# DEPARTMENT OF THE ARMY PERMIT APPLICATION MAY 2020

COLLIER COUNTY COMPREHENSIVE WATERSHED IMPROVEMENT PLAN COLLIER COUNTY, FLORIDA

# SUPPLEMENTAL INFORMATION ATTACHMENT 8

UNIFORM MITIGATION ASSESSMENT METHOD SUMMARIES

REVISED: MAY 2020

#### UNIFORM MITIGATION ASSESSMENT METHOD SUMMARY

Site/Project Name:	Application Number:	Date:
Collier County Comprehensive Watershed Improvement Plan	SFWMD: 200214-2805	May 2020

#### IMPACT SUMMARY

According to Accord		Income the Town	L&L Support		Water Environment		Communit	y Structure	luura et Dalta		Functional
	Assessment Area	Impact Type	Current	w/Impact	Current	w/Impact	Current	w/Impact	Impact Deita	Acres	Loss
1	Impact 1 - 3	Direct	4	0	3	0	3	0	-0.333	5.748	-1.92
2	Impact 4 - 7	Direct	7	0	5	0	7	0	-0.633	10.939	-6.93
3	Impact 8 - 9	Direct	7	0	5	0	6	0	-0.600	4.585	-2.75
4	Impact 10 -11	Direct	7	0	5	0	4	0	-0.533	0.953	-0.51
5	Impact 12	Direct	6	0	3	0	2	0	-0.367	0.511	-0.19
6	Impact 13	Direct	6	0	3	0	2	0	-0.367	0.043	-0.02
7	Impact 14	Direct	6	0	3	0	2	0	-0.367	0.916	-0.34
8	Impact 15	Direct	6	0	3	0	2	0	-0.367	1.071	-0.39
9	Impact 16, 17, 19, 23	Direct	4	0	3	0	3	0	-0.333	7.552	-2.52
10	Impact 18	Direct	5	0	4	0	6	0	-0.500	1.882	-0.94
11	Impact 20 - 21	Direct	5	0	4	0	7	0	-0.533	0.452	-0.24
12	Impact 22	Direct	5	0	4	0	7	0	-0.533	0.340	-0.18
13	Impact 1 - 3	Secondary	4	3	3	3	3	3	-0.033	1.902	-0.06
14	Impact 4 - 7	Secondary	7	6	5	5	7	7	-0.033	2.458	-0.08
15	Impact 8 - 9	Secondary	7	6	5	5	6	6	-0.033	0.748	-0.02
16	Impact 10 -11	Secondary	7	6	5	5	4	4	-0.033	0.974	-0.03
17	Impact 12	Secondary	6	5	3	3	2	2	-0.033	0.319	-0.01
18	Impact 14	Secondary	6	5	3	3	2	2	-0.033	0.739	-0.02
19	Impact 15	Secondary	6	5	3	3	2	2	-0.033	0.444	-0.01
20	Impact 16, 17, 19, 23	Secondary	4	3	3	3	3	3	-0.033	8.895	-0.30
21	Impact 18	Secondary	5	4	4	4	6	6	-0.033	2.695	-0.09
22	Impact 20 - 21	Secondary	5	4	4	4	7	7	-0.033	0.619	-0.02
23	Impact 22	Secondary	5	4	4	4	7	7	-0.033	0.356	-0.01
								TOTAL		55.141	-17.59

#### MITIGATION SUMMARY

Accordment Area	Mitigation Tune	L&L Support		Water En	Water Environment Commun		y Structure	Mitigation	Time Log	Diale	Relative	A	Functional	
	Assessment Area	willigation type	Current	w/Mit	Current	w/Mit	Current	w/Mit	Delta	Time Lag	RISK	<b>Functional Gain</b>	Acres	Gain
1	Mitigation 1	Restoration	7	7	5	6	7	7	0.033	1.00	1.00	0.033	527.700	17.59
2														
3														
4														
5														
6														
7														
8														
9														
10														

Total Functional Loss	-17.59
Total Functional Gain	17.59
Net Functional Gain	0.00



L:\2018\C2018-052 Collier County CWIP\GIS\MXDs\UMAM\_North\_Belle\_Meade\_Flowway.mxd



L:\2018\C2018-052 Collier County CWIP\GIS\MXDs\UMAM\_South\_Belle\_Meade\_Flowway.mxd



L:\2018\C2018-052 Collier County CWIP\GIS\MXDs\UMAM\_Sanders\_Blvd\_Property.mxd



L:\2018\C2018-052 Collier County CWIP\GIS\MXDs\UMAM\_Pedestrian\_Path.mxd

![](_page_6_Picture_0.jpeg)

L:\2018\C2018-052 Collier County CWIP\GIS\MXDs\UMAM\_Southern\_Flowway\_1.mxd

![](_page_7_Picture_0.jpeg)

L:\2018\C2018-052 Collier County CWIP\GIS\MXDs\UMAM\_Southern\_Flowway\_2.mxd

![](_page_8_Picture_0.jpeg)

L:\2018\C2018-052 Collier County CWIP\GIS\MXDs\UMAM\_Southern\_Flowway\_3.mxd

![](_page_9_Picture_0.jpeg)

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![](_page_10_Picture_0.jpeg)

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![](_page_11_Picture_0.jpeg)

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Site/Project Name		Application Numbe	ər		Assessment Area Name	or Number	
Collier County C	CWIP	SFWMD	): 200214-2805		li	npact 1 -3	
FLUCCs code	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size	
624-E3	Cypress-Pine-	Cabbage Palm (5	1-75% exotics)		Impact - Direct	5.748	
Basin/Watershed Name/Number Rookery Bay	Affected Waterbody (C	lass)	Special Classifica	ation (i	e. OFW, AP, other location. None	al/state/federal designation of im	
Geographic relationship to and hyd	drologic connection with	wetlands, other s	urface water, upla	nds			
Thse assessment area (AA) once of and commercial development, and stormwater drainage.	comprised a portion of a l a landfill. The hydrolog	l large wetland sys y of the site has b	stem that is now d een altered by the	isconn surroi	nected and fragmented unding infrastructure ar	by roads, canals, residential d development-related	
Assessment area description							
AA consists of a cypress-pine-cabl bald cypress ( <i>Taxodium distichum</i> ( <i>Acacia auriculiformis</i> ). Common g	bage palm wetland com ), slash pine ( <i>Pinus ellic</i> groundcover species inc	munity infested (5 htii), cabbage paln lude swamp fern (	1-75% cover) with n ( <i>Sabal palmetto</i> <i>Blechnum serrula</i>	i exotic ), mela <i>tum</i> ) a	c/invasive species. Can aleuca ( <i>Melaleuca quinc</i> and Ceasarweed ( <i>Urena</i>	opy cover consists of a mix of quenervia), and earleaf acacia a lobata).	
Significant nearby features			Uniqueness (cor	nsiderii	ng the relative rarity in I	elation to the regional	
North: Collier County Resource Recovery Park; East: Collier County Landfill; South: I-75 and mostly undeveloped, vacant land; West: Collier County Sports Complex			Not unique to region				
Functions			Mitigation for pre	vious p	permit/other historic use	9	
Provides cover, substrate, and refu water quality improvement; ground	uge; breeding; foraging; water recharge; wildlife	water storage; habitat	None				
Anticipated Wildlife Utilization Base that are representative of the asse be found)	ed on Literature Review ssment area and reasor	(List of species hably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds (green heron, red-bellied wo egrets); snakes (banded and greer racer); turtles (musk, red-bellied co green tree); mammals (feral hog, co deer, squirrels, Florida panther)	odpecker, red shouldere n watersnakes, cottonme ooter, mud); frogs (leopa opossum, armadillo, race	ed hawk, herons, outh, mud, black ard, pig, bull, coon, white-tailed	Florida panther ( bonneted bat (sta	state - ate - E	E, fed - E); Big Cypres: , federal - E)	s fox squirrel (state - T); Florida	
Observed Evidence of Wildlife Utili	ization (List species dire	ctly observed, or	other signs such a	as tracl	ks, droppings, casings,	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	a(s).			
Taylor Engineering, Inc.			May 2020				
			1				

Site/Project Name		Application Number		Assessment Area	a Name or Numbe	r
Collier Cour	ty CWIP	SFWMD: 200214-28	805		Impact 1 -3	
Impact or Mitigation		Assessment conducted by:		Assessment date	9:	
Impact -	Direct	Taylor Engineering, I	nc.		May 2020	
	Onthe 1 (10)	Mada (m)			No: D	h (0)
The scoring Guidance 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	Mi Minimal le wetland fu	nimal (4) evel of support of /surface water unctions	Condition is insu provide wetland water functi	fficient to /surface ions
.500(6)(a) Location and Landscape Support w/o pres or <u>current with</u> 4 0	Availability of habitat outside the north, east, and west. WI proximity to the AA contain a commercial/residential devel	the AA is poor to fair. The AA hite Lake Blvd and I-75 borde high fraction of exotic/invasiv opment, roads) adversely affe	is borderec rs the AA to e species. L ct wildlife ad	I by undeveloped the south. Vegeta and uses outside ccess to and utiliza	wetlands and upla ation communities the AA (canals, la ation of the AA.	nds to in close andfill,
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 3 0	Surrounding land uses and a within the AA resulting in low and fill associated with floww	anthropogenic disturbance arou rer water levels and dryer conc ray construction.	und the AA litions. Prop	have likely altered osedi mpacts to tl	l natural wetland h he AA include exc	ydrology avation
3       0         .500(6)(c)Community structure       .500(6)(c)Community structure         1. Vegetation and/or       AA consists of altered vegetaton community with a high fraction (51-75%) of exotic/invasive species. Canopy species include bald cypress, slash pine, cabbage palm, melaleuca, and earleaf acacia. Common groundcover species include swamp fern and Ceasarweed. Proposed Impacts to the AA include excavation and fill associat with flowway construction.         w/o pres or       current         with       T						opy cover sociated
Score = sum of above scores/30 (if uplands, divide by 20)         current         or w/o pres         0.333	If preservation as mitig Preservation adjustme Adjusted mitigation del	nt factor = Ita =	FL =	For impact assess = delta x acres =	sment areas -1.92	
·	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					
-0.333	Risk factor =		RFG	= delta/(t-factor x	risk) =	

Form 62-345.300(2) [effective date 02-04-2004]

Collier County CWIP       SFWMD: 200214-2805       Impact 4         FLUCCs code       Further classification (optional)       Impact or Mitigation Site?       A:         624-E1       Cypress-Pine-Cabbage Palm (<25% exotics)       Impact - Direct       A:         Basin/Watershed Name/Number       Affected Waterbody (Class)       Special Classification (i.e. OFW, AP, other local/state)       None         Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands       None       Assessment area (AA) hydrology and larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduce wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Nap         Assessment area description       AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca ( <i>A</i> )	tt 4 - 7 Assessment Area Size 10.939 state/federal designation uced hydroperiod and laples, Florida area).				
FLUCCs code       Further classification (optional)       Impact or Mitigation Site?       A:         624-E1       Cypress-Pine-Cabbage Palm (<25% exotics)	Assessment Area Size 10.939 state/federal designation uced hydroperiod and laples, Florida area).				
624-E1       Cypress-Pine-Cabbage Palm (<25% exotics)       Impact - Direct         Basin/Watershed Name/Number       Affected Waterbody (Class)       Special Classification (i.e. OFW, AP, other local/state)         Rookery Bay       III       None         Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands       None         Assessment area (AA) hydrology and larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduce wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Nap         Assessment area description       AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca ( <i>A</i> )	10.939 state/federal designation uced hydroperiod and laples, Florida area).				
Basin/Watershed Name/Number Rookery Bay       Affected Waterbody (Class)       Special Classification (i.e. OFW, AP, other local/states)         Basin/Watershed Name/Number Rookery Bay       III       None         Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands       None         Assessment area (AA) hydrology and larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduce wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Nap Assessment area description         AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca ( <i>A</i> )	state/federal designation uced hydroperiod and laples, Florida area).				
Rookery Bay       III       None         Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands       Assessment area (AA) hydrology and larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduce wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Nap         Assessment area description       AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca (AB)	uced hydroperiod and laples, Florida area).				
Geographic relationship to and hydrologic connection with wetlands, other surface water, uplands Assessment area (AA) hydrology and larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduce wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Nap Assessment area description AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca (	uced hydroperiod and Iaples, Florida area).				
Assessment area (AA) hydrology and larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduce wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Nag Assessment area description AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca (	uced hydroperiod and Iaples, Florida area).				
Assessment area description AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca (					
AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy mix of bald cypress ( <i>Taxodium distichum</i> ), scattered slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca (					
quinquenervia). Swamp fern (Blechnum serrulatum) commonly occupies the groundcover. Exotic species cover is low and consi Ceasarweed (Urena lobata), shrubby false buttonweed (Spermacoce verticillata), and torpedo grass (Panicum repens). Intense decade has caused damage to the old growth forest canopy in the AA and vicinity.	opy cover consists of a a ( <i>Melaleuca</i> nsists of melaleuca, ise wildfire in the past				
Significant nearby features Uniqueness (considering the relative rarity in relation landscape.)	Uniqueness (considering the relative rarity in relation to the regional landscape.)				
I-75 to the north Not unique to region					
Functions Mitigation for previous permit/other historic use					
Provides cover, substrate, and refuge; breeding; foraging; water storage; water quality improvement; groundwater recharge; wildlife habitat					
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found) Anticipated Utilization by Listed Species (List species classification (E, T, SSC), type of use, and intensity assessment area)	icies, their legal ity of use of the				
Birds ( green heron, red-bellied woodpecker, red shouldered hawk, herons); snakes (banded and green watersnakes, cottonmouth, mud, black racer); turtles (musk, red-bellied cooter, mud); frogs (leopard, pig, bull, green tree); mammals (feral hog, opossum, armadillo, raccoon, white-tailed deer, squirrels, Florida panther) Florida panther (state - E, fed - E); red cockaded wo federal - E); Big Cypress fox squirrel (state - T); Florida (state - E, federal - E)	woodpecker (state - E, <sup>-</sup> lorida bonneted bat				
Observed Evidence of Wildlife Utilization (List species directly observed, or other signs such as tracks, droppings, casings, nests	sts, etc.):				
Additional relevant factors:					
Assessment conducted by: Assessment date(s):					
Taylor Engineering, Inc.   May 2020					

