improved refuge and foraging habitat				
Score = sum of above scores/30 (if uplands/20) current or w/o pres 0.0000  0.7667	If preservation as mitigation,  *Preservation adjustment factor = (0 to 1, 1/10th increments)  Adjusted mitigation delta =  *use 1.0 for creation  For impact assessment areas  FL = delta x acres =				ssment areas
	If mitigation (creation of	or enhancement)		For mitigation ass	essment areas
Delta = [with-current]	Time Years Lag 5	- t-factor = 1.14			

Delta = [with-current]	
0.76666667	

If mitigation (creation or enhancement)						
Time	Years	Years t-factor =				
Lag	5	t-lactor -	1.14			
*	*Risk factor =					
(1 to 3, 0.25 increments)						
* 1 0 fo	r processo	ion				

RFG = delta/(t-factor x risk) = 0.3843

\*use 1.0 for preservation

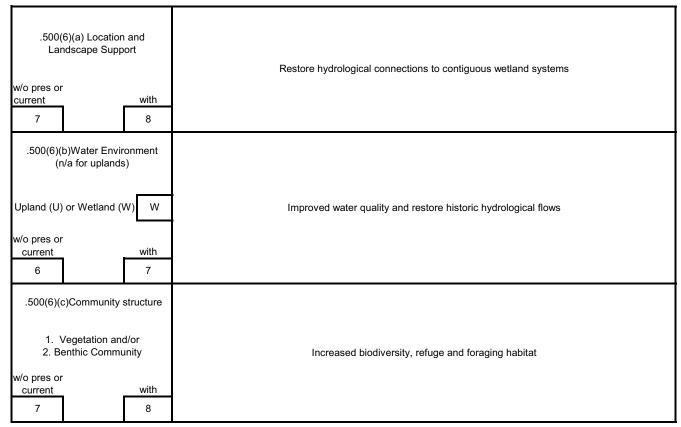
Site/Project Name Application Num						
Boarshead Rai	Boarshead Ranch SAJ-2008-00490 (Corps), PA08-5		-51C	1C Activity Area 1, Lake (Central), Herbaceon Preservation		
			(FDEP)		Prese	rvation
FLUCFCs code	Further class	ssification (optional)		Impac	et or Mitigation Site?	Assessment Area Size
						(Acres)
520				MITIGATION 1		1.2
Basin/Watershed Name/Number	Affected Waterbod	y (Class)	Special Classificat	tion (i.e.C	OFW, AP, other local/state/federa	I designation of importance)
Withlacoochee	C	Class III				
Geographic relationship to and hyd						
Boarshead Ranch is located near			• •			•
east and the headwaters of the Hi	lisborough River t		ea is nydrologically d and oak hammock.	connect	ted to an offsite wetland	and is surrounded by
Assessment area description		Improvou puoturo	and dak nammodk.			
This lake community was form						
surrounding lakes via a ditch. It dominated by water hyacinth and						
frog fruit. The area is being t						
Significant nearby features					ring the relative rarity in	
Croon Swamp, Hillshorough B	liver Withlesesch	on Divor, and state				
Green Swamp, Hillsborough R	erved lands.	ee River, and state				
<b>P</b>						
- "			A A Section 1			
Functions			Mitigation for pre	evious	permit/other historic use	9
wildlife refuge and	foraging water tre	atmont				
wildlife refuge and	loraging, water tre	aimeni				
Anticipated Wildlife Utilization Base	ad on Literature P	ovious (List of specie	Anticipated Litilia	zation h	by Listed Species (List s	enocios their local
that are representative of the asset					• • •	
·		, ,		,	,, ,,	Í
wading birds, reptiles, amp	hibians, large/med	dium mammals,	\\/ a dia	ماساما س	(000) (000)	Dald socia (T)
possibl	le fish habitat		vvading	g biras	(SSC), Osprey (SSC), I	Baid eagle (1)
Observed Evidence of Wildlife Utili	zation (List specie	s directly observed,	or other signs such	as trac	ks, droppings, casings,	nests, etc.):
		IN:	one			
Additional relevant factors:						
Assessment conducted by:			Assessment date	ω(ε).		
,	I D.:			` '	V44 FOI	
AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI			2/10/10-Entrix, 3	0/20-23	/ I I-ESI	

### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Boarshead Ranch	SAJ-2008-00490 (Corps), PA08-51C	Activity Area 1, Lake (Central),
Boarshead Ranch	(FDEP)	Herbaceous Preservation
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	AMF/VAF-Entrix; Shannon Julien/Joe	2/10/10-Entrix, 3/20-23/11-ESI
Wildgation	Brinson - ESI	2/10/10-EIIIIX, 3/20-23/11-E31

	Scoring Guidance
	The scoring of each
ind	icator is based on what
wo	ould be suitable for the
typ	e of wetland or surface
	water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions



Score = sum of above scores/30				
(if uplands/20)				
current				
or w/o pres	-	with		
0.6667		0.7667		

If preservation as mitigation,			
*Preservation adjustment factor =	0.7		
(0 to 1, 1/10th increments)	0.7		
Adjusted mitigation delta =	0.07		
*use 1.0 for creation			

1.14

1.5

		If mitigation (creation or enhancement				
Dolto = [with ourrent]		Time	Years	t-factor =	4	
Delta = [with-current]		Lag	5	1-180101 -	1.	
0.1		*Risk factor =			1	
0.1		(1 to 3, 0.25 increments)				

For impact assessment ar	eas
FL = delta x acres =	

For mitigation assessment areas			
RFG = delta/(t-factor x risk) =	0.0409		

\*use 1.0 for preservation

Site/Project Name Application Nu		Application Numbe	r		Assessment Area Name	or Number	
Boarshead Rai	nch		SAJ-2008-00490 (Corps), PA08-51C (FDEP)		51C	Activity Area 1, La Enhancemen	akes, Herbaceous t/Littoral Shelf
ELLIOSO I		Tr	ti (ti1)				
FLUCFCs code		Further classifica	tion (optional)		Impac	et or Mitigation Site?	Assessment Area Size (Acres)
520						MITIGATION	4.2
Basin/Watershed Name/Number	Affect	ted Waterbody (Clas	,	Special Classification	on (i.e.0	DFW, AP, other local/state/federal	designation of importance)
Withlacoochee		Class I	II				
Geographic relationship to and hyd	Irolog	ic connection with	wetlands others	urface water unla	nde		
Boarshead Ranch is located near	_			•		ochee River and state-	preserved lands to the
east and the headwaters of the Hi		ough River to the		s hydrologically co			
Assessment area description		·	•				
This lake community was form							
surrounding lakes via a ditch. It dominated by water hyacinth and							
frog fruit. The area is being t							
Significant nearby features						ing the relative rarity in	
Green Swamp, Hillsborough R	ivor 1	Withlacochoo Div	or and state				
		lands.	rei, and state	None			
F1555							
Functions				Mitigation for pre	vious	permit/other historic use	)
wildlife refuge and fora	ging,	water quality treat	tment				
Anticipated Wildlife Utilization Base	ed on	Literature Review	(List of species	Anticipated Utiliza	ation b	by Listed Species (List s	pecies, their legal
that are representative of the asset	ssme	nt area and reasor	nably expected to	classification (E,	T, SS	C), type of use, and inte	nsity of use of the
wading birds, reptiles, amp		ns, large/medium n ı habitat	nammals,	Wading	birds	(SSC), Osprey (SSC), I	Bald eagle (T)
роззілі	CIISII	Habitat					
Observed Evidence of Wildlife Utili	zatior	ı (List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
american	alliga	tor osprev hald e	eagle vellow slide	r black racer wat	er mo	ccasin, brim and bass	
uo	ugu	10., 00p.03, 20.0	agio, you ou ou o	,, 2.0011 10001, 1101		ocaciii, biiiii aira bacc	
Additional relevant factors:							
Assessment conducted by:		<u> </u>		Assessment date	e(s):		
AMF/VAF-Entrix: Shannon Julien/Joe Brinson - ESI			2/10/10-Entrix. 3/	20-23	/11-ESI		

		MITIGATION			
Impact or Mitigation	ad Ranch	(FDEP) Enhancement Assessment conducted by:  AMF/VAF-Entrix: Shannon Julien/Joe		, Lakes, Herbaceous nent/Littoral Shelf	
		Billison - Loi			
Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7) Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal le wetland	nimal (4) vel of support of /surface water unctions	Not Present (0)  Condition is insufficien to provide wetland/surface water functions
.500(6)(a) Location and Landsca Support  w/o pres or current with 7		oved habitat and water quality	with the addi	tion of littoral shel	f
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current with  5	/Ir	nproved water quality with the	addition of th	he littoral shelf	
.500(6)(c)Community structur  1. Vegetation and/or 2. Benthic Community  w/o pres or current with 5	Incre	ased biodiversity and additiona	al refuge and	l foraging potentia	ıl
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.5667 0.733	*Preservation adjustme (0 to 1, 1/10th increased	ent factor = ements)	FL = 0	For impact asses	ssment areas
Delta = [with-current]	If mitigation (creation of Time Years Lag 11 – 15	t-factor = 1.14	F	For mitigation ass	essment areas

\*Risk factor =

1.5

RFG = delta/(t-factor x risk) =

0.0975

(1 to 3, 0.25 increments)
\*use 1.0 for preservation Form 62-345.900(2), F.A.C. [02-04-2004]

0.166666667

Site/Project Name Application Num					Assessment Area Name	
Boarshead Ra	Boarsneag Ranch				(South), Herbaceous	
			(FDEP)	J	Preservation/vv	Q Enhancement
FLUCFCs code	Further classific	ation (optional)		Impact	t or Mitigation Site?	Assessment Area Size
		, , ,		·	-	(Acres)
520					MITIGATION	5.5
Basin/Watershed Name/Number	Affected Waterbody (Cla	iss)	Special Classificati	ion (i.e.O	DFW, AP, other local/state/federa	l designation of importance)
Withlacoochee	Class	III				
Geographic relationship to and hyd Boarshead Ranch is located near east and the headwaters of the H	the southwest corner illsborough River to the	of the Green Swan	np, it abuts the W is hydrologically c	ithlaco		
Assessment area description						
This lake community was form surrounding lakes via a ditch. It dominated by water hyacinth and frog fruit. The area is being	is also connected to o sparse pickerelweed.	ffsite wetlands to the Side slopes are do	ne north. The area minated by pastur	a consi e gras:	sts of open water with ses including bermuda	a floating vegetation grass, dog fennel, and
Significant nearby features			Uniqueness (co	nsideri	ing the relative rarity in	relation to the regional
Green Swamp, Hillsborough R prese	River, Withlacoochee Rerved lands.	iver, and state			None	
Functions			Mitigation for pro	vious r	permit/other historic use	
Functions			iviligation for pre	vious p	bermit/other historic use	5
wildlife refuge and	foraging, water treatmo	ent				
Anticipated Wildlife Utilization Base					y Listed Species (List s	
that are representative of the asse	ssment area and reaso	onably expected to	classification (E,	T, SSC	C), type of use, and inte	ensity of use of the
wading birds, reptiles, amp possib	hibians, large/medium le fish habitat	mammals,	Wading	g birds	(SSC), Osprey (SSC),	Bald eagle (T)
Observed Evidence of Wildlife Utili	ization (List species dir	ectly observed, or	I other signs such a	as tracl	ks, droppings, casings,	nests, etc.):
		•	-			,
american	alligator, osprey, bald	eagle, yellow slide	r, black racer, wat	er mod	ccasin, brim and bass	
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
AMF/VAF-Entrix; Shannon Julien/J		2/10/10-Entrix, 3/	/20-23/	/11-ESI		

### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Boarshead Ranch	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Activity Area 1, Lakes (South), Herbaceous Preservation/WQ Enhancement
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI	2/10/10-Entrix, 3/20-23/11-ESI

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support		nuality with the addition of litte	ral shelf in conjunction to the o	open water environment

w/o pres or with current 7 8 .500(6)(b)Water Environment (n/a for uplands) Upland (U) or Wetland (W) W Hydrological restoration w/o pres or with current 5 6 .500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community Increased biodiversity and additional refuge and foraging potential for aquatic dependent species w/o pres or with current 5 7

Score = s	um of above so	cores/30
(i	f uplands/20)	
current or w/o pres		with
0.5667		0.7000

If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment areas				
FL = delta x acres =				

Delta = [with-current]
0.133333333

If mitigation (creation or enhancement)						
Time	Years	t-factor =	1.14			
Lag	11 – 15	t-iactoi –	1.14			
,	1					
(1 to 3	'					

For mitigation assessment areas

RFG = delta/(t-factor x risk) = 0.1170

\*use 1.0 for preservation

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name		Application Number			Assessment Area Name or Number			
Boarshead Ranch		SAJ-2008-00490 (Corps), PA08-51C (FDEP)		51C	Activity Area 2, Wet Prairie (West), Cypress (West/South)&(West North), Forested Enhancement			
FILIOFO:		Tr	4: (4:1)		1.	1 Mar C 01 0	Ta	
FLUCFCs code		Further classifica	tion (optional)		Impad	ct or Mitigation Site?	Assessment Area Size (Acres)	
643/621					MITIGATION 9.3			
Design (Mestages and Negro at	A 66		>	0:				
Basin/Watershed Name/Number Withlacoochee	Affect	ted Waterbody (Clas Class I		Special Classification (i.e.OFW, AP, other local/state/federal designation of imp				
Geographic relationship to and hyd	drolog	ic connection with	wetlands, other s	urface water, upla	ands			
Boarshead Ranch is located near	r the s	outhwest corner o	f the Green Swan	np, it abuts the W	ithlaco	oochee River and state- urrounded by planted pi		
Assessment area description								
This area consists of a low qual fennel. The area appeared to fu cypress; therefore, the are	unctio	n as a depression	al marsh system h	nistorically. The su establish a cohesi	ırroun	ding wetland areas con	tain a fair amount of	
Significant nearby features				Uniqueness (co	nside	ring the relative rarity in	relation to the regional	
Green Swamp, Hillsborough R prese		Withlacoochee Riv lands.	ver, and state					
Functions				Mitigation for previous permit/other historic use				
wildlife ref	uge a	nd foraging						
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected				Anticipated Utilization by Listed Species (List species, their legal o classification (E, T, SSC), type of use, and intensity of use of the				
wading birds, reptiles, amphibians, large/medium mammals				wading birds (SSC)				
Observed Evidence of Wildlife Util	izatior	ı (List species dire	ectly observed, or	l other signs such a	as trac	cks, droppings, casings,	nests, etc.):	
Additional relevant factors:								
Assessment conducted by:				Assessment date(s):				
AMF/DDS-Entrix; Shannon Julien, Joe Brinson- ESI				3/12/10-Entrix; 3/20-23/11- ESI				

Site/Project Name								
	Site/Project Name		Application Number			Assessment Area Name or Number		
Boarshead Ranch		SAJ-2008-00490 (Corps), F (FDEP)	Activity Area 2,Wet Prairie (West), Cypress (West/South)&(West North), Forested Enhancement					
Impact or Mitigation		Assessment conducted by:		Assessment date	<b>:</b>			
Mitigati	on	AMF/DDS-Entrix; Shannon . Brinson- ESI	3/12/10-Entrix; 3/20-23/11- ESI					
Scoring Guidance	Optimal (10)	imal and optimal, but sufficient to maintain most wetland, surface full		linimal (4) No		t Present (0)		
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions			evel of support of /surface water unctions	to wetland/s	is insufficient provide surface water actions		
.500(6)(a) Location and Landscape Support  w/o pres or current with	By restoring historic condi	tions and enhancing wetlands, habitat		reased connectivi	ty to adjac	ent wetland		
1 1								
.500(6)(b)Water Environment (n/a for uplands)								
Upland (U) or Wetland (W)	Restore historic wetland conditions and hydroperiods							
w/o pres or current with 5 7								
.500(6)(c)Community structure								
<ol> <li>Vegetation and/or</li> <li>Benthic Community</li> </ol>	Rest	ored vegetative communities, i	increased fo	oraging and refuge	e			
w/o pres or current with 5 8								
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.5333 0.7667	If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	ent factor = ements)	FL =	For impact assed	ssment ar	eas		
Delta = [with-current]	If mitigation (creation c	r enhancement) t-factor = 1.14		For mitigation ass	essment a	reas		
0.233333333	Lag 11 – 15  *Risk factor (1 to 3, 0.25 incre	= 1	RFG	= delta/(t-factor x	risk) =	0.2047		

\*use 1.0 for preservation

Site/Project Name		Application Number			Assessment Area Name or Number		
Boarshead Ranch		SAJ-2008-00490 (Corps), PA08-51C (FDEP)		51C	Activity Area 2, Cypress (East/North, Cei & South), Forested Enhancement		
FLUCFCs code		Further classifica	tion (ontional)		Impac	t or Mitigation Site?	Assessment Area Size
1 LOCI CS Code		Further classifica	classification (optional)		ппрас	t or willigation Site?	(Acres)
621				MITIGATION			2.2
Basin/Watershed Name/Number	Affect	ted Waterbody (Clas	Special Classificati	on (i.e.C	DFW, AP, other local/state/federa	I designation of importance)	
Withlacoochee		Class I	II				
Geographic relationship to and hyd	rologi	ic connection with	wetlands, other s	urface water, upla	nds		
Boarshead Ranch is located near east and the headwater				-		· · · · · · · · · · · · · · · · · · ·	
Assessment area description							
This area consists of a logged consists of a logged consists pine have also become estate saltbush, Virginia chain fern and	ablishe	ed in the wetland.	The wetland also	contains sparse c	overa	ge of shrub and herbac	eous species including
Significant nearby features				Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
Green Swamp, Hillsborough R prese		Withlacoochee Riv lands.	ver, and state				
Functions				Mitigation for pre	vious	permit/other historic use	9
Wildlife refuge and f	oragir	ng, water attenuati	ion				
Anticipated Wildlife Utilization Base that are representative of the asset			•	•		by Listed Species (List s C), type of use, and inte	
wading birds, reptiles, amphibians, large/medium mammals				wading birds (SSC)			
Observed Evidence of Wildlife Utili	zation	(List species dire	ectly observed, or	l other signs such a	as trac	ks, droppings, casings,	nests, etc.):
Additional relevant factors:							
Assessment conducted by:				Assessment date	e(s):		
AMF/DDS-Entrix; Shannon Julien, Joe Brinson- ESI				2/10/10-Entrix, 3/		/11-ESI	

		MITIGATION				
Site/Project Name  Boarshead	d Ranch	Application Number SAJ-2008-00490 (Corps), (FDEP)	PA08-51C	Activity Area 2 Central &	a Name or Number Cypress (East/North, South), Forested	
Impact or Mitigation Mitiga	tion	Assessment conducted by: AMF/DDS-Entrix; Shannon Brinson- ESI	Julien, Joe	Assessment date: 3/12/10-Entrix; 3/20-23/11- ESI		
0 : 0 : 1	0 (1 1/40)	M 1 (7)		. 1/0	N (D)	
Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7)  Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal le	nimal (4) evel of support of l/surface water unctions	Not Present (0)  Condition is insufficier to provide wetland/surface wate functions	
.500(6)(a) Location and Landscape Support  w/o pres or current with 8		Improved connectivity with	larger wetlai	nd systems		
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current with 4	Restor	ed hydrologic conditions and c	connectivity	to adjacent wetlar	ds	
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with 5	R	estored vegetation, increased	refuge and	foraging habitat		
Score = sum of above scores/30	If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	ent factor = ements)	FL =	For impact assert	ssment areas	
Delta = [with-current]	If mitigation (creation of Time Years Lag 11 – 15	r enhancement) t-factor = 1.25		For mitigation ass	essment areas	

\*Risk factor =

(1 to 3, 0.25 increments)

RFG = delta/(t-factor x risk) =

0.2133

\*use 1.0 for preservation Form 62-345.900(2), F.A.C. [02-04-2004]

0.26666667

Site/Project Name Applicat						
Boarshead Rai	nch		00490 (Corps), PA08-51C (FDEP)			Plantation, Herbaceous
		1 (	(FDEP)		Crea	ation
FLUCFCs code	Further classification	ation (optional)		Impac	et or Mitigation Site?	Assessment Area Size
440		unland			MITIGATION	(Acres)
440		upland			WITIGATION	2.8
			1	•		
Basin/Watershed Name/Number	Affected Waterbody (Clas		Special Classificati	on (i.e.0	DFW, AP, other local/state/federa	I designation of importance)
Withlacoochee	Class	III				
0	1-1					
Geographic relationship to and hyd	· ·		•			
Boarshead Ranch is located near east and the headwaters of t						
Assessment area description						
This area consists of planted	I nine that offers minim	al hahitat value an	ud is being targete	d for w	vetland creation to estab	olich a wet prairie
This area consists of planted	pine that oners minima	commur		u ioi w	veliand creation to estai	nisii a wet prairie
			1			
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Green Swamp, Hillsborough R	liver, Withlacoochee Ri	ver, and state				
prese	erved lands.					
Functions			Mitigation for pre	vious	permit/other historic use	)
wildlife refu	uge and foraging					
Anticipated Wildlife Utilization Base that are representative of the asset			•		by Listed Species (List s	
and the representative of the asset	soment area and reaso	mably expected to	ciassincation (E,	1, 00	o), type of use, and inte	money of doc of the
	1.72				l: I: I (000)	
wading birds, reptiles, amp	nibians, large/medium	mammais			wading birds (SSC)	
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
AMF/DDS-Entrix: Shannon Julien. Joe Brinson- ESI			3/12/10-Entrix: 3/20-23/11- ESI			