Site/Project Name		Application Number Assessment Area Name or Number						
Collier Cour	nty CWIP	SFWMD: 200214-28	805	I	mpact 4 - 7			
Impact or Mitigation		Assessment conducted by:		Assessment date	):			
Impact -	Direct	Taylor Engineering, I	nc.		May 2020			
Scoring Guidance	Optimal (10)	Moderate(7)	Mir	nimal (4)	Not Present	(0)		
indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal lev	vel of support of	Condition is insuf	ficient to		
would be suitable for the	tully supports	maintain most	wetland/	surface water	provide wetland/	surface		
type of wetland or surface	functions	wetland/surface	fu	Inctions	water function	ons		
water assessed		waterfunctions						
.500(6)(a) Location and Landscape Support       Availability of habitat outside of assessment area is good. I-75 and adjacent ditches border the AA to the followed by undeveloped land. Large expanses of undeveloped land borders the AA to the east, west, and Vegetation communities in close proximity to the AA contain a relatively low fraction of exotic/invasive spect to the north does affect wildlife access to and utilization of the AA; however, opportunites for wildlife access movement is good overall.         .500(6)(b)Water Environment (n/a for uplands)       For decades, AA hydroperiod, wet season average water levels, and dry season water table elevations in surrounding state forest have been negatively impacted by stormwater drainage and infrastructure of reg development, creating possible wetland vegetation shifts and higher risk of wildfire frequency and intensit					orth south. cies. I-75 s and he nal			
w/o pres or current with 5 0	Proposed impacts to the AA	surrounding state forest have been negatively impacted by stormwater drainage and infrastructure of regional development, creating possible wetland vegetation shifts and higher risk of wildfire frequency and intensity. Proposed impacts to the AA include excavation and fill associated with flowway construction.						
.500(6)(c)Community structure  1. Vegetation and/or 2. Benthic Community  w/o pres or current with 7 0	AA consists of a forested we Canopy species include bald include swamp fern. Exotic/ir shrubby false buttonwood, ar good; however, Intense wild and vicinity. Proposed impar	tland community with a relative l cypress, slash pine, cabbage nvasive cover within the groun nd torpedo grass. Overall, the fire in the past decade has can cts to the AA include excavation	ely low fracti palm, and r cover stratuu structure of used damag on and fill as	on (<25% cover) nelaleuca. Comm m includes specie the vegetation co e to the old growt sociated with flow	of exotic/invasive s ion groundcover sp is such as Ceasan immunity within the h forest canopy in iway construction.	species. becies weed, ∋ AA is the AA		
, ,								
			<u> </u>					
Score = sum of above scores/30 (i	f If preservation as mitig	jation,		For impact asses	sment areas			
uplands, divide by 20)	Preservation adjustme	nt factor –						
current			FL =	delta x acres =	-6.93			
or w/o pres with	Adjusted mitigation del	ta =						
0.633 0.000			L					
	If mitigation	1	· · · · ·					
			Fo	or mitigation asse	ssment areas			
Delta = [with-current]	lime lag (t-factor) =							
-0.633	Risk factor =		RFG =	= delta/(t-factor x	risk) =			

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name Applicat			ber Assessment Area Name or Number					
Collier County CWI	Р	SFWMD	: 200214-2805	li	npact 8 - 9			
FLUCCs code	Further classification	(optional)		Impact or Mitigation Site?	Assessment Area Size			
624-E2	Cypress-Pine-Cabl	bage Palm (2	5-50% exotics)	Impact - Direct	4.585			
Basin/Watershed Name/Number Af	fected Waterbody (Class)	;)	Special Classifica	ation (i.e. OFW, AP, other loc	al/state/federal designation of im			
Rookery Bay	111			None				
Geographic relationship to and hydrol	ogic connection with wetla	lands, other su	ırface water, upla	nds				
Assessment area (AA) hydrology and season water elevations due to region	larger surrounding wetlar al stormwater drainage,	nds of the Pica interstate roa	ayune Strand Sta dway infrastructur	te Forest have been altered ( e, and development of the Na	educed hydroperiod and wet aples, Florida area).			
Assessment area description								
AA consists of a cypress-pine-cabbag small bald cypress ( <i>Taxodium distichu</i> Swamp fern ( <i>Blechnum serrulatum</i> ) c ( <i>Urena lobata</i> ), shrubby false buttonw decade has caused damage to the old	e palm wetland communi <i>Im</i> ), scattered slash pine ommonly occupies the gr leed ( <i>Spermacoce vertici</i> d growth forest canopy in	ity with moder e ( <i>Pinus elliotii</i> roundcover. E <i>illata</i> ), and tor n the AA and vi	ate (25-50%) exo ), cabbage palm ( xotic species cov pedo grass ( <i>Panic</i> icinity.	tic/invasive species cover. Ca (Sabal palmetto), and melaler er is moderate and consists of cum repens) occassionally oc	anopy cover consists of a mix of uca ( <i>Melaleuca quinquenervia</i> ). of melaleuca, Ceasarweed cur. Intense wildfire in the past			
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)					
I-75 to the north Not unique to region								
Functions			Mitigation for pre	vious permit/other historic use	9			
Provides cover, substrate, and refuge water quality improvement; groundwat	; breeding; foraging; wate ter recharge; wildlife habit	er storage; itat	None					
Anticipated Wildlife Utilization Based of that are representative of the assess be found)	on Literature Review (List nent area and reasonably	t of species y expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( green heron, red-bellied woodp snakes (banded and green watersnak turtles (musk, red-bellied cooter, mud) mammals (feral hog, opossum, armac squirrels, Florida panther)	ecker, red shouldered ha es, cottonmouth, mud, bla ;; frogs (leopard, pig, bull, lillo, raccoon, white-tailed	awk, herons); lack racer); l, green tree); d deer,	; Florida panther (state - E, fed - E); red cockaded woodpecker (state - E, ; federal - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)					
Observed Evidence of Wildlife Utilizat	ion (List species directly o	observed, or o	other signs such a	as tracks, droppings, casings,	nests, etc.):			
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Taylor Engineering, Inc.			May 2020					

Site/Project Name		Application Number		Assessment Area	a Name or Number			
Collier Coun	ty CWIP	SFWMD: 200214-28	805	I	mpact 8 - 9			
Impact or Mitigation		Assessment conducted by:		Assessment date	):			
Impact - I	Direct	Taylor Engineering, I	nc.	May 2020				
Scoring Guidance	Optimal (10)	Moderate(7)	Mir	nimal (4)	Not Present	(0)		
The scoring of each	Condition is optimal and	Condition is less than						
indicator is based on what	fully supports	optimal, but sufficient to	Minimal le	vel of support of	Condition is insuff	icient to		
would be suitable for the	wetland/surface water	maintain most	wettand/	surface water	provide wetland/s	surface		
water assessed	functions	waterfunctions	iu	Inclions	water functio	115		
water assessed		Waterranotions						
.500(6)(a) Location and Landscape Support       Availability of habitat outside of assessment area is good. I-75 and adjacent ditches lie approximately 0.75 north of the AA followed by undeveloped land. Large expanses of undeveloped land borders the AA to the west, and south. Vegetation communities in close proximity to the AA contain a moderate fraction of exotic species. I-75 to the north likely affects wildlife access to and utilization of the AA; however, opportunites for access and movement is good overall.         .500(6)(b)Water Environment (n/a for uplands)       For decades, AA hydroperiod, wet season average water levels, and dry season water table elevations in surrounding state forest have been negatively impacted by stormwater drainage and infrastructure of regic development, creating possible wetland vegetation shifts and higher risk of wildfire frequency and intensity						mile aast, invasive wildlife ne nal		
w/o pres or current with 5 0	development, creating possil Proposed impacts to the AA	surrounding state forest have been negatively impacted by stormwater drainage and infrastructure of regional development, creating possible wetland vegetation shifts and higher risk of wildfire frequency and intensity. Proposed impacts to the AA include excavation and fill associated with flowway construction.						
.500(6)(c)Community structure								
.500(6)(c)Community structure       AA consists of a forested wetland community with a moderate fraction (25-50% cover) of exotic/invasive Canopy species include bald cypress, slash pine, cabbage palm, and melaleuca. Common groundcover include swamp fern. Exotic/invasive cover within the grouncover stratum includes species such as Cease shrubby false buttonwood, and torpedo grass. Overall, the structure of the vegetation community within fair. Intense wildfire in the past decade has caused damage to the old growth forest canopy in the AA are Proposed impacts to the AA include excavation and fill associated with flowway construction.						becies. ecies /eed, AA is icinity.		
Score = sum of above scores/30 (if uplands, divide by 20)         current         or w/o pres         0.600	If preservation as mitig Preservation adjustme Adjusted mitigation del	ation, nt factor = ta =	FL =	For impact asses: = delta x acres =	sment areas -2.75			
	If mitigation			or mitigation acces	comont areas			
Delta = [with-current]	Time lag (t-factor) =			or mugation asse	ssment areas			
-0.600	Risk factor =		RFG	= delta/(t-factor x	risk) =			

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name Applicatio			mber Assessment Area Name or Number					
Collier County CW	ΊΡ	SFWMD	: 200214-2805		Im	pact 10 - 11		
FLUCCs code	Further classifica	tion (optional)		Impac	t or Mitigation Site?	Assessment Area Size		
624-E3	Cypress-Pine-	Cabbage Palm (5	1-75% exotics)		Impact - Direct	0.953		
Basin/Watershed Name/Number A	ffected Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loca	al/state/federal designation of im		
Rookery Bay	III				None			
Geographic relationship to and hydro	logic connection with	wetlands, other su	urface water, upla	nds				
Assessment area hydrology and large water elevations due to regional storr	er surrounding wetlan nwater drainage, inte	ds of the Picayune rstate roadway inf	e Strand State For frastructure, and c	rest ha levelop	we been altered (reduction of the Naples, Flucture of the Naples, Flucture of the Naples, Flucture of the Naples, Flucture of the Naples of th	ed hydroperiod and wet season orida area).		
Assessment area description								
AA consists of a cypress-pine-cabbag mix of small bald cypress ( <i>Taxodium</i> <i>quinquenervia</i> ). Swamp fern ( <i>Blechn</i> melaleuca, Ceasarweed ( <i>Urena lobat</i> Intense wildfire in the past decade ha	ge palm wetland comr distichum), scattered um serrulatum) comm ta), shrubby false butt is caused damage to	nunity with moder slash pine ( <i>Pinus</i> nonly occupies the conweed ( <i>Sperma</i> the old growth for	ately high (51-759 s <i>elliotii</i> ), cabbage e groundcover. Ex <i>coce verticillata</i> ), est canopy in the	%) exo palm otic sp and to AA and	tic/invasive species cov ( <i>Sabal palmetto</i> ), and r pecies cover is modera rpedo grass ( <i>Panicum i</i> d vicinity.	ver. Canopy cover consists of a nelaleuca ( <i>Melaleuca</i> tely high and consists of <i>repens</i> ) occassionally occur.		
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)					
I-75 to the north	Not unique to region							
Functions			Mitigation for pre	vious p	permit/other historic use	•		
Provides cover, substrate, and refuge water quality improvement; groundwa	e; breeding; foraging; ater recharge; wildlife l	water storage; habitat	None					
Anticipated Wildlife Utilization Based that are representative of the assess be found)	on Literature Review ment area and reasor	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( green heron, red-bellied wood snakes (banded and green watersnak turtles (musk, red-bellied cooter, muc mammals (feral hog, opossum, arma squirrels, Florida panther)	pecker, red shouldere kes, cottonmouth, mu l); frogs (leopard, pig, dillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer,	Florida panther (state - E, fed - E); red cockaded woodpecker (state - E, federal - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)					
Observed Evidence of Wildlife Utiliza	tion (List species dire	ctly observed, or o	ther signs such a	is tracl	ks, droppings, casings,	nests, etc.):		
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Taylor Engineering, Inc.			May 2020					

Site/Project Name			Application Number		Assessment Area	a Name or Numbe	r
Coll	lier Count	ty CWIP	SFWMD: 200214-28	805	Im	npact 10 - 11	
Impact or Mitigation			Assessment conducted by:		Assessment date	e:	
1	Impact - D	Direct	Taylor Engineering, I	nc.		May 2020	
	_						
Scoring Guidance	_	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present	t (0)
The scoring of each	at	Condition is optimal and	Condition is less than	Minimal le	wel of support of	Condition is insu	fficient to
would be suitable for the	9	fully supports	maintain most	wetland	wetland/surface water provid		/surface
type of wetland or surface	е	wetland/surface water	wetland/surface	fu	unctions	water functi	ions
water assessed		Tunctions	waterfunctions				
.500(6)(a) Location and Landscape Support       Availability of habitat outside of assessment area is good. I-75 and adjacent ditches lie approximately 0.80 r north of the AA followed by undeveloped land. Large expanses of undeveloped land borders the AA to the e west, and south. Vegetation communities in close proximity to the AA contain a moderate fraction of exotic/i species. I-75 to the north likely affects wildlife access to and utilization of the AA; however, opportunites for access and movement is good overall.         .500(6)(b)Water Environment (n/a for uplands)       For decades, AA hydroperiod, wet season average water levels, and dry season water table elevations in th surrounding state forest have been negatively impacted by stormwater drainage and infrastructure of region development, creating possible wetland vegetation shifts and higher risk of wildfire frequency and intensity.						) mile east, c/invasive r wildlife the onal	
w/o pres or current 5	with 0	development, creating possik Proposed impacts to the AA	ble wetland vegetation shifts a include excavation and fill ass	nd higher ris	sk of wildfire frequ n flowway construc	ency and intensity tion.	<i>י</i> .
500(6)(c)Community s	tructure						
.500(6)(c)Community structure       AA consists of a forested wetland community with a moderately high fraction (51-75% cover) of exotic/invasis species. Canopy species include bald cypress, slash pine, cabbage palm, and melaleuca. Common groundor species include swamp fern. Exotic/invasive cover within the grouncover stratum includes species such as casarweed, shrubby false buttonwood, and torpedo grass. Overall, the structure of the vegetation community within the AA is fair to poor. Intense wildfire in the past decade has caused damage to the old growth forest canopy in the AA and vicinity.Proposed impacts to the AA include excavation and fill associated with flowway construction.							asive dcover s unity est vay
Score = sum of above scor	res/30 (if	If preservation as mitig	ation,		For impact assess	sment areas	
uplands, divide by 2	20)		et fe ster		•		
current		Preservation adjustment	ni lactor =	FI -	= delta x acres –	-0.51	
or w/o pres	with	Adjusted mitigation del	ta =		2010 / 20100 -	0.01	
0.533	0.000			L			l
		-					1
		If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-curre	nt]	Time lag (t-factor) =			-		
-0.533		Risk factor =		RFG	= delta/(t-factor x	risk) =	

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name Application		Application Numbe	r	As	Assessment Area Name or Number		
Collier County CWIP		SFWMD	: 200214-2805		Impact 12		
FLUCCs code	Further classifica	tion (optional)		Impact of	or Mitigation Site?	Assessment Area Size	
619	Exot	tic Wetland Hardw	roods	Ir	mpact - Direct	0.511	
Basin/Watershed Name/Number Affect	ted Waterbody (C	lass)	Special Classifica	ation (i.e.	OFW, AP, other loca	al/state/federal designation	
Rookery Bay	III				None		
Geographic relationship to and hydrologi	c connection with	wetlands, other su	ırface water, uplan	nds			
Assessment area (AA) hydrology has been altered by clearing and drainging activity on immediately adjacent private properties. The larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduced hydroperiod and wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Naples, Florida area).							
Assessment area description							
The AA lies along the north boundary of the Sanders Blvd residential property and consists of an exotic wetland hardwoods community composed of a near monoculture of melaleuca ( <i>Melaleuca quinquenervia</i> ) with occassional slash pine ( <i>Pinus elliotti</i> i) and cabbage palm ( <i>Sabal palmetto</i> ).							
Significant nearby features			Uniqueness (con landscape.)	nsidering	the relative rarity in r	relation to the regional	
Residential property (Saunders Blvd property) to the south, large borrow pit to the southeast, I-75 3.4 miles to the north			Not unique to reg	jion			
Functions			Mitigation for prev	vious per	mit/other historic use	9	
Provides cover, substrate, and refuge; br water quality improvement; groundwater	reeding; foraging; recharge; wildlife	water storage; habitat	None				
Anticipated Wildlife Utilization Based on that are representative of the assessmen be found)	Literature Review It area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied woodpec snakes (banded and green watersnakes, turtles (musk, red-bellied cooter, mud); fr mammals (feral hog, opossum, armadillo	ker, red shouldere , cottonmouth, muo ogs (leopard, pig, , raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)				
Observed Evidence of Wildlife Utilization	(List species dire	ctly observed, or o	ther signs such as	s tracks, o	droppings, casings, r	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:							
resolution conducted by.			Assessment date	e(s):			

Site/Project Name		Application Number		Assessment Area	a Name or Numbe	r
Collier Cou	inty CWIP	SFWMD: 200214-2805		Impact 12		
Impact or Mitigation		Assessment conducted by:		Assessment date:		
Impact	- Direct	Taylor Engineering, I	Taylor Engineering, Inc.		May 2020	
					<b></b> . <b>.</b>	(0)
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	Mir	nimal (4)	Not Present	t (0)
indicator is based on what	Condition is optimal and fully supports	optimal, but sufficient to	Minimal le	vel of support of	Condition is insu	fficient to
would be suitable for the	wetland/surface water	maintain most	wetland	surface water	provide wetland	/surface
water assessed	functions	waterfunctions	10		water functi	0113
.500(6)(a) Location and Landscape Support w/o pres or <u>current with</u> 6 0	Availability of habitat outside there is a large borrow pit so within a relatively large expa miles to the west and 2.7 mil contain a moderate to high fi likely affect wildlife access to habitat surrounding the AA in	e of assessment area is good. Jutheast of the residential propinse of undeveloped land. Highles to the south, respectively. Yraction of exotic/invasive spectore and utilization of the AA. How in generally good.	A residential erty. The AA a density res Vegetation c ies. Disturba wever, locati	I property borders A, residential prop idential and agrice communities in clo ace and noise fror ion and landscape	the AA to the sou erty, and borrow p ultural land uses o ose proximity to the n the adjacent pro e support provided	th and it lie ccur 2.4 ∌ AA perty by the
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 3 0	(b)Water Environment n/a for uplands) Immediately adjacent drainage and clearing of private property within the last decade have impacted the water environment in the immediate area. For decades, AA hydroperiod, wet season average water levels, and dry se water table elevations in the surrounding state forest have been negatively impacted by stormwater drainage a infrastructure of regional development, creating possible wetland vegetation shifts and higher risk of wildfire frequency and intensity. Proposed impacts to the AA include fill associated with berm construction around the Sanders Blvd residential property.					
.500(6)(c)Community structure	)					
<ol> <li>Vegetation and/or</li> <li>Benthic Community</li> <li>w/o pres or</li> </ol>	The AA consists of an exotic ( <i>Melaleuca quinquenervia</i> ), pine ( <i>Pinus elliottii</i> ) and cabl berm construction around th	e wetland hardwoods communi an exotic, highly invasive spec bage palm ( <i>Sabal palmetto</i> ). F e Sanders Blvd residential pro	ty composed ties. Other c Proposed imp perty.	d of a near monoc anopy species wit pacts to the AA in	culture of melaleuc thin the AA include Include fill associate	a e slash ed with
current with						
2 0	7					
	1					
Score = sum of above scoree/30	(if If preservation as mitic	ation	<b> </b>	For impact associ	sment areas	
uplands, divide by 20)				· ·· ···paol asses		
current	Preservation adjustme	ent factor =	FL = delta x acres0.10		-0.19	
or w/o pres with	Adjusted mitigation de	lta =			0.10	
0.367 0.000			<b></b>			I
	If mitigation		<b>_</b> _	or mitigation acco	comont areas	
Delta = [with-current]	Time lag (t-factor) =			or milligation asse	ssment areas	
-0.367	Risk factor =		RFG	= delta/(t-factor x	risk) =	

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name Application Nu			nber Assessment Area Name or Number				
Collier County CWIP		SFWMD	: 200214-2805			Impact 13	
FLUCCs code	Further classification	(optional)		Impact or	Mitigation Site?	Assessment Area Size	
500		Water		Imp	Impact - Direct 0.043		
Basin/Watershed Name/Number Affect Rookery Bay	cted Waterbody (Class) III	)	Special Classifica	ation (i.e. C	DFW, AP, other loca None	al/state/federal designation of im	
Geographic relationship to and hydrolog	ic connection with wetla	ands, other si	urface water, uplar	nds			
Assessment area (AA) hydrology has been altered by clearing and drainging activity on immediately adjacent private properties. The larger surroundir wetlands of the Picayune Strand State Forest have been altered (reduced hydroperiod and wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Naples, Florida area).							
Assessment area description							
The AA consists of a small manmade an	ea of standing, open w	ater in the no	rthwest corner of t	the Sander	s Blvd property. No	o vegetation community present	
Significant nearby features		Uniqueness (con landscape.)	nsidering th	e relative rarity in i	elation to the regional		
Residential property (Saunders Blvd pro to the southeast, I-75 3.4 miles to the no	ge borrow pit	Not unique to region					
Functions		Mitigation for prev	vious perm	it/other historic use	9		
Provides breeding; foraging; water stora groundwater recharge; wildlife habitat	ge; water quality impro	ovement;	None				
Anticipated Wildlife Utilization Based on that are representative of the assessme be found)	Literature Review (List nt area and reasonably	t of species / expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( herons, egrets, wading birds); sn watersnakes, cottonmouth, mud, black r cooter, mud); frogs (leopard, pig, bull, g opossum, armadillo, raccoon, white-taile	akes (banded and gree racer); turtles (musk, re reen tree); mammals (fe ed deer)	en ed-bellied eral hog,	Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T);				
Observed Evidence of Wildlife Utilization	n (List species directly o	observed, or o	t other signs such a	is tracks, d	roppings, casings,	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Taylor Engineering, Inc.			May 2020				

Site/Project Name		Application Number		Assessment Area Name or Number		
Collier Coun	ty CWIP	SFWMD: 200214-2805		Impact 13		
Impact or Mitigation		Assessment conducted by:		Assessment date:		
Impact -	Direct	Taylor Engineering, I	nc.		May 2020	
					· · · · · · · · · · ·	
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	Mi	nimal (4)	Not Present (0)	
indicator is based on what	Condition is optimal and fully supports	optimal, but sufficient to	Minimal le	vel of support of	Condition is insufficient to	
would be suitable for the	wetland/surface water	maintain most	wetland	/surface water	provide wetland/surface	
water assessed	functions	waterfunctions				
.500(6)(a) Location and Landscape Support w/o pres or current with 6 0	Availability of habitat outside and there is a large borrow p within a relatively large expan miles to the west and 2.7 mil contain a moderate to high fr likely affect wildlife access to habitat surrounding the AA in	of assessment area is good. It is southeast of the residential inse of undeveloped land. High es to the south, respectively. Yraction of exotic/invasive spector and utilization of the AA. How a generally good.	A residentia property. Th density res /egetation c ies. Disturba wever, locati	I property borders le AA, residential p idential and agric communities in clo ace and noise fror ion and landscape	the AA to the southeast property, and borrow pit lie ultural land uses occur 2.4 ose proximity to the AA in the adjacent property a support provided by the	
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 3 0	The AA consists of an artifici include fill associated with be	ally-created surface water in a erm construction around the S	drained en anders Blvd	vironment. Propos residential proper	sed impacts to the AA rty.	
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community	Altered, artificially-created fe dependent species. Propose Blvd residential property.	ature. No vegetation commun d impacts to the AA include fil	ity present. I associated	Provides margina I with berm constri	I habitat for water uction around the Sanders	
w/a prop or						
current with						
2 0	1					
	,		·			
Score = sum of above scores/30 (if uplands, divide by 20)	If preservation as mitig	ation,		For impact assess	sment areas	
current	Preservation adjustme	nt factor =		delte v eeree	0.00	
or w/o pres with	Adjusted mitigation del	ta =	FL =	= ueita x acres =	-0.02	
0.367 0.000			Ĺ			
	If mitigation					
Delta = [with-current]	Time lag (t-factor) =		For mitigation assessment areas			
0.007			RFG	= delta/(t-factor x	risk) =	
-0.367	HISK factor =			<b>、</b>		