		MITIGATION				
Impact or Mitigation	ad Ranch	Application Number SAJ-2008-00490 (Corps), (FDEP) Assessment conducted by: AMF/DDS-Entrix; Shannon		Assessment date	a 2, Pine F eous Cre e:	Plantation, ation
Mitig	ation	Brinson- ESI	ounch, ooc	3/12/10-Ent	rix; 3/20-2	23/11- ESI
Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7)  Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal le wetland	nimal (4) evel of support of l/surface water unctions	Conditio to wetland	Present (0)  n is insufficier provide /surface wate unctions
.500(6)(a) Location and Landscape Support  w/o pres or current with 0	Increase	ed wetland connectivity and ov	erall landsca	ape support for wi	ldlife	
.500(6)(b)Water Environmen (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current with 0 7	_	Irological conditions via wetlan	nd creation a	nd increase wetla	nd conne	ctivity
.500(6)(c)Community structur  1. Vegetation and/or 2. Benthic Community  w/o pres or current with 0 8	e	Increased biodiversity, re	stored wildlif	fe habitat		
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.0000 0.766	*Preservation adjustm (0 to 1, 1/10th income Adjusted mitigation de	rements)	FL =	For impact asse	ssment a	reas
Delta = [with-current]	If mitigation (creation of Time Years  Lag 11 – 15	- t-factor = 1.46		For mitigation ass		areas 0.3001

\*Risk factor =

1.75

RFG = delta/(t-factor x risk) =

0.3001

(1 to 3, 0.25 increments) \*use 1.0 for preservation Form 62-345.900(2), F.A.C. [02-04-2004]

0.766666667

Site/Project Name Application Nu						
Boarshead Rai	nch		0490 (Corps), PA08-51C			and and Pastureland,
	_		(FDEP)		Herbaceou	us Creation
FLUCFCs code	Further classifica	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size
044					MITICATION	(Acres)
211		uplands			MITIGATION	5.7
	· · · · · · · · · · · · · · · · · · ·					
Basin/Watershed Name/Number	Affected Waterbody (Cla	•	Special Classificati	on (i.e.C	DFW, AP, other local/state/federa	I designation of importance)
Withlacoochee	Class	III				
0						
Geographic relationship to and hyd	· ·		•			
Boarshead Ranch is located near east and the headwater			• •			
Assessment area description						
This area consists of open pasture	that has recently been	cleared and sodd	ed It offers no ha	hitat v	alue therefore the area	a is being targeted as a
	tland creation area to e					a io being largeled do d
Ciarriff and a sale of a true			I 11=: /	! . !		
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
Green Swamp, Hillsborough R	River, Withlacoochee Ri	iver, and state				
prese	erved lands.					
Functions			Mitigation for pre	vious <sub>l</sub>	permit/other historic use	•
wildlife refu	uge and foraging					
Anticipated Wildlife Litilization Page	od on Literatura Bayiay	u (List of appaiss	Anticipated Litiliz	ation b	by Listed Species (List s	unaciae their legal
Anticipated Wildlife Utilization Base that are representative of the asset						
•		, .			,, ,,	,
wading birds, reptiles, amp	hibians large/medium	mammals			wading birds (SSC)	
wading birds, replices, dirip	mblans, large/mediam	mammais			wading bilds (000)	
Observed Evidence of Wildlife Utili	ization (List angelog dir	actly observed or	other signs such a	o troo	ko droppingo opoingo	nosto eta li
Observed Evidence of Wildlife Othi	zation (List species dire	ectly observed, or	other signs such a	สร แสด	ks, droppings, casings,	nesis, etc.).
A 1 122						
Additional relevant factors:						
Assessment conducted by:			Assessment date	a(s).		
AMF/DDS-Entrix; Shannon Julien,	Joe Brinson- ESI		3/12/10-Entrix: 3/20-23/11- ESI			
, with the continuity, of all fillers,		10: 12: 10-LIIIIA, 0/	20-20	, , , <u>L</u> OI		

		MITIGATION				
Site/Project Name  Boarshead	Ranch	Application Number SAJ-2008-00490 (Corps), (FDEP)	PA08-51C	Activity Are	a Name or Number ea 2, Cropland and Herbaceous Creation	
Impact or Mitigation Mitigat	ion	Assessment conducted by:  AMF/DDS-Entrix; Shannon Julien, Joe Brinson- ESI  Assessment date:  3/12/10-Entrix; 3/20-23/				
Scoring Guidance	Optimal (10)	Moderate(7)	Min	imal (4)	Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	wetland/s	vel of support of surface water nctions	Condition is insufficien to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support  w/o pres or current with 0 8	Currently an upland, this o	creation area will allow for imp greater wildlife suppo			wetlands and provide	
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current with 7	The creation of a wet p	orairie will re-establish historid	cal hydrology a	and connectivity	between wetlands	
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with  0 8	Increaso	ed biodiversity, improved wild	illife habitat for	refuge and foraç	ging	
Score = sum of above scores/30	If preservation as mities *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	ent factor = ements)	FL = d	For impact asse	ssment areas	
Delta = [with-current]	If mitigation (creation of Time Years Lag 11 – 15	t-factor = 1.46	F	or mitigation ass	essment areas	
0.76666667	Lag   11 – 15  *Risk factor (1 to 3, 0.25 incre *use 1.0 for preserva	ements)	RFG =	= delta/(t-factor x	risk) = <b>0.3001</b>	

\*use 1.0 for preservation

Site/Project Name A		Application Number						
Boarshead Ranch			2008-00490 (Corps), PA08-51C		-	flatwoods, Forested		
			(	FDEP)		Ennan	cement	
FLUCFCs code	F	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size	
							(Acres)	
411			upland		MITIGATION		10	
Basin/Watershed Name/Number	Affected	d Waterbody (Clas	ss)	Special Classificati	on (i.e.0	OFW, AP, other local/state/federa	I designation of importance)	
Withlacoochee		Class I	II					
Geographic relationship to and hyd	drologic	connection with	wetlands, other s	urface water, upla	ands			
Boarshead Ranch is located near	the sou	uthwest corner o	f the Green Swan	np, it abuts the Wi	ithlaco	oochee River and state-	oreserved lands to the	
east and the headwater	rs of the	e Hillsborough Ri	ver to the South.	This area is surro	unded	by planted pine and pir	ne flatwoods	
Assessment area description								
		20 10 1				<b>T</b>		
This area consists of a pine flate		•	•	• • •		ne swamps. The area na twoods community.	as been subjected to	
10991119	y arra io	being largeted i	or wettaria oreatic	ni to cotabilori a w	ot nat	twoods community.		
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional	
Green Swamp, Hillsborough R	Divor M	/ithlacocchoo Div	or and state					
	erved la		rei, and state					
, , , ,								
Franckis as				N A141 41				
Functions				Mitigation for pre	vious	permit/other historic use	<del>)</del>	
wildlife refu	ugo one	d foraging						
wildlife fert	uge and	u loraging						
Anticipated Wildlife Utilization Base	ed on Li	iterature Review	(List of species	Anticipated Litiliza	ation h	by Listed Species (List s	necies their legal	
that are representative of the asses			•			• • •		
·				·			·	
wading birds, reptiles, amp	hihiana	lorgo/modium	mammals	wading birds (SSC)				
wading birds, reptiles, amp	niibiaiis	s, large/medium i	namnais			wading bilds (330)		
Observed Evidence of Wildlife Utili	ization (	(List species dire	ctly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):	
Additional relevant factors:								
Assessment conducted by:				Assessment date	e(s):			
AME/DDS-Entrix: Shannon Julien, Joe Brinson- ESI				3/12/10-Entrix: 3/20-23/11- ESI				

		MITIGATION			
Site/Project Name  Boarshea  Impact or Mitigation		Application Number SAJ-2008-00490 (Corps), F (FDEP) Assessment conducted by: AMF/DDS-Entrix; Shannon,		Activity Area 2, F Ent Assessment date	
Mitiga	ation	Brinson- ESI 3/12/10-Entrix; 3/20-23/			rix; 3/20-23/11- ESI
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal le wetland	evel of support of /surface water unctions	Condition is insufficier to provide wetland/surface wate functions
.500(6)(a) Location and Landscape Support  w/o pres or current with 8	Conversion to wet pine	plantation will restore historica	al wetlands a	and connectivity to	o adjacent wetlands
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  W/o pres or current with 0 7	_	Restored hydroperio	ds and habi	itats	
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with  0 8		ised biodiversity, improved wild	dlife refuge a	and foraging habit	tat
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.0000 0.7667	If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de  *use 1.0 for creation	rements)	FL =	For impact asse	ssment areas
Dolto - fivith overent	If mitigation (creation of Time Years	or enhancement)		For mitigation ass	essment areas

Delta = [with-current] 0.766666667

If mitigation (creation or enhancement)									
Time Years teater 4.03									
Lag	Lag 21 – 25 t-factor = <b>1.92</b>								
	*Risk factor =								

RFG = delta/(t-factor x risk) = 0.2662

\*use 1.0 for preservation

Site/Project Name	Application Number	ber Assessment Area Name or Number 490 (Corps), PA08-51C Activity Area 3, Lake, Herbace				
Boarshead Rai	nch		(FDEP)		•	Lake, Herbaceous
			(IDLI)		Lillian	Cement
FLUCFCs code	Further classifica	· · /		Impact	or Mitigation Site?	Assessment Area Size (Acres)
520/510	open water syste	em including large	lake and ditches		MITIGATION	53.2
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification	on (i.e.OF	W, AP, other local/state/federa	al designation of importance)
Withlacoochee	Class	III				
Geographic relationship to and hyd	trologic connection with	wetlands others	urface water unla	ands		
Boarshead Ranch is located near east and the headwaters of the	the southwest corner one Hillsborough River to	of the Green Swan	np, it abuts the Wi rea is adjacent to	ithlacoo wet pra		•
Assessment area description						
This area consists of a man-ma mining operations on the site. The being targeted for hydrologic enh	e lake contains two litto	ral zones isolated	by berms which fu	unction	as depressional mars	h wetland. The area is
Significant nearby features			Uniqueness (co	nsiderin	ng the relative rarity in	relation to the regional
Green Swamp, Hillsborough R prese	tiver, Withlacoochee Riverved lands.	ver, and state				
Functions			Mitigation for pre	vious pe	ermit/other historic use	e
wildlife refu	uge and foraging					
Anticipated Wildlife Utilization Base that are representative of the asset		•	•	•	Listed Species (List s ), type of use, and inte	
wading birds, reptiles, amphil	oians, large/medium ma	ammals, fish			wading birds (SSC)	
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or	other signs such a	as track	s, droppings, casings,	nests, etc.):
		sandhill crane	s, osprey			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
AMF/DDS-Entrix; Shannon Julien,	Joe Brinson- ESI		3/12/10-Entrix; 3/20-23/11- ESI			

		MITIGATION			
Site/Project Name  Boarshead  Impact or Mitigation	d Ranch	Application Number SAJ-2008-00490 (Corps), (FDEP) Assessment conducted by:	PA08-51C	Activity Area	a Name or Number 3, Lake, Herbaceous nancement
Mitigation Mitigation	tion		MF/DDS-Entrix; Shannon Julien, Joe		
Scoring Guidance	Optimal (10)	Moderate(7)	oderate(7) Mii		Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	wetland	evel of support of /surface water unctions	Condition is insufficier to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support	Improved f	lood storage and connectivity	with surroun	nding mitigation ac	ctivities
w/o pres or current with 7 8					
.500(6)(b)Water Environment (n/a for uplands)					
Upland (U) or Wetland (W)		n the abatement of agricultural e hystorical flow by altering dite			
w/o pres or current with 5 7	_				
.500(6)(c)Community structure					
Vegetation and/or     Benthic Community		Improved wildlife habit	at and biodiv	versity	
w/o pres or current with 5 7	_				
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.5667 0.7333	If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de	ent factor = rements)	FL =	For impact assed	ssment areas
	If mitigation (areation	or onhancomont\			
Delta = [with-current]	If mitigation (creation of Time Years Lag 5	t-factor = 1.14		For mitigation ass	essment areas

\*Risk factor = (1 to 3, 0.25 increments)

1.25

RFG = delta/(t-factor x risk) =

0.1170

0.166666667

Site/Project Name Application Nu								
Boarshead Ra	ınch			90 (Corps), PA08-	51C	•	ss (Southwest & North), Preservation	
			(	FDEP)		roresteu r	reservation	
FLUCFCs code		Further classifica	tion (optional)		Impac	t or Mitigation Site?	Assessment Area Size (Acres)	
621					MITIGATION		13.8	
Basin/Watershed Name/Number	Affecte	ed Waterbody (Clas	ss)	Special Classificati	on (i.e.C	DFW, AP, other local/state/federa	al designation of importance)	
Withlacoochee		Class I	II					
Geographic relationship to and hyd	drologi	c connection with	wetlands, other s	urface water, upla	nds			
Boarshead Ranch is located near	r the so	outhwest corner o	f the Green Swan	np, it abuts the W	thlaco	ochee River and state- rounded by pine flatwo		
Assessment area description								
This area consists of two cypres moderate coverage of herbaceou cyp	us spe	cies dominated by		e wetland shows	signs	of hydrologic stress bas		
Significant nearby features				Uniqueness (co	nsider	ing the relative rarity in	relation to the regional	
Green Swamp, Hillsborough F	River, V erved la		ver, and state					
Functions				Mitigation for pre	vious	permit/other historic us	e	
wildlife refuge and f	foragin	g, water attenuati	on					
Anticipated Wildlife Utilization Base that are representative of the asse						by Listed Species (List s C), type of use, and into		
wading birds, reptiles, amp	ohibian	s, large/medium r	mammals	wading birds (SSC)				
Observed Evidence of Wildlife Util	ization	(List species dire	ectly observed, or	other signs such a	s trac	ks, droppings, casings,	nests, etc.):	
			white tailed de	er, tracks				
Additional relevant factors:								
Assessment conducted by:				Assessment date	e(s).			
AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI				2/10/10-Entrix, 3/20-23/11-ESI				

### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Boarshead Ranch	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Activity Area 4, Cypress (Southwest & North), Forested Preservation
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI	2/10/10-Entrix, 3/20-23/11-ESI

Scoring G	uidance		Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed		Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support		Improv	ved protection and interconne	ctivity of surrounding wetland	s	
w/o pres or current 7		with 8				

Upland (U) or Wetland (W)	W	Improved historical hydrology
w/o pres or current	with	

5 6

.500(6)(c)Community structure

1. Vegetation and/or
2. Benthic Community Increased biodiversity and wildlife habitat

w/o pres or
current with

4 8

Score =	Score = sum of above scores/30							
	(if uplands/20)							
current	current							
or w/o pres	or w/o pres with							
0.5333		0.7333						

.500(6)(b)Water Environment (n/a for uplands)

If preservation as mitigation,						
*Preservation adjustment factor = (0 to 1, 1/10th increments)	0.7					
Adjusted mitigation delta =	0.14					
*use 1.0 for creation						

For impact assessment ar	eas
FL = delta x acres =	

Delta = [with-current]	
0.2	

If mitigation (creation or enhancement)									
Time Years t-factor = 1.14									
Lag	5	t-lactor -	1.14						
*	*Risk factor =								
(1 to 3	(1 to 3, 0.25 increments)								
* 1 O fo		:							

For mitigation assessment areas							
RFG = delta/(t-factor x risk) =	0.1228						

\*use 1.0 for preservation

Site/Project Name		Application Number					
Boarshead Ran	nch	SAJ-2008-00490 (Corps), PA08-51C (FDEP)			Activity Area 4, Cypress (Central), Forested Preservation		
			FDEP)	Preservation			
FLUCFCs code	Further classifica	Further classification (optional)		Impact or Mitigation Site?		Assessment Area Size	
621					MITICATION	(Acres)	
021					MITIGATION	0.4	
			T	•			
	Affected Waterbody (Clas		Special Classificati	on (i.e.C	DFW, AP, other local/state/federal	designation of importance)	
Withlacoochee	Class I	III					
Geographic relationship to and hyd	rologic connection with	wetlands others	urface water unla	ands			
Boarshead Ranch is located near	· ·		•		sooboo Divor and state a	arasamiad lands to the	
			• •		rounded by pine flatwoo		
Assessment area description							
This area consists of a small cypro							
moderate coverage of herbaceou						ed on the dead/fallen	
	ress. However, the are	a is largely in tact			-		
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional	
Green Swamp, Hillsborough Ri		ver, and state					
prese	rved lands.						
Functions			Mitigation for previous permit/other historic use				
wildlife refuge and fo	oraging, water attenuati	ion					
Anticipated Wildlife Utilization Base	ad on Literature Review	( I jet of energies	Anticinated Litiliza	ation h	by Listed Species (List s	nacies their legal	
that are representative of the asses							
•			·		,	•	
wading birds, reptiles, ampl	hihians large/medium	mammals	wading birds (SSC)				
wading birds, replies, diffpr	indiano, large/mediam	mammais					
Observed Evidence of Wildlife Hilli	nation (List appairs disc	athu abaamiad au	athan signa ayah a		les describes socioses	nacta ata \	
Observed Evidence of Wildlife Utiliz	zation (List species dire	ectly observed, or	otner signs such a	as trac	sks, droppings, casings,	nests, etc.):	
		white tailed de	er, tracks				
Additional relevant factors:							
Assessment conducted by:			Assessment date	5(6).			
AME/VAF-Entrix: Shannon Julien/Jo	2/10/10-Entrix 3/20-23/11-ESI						

		MITIGATION				
Site/Project Name Boarsh	ead Ranch	Application Number SAJ-2008-00490 (Corps) (FDEP)	, PA08-51C	Activity Area	a Name or Number 4, Cypress (Central), d Preservation	
Impact or Mitigation Mit	igation	Assessment conducted by: AMF/VAF-Entrix; Shannor Brinson - ESI	n Julien/Joe	Assessment date: 2/10/10-Entrix, 3/20-23/11-ESI		
Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7) Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal le wetland	nimal (4)  evel of support of /surface water unctions	Not Present (0)  Condition is insufficien to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support  w/o pres or current wit 7	h	oved protection and interconr	nectivity of sur	rounding wetland	s	
.500(6)(b)Water Environme (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current  5	<i>N</i>	Improved historical hydrology				
.500(6)(c)Community structu  1. Vegetation and/or 2. Benthic Community  w/o pres or current  4  8	<u>h</u>	Increased biodiversity	/ and wildlife h	nabitat		
Score = sum of above scores/3 (if uplands/20) current or w/o pres wit  0.5333  0.73	*Preservation adjustm (0 to 1, 1/10th inc h	nent factor = 0.7 rements) 0.7	FL = (	For impact asses	ssment areas	
Delta = [with-current]	If mitigation (creation Time Years Lag 6 – 10	or enhancement) t-factor = 1.25	F	For mitigation ass	essment areas	

\*Risk factor =

(1 to 3, 0.25 increments)

0.1120

RFG = delta/(t-factor x risk) =

\*use 1.0 for preservation Form 62-345.900(2), F.A.C. [02-04-2004]

0.2

Site/Project Name	Application Number			Assessment Area Name or Number			
Boarshead Ra	nch			90 (Corps), PA08- FDEP)	51C	•	Stream and Lake Forested Preservation
FLUCFCs code		Further classificat	tion (optional)		Impac	t or Mitigation Site?	Assessment Area Size (Acres)
615					MITIGATION		7.5
D : 00/ / 1 1 1 1 1 1 1 1 1	Tarr 1	114/ 1 1 1 (0)	`	lo : 101 :5 :			
Basin/Watershed Name/Number	Апесте	ed Waterbody (Clas	•	Special Classification	on (i.e.C	DFW, AP, other local/state/federa	I designation of importance)
Withlacoochee		Class I	II				
Geographic relationship to and hyd	drologi	c connection with	wetlands, other s	urface water, upla	ınds		
Boarshead Ranch is located near east and the he				• •		ochee River and state- rounded by pine flatwoo	
Assessment area description							
This area consists of a mixed fore has moderate coverage of herbac				and broomsedge			
Significant nearby features				Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
Green Swamp, Hillsborough R prese	River, V erved la		ver, and state				
Functions				Mitigation for pre	vious	permit/other historic use	)
wildlife refuge and foraging	յ, wate	r attenuation, floo	d storage				
Anticipated Wildlife Utilization Base that are representative of the asse			•	•		by Listed Species (List s C), type of use, and inte	
wading birds, reptiles, amp	hibian	s, large/medium r	nammals	wading birds (SSC)			
Observed Evidence of Wildlife Utili	ization	(List species dire	ctly observed, or	I other signs such a	ıs trac	ks, droppings, casings,	nests, etc.):
			white tailed de	er, tracks			
Additional relevant factors:							
Assessment conducted by:				Assessment date	e(s):		
AME/VAE-Entrix: Shannon Julien/Joe Brinson - ESI				2/10/10-Entrix 3/20-23/11-ESI			

### **MITIGATION**

Site/Project Name	Application Number	Application Number		Assessment Area Name or Number		
Boarshead Ranch		SAJ-2008-00490 (Corps), PA08-51C (FDEP)		Activity Area 4, Stream and Lake Swamp/Bottomlands, Forested Preservation		
Impact or Mitigation		Assessment conducted by:	Assessment conducted by:  AMF/VAF-Entrix; Shannon Julien/Joe  Brinson - ESI		Assessment date: 2/10/10-Entrix, 3/20-23/11-ESI	
Mitiga	· ·					
0 : 0 : 1	0 (1 1/40)				L N (B)	
Scoring Guidance	Optimal (10)	Moderate(7)	MII	nimal (4)	Not Present (0)	
The scoring of each		Condition is less than			0 100 0 00	

The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  w/o pres or current with 8	;	Increased protection	in the landscape	
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  W/o pres or current with  7	Increased flood sto	rage, water attenuation, and p	preservation of historic hydrolo	gic conditions
.500(6)(c)Community structure				

Increased wildlife protection, foraging and refuge habitat for both wetland and wetland dependent species, increased wildlife corridor

Score = sum of above scores/30 (if uplands/20)			
current			
or w/o pres with			
0.6000		0.8000	

Vegetation and/or
 Benthic Community

with

8

w/o pres or

current

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	0.7
Adjusted mitigation delta =	0.14