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Number	nber Assessment Area Name or Number					
Collier County CW	/IP	SFWMD: 200214-2805		Impact 14				
FLUCCs code	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size		
625-E4	Wet Pinelan	ds Hydric Pine (>	>75% exotics) Impact - Direct 0.916					
Basin/Watershed Name/Number A Rookery Bay	ffected Waterbody (C	lass)	Special Classifica	ation (i	e. OFW, AP, other loca. None	al/state/federal designation of im		
Geographic relationship to and hydro	wetlands, other si	urface water, uplai	nds					
Assessment area (AA) hydrology has wetlands of the Picayune Strand Sta drainage, interstate roadway infrastr	Assessment area (AA) hydrology has been altered by clearing and drainging activity on immediately adjacent private properties. The larger surrounding wetlands of the Picayune Strand State Forest have been altered (reduced hydroperiod and wet season water elevations due to regional stormwater drainage, interstate roadway infrastructure, and development of the Naples, Florida area).							
Assessment area description								
The AA lies along the west and and community heavily infested (>75% pine ( <i>Pinus elliottii</i> ) and cabbage pall	portion of the south bo cover) with exotic spe Im ( <i>Sabal palmetto</i> ).	oundary of the Sau cies. Canopy spe	Inders Blvd reside cies consist of me	ntial p laleuc	property and consists of a ( <i>Melaleuca quinquen</i>	hydric pine flatwoods <i>ervia</i> ) with occassional slash		
Significant nearby features			Uniqueness (cor landscape.)	siderii	ng the relative rarity in r	elation to the regional		
Residential property (Saunders Blvd to the southeast, I-75 3.4 miles to the	Not unique to landscape							
Functions	Mitigation for pre-	vious p	permit/other historic use	)				
Provides cover, substrate, and refug water quality improvement; groundwater quality improvement; gr	e; breeding; foraging; ater recharge; wildlife l	water storage; habitat	None					
Anticipated Wildlife Utilization Based that are representative of the assess be found)	on Literature Review ment area and reasor	(List of species hably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( green heron, red-bellied wood snakes (banded and green watersna turtles (musk, red-bellied cooter, mud mammals (feral hog, opossum, arma	dpecker, red shouldere kes, cottonmouth, mu d); frogs (leopard, pig, adillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	Florida panther (state - E, fed - E); red cockaded woodpecker (state - E, federal - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)					
Observed Evidence of Wildlife Utiliza	ation (List species dire	ctly observed, or	t other signs such a	s tracl	ks, droppings, casings,	nests, etc.):		
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Taylor Engineering, Inc.			May 2020					

Site/Project Name			Application Number		Assessment Area Name or Number		
Co	ollier Count	ty CWIP	SFWMD: 200214-2805		Impact 14		
Impact or Mitigation			Assessment conducted by:		Assessment date:		
	Impact - [	Direct	Taylor Engineering, I	nc.		May 2020	
							(0)
Scoring Guidance The scoring of each indicator is based on wi would be suitable for th type of wetland or surfa water assessed	hat ne iice	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 level of support of wetland/surface water functions water functions			
.500(6)(a) Location Landscape Supp w/o pres or <u>current</u> 6	n and port with 0	Availability of habitat outside there is a large borrow pit so within a relatively large expai miles to the west and 2.7 mil contain a moderate to high fr likely affect wildlife access to habitat surrounding the AA ir	of assessment area is good. utheast of the residential prop- nse of undeveloped land. High es to the south, respectively. action of exotic/invasive speci- and utilization of the AA. How on generally good.	A residential erty. The AA a density resi Vegetation c ies. Disturba wever, locati	l property borders , residential prop idential and agric ommunities in clo ace and noise from on and landscape	the AA to the eas erty, and borrow pi ultural land uses o use proximity to the n the adjacent proj e support provided	t and t lie ccur 2.4 AA perty by the
.500(6)(b)Water Environment (n/a for uplands)       Immediately adjacent drainage and clearing of private property within the last decade have impacted the water environment in the immediate area. For decades, AA hydroperiod, wet season average water levels, and dry water table elevations in the surrounding state forest have been negatively impacted by stormwater drainage infrastructure of regional development, creating possible wetland vegetation shifts and higher risk of wildfire frequency and intensity. Impacts to the AA include excavation and fill associated with flowway construction. Proposed impacts to the AA include fill associated with berm construction around the Sanders Blvd residen property.         w/o pres or current       with         3       0					vater y season ge and e ntial		
.500(6)(c)Community structure         1. Vegetation and/or         2. Benthic Community         w/o pres or         current         with         2						h exotic bus	
	-						
Score = sum of above sco uplands, divide by current or w/o pres 0.367	ores/30 (if 20) with 0.000	If preservation as mitig Preservation adjustme Adjusted mitigation del	ation, nt factor = ta =	FL =	For impact assess	sment areas -0.34	
Dolto fuith	rontl	If mitigation		Fo	or mitigation asse	ssment areas	
Deita = [With-curr	entj			RFG :	= delta/(t-factor ×	risk) =	
-0.367		Risk factor =					

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name Application I			ber Assessment Area Name or Number			or Number	
Collier County CW	ΊΡ	SFWMD	): 200214-2805			Impact 15	
FLUCCs code	Further classificat	ion (optional)		Impa	ct or Mitigation Site?	Assessment Area Size	
624-E4	Cypress-Pine-	-Cabbage Palm (:	>75% exotics)		Impact - Direct	1.071	
Basin/Watershed Name/Number At	ffected Waterbody (Cl	ass)	Special Classific	ation (i	.e. OFW, AP, other loc	al/state/federal designation of im	
Rookery Bay	III				None		
Geographic relationship to and hydro	logic connection with v	wetlands, other s	urface water, upla	nds			
Assessment area (AA) hydrology has wetlands of the Picayune Strand Stat drainage, interstate roadway infrastru	been altered by clear e Forest have been al ucture, and developme	ing and drainage tered (reduced hy ent of the Naples	activity on immed ydroperiod and we , Florida area).	diately et seas	adjacent private proper on water elevations due	ties. The larger surrounding e to regional stormwater	
Assessment area description							
AA consists of a cypress-pine-cabbag melaleuca ( <i>Melaleuca quinquenervia</i> groundcover species include swamp ( <i>Schinus terebinthifolius</i> ), Ceaserwee	ge palm wetland comn ), bald cypress ( <i>Taxoc</i> fern ( <i>Blechnum serrul</i> a ed, and paragrass ( <i>Ur</i> a	nunity with high (: dium distichum), atum) and Ceasa ochloa mutica).	>75%) exotic/inva slash pine ( <i>Pinus</i> arweed ( <i>Urena lob</i>	sive sp <i>elliotii</i> pata). E	becies cover. Canopy s ), cabbage palm ( <i>Saba</i> l Exotic species include n	pecies consist of a mix of <i>palmetto</i> ). Common nelaleuca, Brazilian pepper	
Significant nearby features	Uniqueness (coi landscape.)	nsideri	ng the relative rarity in I	relation to the regional			
Residential property (Saunders Blvd p to the southeast, I-75 3.4 miles to the							
Functions			Mitigation for pre	vious	permit/other historic use	9	
Provides cover, substrate, and refuge water quality improvement; groundwa	e; breeding; foraging; v tter recharge; wildlife h	water storage; nabitat					
Anticipated Wildlife Utilization Based that are representative of the assess be found)	on Literature Review ( ment area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied wood snakes (banded and green watersnak turtles (musk, red-bellied cooter, mud mammals (feral hog, opossum, armad	pecker, red shouldere kes, cottonmouth, muc i); frogs (leopard, pig, dillo, raccoon, white-ta	d hawk, herons); d, black racer); bull, green tree); illed deer)	Florida panther (state - E, fed - E); red cockaded woodpecker (state - E, federal - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)				
Observed Evidence of Wildlife Utiliza	tion (List species direc	ctly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Taylor Engineering, Inc.		May 2020					

Site/Project Name			Application Number		Assessment Area Name or Number		
C	ollier Coun	ty CWIP	SFWMD: 200214-2805		Impact 15		
Impact or Mitigation			Assessment conducted by:	sment conducted by: Assessmen		sessment date:	
	Impact - I	Direct	Taylor Engineering, I	nc.		May 2020	
Scoring Guidance		Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
indicator is based on w	hat	Condition is optimal and	optimal, but sufficient to	Minimal le	vel of support of	Condition is insufficient to	
would be suitable for the	ne	tully supports	maintain most	wetland	/surface water	provide wetland/surface	
type of wetland or surfa	ace	functions	functions wetland/surface functions				
water assessed			wateriunctions				
.500(6)(a) Location and Landscape Support       Availability of habitat outside of assessment area is good. A residential property border there is a large borrow pit southeast of the AA. The AA, residential property, and borrelarge expanse of undeveloped land. High density residential and agricultural land use and 2.7 miles to the south, respectively. Vegetation communities in close proximity to high fraction of exotic/invasive species. Disturbace and noise from the adjacent proper to and utilization of the AA. However, location and landscape support provided by the in generally good.					I property borders perty, and borrow ultural land uses c se proximity to th adjacent property provided by the h	the AA to the north and pit lie within a relatively occur 2.4 miles to the west e AA contain a moderate tr / likely affect wildlife access abitat surrounding the AA	
<ul> <li>.500(6)(b)Water Environment (n/a for uplands)</li> <li>Immediately adjacent drainage and clearing of private property within the last decade have impacted enviroment in the immediate area. For decades, AA hydroperiod, wet season average water levels, water table elevations in the surrounding state forest have been negatively impacted by stormwater infrastructure of regional development, creating possible wetland vegetation shifts and higher risk of frequency and intensity. Impacts to the AA include excavation and fill associated with flowway cons Proposed impacts to the AA include fill associated with berm construction around the Sanders Blvc property.</li> </ul>					ave impacted the water vater levels, and dry season stormwater drainage and higher risk of wildfire wway construction. anders Blvd residential		
.500(6)(c)Community <b>1. Vegetation ar</b> 2. Benthic Comm w/o pres or current 2	structure nd/or unity with 0	AA consists of a cypress-pine Canopy species consist of a slash pine ( <i>Pinus elliotii</i> ), cal ( <i>Blechnum serrulatum</i> ) and ( ( <i>Schinus terebinthifolius</i> ), Ce associated with berm constru	e-cabbage palm wetland comm mix of melaleuca ( <i>Melaleuca</i> ) obage palm ( <i>Sabal palmetto</i> ). Ceasarweed ( <i>Urena lobata</i> ). E easerweed, and paragrass ( <i>Ur</i> uction around the Sanders Blv	nunity with I quinqueners Common g Exotic specie ochloa muti d residentia	high (>75%) exoti via), bald cypress roundcover specie es include melaleu ica). Proposed im I property.	c/invasive species cover. ( <i>Taxodium distichum</i> ), es include swamp fern uca, Brazilian pepper pacts to the AA include fill	
Score = sum of above sc	ores/30 (if	If preservation as mitig	ation,		For impact asses	sment areas	
uplands, divide by	(20)	Preservation adjustment	nt factor =				
current or w/o pres	rent with			FL =	= delta x acres =	-0.39	
0.367	0.000	Adjusted mitigation del	ta =				
0.007	0.000						
		If mitigation		<b>—</b>	e u meltici - ti -	compation	
Delta = [with-cur	rent]	Time lag (t-factor) =			or mitigation asse	ssment areas	
-0.367		Risk factor =		RFG	= delta/(t-factor x	risk) =	
		-					

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Number	ber Assessment Area Name or Number					
Collier County CWI	Р	SFWMD	): 200214-2805	00214-2805 Impact 16, 17, 19, 23				
FLUCCs code	Further classifica	tion (optional)		Impact or Mitigation Site?	Assessment Area Size			
510	Stre	eams and Waterw	vays	Impact - Direct	7.552			
Basin/Watershed Name/Number Aff	fected Waterbody (C	lass)	Special Classifica	ation (i.e. OFW, AP, other loc	al/state/federal designation of im			
Rookery Bay	III			None				
Geographic relationship to and hydrolo	ogic connection with	wetlands, other s	urface water, uplai	nds				
Assessment area (AA) hydrology and regional stormwater drainage, intersta newly constructed residential neighbor	larger surrounding w ate and local roadway rhoods and neighbor	retlands have been y infrastructure, a hoods currently u	en altered (reduced nd development of nder construction.	d hydroperiod and wet season f the Naples, Florida area). Th	n water elevations due to he AA occurs at the borders of			
Assessment area description								
The AA consists of surface water drain ( <i>Phragmites berlandieri</i> ), Carolina will maidencane ( <i>Panicum hemitomon</i> ), a include Brazilian pepper ( <i>Schinus tere</i> <i>quriculiformis</i> ), shrubby false buttonwe	nage ditches borderir ow ( <i>Salix caroliniana</i> Iligator flag ( <i>Thalia g</i> <i>ibinthifolius</i> ), torpedo eed ( <i>Spermacoce ve</i>	ng residential dev a), bald cypress (7 <i>eniculata</i> ), and pi <i>o</i> grass ( <i>Panicum</i> <i>prticillata</i> ), and Ce	elopments. Portion <i>Taxodium distichur</i> ckerelweed ( <i>Ponte</i> <i>repens</i> ), melaleuc aserweed ( <i>Urena</i>	ns of the ditches contain vege n), cattail ( <i>Typha</i> sp.), broon ederia cordata). Exotic specie a ( <i>Melaleuca quinquenervia</i> ) lobata).	etation such as common reed nsedge ( <i>Andropogon</i> spp.), es occuring within the AA ), earleaf acacia ( <i>Acacia</i>			
Significant nearby features			Uniqueness (cor landscape.)	isidering the relative rarity in	relation to the regional			
US 41 to the south, agricultural lands to the east, undeveloped lands to the north			Not unique to the	region				
Functions		Mitigation for pre-	vious permit/other historic use	e				
Provides cover, substrate, and refuge water quality improvement; groundwat	; breeding; foraging; er recharge; wildlife I	water storage; habitat	None					
Anticipated Wildlife Utilization Based of that are representative of the assessm be found)	on Literature Review nent area and reasor	(List of species hably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( herons, egrets, wading birds, re and green watersnakes, cottonmouth, bellied cooter, mud); frogs (leopard, pi hog, opossum, armadillo, raccoon, wh	ed-winged blackbird) mud, black racer); tu ig, bull, green tree); r ite-tailed deer)	; snakes (banded urtles (musk, red- nammals (feral	Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)					
Observed Evidence of Wildlife Utilizati	ion (List species dire	ctly observed, or	other signs such a	s tracks, droppings, casings,	nests, etc.):			
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Taylor Engineering, Inc.			May 2020					

Site/Project Name			Application Number		Assessment Area Name or Number		
Co	llier Count	ty CWIP	SFWMD: 200214-2805		Impact 16, 17, 19, 23		
Impact or Mitigation			Assessment conducted by:		Assessment date:		
	Impact - [	Direct	Taylor Engineering, Inc.			May 2020	
Scoring Guidance		Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each	at	Condition is optimal and	Condition is less than	Minimal Ia	wal of support of	Condition is insufficient to	
would be suitable for the	al e	fully supports	maintain most	wetland	/surface water	provide wetland/surface	
type of wetland or surface	ce	wetland/surface water	wetland/surface	fu	inctions	water functions	
water assessed		Tunctions	waterfunctions				
.500(6)(a) Location Landscape Supp w/o pres or <u>current</u>	and ort with	Availability of habitats outside AA. Undeveloped land occur amounts of exotic/invasive s affect wildlife access to and u	e the AA is poor to fair. Reside s north of the AA. Vegetation pecies. Land uses outside of t utilizaiton of the AA.	ential develc communitie: he AA (resic	opment and agricu s in close proximit dential, agriculture	ultural land uses border the y to the AA contain varying e, roads, ditches) adversely	
4	0						
.500(6)(b)Water Envir (n/a for uplands w/o pres or current 3	<ul> <li>.500(6)(b)Water Environment (n/a for uplands)</li> <li>Water environment typical of artificially-created drainage ditch. Immediately adjacent drainage and clearing of private property for development including stormwater management have impacted the water environment in th immediate area. The AA hydroperiod, wet season average water levels, and dry season water table elevations the adjacent wetland forest has been negatively impacted by stormwater drainage and infrastructure of regiona development. Proposed impacts to the AA include excavation and fill associated with flowway construction.</li> </ul>						
502(0)(.)0							
.500(6)(c)Community structure       The AA consists of surface water drainage ditches bordering residential developments. Portions of the ditches contain vegetation such as common reed ( <i>Phragmites berlandieri</i> ), Carolina willow ( <i>Salix caroliniana</i> ), bald ( <i>Taxodium distichum</i> ), cattail ( <i>Typha</i> sp.), broomsedge ( <i>Andropogon</i> spp.), maidencane ( <i>Panicum hemitor</i> alligator flag ( <i>Thalia geniculata</i> ), and pickerelweed ( <i>Pontederia cordata</i> ). Exotic species occuring within the include Brazilian pepper ( <i>Schinus terebinthifolius</i> ), torpedo grass ( <i>Panicum repens</i> ), melaleuca ( <i>Melaleuca quinquenervia</i> ), earleaf acacia ( <i>Acacia quriculiformis</i> ), shrubby false buttonweed ( <i>Spermacoce verticillata</i> ). Ceaserweed ( <i>Urena lobata</i> ). Proposed impacts to the AA include excavation and fill associated with flowwar construction.						Portions of the ditches (x caroliniana), bald cypress e (Panicum hemitomon), occuring within the AA elaleuca ( <i>Melaleuca</i> <i>macoce verticillata</i> ), and sociated with flowway	
		_		_			
Score = sum of above sco	ores/30 (if	If preservation as mitig	ation,		For impact assess	sment areas	
uplands, divide by 2	20)	Proconvotion adjustment	nt factor -				
current		Preservation adjustmen	nt factor =	FL =	= delta x acres =	-2.52	
or w/o pres	with	Adjusted mitigation del	ta =				
0.333	0.000			L			
		If miliantian		<b></b>			
	If mitigation			For mitigation assessment areas			
Delta = [with-curre	ent]	Time lag (t-factor) =					
-0.333		Risk factor =		RFG	= delta/(t-factor x	risk) =	

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name	Application Numbe	er	Assessment	Assessment Area Name or Number			
Collier County CW	/IP	SFWMD	: 200214-2805		Impact 18		
FLUCCs code	Further classificat	tion (optional)		Impact or Mitigation	on Site?	Assessment Area Size	
624-E2	Cypress-Pine-0	Cabbage Palm (2	5-50% exotics)	Impact - Di	irect	1.882	
Basin/Watershed Name/Number A	ffected Waterbody (Cl	lass)	Special Classific	ation (i.e. OFW, AF	P, other loca	al/state/federal designation of im	
Rookery Bay					None		
Geographic relationship to and hydro	logic connection with	wetlands, other s	urface water, upla	nds			
Assessment area (AA) hydrology and regional stormwater drainage, interst border of recently constructed resider	l larger surrounding w tate and local roadway ntial neighborhoods ar	etlands have bee / infrastructure, a nd a main develo	en altered (reduce nd development o opment access roa	d hydroperiod and f the Naples, Floric ad. Hydrologically-a	wet seasor la area. The altered weth	water elevations due to A occurs at the western ands lie to the east of the AA.	
Assessment area description The AA consists of a cypress-pine-ca include a mix of bald cypress ( <i>Taxod</i> ( <i>Quercus laurifolia</i> ). Groundcover an <i>cerifera</i> ). Exotic species include Braz shrubby false buttonweed ( <i>Spermacc</i>	abbage palm forested <i>ium distchum</i> ), slash <sub>I</sub> d shrub species incluc zilian pepper ( <i>Schinus</i> <i>bce verticillata</i> ).	wetland commun pine ( <i>Pinus elliott</i> de false nettle ( <i>Bo</i> <i>terebinthifolius</i> ),	ity with moderate ii), cabbage palm pehmeria cylindric melaleuca ( <i>Melal</i>	(25-50%) exotic ve ( <i>Sabal palmetto</i> ), a), myrsine ( <i>Myrsi</i> euca quinquenervia	getation co dahoon hol <i>ne cubana</i> ) a), Ceasen	ver. Dominant canopy species ly ( <i>llex cassine</i> ), and laurel oak , and wax myrtle ( <i>Morella</i> weed ( <i>Urena lobata</i> ), and	
Significant nearby features		Uniqueness (coi landscape.)	nsidering the relativ	/e rarity in r	elation to the regional		
US 41 to the south, residential development to the north, south, and east, mostly undeveloped land to west			Not unique to region				
Functions			Mitigation for pre	vious permit/other	historic use	9	
Provides cover, substrate, and refuge water quality improvement; groundwa	e; breeding; foraging; ater recharge; wildlife h	water storage; habitat	None				
Anticipated Wildlife Utilization Based that are representative of the assess be found)	on Literature Review ment area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied wood snakes (banded and green watersnal turtles (musk, red-bellied cooter, muc mammals (feral hog, opossum, arma	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	; Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida ; bonneted bat (state - E, federal - E)					
Observed Evidence of Wildlife Utiliza	tion (List species dired	ctly observed, or	t other signs such a	as tracks, dropping	s, casings,	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Taylor Engineering, Inc.		May 2020					

Site/Project Name		Application Number	Assessment Area Name or Number			
Collier Cour	ty CWIP	SFWMD: 200214-28	805	Impact 18		
Impact or Mitigation		Assessment conducted by: Assessment			sessment date:	
Impact -	Direct	Taylor Engineering, I	Taylor Engineering, Inc.		May 2020	
Scoring Guidance The scoring of each	Optimal (10)	Moderate(7) Condition is less than	Min	imal (4)	Not Present (0)	
indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal lev	el of support of	Condition is insufficient to	
would be suitable for the	wetland/surface water	maintain most	wetland/s	surface water	provide wetland/surface	
water assessed	functions	wetland/surface waterfunctions	tunctions water function			
.500(6)(a) Location and Landscape Support w/o pres or current with	Availability of habitat outside east likely hinder wildlife acc for wildlife access and move moderate levels of exotic/inv	e the AA is fair. US 41 to the so ess to and from the AA. Undev ement within the AA. Vegetatio vasive species cover.	outh and resid veloped land n communitie	dential land uses west of the AA d es in close proxin	to the north, south, and loes provide opportunities nity to the AA contain	
5 0						
.500(6)(b)Water Environment (n/a for uplands)       Immediately adjacent drainage and clearing of private property for development including stormwater management have impacted the water environment in the immediate area. Hydroperiod, wet season average water levels, and dry season water table elevations in the adjacent wetland forest have been negatively impacted by stormwater drainage and infrastructure of regional development. Proposed impacts to the AA include excavation and fill associated with flowway construction.         w/o pres or current       with						
.500(6)(c)Community structure         1. Vegetation and/or         2. Benthic Community         w/o pres or         current       with         6       0						
	,		i			
Score = sum of above scores/30 (if	If preservation as mitig	gation,	F	or impact assess	sment areas	
current or w/o pres with	Preservation adjustme	nt factor =	FL =	delta x acres =	-0.94	
0.500 0.000						
	If mitigation					
Delta – [with-current]	Time lac (t-factor) -		Fo	or mitigation asse	ssment areas	
			DEC	- dolta//t.faator.v	rick) –	
-0.500	Risk factor =			= ueita/(t-iactor X	(13r) =	

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Site/Project Name Application		Application Numbe	r		Assessment Area Name or Number			
Collier County C	WIP	SFWMD	): 200214-2805		Impac	Impact 20 - 21		
FLUCCs code	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size		
624-E1	Cypress-Pine	e-Cabbage Palm (	(<25% exotics) Impact - Direct 0.452					
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loca	l/state/federal designation		
Rookery Bay	111				None			
Geographic relationship to and hyd	rologic connection with	wetlands, other su	urface water, uplar	nds				
Assessment area (AA) hydrology and larger surrounding wetlands have been altered (reduced hydroperiod and wet season water elevations due to regional stormwater drainage, interstate and local roadway infrastructure, and development of the Naples, Florida area). The AA occurs at the borders of an active, drained agricultural area.								
Assessment area description								
AA consists of a cypress-pine-cabb mix of bald cypress ( <i>Taxodium dist</i> Swamp fern ( <i>Blechnum serrulatum</i> <i>lobata</i> ), shrubby false buttonweed in the AA and vicinity.	age palm wetland comr ichum), slash pine ( <i>Pint</i> ) commonly occupies th ( <i>Spermacoce verticillata</i>	nunity with relative <i>us elliotii</i> ), cabbag le groundcover. E a). Intense wildfire	ely low (<25%) exc le palm ( <i>Sabal pal</i> xotic species cove e in the past decac	otic/inv <i>metto</i> ) er is lov de has	asive species cover. Ca ), and melaleuca ( <i>Melak</i> v and consists of melale caused damage to the	nopy cover consists of a euca quinquenervia). euca, Ceasarweed (Urena old growth forest canopy		
Significant nearby features			Uniqueness (cor landscape.)	nsiderii	ng the relative rarity in re	elation to the regional		
Undeveloped land to the north, distubed land and residential development to the south and west, agricultural lands to the east			No unique to region					
Functions			Mitigation for pre	vious p	permit/other historic use			
Provides cover, substrate, and refu water quality improvement; ground	ge; bredding; foraging; v water recharge; wildlife	water storage; habitat	None					
Anticipated Wildlife Utilization Base that are representative of the asses be found)	ed on Literature Review soment area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( green heron, red-bellied wor snakes (banded and green watersr turtles (musk, red-bellied cooter, m mammals (feral hog, opossum, arm	odpecker, red shouldere hakes, cottonmouth, mu ud); frogs (leopard, pig, hadillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	; Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)					
Observed Evidence of Wildlife Utiliz	zation (List species dire	ctly observed, or c	other signs such as	s track	s, droppings, casings, n	ests, etc.):		
Additional relevant factors:								
			1					
Assessment conducted by:			Assessment date	e(s):				
rayior Engineering, Inc.			May 2020					

Site/Project Name	Name Application Number			Assessment Area Name or Number			
Collier Cour	ty CWIP	SFWMD: 200214-28	805	Impact 20 -21			
Impact or Mitigation		Assessment conducted by:		Assessment date:			
Impact -	Direct	Taylor Engineering, Inc.		May 2020			
Scoring Guidance	Optimal (10)	Moderate(7)	Min	nimal (4)	Not Present	(0)	
indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal lev	vel of support of	Condition is insuff	icient to	
would be suitable for the	wetland/surface water	maintain most	wetland/	surface water	provide wetland/s	surface	
type of wetland or surface water assessed	functions	wetland/surface waterfunctions	waterfunctions			ins	
.500(6)(a) Location and Landscape Support w/o pres or current with	Availability of habitat outside west likely adversely affect w north of the AA does provide proximity to the AA contain le	the AA is fair. Agricultural lan vildlife access to/from and utiliz wildllife access and movemen ow to moderate levels of exotic	ds to the sou zation of the nt support to c/invasive sp	uth and east and i AA. Large expans the AA. Vegetation vecies cover.	residential land use ses of undeveloped on communities in c	s to the I land close	
5 0							
.500(6)(b)Water Environment (n/a for uplands)       Immediately adjacent drainage and clearing of private property for agricultural development including stormwater         management have impacted the water environment in the immediate area. Hydroperiod, wet season average water         w/o pres or         current       with         4       0						water e water by ation	
.500(6)(c)Community structure							
.500(6)(c)Community structure       AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive spectore. Canopy cover consists of a mix of bald cypress ( <i>Taxodium distichum</i> ), slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca ( <i>Melaleuca quinquenervia</i> ). Swamp fern ( <i>Blechnum serrulatum</i> ) common occupies the groundcover. Exotic species cover is low and consists of melaleuca, Ceasarweed ( <i>Urena lobata</i> ), shrubby false buttonweed ( <i>Spermacoce verticillata</i> ). Intense wildfire in the past decade has caused damage to old growth forest canopy in the AA and vicinity. Proposed impacts to the AA include excavation and fill association.         w/o pres or       0						species obage nmonly tta), ge to the ociated	
Score = sum of above scores/30 (if	If preservation as mitig	jation,	F	For impact assess	sment areas		
uplands, divide by 20)	Preservation adjustme	nt factor =					
current or w/o pres with			FL =	delta x acres =	-0.24		
0.533 0.000	Adjusted mitigation de	lta =					
	J						
	If mitigation		Fo	or mitigation asse	ssment areas		
Delta = [with-current]	Time lag (t-factor) =						
-0.533	Risk factor =		RFG =	= delta/(t-factor x	risk) =		