For impact assessment areas		
FL = delta x acres =		

<u> </u>
Delta = [with-current]
0.2

If mitigation (creation or enhancement)						
Time	Years	t-factor =	1.14			
Lag	5	t-iactoi –	1.14			
*	1					
(1 to 3						
*a 4 0 fa	* 4 0 f					

For mitigation assessment areas			
RFG = delta/(t-factor x risk) =	0.1228		

\*use 1.0 for preservation

\*use 1.0 for creation

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name			Application Numbe	r		Assessment Area Name of	or Number
Boarshead Ranch			AJ-2008-00490 (Corps), PA08-51C (FDEP)		Activity Area 3, Cropland and Pasture (North), Herbaceous Restoration		
					1.		
FLUCFCs code		Further classifica	ition (optional)		Impac	et or Mitigation Site?	Assessment Area Size (Acres)
210			upland			MITIGATION	37.1
Basin/Watershed Name/Number	Λffoct	ed Waterbody (Clas	20)	Special Classificati	on (i.e.	OFW AD ather level/ateta/fadara	I designation of importance)
Hillsborough	Allecte	Class I	,	Special Classification (i.e.OFW, AP, other local/state/federal designation of importance			r designation of importance)
Geographic relationship to and hyd	drologi	c connection with	wetlands, other s	surface water, upla	ands		
Boarshead Ranch is located near east and the headwaters of the				• •			
Assessment area description							
This area was hi	istoric	marshland that ha	as been converted	d to agricultural us	ses an	d is mowed and mainta	ined.
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Green Swamp, Hillsborough R prese	River, V erved la		ver, and state				
Functions				Mitigation for pre-	vious	permit/other historic use	9
wildli	life fora	aging					
Anticipated Wildlife Utilization Base that are representative of the asset				•		by Listed Species (List s C), type of use, and inte	
small to larg	je man	nmals, birds		Wading birds (SSC)			
Observed Evidence of Wildlife Utili	ization	(List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
			None				
Additional relevant factors:							
Assessment conducted by:			_	Assessment date	e(s):	_	
Shannon Julien and Joe Brinson - ESI			3/20-23/11				

### **MITIGATION**

Moderate(7)

Minimal (4)

Not Present (0)

Site/Project Name	Application Number	Assessment Area Name or Number
Boarshead Ranch	SAJ-2008-00490 (Corps), PA08-51C (FDEP)	Activity Area 3, Cropland and Pasture (North), Herbaceous Restoration
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	Shannon Julien, Joe Brinson - ESI	3/20-23/11

Optimal (10)

The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  w/o pres or current with 6 8		ric conditions to support overa	all adjacent wetlands and land	scape habitats
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W) W  w/o pres or current with 3	Restore historic hydrologid	cal conditions, soils still hydric attenuation, water qualit	to restore wet prairie condition y, and flood storage	ns and improve water
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with	Inc	reased biodiversity, improved	wildlife refuge and foraging	

Score = s	Score = sum of above scores/30			
(	(if uplands/20)			
current	current			
or w/o pres	or w/o pres with			
0.4333		0.7333		

Delta = [with-current] 0.3

Scoring Guidance

If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

If mitigation	ent)		
Time	Years	t-factor =	1.25
Lag	6 – 10	t-lactor -	1.23
*	1 25		
(1 to 3	1.20		

For impact assessment areas FL = delta x acres =

For mitigation assessment areas						
RFG = delta/(t-factor x risk) =	0.1920					

\*use 1.0 for preservation

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name Application		Application Numbe	per Assessment Area Name or Number		or Number		
Boarshead Ranch				SAJ-2008-00490 (Corps), PA08-5 (FDEP)		Activity Area 3, Cropland and Pasturela (South), Herbaceous Restoration	
FLUCFCs code		Further classifica	tion (ontional)		Impac	t or Mitigation Site?	Assessment Area Size
FLOCECS code Futilier clas		T dittier classifica	tion (optional)		Impact or Mitigation Site? Ass		(Acres)
210 up			upland			MITIGATION	50
Basin/Watershed Name/Number	Affect	ed Waterbody (Clas	ss)	Special Classificati	on (i.e.0	OFW, AP, other local/state/federa	I designation of importance)
Hillsborough		Class I	II				
Geographic relationship to and hyd	rologi	ic connection with	wetlands, other s	urface water, upla	nds		
Boarshead Ranch is located near east and the headwaters of the				• •			
Assessment area description		-					
This area was previously a nam	ned lak	ke that has dried o	out and been conv maintained p		ınd. T	he area is of low quality	/ as it is mowed and
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Green Swamp, Hillsborough R prese	River, V erved I		ver, and state				
Functions				Mitigation for previous permit/other historic use			
wildlife foraç	ging, fl	lood storage					
Anticipated Wildlife Utilization Base that are representative of the asset						by Listed Species (List s C), type of use, and inte	
small to larg	je mar	mmals, birds		Wading birds (SSC)			
Observed Evidence of Wildlife Utili	ization	(List species dire	ectly observed, or	I other signs such a	as trac	cks, droppings, casings,	nests, etc.):
Additional relevant factors:							
Assessment conducted by:				Assessment date	e(s):		
AME/\/AE-Entrix: Shannon, Julien/Joe Brinson - ESI				2/15/10 - Entrix: 1	3/20-2	3/11 - FSI	

### **MITIGATION**

Site/Project Name	Application Number		Assessment Area Name or Number				
Boarshead Ranch		SAJ-2008-00490 (Corps), PA08-51C (FDEP)		Activity Area 3, Cropland and Pastureland (South), Herbaceous Restoration			
Impact or Mitigation		Assessment conducted by:		Assessment date:			
Mitigation	AMF/VAF-Entrix; Shannon Julien/Joe Brinson - ESI		2/15/10 - Entrix; 3/20-23/11 - ESI				
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)		

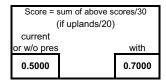
Scoring Guidance		Optimai (10)	Moderate(1)	wiinimai (4)	Not Present (U)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed		Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location an Support	d Landscap		ric conditions to support overa	all adjacent wetlands and land	scape habitats
w/o pres or current 6	with	_			
.500(6)(b)Water En (n/a for uplan					

5 7

.500(6)(c)Community structure

1. Vegetation and/or
2. Benthic Community Increased biodiversity, improved wildlife refuge and foraging

Restore historic hydrological conditions, soils still hydric to restore wet prairie conditions and improve water attenuation, water quality, and flood storage



Upland (U) or Wetland (W)

w/o pres or

current

w/o pres or current W

with

with

If preservation as mitigation,					
*Preservation adjustment factor =					
(0 to 1, 1/10th increments)					
Adjusted mitigation delta =					
*use 1.0 for creation					

For impact assessment ar	eas
FL = delta x acres =	

Delta = [with-current]
0.2

If mitigation (creation or enhancement)							
Time	Time Years t-factor =						
Lag	Lag 6 – 10						
,	1.25						
(1 to 3, 0.25 increments)							
*use 1.0 fo	r preservati	ion					

For mitigation assessment areas					
RFG = delta/(t-factor x risk) =	0.1280				

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name		Application Number				
Boarshead Ranch					Activity Area 3, Pine Plantation (West, North & South), Herbaceous Creation	
	_	(FDEP)			& South), Herba	aceous Creation
FLUCFCs code	Further classifica	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size
440				141TI 0 1 TI		(Acres)
440		upland			MITIGATION	15.4
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classificati	on (i.e.C	DFW, AP, other local/state/federal	designation of importance)
Hillsborough	Class	III				
0						
Geographic relationship to and hyd	•		• •			
Boarshead Ranch is located near east and the headwate					ochee River and state- <sub>l</sub> d by cropland slated for	
Assessment area description						
This low quality habitat was historic	cally wet prairie that wa	as converted to silv	vicultural operation	ns Th	ne area is dominated by	slash nine with little to
Triis low quality Habitat was Historia		getation. The targ				oldon pine with little to
Ciarriff and a sale of a trans-			I I I = : /	!		
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
Green Swamp, Hillsborough R		ver, and state				
prese	erved lands.					
Functions			Mitigation for pre	vious <sub>l</sub>	permit/other historic use	•
wildlife refu	uge and foraging					
Anticipated Wildlife Litilization Rese	ad on Literature Poview	u (List of species	Anticipated Litiliz	ation b	by Listed Species (List s	nacios their logal
Anticipated Wildlife Utilization Base that are representative of the asses						
·						•
small to larg	je mammals, birds				wading birds (SSC)	
Small to larg	e mammais, birds				wading bilds (000)	
Observed Evidence of Wildlife Utili	ization (List appaiss dire	actly observed or	other signs such a	o troo	ko dranninga againga	nacta ata \
Observed Evidence of Whalie Othi.	zation (List species dire	activ observed, or	other signs such a	สร แสด	ks, droppings, casings,	nesis, etc.).
A 1 122						
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
AMF/DDS-Entrix; Shannon Julien,		3/12/10-Entrix; 3/20-23/11- ESI				

		MITIGATION			
Site/Project Name  Boarshead  Impact or Mitigation  Mitigat	Application Number SAJ-2008-00490 (Corps), F (FDEP) Assessment conducted by: AMF/DDS-Entrix; Shannon on Brinson- ESI		Assessment Area Name or Number Activity Area 3, Pine Plantation (West, North & South), Herbaceous Creation Assessment date: 2/15/10 - Entrix; 3/20-23/11 - ESI		
		BIIIISOII- ESI			
Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7) Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal le wetland	nimal (4) evel of support of /surface water unctions	Not Present (0)  Condition is insufficien to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  w/o pres or current with  0 8	Upland taken out of use	and restored to historical cond	litions to imp	prove support of s	urrounding wetlands
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  W/o pres or current with 0 7	Restore historic w	retland habitat, increase flood s	storage, wat	er attenuation and	d water quality
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with  0 8	Increa	ased biodiversity, improved will	flife refuge a	and foraging habit	at
Score = sum of above scores/30	If preservation as mitiq *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	rements)	FL = (	For impact asses	ssment areas
Delta = [with-current]	If mitigation (creation of Time Years Lag 11 – 15	t-factor = 1.46	ı	For mitigation ass	essment areas

\*Risk factor =

(1 to 3, 0.25 increments)

1.5

RFG = delta/(t-factor x risk) =

0.3501

0.766666667

Site/Project Name		Application Number			Assessment Area Name	
Boarshead Rai	nch		90 (Corps), PA08-51C Activity Area 3, Wet Prairie, He (FDEP) Enhancement			·
			(FDEP)		Ennand	cement
FLUCFCs code	Further classific	cation (optional)		Impac	et or Mitigation Site?	Assessment Area Size
						(Acres)
643					MITIGATION	0.2
Basin/Watershed Name/Number	Affected Waterbody (Cla	ass)	Special Classificati	ion (i.e.C	OFW, AP, other local/state/federal	designation of importance)
Hillsborough	Class	s III				
Geographic relationship to and hyd Boarshead Ranch is located near east and the headwaters of the h	the southwest corner	of the Green Swan	np, it abuts the Wi a is surrounded by	ithlaco		
Assessment area description			•			
This moderate quality wetland is	a small remnant of we	et prairie that once targeted for enh	•	s area.	. The area is dominated	d by maidencane and
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Green Swamp, Hillsborough R prese	tiver, Withlacoochee Rerved lands.	River, and state				
Functions			Mitigation for pre	vious	permit/other historic use	<u> </u>
Tunctions			Willigation for pre	vious	permitotrier mistorie use	,
wildlife refu	uge and foraging					
Anticipated Wildlife Utilization Base that are representative of the asset			·		by Listed Species (List s C), type of use, and inte	
small to large mammal	ls, birds, reptiles, amp	hibians	wading birds (SSC)			
Observed Evidence of Wildlife Utili	zation (List species di	rectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
AMF/VAF-Entrix; Shannon Julien/J	2/15/10 - Entrix; 3/20-23/11 - ESI					

	1	MITIGATION			
Site/Project Name Boarshead	te/Project Name Boarshead Ranch		PA08-51C	Assessment Area Name or Number Activity Area 3, Wet Prairie, Herbaceous Enhancement	
Impact or Mitigation Mitigat	ion	Assessment conducted by:  AMF/VAF-Entrix; Shannon Julien/Joe  Brinson - ESI  Assessment date:  2/15/10 - Entrix; 3/20-2			
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	inimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than	ess than ufficient to most urface  Minimal level of support of wetland/surface water functions		Condition is insufficier to provide wetland/surface water functions
500(6)(a) Location and Landscape Support  #/o pres or with 8		ounding upland habitats to wet conditions in the			connectivity and histori
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  Wo pres or current with  5	Im	nproved water quality, water at	ttenuation ar	nd flood storage	
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with 6 8		Increased biodiversity, wild	life refuge ar	nd foraging	
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.5667	If preservation as mitig *Preservation adjustme (0 to 1, 1/10th incre Adjusted mitigation del  *use 1.0 for creation	ent factor = ements)	FL =	For impact assed	ssment areas
Dolto = [with ourrent]	If mitigation (creation o	r enhancement)		For mitigation ass	essment areas

\*Risk factor = (1 to 3, 0.25 increments) \*use 1.0 for preservation Form 62-345.900(2), F.A.C. [02-04-2004]

Delta = [with-current]

6 – 10

t-factor =

1.25

1

RFG = delta/(t-factor x risk) =

0.1600

Lag

Site/Project Name			Application Numbe				
Boarshead Ra	nch		SAJ-2008-00490 (Corps), PA08-51C		51C	Activity Area 3, Cypress Preservation, Forested Preservation	
			[	(FDEP)		Forested P	reservation
FLUCFCs code		Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size
204						MITICATION	(Acres)
621						MITIGATION	1.1
				1			
Basin/Watershed Name/Number	Affect	ted Waterbody (Clas	ss)	Special Classificati	ion (i.e.0	OFW, AP, other local/state/federa	designation of importance)
Hillsborough		Class I	III				
Geographic relationship to and hyd	drolog	ic connection with	wetlands others	urface water unla	ande		
	•			•		b Di	
Boarshead Ranch is located near east and the headwaters of							
Assessment area description							
This moderate quality wetland i	is a sn	nall remnant of for	rested wetlands o	n elevated knolls	adjace	ent to wet prairie. The a	area is dominated by
, ,			cypress and ma		•	•	•
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
,				0400000 (00		g and relative rainy in	rolation to the regional
Green Swamp, Hillsborough R		Withlacoochee Riv lands.	ver, and state				
prese	ei veu	iarius.					
F				NA'C C		27.0	
Functions				Mitigation for pre	vious	permit/other historic use	3
wildlife ref	uge a	nd foraging					
	-9	······································					
Anticipated Wildlife Utilization Base						by Listed Species (List s	
that are representative of the asse	ssme	nt area and reaso	nably expected to	classification (E,	T, SS	C), type of use, and inte	ensity of use of the
small to large mamma	ls, bir	ds, reptiles, amphi	ibians	wading birds (SSC)			
Observed Evidence of Wildlife Utili	izatior	n (List species dire	ectly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):
Additional relevant factors:							
				T -			
Assessment conducted by:				Assessment date	e(s):		
Shannon Julien, Joe Brinson - ESI				3/20-23/11			

### MITICATION

	ľ	MITIGATION					
Site/Project Name	d Daniel	Application Number SAJ-2008-00490 (Corps),	PA08-51C		a Name or Number Cypress Preservation,		
Boarshea	id Ranch	(FDEP)		Foreste	d Preservation		
mpact or Mitigation		Assessment conducted by:		Assessment date	):		
Mitig	ation	Shannon Julien, Joe Brin	son - ESI	- ESI 3/20-23/11			
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)		
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions  Minimal (4)  Minimal (4)  Minimal (4)  Minimal (4)		Condition is insufficie to provide wetland/surface wat functions			
500(6)(a) Location and Landsca Support  //o pres or //orrent with  8		rounding upland habitats targ and historic conditions			the overall connectivit		
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current with 7	_	proved water quality, water at	ttenuation an	nd flood storage			
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with 4		Increased biodiversity, wildlife refuge and foraging					
Score = sum of above scores/30 (if uplands/20)	If preservation as mitigation as mitigation adjustme (0 to 1, 1/10th incre	ent factor =		For impact asses	ssment areas		

Score = sum of above scores/30				
(if uplands/20)				
current				
or w/o pres	_	with		
0.5000		0.7667		

If preservation as mitigation,	
*Preservation adjustment factor =	0.7
(0 to 1, 1/10th increments)	0.7
Adjusted mitigation delta =	0.186667
*use 1.0 for creation	

For impact assessment areas				
FL = delta x acres =				

Delta = [with-current]	
0.26666667	

If mitigation (creation or enhancement)							
Time	Years	t-factor = 1.14					
Lag	5	t-lactor –	1.14				
,	1						
(1 to 3	!						
*uco 1.0 for procognistion							

For mitigation assessment areas RFG = delta/(t-factor x risk) = 0.1637

use 1.0 for preservation

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name			Application Number			Assessment Area Name		
Boarshead Rai	nch		SAJ-2008-00490 (Corps), PA08-51C			C Activity Area 3, Cypress Restoration, Forested Restoration		
			(	(FDEP)		Forested I	restoration	
FLUCFCs code		Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size	
					·	-	(Acres)	
621						MITIGATION	5.5	
							<u> </u>	
Basin/Watershed Name/Number	Affecte	ed Waterbody (Clas	ss)	Special Classificati	ion (i.e.	OFW, AP, other local/state/federa	designation of importance)	
Hillsborough		Class I	II					
Geographic relationship to and hyd	drologi	c connection with	wetlands, other s	urface water, upla	ands			
Boarshead Ranch is located near east and the headwaters of the								
Assessment area description								
This low quality wetla	and is a	adjacent to existir	ng cypress and ap	pears to have been	en tim	bered and converted to	cropland.	
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional	
Green Swamp, Hillsborough R	River, V	Vithlacoochee Riv	er, and state					
•	erved la							
Functions				Mitigation for pre	vious	permit/other historic use	 9	
wildlife refu	uge an	nd foraging						
Anticipated Wildlife Utilization Base						by Listed Species (List s		
that are representative of the asset	ssmen	it area and reasoi	nably expected to	classification (E,	1, 55	C), type of use, and inte	ensity of use of the	
small to large mammal	ls, bird	ls, reptiles, amphi	bians	wading birds (SSC)				
Observed Evidence of Wildlife Utili	ization	(List species dire	ctly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):	
Additional relevant factors:								
Assessment conducted by:				Assessment date	e(s):			
Shannon Julien, Joe Brinson - ESI				3/20-23/11				

	1	MITIGATION				
Site/Project Name Boarshead Ranch		Application Number SAJ-2008-00490 (Corps), I (FDEP)	PA08-51C	Assessment Area Name or Number Activity Area 3, Cypress Restoration, Forested Restoration		
Impact or Mitigation		Assessment conducted by:		Assessment date		
Mitiga	ation	Shannon Julien, Joe Brins	son - ESI	3/	/20-23/11	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	inimal (4)	Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to Minimal level of support of maintain most wetland/surface water			Condition is insufficier to provide wetland/surface wate functions	
.500(6)(a) Location and Landscal Support  w/o pres or current with  8		rounding upland and wetland h and historic conditions			the overall connectivity	
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  W/o pres or current with 5	Im	nproved water quality, water at	tenuation ar	nd flood storage		
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with 4		Increased biodiversity, wildl	life refuge ar	nd foraging		
Score = sum of above scores/30 (if uplands/20)   current   or w/o pres   with   0.5000   0.766	If preservation as mitig *Preservation adjustme	ent factor = ements)	FL =	For impact asse	ssment areas	
Delta = [with-current]	If mitigation (creation o Time Years Lag 11 – 15	t-factor = 1.25		For mitigation ass		

1.25

0.1707

RFG = delta/(t-factor x risk) =

\*Risk factor =
(1 to 3, 0.25 increments)
\*use 1.0 for preservation Form 62-345.900(2), F.A.C. [02-04-2004]

0.26666667

Site/Project Name			Application Numbe			Assessment Area Name or Number	
Brooker Creek Pro	eserve	)	SAJ2008-00490 (ACOE), PA08-51C		51C	Wetland Enhancement (treatment and planting)	
			(	FDEP)		pian	ung)
FLUCFCs code		Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size
644/642						MITICATION	(Acres)
641/643						MITIGATION	33
					l		
Basin/Watershed Name/Number	Affect	ed Waterbody (Clas	s)	Special Classificati	on (i.e.0	OFW, AP, other local/state/federa	I designation of importance)
Tampa Bay		Class I	II				
Geographic relationship to and hyd	Irologi	a connection with	watlanda athar a	urfoco wotor unla	ndo		
	•			• •			// · · · · · · · · · · · · · · · · · ·
Area represents several freshwate tl		sh areas underne n the Preserve we					ms/tributaries that flow
Assessment area description							
Areas currently exist as low qua	ality fre	eshwater marsh a	•		rious (	exotic/invasive species	and some desirable
			aquatic spe	ecies.			
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Most areas connected to adjacen	t wetls	ands that eventual	lly flow west into				
Brooker Cree			ily now west into	None			
		·					
Functions Mitigation for				Mitigation for pre-	vious	permit/other historic use	7
				iviligation for pro	vious	pormitourer motorio doc	,
Water detention and conveyance, birds and other we	_	•	•			No	
blids and other we	liariu-l	dependent species	<b>5.</b>				
Anticipated Wildlife Utilization Base	ed on	Literature Review	(List of species			by Listed Species (List s	
that are representative of the asse	ssmer	nt area and reasor	nably expected to	classification (E,	T, SS	C), type of use, and inte	ensity of use of the
Wading birds, numer	ous re	ptiles and amphib	ians	Wood Stork			
Observed Evidence of Wildlife Utili	ization	(List species dire	ctly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):
Turkey, White-tailed Deer, Racco	oon, w	ild pig, diamond-b	ack rattle snake,	red corn snake, w	ood d	luck, great blue heron, i	bis, snowy egret, red-
			tailed hawk,	rabbit			
Additional relevant factors:							
Assessment conducted by:				Assessment date			
Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI				3/12/2010 - Entrix; 3/23/2011 - ESI			

### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number	
Brooker Creek Preserve	SAJ2008-00490 (ACOE), PA08-51C	Wetland Enhancement (treatment and	
brooker Creek Preserve	(FDEP)	planting)	
Impact or Mitigation	Assessment conducted by:	Assessment date:	
Mitigation	Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI	3/12/2010 - Entrix; 3/23/2011 - ESI	

Miligai	lion	Michael Stowe-ES	SI 3/12/2010 - E	:ntrix; 3/23/2011 - ESI
Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface wetland/surface water functions  Condition is condition is to provide the provided with the provided the provided water functions.		Condition is insufficien to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  w/o pres or current with 5	Areas already serve as	nesting, foraging and cover fo wetland	•	s within surrounding
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with 7		uate hydrology and typically h pendent species and the area areas	s act as storage for surface r	
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or  current with  5	by planting numerous fresh	l include treating any invasive water marsh species. This w sting options for wildlife, as w	ill increase the habitat diversi	ity, offer additional food
Score = sum of above scores/30 (if uplands/20) current or w/o pres with 0.5667 0.6667	If preservation as mitig *Preservation adjustme (0 to 1, 1/10th incre Adjusted mitigation del *use 1.0 for creation	ent factor = ements)	For impact asser	essment areas

Delta = [with-current]
0.1

If mitigation (creation or enhancement)						
Time	Years	t-factor =	1.07			
Lag	3	1-100101 -	1.07			
*	*Risk factor =					
(1 to 3, 0.25 increments) 1.75						
*use 1.0 for preservation						

For mitigation assessment areas			
RFG = delta/(t-factor x risk) =	0.0534		

Site/Project Name		Application Numbe			or Number		
Brooker Creek Pre	eserve	9		0 (ACOE), PA08- FDEP)	51C	Wetland Enhancem	ent (treatment only)
FLUCFCs code		Further classifica	tion (ontional)		Imnac	et or Mitigation Site?	Assessment Area Size
1 2001 03 0000		T ditilor oldosillod	don (optional)		Impac	or or wingation one:	(Acres)
621/630						MITIGATION	10.5
					ı		
Basin/Watershed Name/Number	Affect	ted Waterbody (Clas	ss)	Special Classificati	on (i.e.0	OFW, AP, other local/state/federa	I designation of importance)
Tampa Bay		Class I	II				
Geographic relationship to and hyd	Irolog	ic connection with	wetlands, other s	urface water, upla	ands		
Areas currently exists as functioning to nearby contiguous wetlands							
Assessment area description							
All areas (except one) are isolated the portions that border the transi				mitigation will trea			
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Wetlands that feed into B	rooke	er Creek and Tarpo	on Lake	None			
Functions			Mitigation for pre	vious	permit/other historic use	9	
Water detention, wildlife	e habi	tat, wading bird ro	oosting	No			
Anticipated Wildlife Utilization Base that are representative of the asset						by Listed Species (List s C), type of use, and inte	
Wood Stork, Great Blue Heron, Si amphibia		Egret, other wadir nd reptiles	ng birds, raptors,	Wood Stork			
Observed Evidence of Wildlife Utili	zation	(List species dire	ectly observed, or	l other signs such a	as trac	cks, droppings, casings,	nests, etc.):
Turkey, White-tailed Deer, Raccoon, wild pig, diamond-back rattle snake, red tailed hawk, rab				ood d	luck, great blue heron, i	bis, snowy egret, red-	
Additional relevant factors:		-					
Assessment conducted by:				Assessment date	e(s):		
Shirley Denton-Entrix; Ryan Taylor and Michael Stowe-ESI			3/12/2010 - Entrix; 3/23/2011 - ESI				

### **MITIGATION**

Site/Project Name		Application Number		Assessment Area	Name or Number
Brooker Creek Preserve		SAJ2008-00490 (ACOE), PA08-51C (FDEP)		Treatment Only Areas	
Impact or Mitigation		Assessment conducted by:		Assessment date	:
Mitigation		Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI		3/12/2010 - Entrix; 3/23/2011 - ESI	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)

Condition is optimal and

Condition is less than

optimal, but sufficient to

indicator is based on what would be suitable for the type of wetland or surface water assessed	fully supports wetland/surface water functions	optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  v/o pres or current with 7	Landscape Support  Treatment areas currently act as run-off storage from nearby uplands and also serve as nesting habitat for wetland dependent species. The removal of invasive/exotic species will increase the desirable habitat and prevent the areas from further degradation.			
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  V/o pres or current with 8	The wetlands are currently	/ well established and provide some fish habitat during per	e for water storage and detent riods of high inundation	ion, and also provide
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with	· ·	•	p reduce the possibility of infe e groundcover and sub-canop	· ·

Score = sum of above scores/30				
(if uplands/20)				
current	current			
or w/o pres	or w/o pres with			
0.7667		0.8333		

The scoring of each

indicator is based on

If preservation as mitigation,				
*Preservation adjustment factor =				
(0 to 1, 1/10th increments)				
Adjusted mitigation delta =				
*use 1.0 for creation				

For impact assessment areas FL = delta x acres =

Condition is insufficient

Minimal level of support of

Delta = [with-current]	
0.06666667	

If m	If mitigation (creation or enhancement)					
Т	ime	Years	t-factor =	4		
L	₋ag	< or = 1	1-100101 -			
	*Risk factor =					
	(1 to 3, 0.25 increments)					
-	4 4 4	-				

For mitigation assessment areas RFG = delta/(t-factor x risk) = 0.0533

\*use 1.0 for preservation

Site/Project Name		Application Number		Assessment Area Name or Number		or Number	
Brooker Creek Pre	eserve			(ACOE), PA08-51C Ditch Treatment		reatment	
			(FDEP)				
FLUCFCs code	Further cla	assification (optional)		Impac	et or Mitigation Site?	Assessment Area Size	
830					(Acres		
030				WITIGATION		1.9	
			T				
	Affected Waterboo		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)				
Tampa Bay		Class III					
Coorney his relationship to and had	legie semesti	an with wetlender others	faceetenele				
Geographic relationship to and hyd	-		•				
The ditch receives water from the south (during period		vest towards Gulf of Me ation), which eventually f					
Assessment area description							
Area is a long linear ditch that is the	ne result of const	tructing the adjacent acc	cess road, currently	y cont	ains monoculture of cat	tails and provides little	
		habitat diversity o	r functionality				
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional	
o.goa.z, ioa.a.oo			0qu.0000 (00		g are relative railly in	rolation to the regional	
Large wetland to east that drains in		ous adjacent wetlands to	None				
	south						
Functions			Mitigation for pre	vious	permit/other historic use	9	
Water storage and conv	vevance some w	vildlife habitat		No			
Water eterage and cern	cyanos, como n	namo nastat					
Anticipated Wildlife Utilization Base	ed on Literature F	Review (List of species	Anticipated Utiliza	ation b	by Listed Species (List s	pecies, their legal	
that are representative of the asses	ssment area and	reasonably expected to	classification (E,	T, SS	C), type of use, and inte	ensity of use of the	
Reptiles a	and amphibians						
Observed Evidence of Wildlife Utili:	zation (List speci	ies directly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):	
						·	
Turkey, White-tailed Deer, Racco	on wild nig dia	mond-hack rattle snake	red corn snake w	nond d	luck great blue heron i	his snowy earet red-	
	on, ma pig, ala.	tailed hawk			, 9 2, .	zio, ciiony ogiot, iou	
Additional relevant factors:							
Assessment conducted by:			Assessment date(s):				
Shirley Denton-Entrix; Ryan Talyor	3/12/2010 - Entrix; 3/23/2011 - ESI						

### **MITIGATION**

Site/Project Name	I P P P P P P P P P P P P P P P P P P P	Assessment Area Name or Number	
Brooker Creek Preserve	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Ditch Treatment	
Impact or Mitigation	Assessment conducted by:	Assessment date:	
Mitigation	Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI	3/12/2010 - Entrix; 3/23/2011 - ESI	

Scorir	ng Guidance		Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
indicate what wo for the typ	coring of each or is based on ould be suitabl pe of wetland water assesse	e or	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
				·	·	
.500(6)(a) Location and Landscape Support  v/o pres or current with 7				om large wetland to the east a ently offers some habitat for v	and helps to hydrate other adj wetland-dependent species.	acent wetlands. Area
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with 7			The ditch currently contair	ns sufficient aquatic habitat ar wetland-depend	nd is capable of supporting ac ent species	quatic vegetation and
1.	(c)Community Vegetation an Benthic Comm	ıd/or			proposed mitigation will treat or marsh species which should	
	sum of above s (if uplands/20		If preservation as mitigate *Preservation adjustme (0 to 1, 1/10th incre	ent factor =	For impact asser	ssment areas

Score = sum of above scores/30				
(if uplands/20)				
current				
or w/o pres with				
0.6333		0.7333		

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment areas					
FL = delta x acres =					

Delta = [with-current]
0.1

If mitigation (creation or enhancement)							
Time Years t-factor = 1.07							
Lag	3	t-lactor =	1.07				
*	*Risk factor =						
(1 to 3	1.5						
4 4 6 6		•					

For mitigation assessment areas			
RFG = delta/(t-factor x risk) =	0.0623		

Site/Project Name			Application Numbe			or Number	
Brooker Creek Pro	eserve	e		00 (ACOE), PA08-51C Brooker North LWC		lorth LWC	
			(I BEI )				
FLUCFCs code		Further classifica	tion (optional)		Impac	et or Mitigation Site?	Assessment Area Size
641						(Acres	
011						WITTO/ CTTOIN	4
Design AM at a rate and Name a /Number	A ffo ot	ad Matarbady (Clas	)	Cassial Classificati	·		
Basin/Watershed Name/Number	Allect	ed Waterbody (Clas		Special Classification (i.e.OFW, AP, other local/state/federal designation of importance)			
Tampa Bay		Class I	II .				
Geographic relationship to and hyd	Irologi	c connection with	wetlands other s	urface water upla	ands		
Area currently is freshwater m						east through Brooker C	rook Preserve and
Alea currently is irestiwater in	iaisii t			n Lake and Gulf of		•	reek i reserve and
Assessment area description							
The existing wetland contains a mo	onocu	Iture of cattails an	d is higher in elev	ration than the orio	ginal s	tream footprint. The ar	ea does allow for some
east to west flow, but does not			r. The proposed	mitigation will low	-	•	
			freshwater mars	sh species.			
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Adjacent wetlands and historic s	tream	channels that flow	w west towards				
	of Me						
Functions				Mitigation for pre	vious	permit/other historic use	9
						•	
Currently provides some water	er stor	age and some wil	dlife habitat				
Anticipated Wildlife Utilization Base						by Listed Species (List s	
that are representative of the asse	ssmer	nt area and reasor	nably expected to	classification (E,	1, 55	C), type of use, and inte	ensity of use of the
Wading birds, reptil	es, an	nphibians, small fi	sh			Wood Stork	
Observed Evidence of Wildlife Utili	ization	(List species dire	ctly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):
Turkey, White-tailed Deer, Racco	oon, w	ild pig, diamond-b	ack rattle snake,	red corn snake, w	ood d	luck, great blue heron, i	bis, snowy egret, red-
			tailed hawk,	, rabbit			
Additional relevant factors:							
Assessment conducted by:	· <u> </u>			Assessment date(s):			
Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI				3/12/2010 - Entrix; 3/23/2011 - ESI			

### **MITIGATION**

Site/Project Name	I PP	Assessment Area Name or Number	
Brooker Creek Preserve	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Brooker North LWC	
Impact or Mitigation	Assessment conducted by:	Assessment date:	
Mitigation	Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI	3/12/2010 - Entrix; 3/23/2011 - ESI	

Scoring Guidance		Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed		Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location an Landscape Support  v/o pres or current  7		The area acts as storage a	nd conveyance for waters fro well.	m the surrounding wetlands a	ind supports wildlife as
.500(6)(b)Water Environm (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current	W with 8			evation and returning it to more exico and will better support a species.	
.500(6)(c)Community stru  1. Vegetation and/or 2. Benthic Community v/o pres or current 5	r	poorly established benthic	community. The proposed	d shallow water that supports mitigation will lower existing e benthic community and attra	levation and result in
Score = sum of above score (if uplands/20) current pr w/o pres	es/30 with	If preservation as mitig *Preservation adjustme (0 to 1, 1/10th incre	ent factor = ements)	For impact asse	ssment areas

Score = sum of above scores/30		
(if uplands/20)		
current		
or w/o pres		with
0.6000		0.7667

*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	

|--|

Delta = [with-current]		
0.166666667		

If mitigation (creation or enhancement)				
Time	Years	t-factor =	1.07	
Lag	3	t-lactor =		
*Risk factor =			1.5	
(1 to 3, 0.25 increments)			1.5	

\*use 1.0 for preservation

For impact accessment of	2000
For impact assessment areas	
FL = delta x acres =	

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.1038	

Site/Project Name		Application Number			Assessment Area Name or Number	
Brooker Creek Pr	Brooker Creek Preserve SAJ2008-00490 (ACOE), PA08-51C (FDEP) Wetlands		Wetlands Adjacent	nds Adjacent to Brooker North LWC		
			(1 DL1 )			
FLUCFCs code	Further classification (optional)		Ir	mpact or Mitigation Site?	Assessment Area Size (Acres)	
630/621				MITIGATION	7.6	
Basin/Watershed Name/Number	Affected Waterbody (Cl	lass)	Special Classification	1 (i.e.OFW, AP, other local/state/fede	ral designation of importance)	
Татра Вау	Class	•			,	
Geographic relationship to and hyd	drologic connection wi	th wetlands, other s	surface water, uplan	ds		
				nnel that flows west into G	ulf of Mexico	
Assessment area description						
Areas are forested wetlands a	adjacent to proposed E	Brooker North LWC	c, currently support s	some wildlife and wetland-	dependent species.	
Significant nearby features			Uniqueness (cons	sidering the relative rarity in	relation to the regional	
Historic stream channel that flows into surrounding wetlands and eventually west into Gulf of Mexico		None				
Franklana			NAME - Alexander			
Functions  Water detention and conveyance, wildlife habitat		Mitigation for previous permit/other historic use				
		No				
Anticipated Wildlife Utilization Base that are representative of the asse				ion by Listed Species (List , SSC), type of use, and in		
Wading birds, re	eptiles and amphibians	S				
Observed Evidence of Wildlife Utili	ization (List species di	irectly observed, or	other signs such as	tracks, droppings, casings	, nests, etc.):	
Turkey, White-tailed Deer, Racco	oon, wild pig, diamond	d-back rattle snake, tailed hawk		od duck, great blue heron,	ibis, snowy egret, red-	
Additional relevant factors:						
7 144 115 141 141 141 141 141 141 141 141						
Assessment conducted by:			Assessment date(s	s):		
Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI		3/12/2010 - Entrix; 3/23/2011 - ESI				

		MITIGATION		
Site/Project Name Brooker Cree	k Preserve	Application Number SAJ2008-00490 (ACOE), F (FDEP)		ea Name or Number acent to Brooker North LWC
Impact or Mitigation Mitiga	tion	Assessment conducted by: Shirley Denton-Entrix; Ryan Talyor and Michael Stowe-ESI  Assessment date: 3/12/2010 - Entrix; 3/2:		
Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficier
.500(6)(a) Location and Landscape Support  w/o pres or current with 7		ort some wildlife habitat for su channel. The proposed mitiga as well increase ha	ation will result in additional c	
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with 8		osed LWC will result in better evation and will help prevent st	•	•
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 7 8	The introduction of addition	nal water flow will allow for the ecies. It will also result in esta		
Score = sum of above scores/30 (if uplands/20)   current   or w/o pres   with     0.6667       0.8000	If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	ent factor = rements)	For impact asse	essment areas
	If mitigation (creation of	or enhancement)	For mitigation as	sessment areas
Delta = [with-current]	Time	t-factor = 1	PEG = delta//t-factor v	

\*Risk factor =

(1 to 3, 0.25 increments) \*use 1.0 for preservation

1.25

0.1067

RFG = delta/(t-factor x risk) =

0.133333333

Site/Project Name		Application Number			Assessment Area Name or Number		
Brooker Creek Preserve		;	SAJ2008-00490 (ACOE), PA08-51 (FDEP)		51C	Brooker South LWC	
FLUCFCs code		Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size (Acres)
641/830						MITIGATION	4.5
				I <u>a</u>			
Basin/Watershed Name/Number  Tampa Bay	Affecte	ed Waterbody (Clas Class I		Special Classification	on (i.e.C	DFW, AP, other local/state/federal	designation of importance)
	<u></u>						
Geographic relationship to and hyd	Irologi	c connection with	wetlands, other s	urface water, upla	nds		
Area currently is freshwater m	narsh t			nnel that flows fron n Lake and Gulf of			reek Preserve and
Assessment area description							
The existing wetland contains a m east to west flow, but does no			•	mitigation will low	-	•	
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Historic stream channel that flows into surrounding wetlands and eventual west into Gulf of Mexico		ds and eventually	None				
Functions				Mitigation for prev	vious	permit/other historic use	
Water detention and	conve	yance, wildlife hat	bitat	No			
Anticipated Wildlife Utilization Base that are representative of the asset						by Listed Species (List s C), type of use, and inte	
Wading birds, re	eptiles	and amphibians					
Observed Evidence of Wildlife Utili	zation	(List species dire	ctly observed, or	l other signs such a	s trac	ks, droppings, casings,	nests, etc.):
Turkey, White-tailed Deer, Racc	oon, w	ʻild pig, diamond-b	oack rattle snake, tailed hawk		ood d	luck, great blue heron, il	bis, snowy egret, red-
Additional relevant factors:							
Assessment conducted by:				Assessment date	e(s):		
Michael Stowe and Ryan Taylor-ESI				03/23/11			

#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number	
Brooker Creek Preserve	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Brooker South LWC	
Impact or Mitigation	Assessment conducted by:	Assessment date:	
Mitigation	Michael Stowe and Ryan Taylor - ESI	03/23/11	

	Scoring Guidance				
ſ	The scoring of each				
	indicator is based on				
	what would be suitable				
	for the type of wetland or				
	surface water assessed				

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support The area acts as storage and conveyance for waters from the surrounding wetlands and supports wildlife as well. v/o pres or with current .500(6)(b)Water Environment (n/a for uplands) The majority of the proposed LWC area is currently not a wetland, so with the installation of the proposed LWC, Upland (U) or Wetland W hydrology will be re-established within the area and it will offer better habitat diversity and additional nesting and (W) foraging habitat v/o pres or with current 6 .500(6)(c)Community structure 1. Vegetation and/or The introduction of additional water flow will allow for the better establishment of benthic and other wetland-2. Benthic Community dependent species. It will also result in establishment of additional aquatic species. v/o pres or current with 7 8

Score = sum of above scores/30			
(if uplands/20)			
current			
or w/o pres	3	with	
0.5667		0.7000	

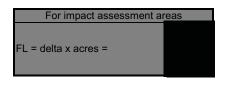
If preservation as mitigation,			
*Preservation adjustment factor =			
(0 to 1, 1/10th increments)			
Adjusted mitigation delta =			

\*use 1.0 for creation

Delta = [with-current]
0.133333333

If mitigation (creation or enhancement)					
Time	Years	t-factor =	1		
Lag	< or = 1	t-iacioi –			
*Risk factor =					
(1 to 3	1.5				

\*use 1.0 for preservation



For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.0889	

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name				Assessment Area Name or Number		
Brooker Creek Pre	eserve		0 (ACOE), PA08- (FDEP)	51C	Wetlands Adjacent to Brooker South LWC	
FLUCFCs code 411/615/621/630	Further classifica	ation (optional)		Impact	or Mitigation Site? MITIGATION	Assessment Area Size (Acres) 99.6
Basin/Watershed Name/Number Tampa Bay	Affected Waterbody (Class		Special Classification	on (i.e.OF	FW, AP, other local/state/federal	designation of importance)
Geographic relationship to and hyd	rologic connection with	wetlands, other s	l urface water. upla	ınds		
Wetlands are adjacent			·		that flows west into Gu	If of Mexico
Assessment area description						
Areas are forested wetlands a	djacent to proposed Br	rooker South LWC	, currently suppor	rt some	wildlife and wetland-de	ependent species.
Significant nearby features			Uniqueness (co	nsiderii	ng the relative rarity in	relation to the regional
Historic stream channel that flows i west into	nto surrounding wetlan Gulf of Mexico	ds and eventually			None	
Functions			Mitigation for pre	vious p	ermit/other historic use	)
Water detention and o	conveyance, wildlife ha	bitat	No			
Anticipated Wildlife Utilization Base that are representative of the asses					γ Listed Species (List s c), type of use, and inte	
Wading birds, re	ptiles and amphibians					
Observed Evidence of Wildlife Utiliz	zation (List species dire	ectly observed, or o	ther signs such a	as track	s, droppings, casings,	nests, etc.):
Turkey, White-tailed Deer, Racco	oon, wild pig, diamond-l	back rattle snake, tailed hawk,		vood du	ıck, great blue heron, il	bis, snowy egret, red-
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
Michael Stowe and Ryan Taylor-ES	I		03/23/11			

Form 62-345.900(1), F.A.C. [02-04-2004]

#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number	
Brooker Creek Preserve	SAJ2008-00490 (ACOE), PA08-51C	Wetlands Adjacent to Brooker North	
Brooker Greek Frederive	(FDEP)	LWC	
Impact or Mitigation	Assessment conducted by:	Assessment date:	
Mitigation	Michael Stowe and Ryan Taylor - ESI	03/23/11	

ı	Scoring Guidance					
ſ	The scoring of each					
ı	indicator is based on					
ı	what would be suitable					
	for the type of wetland or					
l	surface water assessed					

Optimal (10)	Moderate(7) Minimal (4)		Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support The wetlands currently support some wildlife habitat for surrounding areas, also act as storage and conveyance for water in historic stream channel. The proposed mitigation will result in additional conveyance and storage as well increase habitat diversity. v/o pres or with current 8 .500(6)(b)Water Environment (n/a for uplands) Upland (U) or Wetland The installation of the proposed LWC will result in better water flow through these wetlands. Additionally, the W (W) LWC will be a lower elevation and will help prevent staging up of water within the upstream wetlands. v/o pres or with current 8 .500(6)(c)Community structure 1. Vegetation and/or The introduction of additional water flow will allow for the better establishment of benthic and other wetland-2. Benthic Community dependent species. It will also result in establishment of additional aquatic species. v/o pres or current with 7 8

Score = sum of above scores/30						
(if uplands/20)						
current	current					
or w/o pres with						
0.6667		0.8000				

If preservation as mitigation,			
*Preservation adjustment factor =			
(0 to 1, 1/10th increments)			
Adjusted mitigation delta =			

\*use 1.0 for creation

Delta = [with-current]
0.133333333

If mitigation (creation or enhancement)						
Time	Years	Years t-factor =				
Lag	< or = 1	t-iacioi –	ı			
*	1.25					
(1 to 3	1.25					

\*use 1.0 for preservation

For impact assessment areas			
FL = delta x acres =			

For mitigation assessment areas				
RFG = delta/(t-factor x risk) =	0.1067			

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name		Application Numbe			Assessment Area Name or Number	
FIVE MILE CLEEK		00 (ACOE), PA08-51C Upland Enhanceme		hancement		
		•				
FLUCFCs code	Further classifica	ition (optional)		Impac	t or Mitigation Site?	Assessment Area Size
320 (aviating)					MITICATION	(Acres)
320 (existing)					MITIGATION	0.7
Basin/Watershed Name/Number	Affected Water body (Cla	ss)	Special Classificati	on (i.e.(	DFW, AP, other local/state/federa	designation of importance)
Upper Coastal	Class	-	opecial Ciacomean	011 (1.0.0		a designation of importance,
oppor obacia.						
Geographic relationship to and hyd	rologic connection with	wetlands, other s	urface water, upla	ands		
Upland berm located next to prop	oosed open water wetla	and preservation, Gulf of Me	Five Mile Creek drains into Pithlachascotee River and ultimately into exico			
Assessment area description						
Berm currently exists around bor						
invasive species cogon grass.		such as beautybe			nanted with typical uplai	nd mesic nammock
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
Connor Preserve and Starkey V	Vildarnass Prasarva h	oth SWEWMD				
•	vation sites	JUL 2001 VVIVID	None			
Functions	Mitigation for pre	vious	permit/other historic use	9		
Will provide nesting, foraging and o	cover for wildlife, will he	elp to offer habitat			N	
	after restoration				No	
Anticipated Wildlife Utilization Base	ed on Literature Review	(List of species	Anticipated Utilization by Listed Species (List species, their legal			
that are representative of the asses			classification (E,	T, SS	C), type of use, and inte	nsity of use of the
Deer, gopher tortoise, raccoon, arr	madillo, opossum, rabb	its. turkev. rattle-				
	ater moccasin	, <b></b>	Gopher Tortoise (T)			
Observed Friday at Mildlife Hall			-46	4	les desertions estimate	
Observed Evidence of Wildlife Utiliz	zation (List species dire	ectly observed, or	otner signs such a	as trac	eks, droppings, casings,	nests, etc.):
	A	Armadillo, deer, go	pher tortoise			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI			1/29/2010 - Entrix; 3/22/2011 - ESI			

#### **MITIGATION**

		MITIGATION			
Site/Project Name	Application Number		Assessment Area Name or Number		
Five Mile	SAJ2008-00490 (ACOE), PA08-51C (FDEP)		Upland Enhancement		
Impact or Mitigation	Assessment conducted by:		Assessment date	<b>:</b> :	
Mitiga	tion	Shirley Denton/John Bailey-E Taylor/Michael Stowe-		1/29/2010 - Entrix; 3/22/2011 - ESI	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each	Condition is optimal and	Condition is less than	Minimalla	val of average of	Condition is insufficient
indicator is based on what would be suitable	fully supports  optimal, but sufficient to Minimal level of support of wetland/surface water				to provide
for the type of wetland or	wetland/surface water functions	wetland/surface water		ınctions	wetland/surface water functions
surface water assessed	TUTICUOTIS	functions			luticuotis
500(6)(a) Location and					
.500(6)(a) Location and Landscape Support	The upland portion of the	site is currently disturbed from	a history of	mining and borro	w pit operations. The
1	existing vegetation consi	ist of a mixed assemblage of w	ax myrtle, s	alt bush, blackbe	rry, cogon grass and
	several other weedy specie	es. This is very low habitat and		in the way of fora	aging, nesting or cover
v/o pres or current with		for movem	ient.		
4 7	1				
<u> </u>	_				
.500(6)(b)Water Environment					
(n/a for uplands)					
Upland (U) or Wetland	1				
(W)	-				
v/o pres or					
current with	_				
0 0					
E00/6)(a)Community atructure					
.500(6)(c)Community structure					
<ol> <li>Vegetation and/or</li> <li>Benthic Community</li> </ol>		grown with cogon grass and other low quality species. By removing the cogon grass			
2. Benune Community	and planting na	tive species, the area will bette	r serve as t	foraging and nesti	ng grounds
v/o pres or					
current with	4				
3 7					
Score = sum of above scores/30	If preservation as mitig	ration		For impact asses	sement areas
(if uplands/20)	*Preservation adjustm			Tor impact asses	Sament aleas
current	(0 to 1, 1/10th incr		EI -	delta x acres =	
r w/o pres with	Adjusted mitigation de	elta =		deita x acres =	
0.3500 0.7000	*use 1.0 for creation				
	<u></u>				
	If mitigation (creation of	or enhancement)			

Delta = [with-current]
0.35

	Cication							
If mitigation (creation or enhancement)								
Time	Years	t-factor =	1.25					
Lag	6 – 10	t-iactor -	1.23					
/1 to 3	1.5							

(1 to 3, 0.25 increments)
\*use 1.0 for preservation

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.1867	

1 ''		Application Number	Assessment Area Name or Number 490 (ACOE), PA08-51C		or Number	
Five Mile Cre	ek		0 (ACOE), PA08- (FDEP)	51C	Wetland Floodp	lain Enhancement
FLUCFCs code 320/631	Further classifica	ssification (optional)		Impact	t or Mitigation Site?	Assessment Area Size (Acres)
Basin/Watershed Name/Number	Affected Water body (Cla	ass)	Special Classificati	on (i.e.C	DFW, AP, other local/state/federa	al designation of importance)
Upper Coastal	Class	III				
Geographic relationship to and hyd	Irologic connection with	n wetlands, other s	urface water, upla	ands		
Area consists of existing upland ar into the Pithlachascotee River and			e Mile Creek, flood	lplain d	drains into Five Mile Cr	eek, which then flows
Assessment area description						
Area highly disturbed as result of n of Peruvian primrose-willow. Mitigaquatic wetland species.						
Significant nearby features			Uniqueness (co	nsideri	ing the relative rarity in	relation to the regional
Connor Preserve and Starkey Wilderness Preserve, both SWFWMD preservation sites		oth SWFWMD	None			
Functions			Mitigation for pre	vious p	permit/other historic us	е
Will provide aquatic nesting and foraging habitat, wading bird habitat, increase benthic organism diversity and additional improvement of water quality		-	No			
Anticipated Wildlife Utilization Base that are representative of the asse					y Listed Species (List : C), type of use, and into	
Great Blue Heron, Snowy Egret, V amphi	Vood Stork, raccoon, vabian species	arious reptile and			Wood Stork	
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or	other signs such a	as tracl	ks, droppings, casings	, nests, etc.):
Additional relevant factors:						
This portion of the project will coincanother entity.	cide with another propo	sed, similar projec	at involving the res	storatio	on of Five Mile Creek b	eing performed by
Assessment conducted by:			Assessment date	e(s):		
John Bailey/Shirley Denton-Entrix;	Ryan Taylor/Michael St	towe - ESI	1/29/2010 - Entri	x; 3/22	2/2011 - ESI	

#### **MITIGATION**

		WITIGATION			
Site/Project Name	Application Number SAJ2008-00490 (ACOE), PA08-51C			Assessment Area	a Name or Number
Five Mile	Creek	(FDEP)		Wetland Floodplain Enhancement	
Impact or Mitigation		Assessment conducted by:		Assessment date	<b>e</b> :
Mitigat	ion	Shirley Denton/John Bailey-Entrix; Ryan Taylor/Michael Stowe-ESI			ntrix; 3/22/2011 - ESI
Scoring Guidance	Optimal (10)	Moderate(7)	Mir	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	wetland/	vel of support of surface water enctions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  v/o pres or current with  4	monoculture of primrose wil	d as a result of historic mining low. Under current conditions I allow for better diversity and one large contiguous wetland	s, offers little increase ava	diversity and rest	ricts wildlife movement.
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with 6	aquatic wildlife usage ver	e aquatic habitat and restricts y low. Proposed mitigation wi onal attenuation and improve f	ill improve w	ater quality within	the area, provide for
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with  3	offers little in way of nesting	v quality monoculture of primre or foraging ground. The prop e for better benthic macro/mic	osed mitiga	tion will increase	wading bird habitat and
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.4333  0.7333	If preservation as mitig *Preservation adjustm	ent factor = ements)	FL = 0	For impact assed	ssment areas
	If mitigation (creation of Time Years	or enhancement)	F	or mitigation ass	essment areas
Delta = [with-current]	Time Years Lag 5	t-factor = 1.14			

RFG = delta/(t-factor x risk) =

0.1754

(1 to 3, 0.25 increments)
\*use 1.0 for preservation

\*Risk factor =

0.3

Site/Project Name			Application Numbe	r		Assessment Area Name of	or Number
Five Mile Cree	ek	SAJ2008-00490 (FD		0 (ACOE), PA08-5 (FDEP)	51C Wetland Floodplain Restoration		lain Restoration
FLUCFCs code		Further classification (optional)			Impac	, and the second	Assessment Area Size (Acres)
320						MITIGATION	3.4
D : 00/ / 1 1 1 1 1 1 1 1 1	TAGE 1			lo : 101 :5 :			
Basin/Watershed Name/Number Upper Coastal	Affecte	ed Water body (Clas Class I	-	Special Classification	on (i.e.0	OFW, AP, other local/state/federal	I designation of importance)
Geographic relationship to and hyd Area consists of existing upland are Creek and existing borrow pits, are Mexico	reas th	at were historically	y wetlands associ	iated with Five Mil	le Cre		
Assessment area description							
Area is highly disturbed as a res	sult of h	-	d borrow pit opera cluding salt bush a		ninate	d by a mix of low quality	shrubs and grasses
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
· ·						3	•
Connor Preserve and Starkey Wilderness Preserve, both SWFWMD preservation sites		oth SWFWMD	None				
Functions				Mitigation for pre	vious	permit/other historic use	j
Currently provides little habitat and is dominated by low quality vegetation. Proposed mitigation will help restore diversity to the habitat and help create a large, contiguous floodplain area that will increase water storage and wading bird habitat.		at and help create	No				
Anticipated Wildlife Utilization Base			(List of species	Anticipated Utiliza	ation t	by Listed Species (List s	pecies, their legal
that are representative of the asses			•	•			
Great Blue Heron, Snowy Egret, V amphil		Stork, raccoon, va pecies	arious reptile and			Wood Stork	
Observed Evidence of Wildlife Utili	ization	(List species dire	ctly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):
Additional relevant factors:							
Assessment conducted by:		-	-	Assessment date	e(s):	_	
John Bailey/Shirley Denton-Entrix;	Ryan	Taylor/Michael St	owe - ESI	1/29/2010 - Entrix		2/2011 - ESI	

#### **MITIGATION**

Site/Project Name		Assessment Area Name or Number
Five Mile Creek	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Wetland Floodplain Restoration
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI	1/29/2010 - Entrix; 3/22/2011 - ESI

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface water functions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support  v/o pres or current with 0 7	Landscape Support  Area currently offers no value to on-site wetlands or surrounding habitat. Portions of the proposed restoration areas are isolated and scattered throughout the site and currently exist as disjointed habitat fragments. To proposed mitigation will help to incorporate these scattered areas into one large contiguous floodplain that better support wetland dependent species within the Five Mile Creek and surrounding wetland habitats with				
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)			tivities will re-introduce hydrol will help with water attenuation	0,	
v/o pres or current with					

1. Vegetation and/or
 2. Benthic Community

will help to establish a viable benthic macro/micro-invertebrate community, as well as create a freshwater marsh habitat that will increase nursery and foraging habitat for wading birds.

Score = sum of above scores/30				
	(if uplands/20)			
current				
or w/o pres	S	with		
0.0000		0.7333		

current

8

with 7

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	

\*use 1.0 for creation

Delta = [with-current]	
0.733333333	

If mitigation (creation or enhancement)				
Time	Years	t-factor =	1.14	
Lag	5	1-100101 -	1.14	
*	1.5			
(1 to 3	1.0			
+ 400				

\*use 1.0 for preservation

-	
For impact assessment as	reas
FL = delta x acres =	

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.4288	

Site/Project Name		Application Number SAJ2008-00490 (ACOE), PA08-51C			Assessment Area Name or Number		
Five Mile Cre	ek		0 (ACOE), PA08-5° (FDEP)	51C	Peninsula Wetland Enhancement		
		1	(1021)				
		r classification (optional)		•	mpact or Mitigation Site? Assessment A		
631				Γ	MITIGATION	0.7	
Dacin Matarahad Nama (Number	Affected Metarbady (Cla	>	Cassial Classification				
Basin/Watershed Name/Number	Affected Waterbody (Class	-	Special Classification	on (i.e.OFW	/, AP, other local/state/feder	al designation of importance)	
Upper Coastal	Class						
Geographic relationship to and hyd Area consists of existing wetland a that is to be restored, borrow pit ov and ultimately into Gulf of Mexico	associated with the borre	ow pit south of Fiv	e Mile Creek, is cui	irrently a	•	٥.	
Assessment area description							
Area is low quality wetland domina foraging and ne	ated by thick canopy of esting grounds, restricts		•			•	
Significant nearby features			Uniqueness (con	nsidering	the relative rarity ir	relation to the regional	
Connor Preserve and Starkey Wilderness Preserve, both SWFWMD preservation sites			None				
Functions			Mitigation for previ	ious per	rmit/other historic us	e	
Enhancement will allow for better I	nabitat diversity, will inc	rease wading bird					
nesting and foraging habitat and will increase water storage and duration of inundation.			No				
Anticipated Wildlife Utilization Base that are representative of the asse				•	Listed Species (List type of use, and int		
Great Blue Heron, Snowy Egret, Wood Stork, raccoon, various reptile and amphibian species			Wood Stork				
Observed Evidence of Wildlife Util	ization (List species dire	ectly observed, or	ı other signs such as	s tracks,	, droppings, casings	, nests, etc.):	
Additional relevant factors:							
Additional relevant lactors.							
Assessment conducted by:			Assessment date(	(s):			
John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI			1/29/2010 - Entrix; 3/22/2011 - ESI				

#### **MITIGATION**

Site/Project Name		Application Number		Assessment Area Name or Number	
Five Mile Creek		SAJ2008-00490 (ACOE), PA08-51C (FDEP)		Peninsula Wetland Enhancement	
Impact or Mitigation		Assessment conducted by:		Assessment date:	
Mitigation		John Bailey/Shirley Denton-I Taylor/Michael Stowe		1/29/2010 - Entrix; 3/22/2011 - ESI	
Scoring Guidance	Optimal (10)	Moderate(7) Min		nimal (4)	Not Present (0)
The scoring of each	Condition is optimal and	Condition is less than	Minimal la	wal of support of	Condition is insufficien

fully supports

wetland/surface water

optimal, but sufficient to

maintain most

wetland/surface

surface water assessed		functions	waterfunctions	Turictions	functions		
.500(6)(a) Location Landscape Suppo v/o pres or current 4			rovements to existing habitat will result in increased diversity for this wetland and surrounding w habitat. Will allow for better overall habitat by creating one large contiguous floodplain.				
.500(6)(b)Water Enviro (n/a for uplands) Upland (U) or Wetland (W) v/o pres or current				altered by the borrow pits. Th tivities will result in improved pacity.			
.500(6)(c)Community s  1. Vegetation and 2. Benthic Commu  v/o pres or current  3	l/or			rimrose-willow and salt bush. v and will increase wading bird			

Score = sum of above scores/30					
(if uplands/20)					
current					
or w/o pres with					
0.4333		0.7333			

indicator is based on

what would be suitable

for the type of wetland or

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment areas					
FL = delta x acres =					

Minimal level of support of

wetland/surface water

functions

to provide

wetland/surface water

Delta = [with-current]
0.3

If mitigation (creation or enhancement)						
Time	Years	t-factor =	1.14			
Lag	5	t-iactor –	1.14			
*Risk factor =						
(1 to 3, 0.25 increments) 1.5						
* 400			•			

For mitigation assessment areas				
RFG = delta/(t-factor x risk) =	0.1754			

Site/Project Name		Application Number SAJ2008-00490 (ACOE), PA08-51C		Assessment Area Name or Number			
Five Mile Cre	ek		90 (ACOE), PA08-51 (FDEP)	Peninsula We	Peninsula Wetland Restoration		
			(1 DL1 )				
FLUCFCs code Further class		ssification (optional)		npact or Mitigation Site?	Assessment Area Size (Acres)		
				MITIGATION	4.4		
Basin/Watershed Name/Number	Affected Waterbody (Cla	ass)	Special Classification	i.e.OFW, AP, other local/state/feder	ral designation of importance)		
Upper Coastal	Class	•		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	u uu uu u		
Coorreship relationship to and hyp	declaria connection with	b wetlands others	face water unlan	ماء			
Geographic relationship to and hyde Area consists of existing upland pe borrow pit that is to be restored, bo Pithlachascotee River and ultimate	eninsula associated with orrow pit overflows into	th the borrow pit so	outh of Five Mile Cre	ek, is currently a peninsula			
Assessment area description							
Area is low quality upland domin offers little value in way of fo							
Significant nearby features			Uniqueness (cons	sidering the relative rarity in	relation to the regional		
Connor Preserve and Starkey Wilderness Preserve, both SWFWMD preservation sites			None				
Functions			Mitigation for previo	ous permit/other historic us	se		
Restoration will allow for better hat nesting and foraging habitat an	•	•	No				
Anticipated Wildlife Utilization Base that are representative of the asse			•	ion by Listed Species (List , SSC), type of use, and int			
Great Blue Heron, Snowy Egret, V amphi	Wood Stork, raccoon, vibian species	arious reptile and	Wood Stork				
Observed Evidence of Wildlife Utili	zation (List species dir	ectly observed, or	other signs such as	tracks, droppings, casings	, nests, etc.):		
Additional relevant factors:							
Additional relevant factors:							
Assessment conducted by:			Assessment date(s	s):			
John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI			1/29/2010 - Entrix; 3/22/2011 - ESI				

		MITIGATION			
Site/Project Name Five Mile	Creek	Application Number SAJ2008-00490 (ACOE), P (FDEP)	A08-51C	a Name or Number Vetland Restoration	
Impact or Mitigation Mitiga	tion	Assessment conducted by: John Bailey/Shirley Denton-E Taylor/Michael Stowe -	intrix; Ryan 1/29/2010 - F	Assessment date: 1/29/2010 - Entrix; 3/22/2011 - ESI	
Scoring Guidance The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7)  Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal (4)  Minimal level of support of wetland/surface water functions	Not Present (0)  Condition is insufficient to provide wetland/surface water functions	
.500(6)(a) Location and Landscape Support  w/o pres or current with 7	and cogon grass. The pro	orly managed upland area cons psoed mitigaiton will lower the d with freshwater marsh specie for this area and the surr	existing elevation and re-intres and will help provide forag	oduce hydrolgoy to the	
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with  8		upland and does not support a ill establish a freshwater marsh dependent sp	wetland capable of supprot		
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with 0 7	The area is being restored by	pack to a functioning wetland w within the area and will provide current cond	e much better diversity and w		
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.0000 0.7333	If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	ent factor = ements)	For impact asse	essment areas	
Delta = [with-current]	If mitigation (creation of Time Years Lag 5	t-factor = 1.14	For mitigation ass	sessment areas	

0.4288

RFG = delta/(t-factor x risk) =

\*use 1.0 for preservation Form 62-345.900(2), F.A.C. [02-04-2004]

0.733333333

\*Risk factor =

(1 to 3, 0.25 increments)

1.5

Site/Project Name A		Application Number		Assessment Area Name or Number			
Five Mile Creek		SAJ2008-00490 (ACOE), PA08-51C		51C	C Littoral Shelf Creation		
1 IVE IVING GIE	OK .			(FDEP)			on Orcation
FILIOFO	1.	- 11 1 '6	C / C I				
FLUCFCs code		Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size (Acres)
520						MITIGATION	1.4
Basin/Watershed Name/Number	Affected	d Waterbody (Clas	e)	Special Classificati	on (i.e.(	OFW, AP, other local/state/federal	designation of importance)
Upper Coastal	7 tilocto	Class I	·	Opecial Glassificati	OTT (I.G.	Of W, Al , Other local/state/lederal	designation of importance)
- Oppor Ocacia:							
Geographic relationship to and hyd	drologic	connection with	wetlands, other s	urface water, upla	nds		
Area is currently open water assoc which then flows into the Pithlacha		-	•	•	Five M	file Creek during periods	s of high inundation,
Assessment area description							
Area is currently open water and is	s part of	f the existing borr	ow pit. It contain	s some shallow er	nerge	ent aquatic vegetation ar	id provides little habitat.
Significant nearby features				Uniqueness (co	nside	ring the relative rarity in	relation to the regional
Connor Preserve and Starkey \	Wildern	ess Preserve. bo	oth SWFWMD				
•	rvation					None	
Functions				Mitigation for pre	vious	permit/other historic use	)
Area is proposed for creation of litt of feet of surface and planted with create habitat divers	freshwa	ater marsh speci	es. This will help			No	
Anticipated Wildlife Utilization Base that are representative of the asset						by Listed Species (List s C), type of use, and inte	
Great Blue Heron, Snowy Egret, V amphi	Nood S ibian sp		arious reptile and			Wood Stork	
Observed Evidence of Wildlife Utili	ization (	(List species dire	ctly observed, or	ther signs such a	ıs trac	ks, droppings, casings,	nests, etc.):
Additional relevant factors:							
Additional relevant factors.							
Assessment conducted by:				Assessment date	/e/·		
John Bailey/Shirley Denton-Entrix;	Ryan T	aylor/Michael St	OWA - FSI	1/29/2010 - Entri	. ,	2/2011 - ESI	
Donn Dancy/Orning Donton-Littin,	r vyani I	ayioi/iviioriaei Oll	JVV - LUI	11/20/2010 - LIIIII	n, UIZZ	L/LUII - LUI	