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Number			Assessment Area Name or Number		
Collier County C	WIP	SFWMD	): 200214-2805		Imp	pact 22	
FLUCCs code	Further classifica	tion (optional)		Impac	t or Mitigation Site?	Assessment Area Size	
621-E1	Су	press (<25% exot	ics)		Impact - Direct	0.340	
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classifica	ation (i.	.e. OFW, AP, other loca	l/state/federal designation	
Rookery Bay	Ш				None		
Geographic relationship to and hyd	rologic connection with	wetlands, other su	ırface water, uplar	nds			
Assessment area (AA) hydrology ar regional stormwater drainage, inter- of an active, drained agricultural are	nd larger surrounding we state and local roadway ea.	etlands have bee infrastructure, and	n altered (reduced d development of f	l hydro the Na	period and wet season ples, Florida area). The	water elevations due to AA occurs at the borders	
Assessment area description							
AA consists of a cypress-dominated cypress ( <i>Taxodium distichum</i> ). Swa melaleuca ( <i>Melaleuca quinquenerv</i> decade has caused damage to the	d wetland community wit amp fern ( <i>Blechnum ser</i> <i>ia</i> ), Ceasarweed ( <i>Urena</i> old growth forest canop	th relatively low (< <i>rulatum</i> ) commor a <i>lobata</i> ), shrubby y in the AA and vi	25%) exotic/invasi nly occupies the gr / false buttonweed cinity.	ive spe oundco ( <i>Sper</i> i	ecies cover. Canopy cov over. Exotic species cov <i>macoce verticillata</i> ). In	ver consists of bald ver is low and consists of tense wildfire in the past	
Significant nearby features			Uniqueness (cor landscape.)	nsiderir	ng the relative rarity in r	elation to the regional	
Undeveloped land to the north, distubed land and residential development to the south and west, agricultural lands to the east			Not unique to area				
Functions			Mitigation for prev	vious p	permit/other historic use		
Provides cover, substrate, and refu water quality improvement; ground	ge; bredding; foraging; v vater recharge; wildlife I	water storage; nabitat	None				
Anticipated Wildlife Utilization Base that are representative of the asses be found)	d on Literature Review sment area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied woo snakes (banded and green watersn turtles (musk, red-bellied cooter, mu mammals (feral hog, opossum, arm	odpecker, red shouldere akes, cottonmouth, muc ud); frogs (leopard, pig, aadillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	; Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)				
Observed Evidence of Wildlife Utiliz	zation (List species dired	ctly observed, or c	other signs such as	s tracks	s, droppings, casings, n	ests, etc.):	
Additional relevant factors:				_			
Assessment conducted by:			Assessment date	(s):			
Taylor Engineering, Inc.			May 2020				

Site/Project Name	ct Name Application N			pplication Number Assessment Area Name or Number			
Collier Coun	ty CWIP	SFWMD: 200214-28	805	Impact 22			
Impact or Mitigation		Assessment conducted by:		Assessment date:			
Impact - I	Direct	Taylor Engineering, Inc.		May 2020			
Scoring Guidance	Optimal (10)	Condition is less than	Mir	nimal (4)	Not Present (0)		
indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal lev	vel of support of	Condition is insufficien	nt to	
would be suitable for the	wetland/surface water	maintain most	wetland/	surface water	provide wetland/surfa	ace	
type of wetland or surface	functions	wetland/surface	fu	inctions	water functions		
Water assessed		Waterfulletions					
.500(6)(a) Location and Landscape Support w/o pres or current with	Availability of habitat outside west likely adversely affect w north of the AA does provide proximity to the AA contain lo	the AA is fair. Agricultural lan vildlife access to/from and utiliz wildllife access and movemen ow to moderate levels of exotion	ds to the sou zation of the nt support to c/invasive sp	uth and east and i AA. Large expan- the AA. Vegetatio pecies cover.	residential land uses to ses of undeveloped land on communities in close	the d ə	
5 0							
.500(6)(b)Water Environment (n/a for uplands)       Immediately adjacent drainage and clearing of private property for development including stormwater management have impacted the water environment in the immediate area. Hydroperiod, wet season average water levels, and drainage and infrastructure and nearby residential development. Proposed impacts to the AA include excavation and fill associated with flowway construction.         w/o pres or current       with         4       0							
.500(6)(c)Community structure       AA consists of a cypress-dominated wetland community with relatively low (<25%) exotic/invasive species cov						ır.	
7 0							
-							
Score = sum of above scores/30 (if uplands, divide by 20)         current         or w/o pres         0.533	If preservation as mitig Preservation adjustme Adjusted mitigation del	nt factor =	FL =	For impact assess	oment areas		
·	If mitigation		Fo	or mitigation asse	ssment areas		
Delta = [with-current]	Time lag (t-factor) =						
-0.533	Risk factor =		RFG =	= delta/(t-factor x	risk) =		

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Numbe	er		Assessment Area Name	or Number	
Collier County C	WIP	SFWMD	): 200214-2805		li	mpact 1 -3	
FLUCCs code	Further classifica	tion (optional)		Impa	ct or Mitigation Site?	Assessment Area Size	
624-E3	Cypress-Pine-	Cabbage Palm (5	1-75% exotics)	l	mpact - Secondary	1.902	
Basin/Watershed Name/Number Rookery Bay	Affected Waterbody (C	lass)	Special Classifica	ation (i	i.e. OFW, AP, other loca None	al/state/federal designation of im	
Geographic relationship to and hydr	ologic connection with	wetlands, other si	urface water, upla	nds			
Thse assessment area (AA) once c and commercial development, and stormwater drainage.	omprised a portion of a a landfill. The hydrology	large wetland sys y of the site has b	stem that is now d een altered by the	isconr surro	nected and fragmented unding infrastructure ar	by roads, canals, residential d development-related	
Assessment area description							
AA consists of a cypress-pine-cabb bald cypress ( <i>Taxodium distichum</i> ) ( <i>Acacia auriculiformis</i> ). Common gr	age palm wetland comr , slash pine ( <i>Pinus ellio</i> roundcover species incl	munity infested (5 tii), cabbage paln lude swamp fern (	1-75% cover) with n ( <i>Sabal palmetto</i> ( <i>Blechnum serrula</i>	i exotio ), mela tum) a	c/invasive species. Can aleuca ( <i>Melaleuca quinc</i> and Ceasarweed ( <i>Urena</i>	opy cover consists of a mix of quenervia), and earleaf acacia a lobata).	
Significant nearby features			Uniqueness (cor	nsideri	ng the relative rarity in I	elation to the regional	
North: Collier County Resource Recovery Park; East: Collier County Landfill; South: I-75 and mostly undeveloped, vacant land; West: Collier County Sports Complex			Not unique to region				
Functions			Mitigation for pre	vious	permit/other historic use	9	
Provides cover, substrate, and refuge water quality improvement; groundv	ge; breeding; foraging; vater recharge; wildlife I	water storage; habitat	None				
Anticipated Wildlife Utilization Base that are representative of the asses be found)	d on Literature Review sment area and reasor	(List of species nably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied woo egrets); snakes (banded and green racer); turtles (musk, red-bellied coo green tree); mammals (feral hog, op deer, squirrels, Florida panther)	dpecker, red shouldere watersnakes, cottonmo oter, mud); frogs (leopa possum, armadillo, racc	ed hawk, herons, outh, mud, black Ird, pig, bull, coon, white-tailed	Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)				
Observed Evidence of Wildlife Utiliz	ation (List species dire	ctly observed, or	other signs such a	as trac	ks, droppings, casings,	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Taylor Engineering, Inc.			May 2020				

Site/Project Name		Application Number		Assessment Area Name or Number		
Collier Coun	ty CWIP	SFWMD: 200214-28	305	Impact 1 -3		
Impact or Mitigation		Assessment conducted by:		Assessment date:		
Impact - See	condary	Taylor Engineering, I	Inc.		May 2020	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	
The scoring of each	Condition is optimal and	Condition is less than	Minimalia		O an allalana in in an affiniana a	
would be suitable for the	fully supports	maintain most	wetland	/surface water	provide wetland/surface	
type of wetland or surface	wetland/surface water	wetland/surface	fu	water functions		
water assessed		waterfunctions				
.500(6)(a) Location and Landscape Support						
w/a avea ar	Secondary Impact - 1 point c	overall drop in UMAM score				
current with						
4 3						
.500(6)(b)Water Environment						
(n/a for uplands)						
w/o pres or with						
	-					
3 3						
.500(6)(c)Community structure						
<ol> <li>Vegetation and/or</li> <li>Benthic Community</li> </ol>						
E. Bonano Commany						
w/o pres or						
current with						
3 3						
0 ( )	la de de			<b>F</b> · · ·		
Score = sum of above scores/30 (if uplands, divide by 20)	If preservation as mitig	ation,		For impact asses	sment areas	
current	Preservation adjustme	nt factor =	E1	dolto y oprop	0.06	
or w/o pres with	Adjusted mitigation del	ta =	ГЦ =	= delta x acres =	-0.06	
0.333 0.300			L			
	If mitigation		<b>—</b>		1	
Delta = [with-current]	Time lag (t-factor) =		F	or mitigation asse	ssment areas	
0.000			RFG	= delta/(t-factor x	risk) =	
-0.033	HISK TACTOR =			,		

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Numbe	r		Assessment Area Name o	r Number		
Collier County C	WIP	SFWMD: 200214-2805			Impa	act 4 - 7		
FLUCCs code	Further classifica	tion (optional)		Impac	t or Mitigation Site?	Assessment Area Size		
624-E1	Cypress-Pine	e-Cabbage Palm (	(<25% exotics) Impact - Secondary 2.458					
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loca	l/state/federal designation		
Rookery Bay	Ш				None			
Geographic relationship to and hyd	rologic connection with	wetlands, other su	ırface water, uplar	nds				
Assessment area (AA) hydrology an wet season water elevations due to	nd larger surrounding w regional stormwater dra	etlands of the Pica ainage, interstate	ayune Strand State roadway infrastru	e Fores cture, a	st have been altered (re and development of the	duced hydroperiod and Naples, Florida area).		
Assessment area description								
AA consists of a cypress-pine-cabb mix of bald cypress ( <i>Taxodium disti</i> <i>quinquenervia</i> ). Swamp fern ( <i>Blech</i> Ceasarweed ( <i>Urena lobata</i> ), shrub decade has caused damage to the	age palm wetland comr <i>ichum</i> ), scattered slash <i>inum serrulatum</i> ) comn by false buttonweed ( <i>Sµ</i> old growth forest canop	nunity with relative pine ( <i>Pinus ellioti</i> nonly occupies the permacoce verticil y in the AA and vi	ely low (<25%) exc <i>i</i> ), cabbage palm ( groundcover. Exc <i>lata</i> ), and torpedo cinity.	otic/inva ( <i>Sabal</i> otic spe grass	asive species cover. Ca palmetto), and melaleu ecies cover is low and c (Panicum repens). Inte	nopy cover consists of a ca ( <i>Melaleuca</i> onsists of melaleuca, ense wildfire in the past		
Significant nearby features		Uniqueness (cor landscape.)	nsiderii	ng the relative rarity in re	elation to the regional			
I-75 to the north			Not unique to region					
Functions			Mitigation for pre	vious p	permit/other historic use			
Provides cover, substrate, and refu water quality improvement; ground	ge; breeding; foraging; v vater recharge; wildlife	water storage; habitat	None					
Anticipated Wildlife Utilization Base that are representative of the asses be found)	ed on Literature Review soment area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( green heron, red-bellied woo snakes (banded and green watersn turtles (musk, red-bellied cooter, mu mammals (feral hog, opossum, arm squirrels, Florida panther)	odpecker, red shouldere lakes, cottonmouth, muc ud); frogs (leopard, pig, ladillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer,	Florida panther (state - E, fed - E); red cockaded woodpecker (state - E, federal - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)					
Observed Evidence of Wildlife Utiliz	zation (List species dire	ctly observed, or c	ther signs such as	s tracks	s, droppings, casings, n	ests, etc.):		
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Taylor Engineering, Inc.			May 2020					