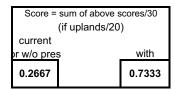
#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Five Mile Creek	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Littoral Shelf Creation
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI	1/29/2010 - Entrix; 3/22/2011 - ESI

Scoring Guidance
The scoring of each
indicator is based on
what would be suitable
for the type of wetland or
surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support Area offers little support of surrounding wetlands, as it is primarily deep open water. Proposed mitigation will raise elevation to within 1-2" of surface and provide ideal freshwater marsh habitat that will provide nesting, foraging and cover habitat for wading birds and other wetland-dependent species. v/o pres or with current .500(6)(b)Water Environment (n/a for uplands) Area has little value to aquatic plants and species as it is very deep from the borrow pit operations. Due to the deep elevation, emergent and ephemeral plants are scarce and the area currently does not support any nesting Upland (U) or Wetland W or fish habitat. Proposed mitigation will allow for support of aquatic species, as well as other reptiles and (W) amphibians. v/o pres or with current 8 .500(6)(c)Community structure 1. Vegetation and/or Due to the depth, there is little habitat to support benthic species. Proposed mitigation will result in the creation 2. Benthic Community of benthic habitat which will help to establish a viable food chain and attract other wetland-dependent species. v/o pres or current with 7 2



If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	

\*use 1.0 for creation

Delta = [with-current]
0.46666667

If mitigation (creation or enhancement)				
Time	Years	t-factor =	1.14	
Lag	5	t-iacioi –	1.14	
*Risk factor =			1.5	
(1 to 3, 0.25 increments)			1.0	

\*use 1.0 for preservation

For impact assessment ar	eas
FL = delta x acres =	

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.2729	

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name		Application Numbe			Assessment Area Name of	or Number
Five Mile Cree	ek		0 (ACOE), PA08-51C Lake Preservation		eservation	
FLUCFCs code	Further classif	ication (optional)		Impac	t or Mitigation Site?	Assessment Area Size
520					MITIGATION	(Acres)
						10.3
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classification	on (i.e.C	DFW, AP, other local/state/federal	designation of importance)
Upper Coastal	Clas			,		. ,
оррег обазіаі	Olas	55 III				
Geographic relationship to and hyd	rologic connection w	ith wetlands, other s	urface water, upla	nds		
Area is currently an open water bor Pithlachascotee River and ultimate			eek during periods	of hig	gh inundation, which the	n flows into the
Assessment area description						
Area is currently open water an	d is a deep borrow p	it. It contains some s provides little valu		aquati	ic vegetation along the	edges but otherwise
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional
Common Brown and Ottoday N	Alilahamanan Danasaman	L -4L C\A/E\A/A/D				
Connor Preserve and Starkey V	Wilderness Preserve, rvation sites	both SVVFVVIVID	None			
p. 555						
Functions			Mitigation for pro-		permit/other historic use	
Functions  Area is proposed to be preserve	ed. The borrow pit wi	Il benefit from the	willigation for pre-	vious į	permittother historic use	;
proposed improvements to the wetland around it and will provide future fish		No				
habitat which will benefit the incre	•	ldlife as result from			NO	
Anticipated Wildlife Utilization Base	osed mitigation. ed on Literature Revie	w (List of species	Anticinated Litiliza	ation h	y Listed Species (List s	necies their legal
that are representative of the asses					C), type of use, and inte	
Great Blue Heron, Snowy Egret,		an alligator, water	Wood Stork			
moccasin,	large mouth bass					
Observed Evidence of Wildlife Utili:	zation (List species d	irectly observed, or	l other signs such a	s tracl	ks, droppings, casings,	nests, etc.):
		•	· ·			,
Additional relevant factors:						
radional relevant lasters.						
Assessment conducted by:			Assessment date	e(s):		
John Bailey/Shirley Denton-Entrix;	Ryan Taylor/Michael	Stowe - ESI	1/29/2010 - Entrix		2/2011 - ESI	

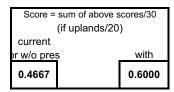
#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Five Mile Creek	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Lake Preservation
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI	1/29/2010 - Entrix; 3/22/2011 - ESI

Scoring Guidance	
The scoring of each	
indicator is based on	
what would be suitable	
for the type of wetland or	
surface water assessed	

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support Area offers little support of surrounding wetlands, as it is primarily deep open water. Proposed mitigation will raise elevation to within 1-2" of surface and provide ideal freshwater marsh habitat that will provide nesting, foraging and cover habitat for wading birds and other wetland-dependent species. v/o pres or with current .500(6)(b)Water Environment (n/a for uplands) Area has little value to aquatic plants and species as it is very deep from the borrow pit operations. Due to the deep elevation, emergent and ephemeral plants are scarce and the area currently does not support any nesting Upland (U) or Wetland W (W) or fish habitat. Proposed mitigation will allow for support of aquatic species, as well as other reptiles and amphibians. v/o pres or with current 8 .500(6)(c)Community structure 1. Vegetation and/or Due to the depth, there is little habitat to support benthic species. Proposed mitigation will result in the creation 2. Benthic Community of benthic habitat which will help to establish a viable food chain and attract other wetland-dependent species. v/o pres or current with 3 3



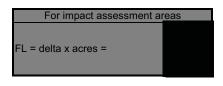
If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	

\*use 1.0 for creation

Delta = [with-current]
0.133333333

If mitigation (creation or enhancement)						
Time	Years	t-factor =	1			
Lag	< or = 1	t-iacioi –				
*	1.5					
(1 to 3	1.5					

\*use 1.0 for preservation



For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.0533	

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name			Application Numbe	r		Assessment Area Name of	or Number
		90 (ACOE), PA08-51C Cypress Island Restoration					
Five Mile Cie	<u></u>			(FDEP)		iu Nestoration	
FLUCFCs code		Further classifica	tion (ontional)		Imnac	et or Mitigation Site?	Assessment Area Size
320		Turtiler classifica	er classification (optional)		Пірас	MITIGATION	(Acres)
320		1				WITIGATION	0.5
Design/Metarched Name/Number	A ff a a t	ad Matarbady (Clas	2)	Consid Classificati	"		
Basin/Watershed Name/Number	Апест	ed Waterbody (Class	·	Special Classification	ON (i.e.C	DFW, AP, other local/state/federal	designation of importance)
Upper Coastal		Class I	III				
Geographic relationship to and hyd	drologi	c connection with	wetlands, other s	urface water, upla	nds		
Area is currently part of the penins inundation, which ultimately flows in	ula tha	at extends into the	existing borrow p	oit, borrow pit over		into Five Mile Creek dur	ing periods of high
Assessment area description							
Area is currently part of the penin	ısula th	nat extends into th	ne existing borrow cogon gr	•	of an il	l-defined mixture of salt	bush, wax myrtle and
Significant nearby features				Uniqueness (co	nside	ring the relative rarity in	relation to the regional
Common Brooms and Ottodows	\	D b-	-+- C\A/E\A/A/D				_
Connor Preserve and Starkey \ prese	ervation		oth SWEWMD	None			
Functions					vious	permit/other historic use	9
Area is proposed for creation of cypress island within the littoral shelf. Area will be filled to within 1" of surface and planted with bald and pond cypress trees. This will help create habitat diversity and roosting habitat.							
Anticipated Wildlife Utilization Base that are representative of the asset				•		by Listed Species (List s C), type of use, and inte	
Great Blue Heron, Snowy Egret, Wood Stork, raccoon, various reptile and amphibian species		arious reptile and	Wood Stork				
Observed Evidence of Wildlife Utili	zation	(List species dire	ctly observed, or	 other signs such a	s trac	ks, droppings, casings,	nests, etc.):
		(=:::-	<b>,</b> ,			, eppge, ege,	,
Additional relevant factors:							
Assessment conducted by:				Assessment date	e(s):		
John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI			1/29/2010 - Entrix; 3/22/2011 - ESI				

#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Five Mile Creek	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Cypress Island Restoration
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	John Bailey/Shirley Denton-Entrix; Ryan Taylor/Michael Stowe - ESI	1/29/2010 - Entrix; 3/22/2011 - ESI

Scoring Guidance
The scoring of each
indicator is based on
what would be suitable
for the type of wetland or
surface water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support Area offers little support of surrounding wetlands, as it is currently poorly managed uplands. Proposed mitigation will raise elevation to within 1" of surface and provide ideal forested habitat within the newly restored peninsula that will provide nesting, foraging and cover habitat for wading birds and other wetland-dependent v/o pres or with current .500(6)(b)Water Environment (n/a for uplands) Upland (U) or Wetland Area has little value to aquatic plants and species as it is currently uplands. Proposed mitigation will provide W (W) additional habitat diversity by introducing a forested element within the surrounding freshwater marsh. v/o pres or with current 8 .500(6)(c)Community structure 1. Vegetation and/or The proposed mitigation will increase habitat diversity and attract additional species to the freshwater marsh 2. Benthic Community area. The forested portion will provide additional cover for wildlife and will create a food source and nesting habitat for birds. v/o pres or current with 7 0

Score = sum of above scores/30		
(if uplands/20)		
current		
or w/o pres	with	
0.0000	0.7333	

If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	

\*use 1.0 for creation

Delta = [with-current]
0.733333333

If mitigation (creation or enhancement)				
Years	t factor -	1.25		
6 – 10	t-iacioi –	1.23		
*Risk factor =				
(1 to 3, 0.25 increments)				
	Years 6 – 10 Risk factor	Years 6 – 10 t-factor =		

\*use 1.0 for preservation

For impact assessment ar	eas
FL = delta x acres =	

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.3911	

Form 62-345.900(2), F.A.C. [02-04-2004]

Site/Project Name		Application Number SAJ2008-00490 (ACOE), PA08-51C			Assessment Area Name or Number	
Goethe State Fo	orest		(FDEP)	51C	Direct Hydrolog	ic Enhamcement
FLUCFCs code	Further classification	ation (optional)		Impact	or Mitigation Site?	Assessment Area Size
615, 617, 625					MITIGATION	(Acres) 275
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification	on (i.e.OF	W, AP, other local/state/federa	al designation of importance)
Waccasassa	Class	III				
Geographic relationship to and hyd Vast interconnected wetland syst currently managed by the Depar other passive uses. Mosi Assessment area description Moderate quality, ditched wetland slash pine, red maple, dahoor dogwood, doghobble, myrtle daho maidencane, Virginia chain fern, a	em flowing north into the tment of Forestry. The tof the wetland areas and forest. This wetland controlled the holly, swamp bay, sweetland, on, fetterbush, wax my	ne North Prong of Daniels Island Traire surrounded by Dommunity is characetbay, loblolly bayrtle and buttonbus	Tenmile Creek. Go act is managed for pine plantation and cterized primarily by, laurel oak, swee th also occur through	timber, d/or pir by pond tgum a ghout t	recreation, water res ne flatwoods; this system d cypress and swamp and water oak. Virginia he understory. Herbac	ource protection, and em is ditched.  tupelo intermixed with a willow, titi, swamp ceous cover consists of
sysi	tem contain pine encroa	achment. Site is m				rolation to the regional
Goethe State Park, Gulf Hammock Conservation Area, Waccasassa b Preserve, and Cross Florida Greenway.		•	Uniqueness (considering the relative rarity in relation to the regional  None			
Functions			Mitigation for prev	ious pe	ermit/other historic us	e
Will provide nesting, foraging and cover for wildlife, while improving water quality.		improving water	None			
Anticipated Wildlife Utilization Base that are representative of the asse					Listed Species (List s ), type of use, and into	
Deer, racoon, armadillo, opossu m	um, rabbits, turkey, rattle occasin	e-snake, water	None			
Observed Evidence of Wildlife Utili	zation (List species dire	ectly observed, or	other signs such a	s track	s, droppings, casings,	, nests, etc.):
	A	Armadillo, deer, wa	ater moccasin			
Additional relevant factors:						
Assessment conducted by:			Assessment date	(s):		
VAF/DDS-Entrix & Jon Barmore/Da	avid Dickson - ESI		November 2009 a	` ,	rch 2011	

#### **MITIGATION**

Site/Project Name	I PP	Assessment Area Name or Number
Goethe State Forest	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Direct Hydrologic Enhamcement
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	VAF/DDS-Entrix & Jon Barmore/David Dickson - ESI	November 2009 and March 2011

Moderate(7)

Minimal (4)

Not Present (0)

Optimal (10)

	. ,	. ,	` '	` ,
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
	-			-
.500(6)(a) Location and Landscape Support  v/o pres or current with 8	The wetland portion of th	is site supports the surroundir greater Goethe	<b>.</b>	unities as part of the
.500(6)(b)Water Environmen (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with	The hydrology in this area ha	as been historically altered by ces will allow for the recovery		
6 8 .500(6)(c)Community structure	9			

The wetland community is diverse and mature.

Score = sum of above scores/30					
	(if uplands/20)				
current	\ ' ' /				
or w/o pres					
0.7000		0.7667			

Vegetation and/or
 Benthic Community

with

7

v/o pres or

current

Scoring Guidance

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment a	reas
FL = delta x acres =	

Delta = [with-current]	
0.06666667	

If mitigation (creation or enhancement)					
Time	Years	t-factor =	1.14		
Lag	6 – 10	1-100101 -	1.14		
*Risk factor =					
(1 to 3, 0.25 increments) 1.25					

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.0468	

Site/Project Name		Application Number SAJ2008-00490 (ACOE), PA08-51C		Assessment Area Name or Number	
Goethe State Fo	prest		FDEP)	Indirect Hydro	logic Enhancement
FLUCFCs code 617, 625	Further classification	(optional)	In	npact or Mitigation Site?	Assessment Area Size (Acres) 2,085.40
					2,000.10
Basin/Watershed Name/Number	Affected Waterbody (Class)		Special Classification	(i.e.OFW, AP, other local/state/fed	eral designation of importance)
Waccasassa	Class III				
Geographic relationship to and hyd Vast interconnected wetland syst currently managed by the Depar other passive uses. Most Assessment area description	em flowing north into the No	orth Prong of <sup>-</sup> iels Island Tra	Tenmile Creek. Goe ct is managed for ti	the State Forest (GSF) and the state for the state for the state of th	esource protection, and
Moderate quality, ditched wetland slash pine, red maple, dahoon dogwood, doghobble, myrtle daho maidencane, Virginia chain fern, a syst	holly, swamp bay, sweetba on, fetterbush, wax myrtle a	ay, loblolly bay and buttonbus nettle, beakse	y, laurel oak, sweetg h also occur through edges, bladderworts	um and water oak. Virgir nout the understory. Herb and royal fern. All but the	nia willow, titi, swamp aceous cover consists of
Significant nearby features			Uniqueness (cons	idering the relative rarity	in relation to the regional
Goethe State Park, Gulf Hammock Conservation Area, Waccasassa ba Preserve, and Cross Florida Greenway.		casassa bay	None		
Functions			Mitigation for previo	ous permit/other historic u	ise
Will provide nesting, foraging and cover for wildlife, while improving water quality.		roving water	None		
Anticipated Wildlife Utilization Base that are representative of the asset				on by Listed Species (Lis SSC), type of use, and in	
Deer, racoon, armadillo, opossum, rabbits, turkey, rattle-snake, water moccasin		ake, water	None		
Observed Evidence of Wildlife Utili	zation (List species directly	observed, or o	other signs such as	tracks, droppings, casing	s, nests, etc.):
	Arma	idillo, deer, wa	ater moccasin		
Additional relevant factors:					
Assessment conducted by:			Assessment date(s	):	
VAF/DDS-Entrix & Jon Barmore/David Dickson - ESI		November 2009 and March 2011			

#### **MITIGATION**

Site/Project Name	The second secon	Assessment Area Name or Number
Goethe State Forest	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Indirect Hydrologic Enhancement
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	VAF/DDS-Entrix & Jon Barmore/David Dickson - ESI	November 2009 and March 2011

Optimal (10)

Moderate(7)

Minimal (4)

Not Present (0)

Occining Guidance		Optimal (10)	moderate(1)	iviii iii ii ii ( <del>+</del> )	Not i leselle (0)
The scoring of each indicator is based on what would be suitable for the type of wetland of surface water assessed.	or	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location Landscape Supp v/o pres or current 8		The wetland portion of thi	s site supports the surroundir greater Goethe	ng upland and wetland comm State Park.	unities as part of the
.500(6)(b)Water Envir (n/a for uplands Upland (U) or Wetland (W) v/o pres or current	s) 	key impedences will allow	for the recovery of historic sh	roads, ditces, and canals. Reneetflow and water levels. The adjacent or connecting to tected.	ese wetlands are not
.500(6)(c)Community	structure			·	

The wetland community is diverse and mature.

Score = sum of above scores/30					
Score -	Sulli of above s	60168/30			
	(if uplands/20)				
current	current				
or w/o pres	or w/o pres with				
0.7000		0.7333			

Vegetation and/or
 Benthic Community

with 7

v/o pres or current

Scoring Guidance

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment areas				
FL = delta x acres =				

Delta = [with-current]	
0.033333333	

If mitigation (creation or enhancement)					
Time	Years	t-factor =	1.14		
Lag	5	1-100101 -	1.14		
*Risk factor =					
(1 to 3	1.23				
4 4 6 6					

For mitigation assessment areas

RFG = delta/(t-factor x risk) = 0.0234

\*use 1.0 for preservation

Site/Project Name Application Number				or Number		
Goethe State Fo	orest		0 (ACOE), PA08-5 (FDEP)	51C	RCW Upland Mowing	
FLUCFCs code	Further classifica	ation (ontional)		Impac	et or Mitigation Site?	Assessment Area Size
FLUCTOS code	Fulfilei ciassinca	ilion (optional)		Πιμαυ	ct or Mitigation Site?	(Acres)
411					MITIGATION	233
	Affected Waterbody (Class	•	Special Classification	on (i.e.C	OFW, AP, other local/state/federal	I designation of importance)
Waccasassa	Class I	lll 				
Geographic relationship to and hyd	Irologic connection with	wetlands, other s	urface water. upla	ands	_	
These pine flatwoods surround and			er, they form an in		nnected corridor with the	e greater Goethe State
Assessment area description						
Matur	re longleaf pine trees th	nat provide suitable	e nesting and fora	iging h	nabitat for RCWs.	
			· · · · · · · · · · · · · · · · · · ·			
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Goethe State Park, Gulf Hammoo		•			None	
Preserve, and Cr	ross Florida Greenway.				1105	
Functions		<u> </u>	Mitigation for prev	vious	permit/other historic use	
Will provide nesting, foraging and	cover for wildlife, while	improving water			None	
C	quality.				NOHE	
Anticipated Wildlife Utilization Base	ed on Literature Review	(List of species	Anticipated Utiliza	ation t	by Listed Species (List s	pecies, their legal
that are representative of the asses					C), type of use, and inte	
Deer rooms armodilla annous	·	aka watar				
Deer, racoon, armadillo, opossu m	um, rabbits, turkey, rattio loccasin	9-Shake, water	Red-cockaded woodpecker			
Observed Evidence of Wildlife Utilize	zation (List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
		RCW, armadi	illo, deer			
		-	,			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
Jon Barmore and David Dickson - ESI			March 2011			

#### **MITIGATION**

		MITIGATION			
Site/Project Name		Application Number		Assessment Area	a Name or Number
Goethe S	tate Forest	SAJ2008-00490 (ACOE), PA08-51C (FDEP)		RCW Upland Mowing	
Impact or Mitigation		Assessment conducted by:		Assessment date	e:
Miti	gation	Jon Barmore and David Did	ckson - ESI	Ma	arch 2011
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed.	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface	wetland	evel of support of l/surface water unctions	Condition is insufficient to provide wetland/surface water functions

waterfunctions

.500(6)(a) Location and Landscape Support  v/o pres or current with 6 7	The current landscape has a high degree of overgown undergrowth that is not optimal for RCW foraging and nesting. A program of mowing aound the bases of RCW pine trees will increase the usability of this habitat by surrounding populations of RCWs.		
.500(6)(b)Water Environment (n/a for uplands)			
Upland (U) or Wetland (W)	N/A		
v/o pres or current with 0 0			
.500(6)(c)Community structure			
Vegetation and/or     Benthic Community	No significant change will occur in the community structure that will affect nearby wetland functions and values.		
v/o pres or current with 7 7			

Score = sum of above scores/30		scores/30	If preservation as mitigation,
	(if uplands/20	)	*Preservation adjustment factor =
current			(0 to 1, 1/10th increments)
or w/o pres	S	with	Adjusted mitigation delta =
0.6500		0.7000	Adjusted miligation delta –
0.0300		0.7000	*use 1.0 for creation

use 1.0 10	Creation					
If mitigation	ı (creation o	r enhancem	ent)			
Time	Years	t-factor =	1			
Lag	< or = 1	t-lactor -	ı			
*Risk factor =						
(1 to 3	, 0.25 incre	ments)	1.25			