Site/Project Name		Application Number	Assessment Area Name or Number			
Collier Coun	ty CWIP	SFWMD: 200214-28	305	1	mpact 4 - 7	
Impact or Mitigation		Assessment conducted by:		Assessment date:		
Impact - See	condary	Taylor Engineering, I	Inc.	May 2020		
Scoring Guidance	Optimal (10)	Moderate(7)	Mir	nimal (4)	Not Present (0)	
The scoring of each	Condition is optimal and	Condition is less than	Missional Is			
would be suitable for the	fully supports	maintain most	wetland	/surface water	provide wetland/surfac	io ce
type of wetland or surface	wetland/surface water	wetland/surface	fu	inctions	water functions	
water assessed		waterfunctions				
.500(6)(a) Location and Landscape Support w/o pres or	Secondary Impact - 1 point c	overall drop in UMAM score				
current with						
7 6						
I						
.500(6)(b)Water Environment (n/a for uplands)						
w/o pres or						
current with						
5 5	1					
.500(6)(c)Community structure						
2. Benthic Community						
w/o pres or						
1						
Score = sum of above scores/30 (if	If preservation as mitig	jation,		For impact asses	sment areas	
uplands, divide by 20)	Preservation adjustme	nt factor =				
current or w/o pres with			FL =	= delta x acres =	-0.08	
0.633 0.600	Adjusted mitigation del	ta =				
	J					
	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =			0		
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =	

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Numbe	er	4	Assessment Area Name	or Number		
Collier County C	WIP	SFWMD	200214-2805		Ir	npact 8 - 9		
FLUCCs code	Further classificat	tion (optional)		Impac	t or Mitigation Site?	Assessment Area Size		
624-E2	Cypress-Pine-(	Cabbage Palm (2	5-50% exotics)	In	npact - Secondary	0.748		
Basin/Watershed Name/Number Rookery Bay	Affected Waterbody (Cl	lass)	Special Classific	ation (i.	e. OFW, AP, other loca None	al/state/federal designation of im		
Geographic relationship to and hyc	Irologic connection with	wetlands, other si	urface water, upla	inds				
Assessment area (AA) hydrology a season water elevations due to reg	ınd larger surrounding w jional stormwater draina	etlands of the Pic ge, interstate roa	ayune Strand Sta dway infrastructu	te Fore re, and	st have been altered (r development of the Na	educed hydroperiod and wet ples, Florida area).		
Assessment area description AA consists of a cypress-pine-cabb small bald cypress ( <i>Taxodium disti</i> Swamp fern ( <i>Blechnum serrulatum</i> ( <i>Urena lobata</i> ), shrubby false butto decade has caused damage to the	cage palm wetland comm chum), scattered slash p or commonly occupies th priveed (Spermacoce ve old growth forest canop	nunity with moder pine ( <i>Pinus ellioti</i> le groundcover. E <i>erticillata</i> ), and tor by in the AA and v	rate (25-50%) exo i), cabbage palm xotic species cov pedo grass ( <i>Pani</i> icinity.	otic/inva ( <i>Sabal</i> ver is m cum rep	sive species cover. Ca palmetto), and melaleu oderate and consists c pens) occassionally oc	nopy cover consists of a mix of uca ( <i>Melaleuca quinquenervia</i> ). of melaleuca, Ceasarweed cur. Intense wildfire in the past		
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)					
I-75 to the north			Not unique to region					
Functions			Mitigation for pre	evious p	ermit/other historic use	)		
Provides cover, substrate, and refu water quality improvement; ground	uge; breeding; foraging; v water recharge; wildlife h	water storage; habitat	None					
Anticipated Wildlife Utilization Base that are representative of the asse be found)	ed on Literature Review ssment area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( green heron, red-bellied wo snakes (banded and green waters turtles (musk, red-bellied cooter, m mammals (feral hog, opossum, arr squirrels, Florida panther)	odpecker, red shouldere nakes, cottonmouth, muc nud); frogs (leopard, pig, nadillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer,	Florida panther ( federal - E); Big ( E, federal - E)	state - I Cypress	E, fed - E); red cockad s fox squirrel (state - T)	ed woodpecker (state - E, ; Florida bonneted bat (state -		
Observed Evidence of Wildlife Utili	zation (List species direc	ctly observed, or o	other signs such a	as track	s, droppings, casings,	nests, etc.):		
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Taylor Engineering, Inc.			May 2020					

Site/Project Name		Application Number	Application Number Assessment Area Name or Number				
Collier Coun	ty CWIP	SFWMD: 200214-28	805	Impact 8 - 9			
Impact or Mitigation		Assessment conducted by:		Assessment date:			
Impact - See	condary	Taylor Engineering, Inc.		May 2020			
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)		
I ne scoring of each indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal le	evel of support of	Condition is insufficient	to	
would be suitable for the	tully supports	maintain most	wetland	/surface water	provide wetland/surfac	e	
type of wetland or surface	functions	wetland/surface	functions water func				
water assessed		waterrunctions					
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point o	overall drop in UMAM score					
w/o pres or							
current with							
7 6							
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 5 5 .500(6)(c)Community structure 1. Vegetation and/or							
2. Benthic Community							
w/o pres or							
current with							
6 6	1						
	·						
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact asses	sment areas		
current	Preservation adjustme	nt factor =					
or w/o pres with	Adjusted mitigation del	ta =	FL =	= delta x acres =	-0.02		
0.600 0.567	, °						
· · · · · ·	If mitigation		r				
Dolto fuith current			F	or mitigation asse	ssment areas		
	i ime lag (t-factor) =			-l-l+- // ( · ·			
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =		

Site/Project Name		Application Number	er		Assessment Area Name	or Number	
Collier County CW	IP	SFWMD	200214-2805		Im	pact 10 - 11	
FLUCCs code	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size	
624-E3	Cypress-Pine-	Cabbage Palm (5	1-75% exotics)	h	mpact - Secondary	0.974	
Basin/Watershed Name/Number A Rookery Bay	ffected Waterbody (C	lass)	Special Classifica	ation (i	e. OFW, AP, other location. None	al/state/federal designation of im	
Geographic relationship to and hydro	logic connection with	wetlands, other s	urface water, upla	nds			
Assessment area hydrology and large water elevations due to regional storr	er surrounding wetlan nwater drainage, inte	ds of the Picayun rstate roadway in	e Strand State Fo frastructure, and c	rest ha develoj	ave been altered (reduc pment of the Naples, Fl	ed hydroperiod and wet season orida area).	
Assessment area description AA consists of a cypress-pine-cabbag mix of small bald cypress ( <i>Taxodium</i> <i>quinquenervia</i> ). Swamp fern ( <i>Blechn</i> melaleuca, Ceasarweed ( <i>Urena lobat</i> Intense wildfire in the past decade ha	ge palm wetland com distichum), scattered um serrulatum) comn ta), shrubby false butt is caused damage to	nunity with model slash pine ( <i>Pinus</i> nonly occupies the onweed ( <i>Sperma</i> the old growth for	rately high (51-75° s elliotii), cabbage e groundcover. Ex coce verticillata), est canopy in the	%) exo palm cotic sp and to AA and	tic/invasive species cov ( <i>Sabal palmetto</i> ), and i pecies cover is modera prpedo grass ( <i>Panicum</i> d vicinity.	ver. Canopy cover consists of a melaleuca ( <i>Melaleuca</i> tely high and consists of <i>repens</i> ) occassionally occur.	
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)				
I-75 to the north			Not unique to region				
Functions			Mitigation for pre	vious	permit/other historic use	)	
Provides cover, substrate, and refuge water quality improvement; groundwa	e; breeding; foraging; tter recharge; wildlife	water storage; habitat	None				
Anticipated Wildlife Utilization Based that are representative of the assess be found)	on Literature Review ment area and reasor	(List of species hably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied wood snakes (banded and green watersnak turtles (musk, red-bellied cooter, muc mammals (feral hog, opossum, arma squirrels, Florida panther)	pecker, red shouldere kes, cottonmouth, mu l); frogs (leopard, pig, dillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer,	Florida panther (state - E, fed - E); red cockaded woodpecker (state - E, federal - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)				
Observed Evidence of Wildlife Utiliza	tion (List species dire	ctly observed, or	L other signs such a	as trac	ks, droppings, casings,	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
raylor Engineering, Inc.			way 2020				

Site/Project Name		Application Number		Assessment Area Name or Number		
Collier Coun	ty CWIP	SFWMD: 200214-28	305	Impact 10 - 11		
Impact or Mitigation		Assessment conducted by:		Assessment date:		
Impact - See	condary	Taylor Engineering, I	Inc.		May 2020	
Scoring Guidance	Optimal (10)	Moderate(7)	niM	nimal (4)	Not Present (	(0)
The scoring of each	Condition is optimal and	Condition is less than	Minimal Io	val of our part of	Condition in inquiffic	niont to
would be suitable for the	fully supports	maintain most	wetland	/surface water	provide wetland/su	urface
type of wetland or surface	wetland/surface water functions	wetland/surface	fu	inctions	water function	IS
water assessed		waterfunctions				
.500(6)(a) Location and Landscape Support w/o pres or	Secondary Impact - 1 point c	overall drop in UMAM score				
/ 6						
.500(6)(b)Water Environment (n/a for uplands)						
w/o pres or						
current with						
5 5						
.500(6)(c)Community structure  1. Vegetation and/or  2. Bonthic Community						
2. Dentric Community						
w/o pres or						
current with						
4 4						
II						
[	n h					
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact asses	sment areas	
current or w/o pres with 0.533 0.500	Preservation adjustme Adjusted mitigation del	nt factor = ta =	FL =	= delta x acres =	-0.03	
	J					
	It mitigation		Fo	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =	

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name Application Nu		Application Numbe	Assessment Area Name or Number			or Number	
Collier County CWIP		SFWMD	: 200214-2805		Imj	pact 12	
FLUCCs code	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size	
619	Exot	tic Wetland Hardw	roods	Ir	mpact - Secondary	0.319	
Basin/Watershed Name/Number Affec	ted Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loca	al/state/federal designation	
Rookery Bay	III				None		
Geographic relationship to and hydrologi	c connection with	wetlands, other su	irface water, uplar	nds			
Assessment area (AA) hydrology has been altered by clearing and drainging activity on immediately adjacent private properties surrounding wetlands of the Picayune Strand State Forest have been altered (reduced hydroperiod and wet season water eless stormwater drainage, interstate roadway infrastructure, and development of the Naples, Florida area).					ies. The larger evations due to regional		
Assessment area description							
The AA lies along the north boundary of near monoculture of melaleuca ( <i>Melaleu</i>	the Sanders Blvd i ca quinquenervia)	residential propert with occassional	y and consists of a slash pine ( <i>Pinus</i>	an exol <i>elliotti</i> i	tic wetland hardwoods ( i) and cabbage palm ( <i>S</i>	community composed of a <i>Cabal palmetto</i> ).	
Significant nearby features			Uniqueness (cor landscape.)	nsiderir	ng the relative rarity in r	elation to the regional	
Residential property (Saunders Blvd property) to the south, large borrow p to the southeast, I-75 3.4 miles to the north			Not unique to region				
Functions			Mitigation for prev	vious p	permit/other historic use	•	
Provides cover, substrate, and refuge; br water quality improvement; groundwater	reeding; foraging; recharge; wildlife	water storage; habitat	None				
Anticipated Wildlife Utilization Based on that are representative of the assessmen be found)	Literature Review It area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied woodpec snakes (banded and green watersnakes, turtles (musk, red-bellied cooter, mud); fr mammals (feral hog, opossum, armadillo	cker, red shouldere , cottonmouth, muc ogs (leopard, pig, o, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)				
Observed Evidence of Wildlife Utilization	n (List species dire	ctly observed, or o	ther signs such as	s tracks	s, droppings, casings, r	ests, etc.):	
Additional relevant factors:							
Assessment conducted by:			A accomment data	(c):			
			Assessment date	(5).			