For impact assessment areas

FL = delta x acres =

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.0400	

\*use 1.0 for preservation

Delta = [with-current]

0.05

surface water assessed

		Application Numbe			or Number	
Goeine State Forest		0 (ACOE), PA08-{ (FDEP)	51C	Trail Road	Restoration	
FLUCFCs code 814 to 630	, , ,			Impac	et or Mitigation Site?	Assessment Area Size (Acres)
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classificati	ion (i.e.C	DFW, AP, other local/state/federal	l designation of importance)
Waccasassa	Class I	III			_	
Geographic relationship to and hyd	rologic connection with	wetlands, other s	surface water, upla	ands		
Currently, the trailroad areas co	eate an artificial barrier	r to natural water f	flow to the wetland	d syste	em running throughout (	Goethe State Park.
Assessment area description						
Currently, a non-vegetate	ed trailroad. Proposed,	, a wetland forest	with similar specie	es to s	urrounding (abutting) w	etland areas.
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Goethe State Park, Gulf Hammock Conservation Area, Waccasassa bay Preserve, and Cross Florida Greenway.		•	None			
Functions			Mitigation for pre	vious	permit/other historic use	<b>)</b>
Will provide nesting, foraging and cover for wildlife, while improving water quality.			None			
Anticipated Wildlife Utilization Base that are representative of the assess					by Listed Species (List s C), type of use, and inte	
Deer, racoon, armadillo, opossu m	m, rabbits, turkey, rattle occasin	e-snake, water			None	
Observed Evidence of Wildlife Utili:	zation (List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):
	Д	Armadillo, deer, wa	ater moccasin			
Additional relevant factors:						
Assessment conducted by:			Assessment date	e(s):		
Jon Barmore and David Dickson - I	<u>E</u> SI		March 2011			

#### **MITIGATION**

Site/Project Name	I PP	Assessment Area Name or Number
Goethe State Forest	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Trail Road Restoration
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	Jon Barmore and David Dickson - ESI	March 2011

Moderate(7)

Minimal (4)

Not Present (0)

Optimal (10)

3			- ( )	
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
			L	
.500(6)(a) Location and Landscape Support  v/o pres or current with  0 7	After removal of the trailroad	d, this area will act as a corrid	or for the movement of wildlif	e and water resources.
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with	The focus of the retoration o	effort will be to restore natural wetland sys	l sheetflow and hydrolocig pat stems.	terns to the adjaoining

with 0 8

.500(6)(c)Community structure

1. Vegetation and/or 2. Benthic Community

W/o pres or current with 0 7

Score = sum of above scores/30				
(if uplands/20)				
current				
or w/o pres with				
0.0000		0.7333		

Scoring Guidance

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment areas		
FL = delta x acres =		

Delta = [with-current]	
0.733333333	

If mitigation (creation or enhancement)					
Time	Years	t-factor =	2.18		
Lag	26 – 30	t-lactor -	2.10		
*Risk factor =					
(1 to 3	1.5				

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.2243	

\*use 1.0 for preservation

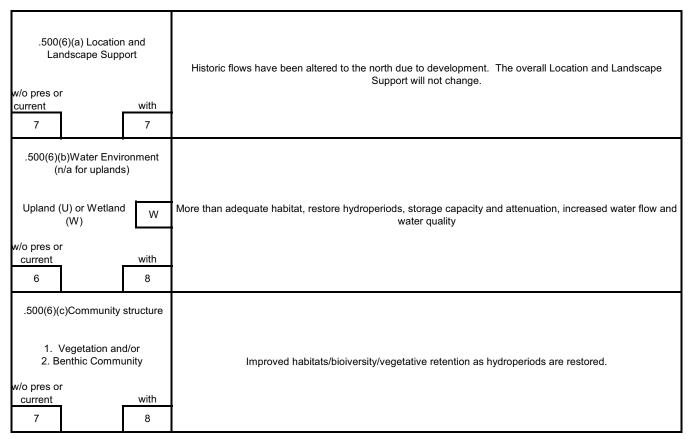
Site/Project Name		Application Number			essment Area Name or Number Activity Area 1, Wetland Hydrologic	
Homosassa Tract			(FDEP) Activity Area 1, Wetlar Enhancement			
			(1 DE1 )	Linic	mocment	
FLUCFCs code 630	Further classifica	ation (optional)	lr	mpact or Mitigation Site?  MITIGATION	Assessment Area Size (Acres)	
Basin/Watershed Name/Number	Affected Waterbody (Cla	iss)	Special Classification	n (i.e.OFW, AP, other local/state/fede	eral designation of importance)	
Upper Coastal	Class	III				
Geographic relationship to and hyd	drologic connection with	h wetlands, other s	surface water, uplan	nds		
This area is p	part of a large wetland	system that inter-c	connects throughout	t the entire Homosassa Tr	act.	
Assessment area description						
This mixed forested wetla restoration/enhancement on the flatwoods that have evolved ba	northern portion of the	e site. This commu	inity encompasses h		as well as historic wet	
Significant nearby features Adjacent to Chassahowitzka River proximity to Crystal River P Archaeological State Park, and I Tract encompasses portions	Preserve State Park, Cr Homosassa SpringsWi	rystal River ildlife State park.	, ,	sidering the relative rarity i	-	
Functions	-	-	Mitigation for previ	ous permit/other historic u	se	
wildlife feeding and refuge, flood storage, ground water attenuation, water quality enhancment		Siviculture and Agriculture				
Anticipated Wildlife Utilization Base that are representative of the asset				ion by Listed Species (Lis , SSC), type of use, and in		
wading birds, small/medium	mammals, amphibians	and reptiles	protected wad	ing birds (SSC), foraging a	and refuse, moderate	
Observed Evidence of Wildlife Utili	zation (List species dir	ectly observed, or	other signs such as	tracks, droppings, casing	s, nests, etc.):	
		grey squirrel, pas	sserine birds			
Additional relevant factors:						
Assessment conducted by:			Assessment date(s	s):		
VAF/DDS - Entrix; Shannon Julien	/JoeBrinson-ESI		12/9/2009 Entrix; 3/23-24/11, 6/30/11 ESI			

#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Homosassa Tract	SAJ2008-00490 (ACOE), PA08-51C	Activity Area 1, Wetland Hydrologic
HOMOSassa Tract	(FDEP)	Enhancement
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	VAF/DDS - Entrix; Shannon	12/9/2009 Entrix; 3/23-24/11, 6/30/11
ivitugation	Julien/JoeBrinson-ESI	ESI

Scoring Guidance
The scoring of each
indicator is based on what would be suitable for the
would be suitable for the
type of wetland or surface
water assessed

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions



or w/o pres 0.6667	; 	with 0.7667		
current				
	(if uplands/20)			
Score =	Score = sum of above scores/30			

If preservation as mitigation,			
*Preservation adjustment factor = (0 to 1, 1/10th increments)			
Adjusted mitigation delta =			
*use 1.0 for creation			

For impact assessment a	reas
FL = delta x acres =	

Delta = [with-current]
0.1

If mitigation (creation or enhancement)					
Time	Years	1.07			
Lag	3	t-factor =	1.07		
*	1				
(1 to 3					
*use 1.0 for preservation					

For mitigation assessment areas		
RFG = delta/(t-factor x risk) =	0.0935	

Form 62-345.900(2), F.A.C. [02-04-2004]

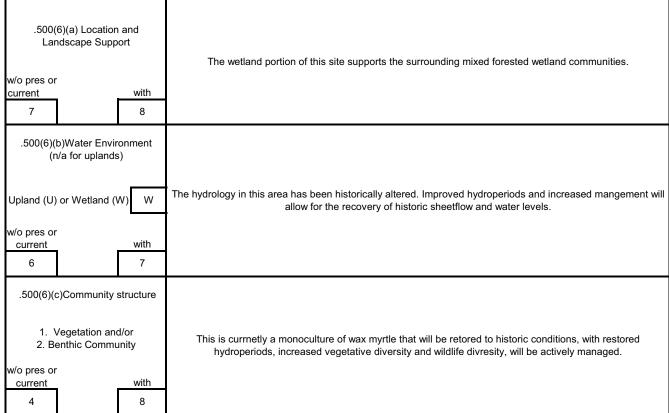
Site/Project Name		Application Number		Assessment Area Nam	e or Number
Homosassa Tı	ract		90 (ACOE), PA08-51C (FDEP)	Activity Area 1, V	et Prairie Restoration
		<u> </u>	(1 DE1 )		
FLUCFCs code	Further classification	ation (optional)	Impa	act or Mitigation Site?	Assessment Area Size
643		Class III		MITIGATION	(Acres)
0.10		Glaco III		WITTO/ CITOIN	25
Danis (Mataurah ad Nasaa (Masaa a	A#41W-411-(OI-	\	0		
Basin/Watershed Name/Number	Affected Waterbody (Cla	iss)	Special Classification (i.e.	e.OFW, AP, other local/state/fed	eral designation of importance)
Upper Coastal					
Geographic relationship to and hyd	drologic connection with	h wetlands others	surface water unlands		
Geographic relationship to and hyd	arologic connection with	ii wellands, other s	surface water, uplands		
Adjacent	to Mixed Forested We	tiands to be impro	ved nydrologically with	3 low water crossings.	
Assessment area description	dominated community	, accurate the port	thoost corner of Activity	, Aroa 1 Historically th	and landa ware anaroak
This low to moderate quality shub canopied, herbaceous wet flatwy					
scrub and is dominated by a	monoculture of wax my	rtle. Reduced hyd	droperiods have allowe	d scrub/shrub compon	
Ciamificant manufactures	management will l	be conducted to re	estore this habitat to we		in relation to the regional
Significant nearby features Adjacent to Chassahowitzka Rive	rine Swamp Sanctuary	. Located in close	Uniqueness (conside	ening the relative ranty	in relation to the regional
proximity to Crystal River F					
Archaeological State Park, and I		•			
Tract encompasses portions	s of Otter Creek and Ma	ason Creek.			
Functions			Mitigation for previous	s permit/other historic u	ise
NA/III					
Will provide nesting, foraging and	i cover for wildlife, while quality.	e improving water			
Anticipated Wildlife Utilization Base that are representative of the asse				by Listed Species (Lis	
that are representative of the asse	SSITIETIL ALEA ATIO TEASO	mably expected to	Classification (E, 1, 5	SC), type of use, and if	iterisity of use of the
small and medium mammals, v	vading birds, reptiles a	and amphibians	Wading bird	s (SSC) feeding and no	esting, moderate
Observed Evidence of Wildlife Utili	ization (List species dire	ectly observed, or	other signs such as tra	acks, droppings, casing	ıs, nests, etc.):
		None			
		None	;		
Additional relevant factors:					
Assessment conducted by:			Assessment date(s):		
VAF/DDS - Entrix; Shannon Julien	/JoeBrinson-ESI		12/9/2009 Entrix; 3/23	3-24/11, 6/30/11 ESI	

#### **MITIGATION**

Site/Project Name	The second secon	Assessment Area Name or Number
Homosassa Tract	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Activity Area 1, Wet Prairie Restoration
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	VAF/DDS - Entrix; Shannon	12/9/2009 Entrix; 3/23-24/11, 6/30/11
witigation	Julien/JoeBrinson-ESI	ESI

Scoring Guidance		
The scoring of each		
indicator is based on what		
would be suitable for the		
type of wetland or surface		
water assessed		

Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions



Score = sum of above scores/30						
(	(if uplands/20)					
current						
or w/o pres	or w/o pres					
0.5667		0.7667				

If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessmer	nt ar <u>eas</u>
FL = delta x acres =	

Delta = [with-current]	
0.2	

If mitigation	(creation o	r enhancem	ent)
Time	Years	t-factor =	1.14
Lag	5		1.14
(1 to 3	1.25		

For mitigation assessment areas

RFG = delta/(t-factor x risk) = 0.1404

\*use 1.0 for preservation

Site/Project Name		Application Numbe					
Homosassa Tr	act			90 (ACOE), PA08-51C Activity Area 2, Wetland I Enhancement			
				FDEP)		Elliancement	
FLUCFCs code		Further classifica	tion (optional)		Impac	et or Mitigation Site?	Assessment Area Size
							(Acres)
615						MITIGATION	387.2
					1		
Basin/Watershed Name/Number	Affect	ted Waterbody (Clas	is)	Special Classificati	on (i.e.0	OFW, AP, other local/state/federa	designation of importance)
Upper Coastal Class III							
Geographic relationship to and hyd	Irologi	is connection with	wotlands others	urface water unla	ande		
This is basin swamp that is intere	conne	ected to wetlands t	Mason and Ott		i ract a	and also is considered c	ontiguous wetland to
Assessment area description							
This basin swamp is of moderate	aualit	tv and is located in	the southern wes	stern portion of the	e Hom	osassa Tract. Elevated	I trail roads once used
		ulture and agricult					
Significant nearby features				Uniqueness (ee	neidor	ring the relative rarity in	rolation to the regional
Adjacent to Chassahowitzka River	rine S	Swamp Sanctuary.	Located in close	Offiqueriess (CO	iisiuei	ing the relative ranty in	relation to the regional
proximity to Crystal River P	reser	ve State Park, Cry	ystal River		Not	unique in surrounding a	irea
Archaeological State Park, and F			•	Not unique in surrounding area.			iiou.
Tract encompasses portions	OI OI	tter Creek and Ma	Son Creek.				
Functions				Mitigation for pre-	vious	permit/other historic use	)
wildlife feeding and refuge, flood storage, ground water attenuation, water							
	-	ncment	,		А	griculture and Silvicultu	re
Anticipated Wildlife Utilization Base	ed on	Literature Review	(List of species	Anticinated Hilliza	ation h	by Listed Species (List s	necies their legal
that are representative of the asses			•			C), type of use, and inte	
small and medium mammals, wa	-	•	ds, reptiles and	wading	birds (	(SSC) foraging and nest	ing, moderate
am	phibia	ans.				(,gg	
Observed Evidence of Wildlife Utiliz	zatior	1 (List species dire	ectly observed, or	l other signs such a	as trac	ks, droppings, casings,	nests, etc.):
		•		Ü			,
		deer trad	cks, raccoon track	s, wild turkey trac	cks		
Additional relevant factors:							
Additional relevant lactors.							
Assessment conducted by:				Assessment date	e(s):		
VAF/DDS - Entrix; Shannon Julien/JoeBrinson-ESI						24/11, 6/30/11 ESI	

#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Homosassa Tract	SAJ2008-00490 (ACOE), PA08-51C	Activity Area 2, Wetland Hydrologic
HOMOSassa Tract	(FDEP)	Enhancement
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	VAF/DDS - Entrix; Shannon	12/9/2009 Entrix; 3/23-24/11, 6/30/11
Wildgation	Julien/JoeBrinson-ESI	ESI

Scoring Guidance	Optimal (10)	Moderate(7)	Minimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions

.500(6)(a) Location and Landscape Support			This area is largely undisturbed with the exception of old trail roads and undersized culverts. The location and landscape support will not be altered significantly.			
w/o pres or current	r	with				
7		7				
	b)Water Envi n/a for upland					
Upland (	Upland (U) or Wetland (W)		More than adequate habitat, restore hydroperiods, storage capacity and attenuation, increased water flow and water quality			
w/o pres or	r	with				
6		8				
.500(6)(	c)Community	structure				
Vegetation and/or     Benthic Community			Improved habitats/bioiversity/vegetative retention as hydroperiods are restored.			
w/o pres or	r	with				
7		8				

Score = sum of above scores/30						
(if uplands/20)						
current	current					
or w/o pres	or w/o pres					
0.6667		0.7667				

If preservation as mitigation,	
*Preservation adjustment factor =	
(0 to 1, 1/10th increments)	
Adjusted mitigation delta =	

*use	1.0	for	creation	

Delta = [with-current]
0.1

If mitigation (creation or enhancement)						
Years	t factor -	1.07				
3	1-180101 -	1.07				
*Risk factor =						
(1 to 3, 0.25 increments)						
	Years 3 Risk factor	Years 3 t-factor =				

For mitigation assessment areas

For impact assessment areas

FL = delta x acres =

For mitigation assessment areas				
RFG = delta/(t-factor x risk) =	0.0935			

\*use 1.0 for preservation

Site/Project Name		Application Numbe			Assessment Area Name		
Levy Nuclear Plan	nt Site		, ,		, ,	Vaccasassa (1,2,3,4); Withlacoochee (2,3) Wetland Preservation	
•		(	(FDEP)		vvetiand P	reservation	
FLUCFCs code	Further classifica	ation (optional)		Impac	et or Mitigation Site?	Assessment Area Size	
						(Acres)	
Multiple					MITIGATION	*see below	
				<u> </u>			
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classification	on (i.e.C	OFW, AP, other local/state/federa	designation of importance)	
Waccasassa/Withlacoochee	Class I	III			N/A		
Geographic relationship to and hyd	rologic connection with	wetlands, other s	urface water, upla	ands			
Basin divide within the property sp							
project area (Waccasassa) flows n	orth into Goethe State			າ (With	nlacoochee), flows soutl	n to the Withlacoochee	
Assessment area description		River.	<u>.                                      </u>				
7100000mom aroa accompact.							
This assessment area includes						and forested mixed,	
	Freshwater ma	arsh, Wet prairie,	and Hydric pine pl	lantatio	on.		
Significant nearby features			Uniqueness (co	nsider	ring the relative rarity in	relation to the regional	
Located south of Goethe State Fo	rest, 8 miles east of the	e Gulf of Mexico	Omquonoso (	110100.	ing and rolder o rain,	rolation to the rogic	
and Waccasassa Bay State Prese	erve, and approximatel	y 1 mile north of			N/A		
the Cross Florida Barge Canal, La		Withlacoochee	TV/A				
'	River.						
Functions			Mitigation for pre	vious	permit/other historic use	)	
Functions include wildlife feedi	ng and refuge and wate	er quality and					
storage benefits, although lim					N/A		
pr	ractices						
Anticipated Wildlife Utilization Base	d on Literature Review	(List of species			by Listed Species (List s		
that are representative of the asses	sment area and reason	nably expected to	classification (E,	T, SS	C), type of use, and inte	nsity of use of the	
birds (passerine, raptor and wading		nedium mammals			wading birds (scc)		
(hogs, etc.), am	phibians and reptiles						
Observed Evidence of Wildlife Utiliz	zation (List species dire	ectly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):	
	Wading brid foraging,	deer tracks and s	cat raccoons sns	akas k	noa rootina		
	wading bild lolaging,	deel tracks and s	cat, raccoons, sne	inco, i	log rooting		
Additional relevant factors:							
*Acrossos per Activity Area (AA)							
*Acreages per Activity Area (AA) Waccasassa: AA 1 (109.7 ac), AA 2	2 (502.3 ac) AA.3 (9.9	ac) AA 4 (41 2 ac	c)				
Withlacoochee: AA 2 (30.2 ac), AA	-)						
Assessment conducted by:			Assessment date	)(c):			
Í			Assessment date(s):				
VAF/DDS-Entrix & Jon Barmore/David Dickson-ESI			Dec 2009 - Jan 2010 - Entrix & Mar 2011 - ESI				

#### **MITIGATION**

		MITIGATION			
Site/Project Name Levy Nuclea	Application Number SAJ2008-00490 (ACOE), (FDEP)			a Name or Number d Preservation	
Impact or Mitigation Mitiga	Assessment conducted by: VAF/DDS-Entrix & Jon Barmore/David Dickson-ESI		Assessment date: Dec 2009 - Jan 2010 - Entrix & Mar 2011 - ESI		
Scoring Guidance	Optimal (10)	Moderate(7)	Mini	imal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	wetland/s	el of support of surface water actions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  v/o pres or current with		by a diverse assemblage of u ectly affected by the straight			es. These will not be
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  v/o pres or current with  5	No increase or decrease	in water environment is antic wetland :		sult of the straigl	nt preservation of the
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with  7		of the preserved wetaland ar once protected under a co			o mature and divsersify
Score = sum of above scores/30 (if uplands/20) current or w/o pres with  0.6333 0.6667	If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	ent factor = 0.6 ements)		For impact asse	ssment areas
Delta = [with-current]	If mitigation (creation of Time Years	t-factor =	Fo	or mitigation ass	essment areas

Delta = [with-current]

0.033333333

If mitigation (creation or enhancement)							
Time	Years	t-factor =					
Lag	<select></select>	t-iactor –					
*	*Risk factor =						
(1 to 3							
* 4 O.E.	4						

\*use 1.0 for preservation

Site/Project Name		Application Numbe			Assessment Area Name	
Levy Nuclear Plant	Site		90 (ACOE), PA08-51C Waccasassa (1,2,3,4); With			
· · · · · · · · · · · · · · · · · · ·		[(	FDEP)		Wetland Hydrolo	gic Enhancement
FLUCFCs code	Further classifica	tion (optional)		Impact	or Mitigation Site?	Assessment Area Size
			,		o. magaaon ono.	(Acres)
Multiple					MITIGATION	*see below
Basin/Watershed Name/Number A	affected Waterbody (Class	ss)	Special Classificati	ion (i.e.Of	FW, AP, other local/state/federa	I designation of importance)
Waccasassa/Withlacoochee	Class I	•		, , , ,	N/A	, , , , , , , , , , , , , , , , , , , ,
vvaddasassa, vvitillacedoned	01033 1				14/7 (	
Geographic relationship to and hydro	logic connection with	wetlands others	urface water unla	ande		
Basin divide within the property spl					basins Water in the r	orthern portion of the
project area (Waccasassa) flows no						•
		River.				
Assessment area description						
This assessment area includes all o	onsite wetlands that a	re beina hydrologi	cally restored. Mix	xed wet	tland hardwoods Cvpr	ess. Wetland forested
	mixed, Freshwate					555, 1751.4.14 15155154
Significant nearby features	ant O miles and of the	a Culf of Mayina	Uniqueness (co	nsiderir	ng the relative rarity in	relation to the regional
Located south of Goethe State Fore and Waccasassa Bay State Preser						
the Cross Florida Barge Canal, Lak					N/A	
	iver.					
Eventions			N A(A)			
Functions			Mitigation for pre	vious p	ermit/other historic use	<del>)</del>
Functions include wildlife feeding					N1/A	
storage benefits, although limit	tea by the surrounding ictices	siiviculture			N/A	
·		(1:1.6.:	A (' '		1:1.10 : //:1	
Anticipated Wildlife Utilization Based that are representative of the assess		•	•		y Listed Species (List s	
linat are representative of the assess	ment area ana reason	nably expedied to	olassilloation (E,	1, 000	), type or use, and inte	money or doe of the
birds (passerine, raptor and wading	hird species) small/m	nedium mammals				
	hibians and reptiles	iodiam mammaio			wading birds (scc)	
	•					
Observed Evidence of Wildlife Utiliza	ation (List species dire	ectly observed, or	other signs such a	as track	s, droppings, casings,	nests, etc.):
\	Wading brid foraging,	deer tracks and se	cat, raccoons, sna	akes, h	og rooting	
Additional relevant factors:						
*Acreages per Activity Area (AA)						
Waccasassa: AA 1 (117.2 ac), AA 2		0 ac), AA 4 (73.1 a	ac)			
Withlacoochee: AA 2 (48.9 ac), AA 3	∃ (70.8 ac)					
Assessment conducted by:			Assessment date	e(s):		
VAF/DDS-Entrix & Jon Barmore/David Dickson-ESI			Dec 2009-Jan 20	010 - Er	ntrix & Mar 2011 - ESI	

#### **MITIGATION**

Site/Project Name		Application Number		Assessment Area	a Name or Number	
Levy Nucle	Levy Nuclear Plant Site		SAJ2008-00490 (ACOE), PA08-51C (FDEP)		ologic Enhancement	
Impact or Mitigation		Assessment conducted by:		Assessment date	e:	
Mitigation		VAF/DDS-Entrix & Jon Barmore/David		Dec 2009 - Jan 2010 - Entrix & Mar		
Milli	Mitigation		Dickson-ESI		2011 - ESI	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each indicator is based on	Condition is optimal and	Condition is less than optimal, but sufficient to	Minimal le	evel of support of	Condition is insufficient	

maintain most

wetland/surface

fully supports

wetland/surface water

functions

, , ,	water assesse	l l	functions	waterfunctions	ranotions	functions	
	(6)(a) Locatio ndscape Sup r			rounded by a diverse assemblage of upland and wetland communities. These will no directly affected by the hydrologic enhancement of the wetlands.			
1)	(b)Water Envi n/a for upland (U) or Wetlan (W)	s)			ently reduced due to on-site di blocks will allows for natural h d systems.		
1. '	c)Community Vegetation ar renthic Comm	ıd/or	The vegetative community	of the hydrologically enhance soley on the enhance	ed wetaland areas is not experement activities.	cted to change based	

Score = sum of above scores/30						
(if uplands/20)						
current						
or w/o pres with						
0.6333		0.7667				

what would be suitable

for the type of wetland or

If preservation as mitigation,					
*Preservation adjustment factor = (0 to 1, 1/10th increments)					
Adjusted mitigation delta =					
*use 1.0 for creation					

For impact assessment areas			
FL = delta x acres =			

to provide

wetland/surface water

functions

wetland/surface water

functions

Delta = [with-current]	
0.133333333	

If mitigation	n (creation o	r enhancem	ent)		
Time	Years	t-factor =	1.14		
Lag	<select></select>	t-iactor –	1.14		
,	*Risk factor =				
(1 to 3	(1 to 3, 0.25 increments)				
*use 1.0 fc	r preservat	ion			

For mitigation assessment areas RFG = delta/(t-factor x risk) = 0.0936

Form 62-345.900(2), F.A.C. [02-04-2004]

1 1		Application Number					
Levy Nuclear Plar	Levy Nuclear Plant Site SAJ2008-00490 (ACOE)			08-51C Waccasassa (1,2) Wetland Pine Thinning		· · /	
·			(	(FDEP) W		wetiand Pi	ne i ninning
FLUCFCs code	F	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size
						MITICATION	(Acres)
Multiple						MITIGATION	*see below
Basin/Watershed Name/Number	Affecte	d Waterbody (Clas	ss)	Special Classificati	on (i.e.	OFW, AP, other local/state/federa	l designation of importance)
Waccasassa		Class I	II			N/A	
Geographic relationship to and hyd	Irologic	connection with	wetlands, other s	surface water, upla	ands		
		Water	flows north into 0	Goethe State Park			
Assessment area description							
This as	ssessn	nent area include	s all onsite wetlar	nds that will have	invasi	ve pines removed.	
Significant nearby features				Uniqueness (co	nsider	ring the relative rarity in	relation to the regional
Located south of Goethe State For and Waccasassa Bay State Prese	,						
the Cross Florida Barge Canal, L				N/A			
-	River.						
Functions				Mitigation for pre	vious	permit/other historic use	2
	ina and	I refuge and water	or quality and	limingation for pro	viouo	pormition in incidence dec	,
Functions include wildlife feeding and refuge and water quality and storage benefits, although limited by the surrounding silviculture				N/A			
practices							
Anticipated Wildlife Utilization Base						by Listed Species (List s	
that are representative of the asses	ssment	t area and reasor	nably expected to	classification (E,	T, SS	C), type of use, and inte	ensity of use of the
birds (passerine, raptor and wading (hogs, etc.), am	-		edium mammals	wading birds (scc)			
(11095, 616.), 4111	ipinibiai	no ana reptileo					
Observed Evidence of Wildlife Utilia	zation	(List species dire	ctly observed, or	I other signs such a	as trac	cks, droppings, casings,	nests, etc.):
			-	-			,
	Wadir	ng brid foraging,	deer tracks and s	cat, raccoons, sna	akes, I	hog rooting	
Additional relevant factors:							
radiional relevant factors.							
*Acreages per Activity Area (AA)	,						
Waccasassa: AA 1 (0.1 ac), AA 2 (	(0.2 ac)	)					
Assessment conducted by:				Assessment date	e(s):		
VAF/DDS-Entrix & Jon Barmore/D	avid D	ickson-ESI		Dec 2009-Jan 2010 - ESI & Mar 2011 - ESI			
I		<b></b>					

#### **MITIGATION**

Site/Project Name	Application Number	Assessment Area Name or Number
Levy Nuclear Plant Site	SAJ2008-00490 (ACOE), PA08-51C (FDEP)	Wetland Pine Thinning
Impact or Mitigation	Assessment conducted by:	Assessment date:
Mitigation	VAF/DDS-Entrix & Jon Barmore/David	Dec 2009 - Jan 2010 - Entrix & Mar
Mitigation	Dickson-ESI	2011 - ESI
	I.	ı

Moderate(7)

Condition is less than

Minimal (4)

Not Present (0)

Condition is insufficient

Optimal (10)

indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal level of support of wetland/surface water functions	Condition is insufficient to provide wetland/surface water functions
.500(6)(a) Location and Landscape Support  v/o pres or current with 7		ve been removed from areas support water and wildlife fur		
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  w/o pres or current with 5	No increase or decreas	e in water environment is anti	icipated as a result of the wet	land pine thinning.
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or		moval are the result of encroa tland communities to their pro		

Score -	sum of above s	coroc/30	
Score -	Score = sum of above scores/30		
	(if uplands/20	)	
current			
or w/o pres	S	with	
0.6000		0.7333	

with

current

6

Scoring Guidance

The scoring of each

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

elta =		rt – dei
	•	

Delta = [with-current]	
0.133333333	

If mitigation (creation or enhancement)				
Time	Years	t-factor =	1.25	
Lag	<select></select>	t-lactor =	1.23	
*Risk factor = 1.25				
(1 to 3	1.23			
*uco 1.0 for procorvation				

For impact assessment areas		
FL = delta x acres =		

For mitigation assessment areas				
RFG = delta/(t-factor x risk) =	0.0853			

use 1.0 for preservation

Site/Project Name		Application Numbe					
Levy Nuclear Plar	nt Site		90 (ACOE), PA08-51C   Waccasassa (1,2,3,4); With (FDEP)   Herbaceous Wetland I				
,		(	FDEP)		Herbaceous We	liand Restoration	
FLUCFCs code	Further classifica	ition (optional)		Impac	t or Mitigation Site?	Assessment Area Size	
		, , ,		·	· ·	(Acres)	
Multiple					MITIGATION	*see below	
Basin/Watershed Name/Number Affected Waterbody (Class)			Special Classificati	ion (i.e.C	DFW, AP, other local/state/federa	designation of importance)	
Waccasassa/Withlacoochee	Class I	III			N/A		
Geographic relationship to and hyd Basin divide within the property sp project area (Waccasassa) flows n	plits the water flow betw	ween the Waccasa	assa and Withlaco e southern portion	oochee			
Assessment area description							
This assessment area includes a	ill onsite wetlands that a mixed, Freshwate					ss, Wetland forested	
Significant nearby features			Uniqueness (co	nsider	ing the relative rarity in	relation to the regional	
Located south of Goethe State For and Waccasassa Bay State Prese							
the Cross Florida Barge Canal, La			N/A				
_	River.						
Functions			Mitigation for pre-	vious r	permit/other historic use	<u> </u>	
			willigation for pre	vious į	permittother mistoric use	•	
Functions include wildlife feedi storage benefits, although lim pr			N/A				
Anticipated Wildlife Utilization Base	d on Literature Review	(List of species	Anticipated Utiliza	ation b	y Listed Species (List s	pecies, their legal	
that are representative of the asses	sment area and reason	nably expected to	classification (E,	T, SS	C), type of use, and inte	nsity of use of the	
birds (passerine, raptor and wading (hogs, etc.), am	g bird species), small/m	nedium mammals	s wading birds (scc)				
Observed Evidence of Wildlife Utiliz	zation (List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):	
	Mading build forceing	door trools and a		مارمم ام			
	Wading brid foraging,	deer tracks and so	cat, raccoons, sna	akes, r	log rooting		
Additional relevant factors:							
*Acreages per Activity Area (AA)							
Waccasassa: AA 1 (7.4 ac), AA 2 (	228.5 ac), AA 3 (8.1 ac	c), AA 4 (31.9 ac)					
Withlacoochee: AA 2 (18.7 ac), AA	3 (21.3 ac)						
Assessment conducted by:			Assessment date	e(s):			
VAF/DDS-Entrix & Jon Barmore/Da	Dec 2009-Jan 2010 - Entrix & Mar 2011 - ESI						

#### **MITIGATION**

Site/Project Name		Application Number Assessment Area Name or I		a Name or Number	
Levy Nucle	ear Plant Site	SAJ2008-00490 (ACOE), (FDEP)	Hernaceous Wetland Restora		Wetland Restoration
Impact or Mitigation		Assessment conducted by:		Assessment date:	
Mitigation		VAF/DDS-Entrix & Jon Barı Dickson-ESI	more/David	Dec 2009 - Jan 2010 - Entrix & Mar 2011 - ESI	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)
The scoring of each indicator is based on what would be suitable	Condition is optimal and fully supports	Condition is less than optimal, but sufficient to maintain most		evel of support of l/surface water	Condition is insufficient to provide

wetland/surface

waterfunctions

wetland/surface water

functions

		6)(a) Location ndscape Supp		Several significant areas of hydric pine plantation will be restored to herbaceous wetland systems. Currently, these areas do support the surrounding reas, but not with the specific, non-forested communities that would have been present without silvicultural activities.
	(r	b)Water Envi n/a for upland U) or Wetland (W)	s)	No increase or decrease in water environment is anticipated as a result of the herbaceous wetland restoration.
	current 5		with 5	
	. , ,	c)Community		Investigations have shown that the communities proposed for herbaceous restoration were likely either non-
		/egetation an enthic Comm		forested prior to silvicultural activities or represent a percentage of wetlands that should be herbaceous (based on surrounding land types). The removal of treesand planting of desirable species will allow these communities to better support habitat specific vegetation and wildlife.
1	current		with	
ſ	6		9	
ı	U		J	

Score = sum of above scores/30					
(if uplands/20)					
current	current				
or w/o pres	or w/o pres with				
0.5667		0.7000			

for the type of wetland or

surface water assessed

If preservation as mitigation,	
*Preservation adjustment factor = (0 to 1, 1/10th increments)	
Adjusted mitigation delta =	
*use 1.0 for creation	

For impact assessment areas				
FL = delta x acres =				

wetland/surface water

functions

functions

Delta = [with-current]	
0.133333333	

If mitigation (creation or enhancement)								
Time Years t-factor = 1.92								
Lag	<select></select>	1.92						
×	*Risk factor =							
(1 to 3, 0.25 increments)								
4 4 6 6								

For mitigation assessment areas RFG = delta/(t-factor x risk) = 0.0556

\*use 1.0 for preservation

Site/Project Name Application I							
Levy Nuclear Plan	t Site	SAJ2008-00490 (ACOE), PA08-51C (FDEP)			,	); Withlacoochee (2,3)	
		1	ruer)		Opianu Pi	eservation	
FLUCFCs code	Further classifica	ation (optional)		Impac	t or Mitigation Site?	Assessment Area Size	
N.A. alkina I					MITICATION	(Acres)	
Multiple					MITIGATION	*see below	
						l	
Basin/Watershed Name/Number	Affected Waterbody (Clas	ss)	Special Classificati	on (i.e.C	DFW, AP, other local/state/federa	l designation of importance)	
Waccasassa/Withlacoochee	Class	III			N/A		
Geographic relationship to and hydi Basin divide within the property sp project area (Waccasassa) flows n	olits the water flow bety	ween the Waccas	assa and Withlaco	ochee			
Assessment area description							
This assessmen	t area includes all onsi	te uplands that are	e being preserved	l. Pine	flatwoods, Pine planta	tion.	
Significant nearby features  Located south of Goethe State Fo	rest 8 miles east of th	e Gulf of Mexico	Uniqueness (co	nsider	ing the relative rarity in	relation to the regional	
and Waccasassa Bay State Prese					N/A		
the Cross Florida Barge Canal, La		Withlacoochee			IV/A		
· '	River.						
Functions			Mitigation for pre	vious p	permit/other historic use	е	
Functions include wildlife feedin	a and refuge although	limited by the					
	lviculture practices.	i minica by the	N/A				
Anticipated Wildlife Hillingtion Dage	d an Litanatura Daviau	· /l int of oppoint	Antiningtod I Itilia	atian h	viliated Cossiss (List a	annaine their level	
Anticipated Wildlife Utilization Base that are representative of the asses					by Listed Species (List s C), type of use, and inte		
· ·			,			·	
birds (passerine, raptor and wading	bird species), small/n	nedium mammals					
(hogs, etc.), am	phibians and reptiles						
Observed Evidence of Wildlife Hilli	estion /list species div	anthu abaamuad an	athan aigean accab		le draminas sasinas	nanta ata \	
Observed Evidence of Wildlife Utiliz	ation (List species dire	ectly observed, or	other signs such a	as trac	ks, droppings, casings,	nesis, etc.):	
	Deer track:	s and scat, raccoo	ns, snakes, hog r	ooting			
Additional relevant factors:							
*Acreages per Activity Area (AA)	(00.0)	-) ^^ (0.5)					
Waccasassa: AA 1 (47.3 ac), AA 2 Withlacoochee: AA 2 (1.8 ac), AA 3		c), AA 4 (2.5 ac)					
Assessment conducted by:			Assassment data	n(e).			
Assessment conducted by:	old Distance FOI		Assessment date	` ,			
VAF/DDS-Entrix & Jon Barmore/Da	Dec 2009-Jan 2010 - Entrix & Mar 2011 - ESI						

		MITIGATION					
Site/Project Name Levy Nuclear	Application Number SAJ2008-00490 (ACOE), (FDEP)		Upland Preservation				
mpact or Mitigation Mitiga	tion	Assessment conducted by: VAF/DDS-Entrix & Jon Ban Dickson-ESI				0 - Entrix & Mar ESI	
Scoring Guidance	Optimal (10)	Moderate(7)	Min	imal (4)	Not Present (0)		
The scoring of each indicator is based on what would be suitable for the type of wetland or surface water assessed	Condition is optimal and fully supports wetland/surface water functions	Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	wetland/	vel of support of surface water nctions	Condition is insufficie		
.500(6)(a) Location and Landscape Support  for pres or current with  7		uld likely be utilized for develd sted upland areas offer stronถู					
.500(6)(b)Water Environment (n/a for uplands)  Upland (U) or Wetland (W)  To pres or current with	-	N/A	N.				
1. Vegetation and/or 2. Benthic Community  /o pres or current 0		uld likely be utilized for develo					
Score = sum of above scores/30	If preservation as mitiç	,		For impact asses	ssment ar	eas	
(if uplands/20) current	*Preservation adjustm (0 to 1, 1/10th incr	I UUn I	FI = c	lelta x acres =			
• w/o pres with • 0.0000 0.7000	Adjusted mitigation de *use 1.0 for creation	lta = 0.042					
	If mitigation (creation of	or enhancement)	F	or mitigation ass	essment :	areas	
Delta = [with-current]	Time Years Lag 11 – 15	t-factor =					
*Risk factor = (1 to 3, 0.25 increments)							

Site/Project Name			Application Number	er		Assessment Area Name or Number		
Levy Nuclear Pla	nt Site			0490 (ACOE), PA08-51C		Waccasassa (1,2,3,4); Withlacoochee (2		
				(FDEP)		Upland Pi	ne Thinning	
FLUCFCs code	Fu	rther classifica	ition (optional)		Impa	ct or Mitigation Site?	Assessment Area Size	
			(-)			-	(Acres)	
Multiple				MITIGATION *see be			*see below	
Basin/Watershed Name/Number	Affected \	Waterbody (Clas	ss)	Special Classificati	ion (i.e.	OFW, AP, other local/state/federa	al designation of importance)	
Waccasassa/Withlacoochee		Class	III			N/A		
Geographic relationship to and hyd Basin divide within the property s project area (Waccasassa) flows r	splits the v	vater flow bety	ween the Waccas	assa and Withlacone southern portion	ooche			
Assessment area description								
This assessment are	ea include	s all onsite up	lands that will hav	e excess pines th	inned	. Pine flatwoods, Pine p	lantation.	
Significant nearby features  Located south of Goethe State Fe	orost 9 m	ilos oast of th	o Gulf of Movico	Uniqueness (co	nside	ring the relative rarity in	relation to the regional	
and Waccasassa Bay State Pres						<b>N</b> 1/A		
the Cross Florida Barge Canal, L			•	N/A				
	River.							
Functions				Mitigation for pre	vious	permit/other historic us	e	
						•		
Functions include wildlife feedir surrounding s	•		limited by the			N/A		
surrounding s	siivicuituie	practices.						
Anticipated Wildlife Utilization Base						by Listed Species (List s		
that are representative of the asse	ssment a	rea and reaso	nably expected to	classification (E,	T, SS	SC), type of use, and inte	ensity of use of the	
hinds (passaning repts and wedin	a bind on							
birds (passerine, raptor and wadin (hogs, etc.), an		,	iedium mammais					
(age, e.e./), a		and ropinos						
Observed Evidence of Wildlife Utili	ization (Li	st species dire	ectly observed, or	other signs such a	as trac	cks, droppings, casings,	nests, etc.):	
		Deer tracks	s and scat, raccoo	ons, snakes, hog r	ooting	J		
Additional relevant factors:								
Additional relevant factors.								
*Acreages per Activity Area (AA) Waccasassa: AA 1 (29.2 ac), AA 2	2 (207 2 2	o)	20) 44 4 (27 2 2	0)				
Withlacoochee: AA 2 (396.5 ac), AA 2			ac), AA 4 (37.2 a	C)				
	`	•						
Assessment conducted by:				Assessment date	2(e)·			
	ovid Distri	oon ESI			` '	Entriv 9 Mar 2014 FOL		
VAF/DDS-Entrix & Jon Barmore/David Dickson-ESI				Dec 2009-Jan 2010 - Entrix & Mar 2011 - ESI				

			MITIGATION		
Site/Project Name  Levy Nuclear Plant Site  Impact or Mitigation  Mitigation			Application Number SAJ2008-00490 (ACOE), PA08-51C (FDEP)  Assessment Area Name or Number Upland Pine Thinning  Assessment date: Dec 2009 - Jan 2010 - Entrix & Ma Dickson-ESI  Dec 2011 - ESI		oland Pine Thinning t date: - Jan 2010 - Entrix & Mar
Scoring Guidance The scoring of each indicator is based on what would be suitab for the type of wetland surface water assess	n ile I or	Optimal (10)  Condition is optimal and fully supports wetland/surface water functions	Moderate(7)  Condition is less than optimal, but sufficient to maintain most wetland/surface waterfunctions	Minimal (4)  Minimal level of support wetland/surface water functions	to provide
.500(6)(a) Location and Landscape Support  v/o pres or current with  0		These upland areas would likely be utilized for development without the preservation of a conservation easement. The forested upland areas offer strong support to neighboring wetland communities and will offer greater support of functions and values with the pines thinned to desirable densities.			
.500(6)(b)Water Env (n/a for upland Upland (U) or Wetlan (W) v/o pres or current	ds) 	N/A			
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  v/o pres or current with  0 8		These upland areas would likely be utilized for development without the preservation of a conservation easement. The forested upland areas consist of a diverse assemblage of upland species and will offer a more appropriate diveristy of species with the pines thinned to desirable densities.			
Score = sum of above (if uplands/20 current or w/o pres 0.0000		If preservation as mitig *Preservation adjustm (0 to 1, 1/10th incr Adjusted mitigation de *use 1.0 for creation	ent factor = ements)	For impact a	assessment areas
Delta = [with-current]		If mitigation (creation of Time Years Lag 11 – 15	t-factor = 1.25	For mitigation	n assessment areas
0.8		*Risk factor		RFG = delta/(t-fac	tor x risk) = <b>0.5120</b>

(1 to 3, 0.25 increments)