Site/Project Name		Application Number		Assessment Area Name or Number			
Collier Count	ty CWIP	SFWMD: 200214-28	805		Impact 12		
Impact or Mitigation		Assessment conducted by:		Assessment date	9:		
Impact - Sec	condary	Taylor Engineering, I	nc.		May 2020		
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		Condition is insufficient t	••	
would be suitable for the	fully supports	maintain most	wetland	/surface water	provide wetland/surface	e e	
type of wetland or surface	functions	wetland/surface	fu	unctions	water functions		
water assessed		waterfunctions					
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point o	overall drop in UMAM score					
w/o pres or current with							
6 5							
.500(6)(b)Water Environment (n/a for uplands)							
w/o pres or							
current with							
3 3							
.500(6)(c)Community structure 1. Vegetation and/or							
2. Benthic Community							
w/a prop or							
w/o pres or current with							
2 2							
	a i		P				
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact asses	sment areas		
uplands, divide by 20)	Preservation adjustme	nt factor =					
or w/o pres with	Adjusted mitigation del	ta –	FL =	= delta x acres =	-0.01		
0.367 0.333	rigueted miligation del	u –					
			F	or mitigation asse	ssment areas		
Deita = [with-current]	i ime iag (t-factor) =						
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =		

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Numbe	er	A	sessment Area Name or Number		
Collier County CWI	þ	SFWMD	: 200214-2805			Impact 14	
FLUCCs code	Further classifica	tion (optional)		Impact	or Mitigation Site?	Assessment Area Size	
625-E4	Wet Pinelan	ds Hydric Pine (>	75% exotics)	lm	pact - Secondary	0.739	
Basin/Watershed Name/Number Aff Rookery Bay	ected Waterbody (C III	lass)	Special Classifica	ation (i.e	e. OFW, AP, other loca None	al/state/federal designation of im	
Geographic relationship to and hydrolo	gic connection with	wetlands, other s	urface water, uplai	nds			
Assessment area (AA) hydrology has l wetlands of the Picayune Strand State drainage, interstate roadway infrastrue	been altered by clea Forest have been a cture, and developm	ring and drainging Itered (reduced h ent of the Naples	activity on immed ydroperiod and we , Florida area).	diately a et seaso	adjacent private prope n water elevations due	rties. The larger surrounding e to regional stormwater	
Assessment area description							
The AA lies along the west and and po commmunity heavily infested (>75% c pine ( <i>Pinus elliottii</i> ) and cabbage palm	rtion of the south bo over) with exotic spe ( <i>Sabal palmetto</i> ).	oundary of the Sau cies. Canopy spe	unders Blvd reside cies consist of me	ential pro elaleuca	operty and consists of ( <i>Melaleuca quinquen</i>	hydric pine flatwoods <i>ervia</i> ) with occassional slash	
Significant nearby features			Uniqueness (cor landscape.)	nsiderinę	g the relative rarity in r	relation to the regional	
Residential property (Saunders Blvd property) to the south, large borrow to the southeast, I-75 3.4 miles to the north			Not unique to landscape				
Functions			Mitigation for pre-	vious pe	ermit/other historic use	9	
Provides cover, substrate, and refuge; water quality improvement; groundwate	breeding; foraging; er recharge; wildlife l	water storage; habitat	None				
Anticipated Wildlife Utilization Based o that are representative of the assessm be found)	n Literature Review ent area and reasor	(List of species hably expected to	Anticipated Utiliza (E, T, SSC), type	ation by of use,	Listed Species (List s and intensity of use o	pecies, their legal classification f the assessment area)	
Birds ( green heron, red-bellied woodp snakes (banded and green watersnake turtles (musk, red-bellied cooter, mud) mammals (feral hog, opossum, armad	ecker, red shouldere es, cottonmouth, mu ; frogs (leopard, pig, illo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	Florida panther (s federal - E); Big ( E, federal - E)	state - E Cypress	E, fed - E); red cockadi fox squirrel (state - T)	ed woodpecker (state - E, ); Florida bonneted bat (state -	
Observed Evidence of Wildlife Utilizati	on (List species dire	ctly observed, or	t other signs such a	as tracks	s, droppings, casings,	nests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Taylor Engineering, Inc.			May 2020				

Site/Project Name		Application Number		Assessment Area Name or Number			
Collier Count	ty CWIP	SFWMD: 200214-28	305		Impact 14		
Impact or Mitigation		Assessment conducted by:		Assessment date	:		
Impact - Sec	condary	Taylor Engineering, I	Inc.	May 2020			
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	)	
indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal le	vel of support of	Condition is insufficie	ent to	
would be suitable for the	tully supports wetland/surface water	maintain most	wetland	/surface water	provide wetland/surfa	ace	
type of wetland or surface water assessed	functions	wetland/surface waterfunctions	fu	inctions	water functions		
Water abbobbed		Waterfulletione					
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point o	overall drop in UMAM score					
w/o pres or							
current with							
6 5							
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 3 3 .500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community w/o pres or							
current with							
2 2	1						
Score = sum of above scores/30 uplands, divide by 20)(ifcurrent or w/o preswith0.3670.333	If preservation as mitig Preservation adjustme Adjusted mitigation del	ation, nt factor = ta =	FL =	For impact asses: = delta x acres =	sment areas -0.02		
	If mitigation		F	or mitigation asso	ssment areas		
Delta = [with-current]	Time lag (t-factor) =			or miliyalion asse			
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =		

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Number	er		Assessment Area Name	or Number
Collier County C	CWIP	SFWMD	): 200214-2805			Impact 15
FLUCCs code	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size
624-E4	Cypress-Pine	-Cabbage Palm (	>75% exotics)	Ir	mpact - Secondary	0.444
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loc	al/state/federal designation of im
Rookery Bay					None	
Geographic relationship to and hyc	Irologic connection with	wetlands, other s	urface water, upla	nds		
Assessment area (AA) hydrology h wetlands of the Picayune Strand S drainage, interstate roadway infras	as been altered by clea tate Forest have been a structure, and developm	ring and drainage Itered (reduced h ent of the Naples	activity on immeo ydroperiod and we , Florida area).	diately et seas	adjacent private proper on water elevations du	ties. The larger surrounding e to regional stormwater
Assessment area description						
AA consists of a cypress-pine-cabl melaleuca ( <i>Melaleuca quinquener</i> groundcover species include swam ( <i>Schinus terebinthifolius</i> ), Ceaserv	bage palm wetland comi <i>ria</i> ), bald cypress ( <i>Taxo</i> np fern ( <i>Blechnum serru</i> veed, and paragrass ( <i>U</i> r	munity with high (: <i>dium distichum</i> ), <i>latum</i> ) and Ceasa rochloa mutica).	>75%) exotic/inva slash pine ( <i>Pinus</i> arweed ( <i>Urena lob</i>	sive sp <i>elliotii</i> j pata). E	pecies cover. Canopy s ), cabbage palm ( <i>Saba</i> Exotic species include r	pecies consist of a mix of <i>palmetto</i> ). Common nelaleuca, Brazilian pepper
Significant nearby features			Uniqueness (cor landscape.)	nsiderii	ng the relative rarity in	relation to the regional
Residential property (Saunders Bluton to the southeast, I-75 3.4 miles to the southeast, I-75 3.4 miles to the southeast of t	rd property) to the south the north	, large borrow pit				
Functions			Mitigation for pre	vious p	permit/other historic use	9
Provides cover, substrate, and refu water quality improvement; ground	uge; breeding; foraging; water recharge; wildlife	water storage; habitat				
Anticipated Wildlife Utilization Base that are representative of the asse be found)	ed on Literature Review ssment area and reasor	(List of species hably expected to	Anticipated Utiliz (E, T, SSC), type	ation b e of use	y Listed Species (List s a, and intensity of use c	pecies, their legal classification f the assessment area)
Birds ( green heron, red-bellied wo snakes (banded and green waters turtles (musk, red-bellied cooter, m mammals (feral hog, opossum, arr	odpecker, red shouldere nakes, cottonmouth, mu Iud); frogs (leopard, pig, nadillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	Florida panther (: federal - E); Big ( E, federal - E)	state - Cypres	E, fed - E); red cockad s fox squirrel (state - T	ed woodpecker (state - E, ; Florida bonneted bat (state -
Observed Evidence of Wildlife Utili	zation (List species dire	ctly observed, or	other signs such a	as tracl	ks, droppings, casings,	nests, etc.):
Additional relevant factors:						
Assessment conducted by:			Assessment date	ə(s).		
Taylor Engineering, Inc.			May 2020			
, <u> </u>						

Site/Project Name		Application Number		Assessment Area Name or Number			
Collier Count	ty CWIP	SFWMD: 200214-28	305	Impact 15			
Impact or Mitigation		Assessment conducted by:		Assessment date	9:		
Impact - Sec	condary	Taylor Engineering, I	Inc.		May 2020		
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		Condition is insufficient t		
would be suitable for the	fully supports	maintain most	wetland/surface wate		provide wetland/surface		
type of wetland or surface	functions	wetland/surface	fu	unctions	water functions		
water assessed		waterfunctions					
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point o	overall drop in UMAM score					
w/o pres or							
current with							
6 5							
.500(6)(b)Water Environment (n/a for uplands)							
w/o pres or							
current with							
3 3							
.500(6)(c)Community structure <b>1. Vegetation and/or</b> 2. Benthic Community							
w/o pros or							
current with							
2 2							
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact asses	sment areas		
uplands, divide by 20)	Preservation adjustme	nt factor =					
or w/o pres with	Adjusted mitigation del	ta =	FL =	= delta x acres =	-0.01		
0.367 0.333							
			F	or mitigation asse	ssment areas		
Delta = [with-current]	l ime lag (t-factor) =						
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =		

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Number	er	Assessment Area Name	e or Number		
Collier County CWIP		SFWMD	): 200214-2805	Impa	ct 16, 17, 19, 23		
FLUCCs code	Further classifica	tion (optional)		Impact or Mitigation Site?	Assessment Area Size		
510	Stre	eams and Waterw	vays	Impact - Secondary	8.895		
Basin/Watershed Name/Number Affe	cted Waterbody (C	lass)	Special Classifica	ation (i.e. OFW, AP, other lo	cal/state/federal designation of im		
Rookery Bay	Ш			None			
Geographic relationship to and hydrolog	gic connection with	wetlands, other s	urface water, uplai	nds			
Assessment area (AA) hydrology and la regional stormwater drainage, interstate newly constructed residential neighborh	arger surrounding w e and local roadway loods and neighbor	retlands have been y infrastructure, an hoods currently u	en altered (reduce nd development of nder construction.	d hydroperiod and wet seaso f the Naples, Florida area). 1	on water elevations due to The AA occurs at the borders of		
Assessment area description							
The AA consists of surface water draina ( <i>Phragmites berlandieri</i> ), Carolina willow maidencane ( <i>Panicum hemitomon</i> ), alli include Brazilian pepper ( <i>Schinus tereb</i> <i>quriculiformis</i> ), shrubby false buttonwee	age ditches borderir w ( <i>Salix caroliniana</i> gator flag ( <i>Thalia g</i> <i>inthifolius</i> ), torpedo ed ( <i>Spermacoce ve</i>	ng residential dev a), bald cypress (7 <i>eniculata</i> ), and pi <i>o</i> grass ( <i>Panicum</i> <i>prticillata</i> ), and Ce	elopments. Portion <i>Taxodium distichur</i> ckerelweed ( <i>Ponte</i> <i>repens</i> ), melaleuc aserweed ( <i>Urena</i>	ns of the ditches contain veg n), cattail ( <i>Typha</i> sp.), broo ederia cordata). Exotic spec a ( <i>Melaleuca quinquenervia</i> lobata).	etation such as common reed msedge ( <i>Andropogon</i> spp.), ies occuring within the AA ), earleaf acacia ( <i>Acacia</i>		
Significant nearby features			Uniqueness (cor landscape.)	isidering the relative rarity in	relation to the regional		
US 41 to the south, agricultural lands to the east, undeveloped lands to the north			Not unique to the region				
Functions			Mitigation for pre-	vious permit/other historic us	Se		
Provides cover, substrate, and refuge; b water quality improvement; groundwate	breeding; foraging; r recharge; wildlife	water storage; habitat	None				
Anticipated Wildlife Utilization Based on that are representative of the assessme be found)	Literature Review ant area and reason	(List of species hably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds (herons, egrets, wading birds, rec and green watersnakes, cottonmouth, n bellied cooter, mud); frogs (leopard, pig hog, opossum, armadillo, raccoon, white	d-winged blackbird) nud, black racer); tu , bull, green tree); r e-tailed deer)	; snakes (banded urtles (musk, red- nammals (feral	Florida panther (s bonneted bat (sta	state - E, fed - E); Big Cypres ate - E, federal - E)	ss fox squirrel (state - T); Florida		
Observed Evidence of Wildlife Utilizatio	n (List species dire	ctly observed, or	I other signs such a	s tracks, droppings, casings	, nests, etc.):		
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Taylor Engineering, Inc.			May 2020				

Site/Project Name		Application Number	Assessment Area Name or Number			
Collier Coun	ty CWIP	SFWMD: 200214-28	305	5 Impact 16, 17, 19, 23		
Impact or Mitigation		Assessment conducted by:		Assessment date:		
Impact - Se	condary	Taylor Engineering, Inc.			May 2020	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present (0)	)
The scoring of each	Condition is optimal and	Condition is less than	Minimal le	vel of support of	Condition is insufficie	ant to
would be suitable for the	fully supports	maintain most	wetland	/surface water	provide wetland/surf	face
type of wetland or surface	functions	wetland/surface	fu	unctions	water functions	
water assessed		waterfunctions				
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point c	overall drop in UMAM score				
w/o pres or						
current with	-					
4 3						
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with						
3 3						
.500(6)(c)Community structure 1. Vegetation and/or 2. Benthic Community						
w/o pres or						
current with						
3 3						
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact asses	sment areas	
uplands, divide by 20)	Preservation adjustme	nt factor =				
or w/o pres with	Adjusted mitigation dol	lto _	FL =	= delta x acres =	-0.30	
0.333 0.300	Aujusted mitigation dei					
	1					
	If mitigation		F	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) =					
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =	

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Numbe	er	A	Assessment Area Name or Number			
Collier County CWIP		SFWMD	: 200214-2805			Impact 18		
FLUCCs code	Further classificat	tion (optional)		Impact	t or Mitigation Site?	Assessment Area Size		
624-E2	Cypress-Pine-0	Cabbage Palm (2	5-50% exotics)	Im	npact - Secondary	2.695		
Basin/Watershed Name/Number Affect	cted Waterbody (Cl	ass)	Special Classifica	ation (i.e	e. OFW, AP, other loca	al/state/federal designation of im		
Rookery Bay	111		None					
Geographic relationship to and hydrolog	ic connection with	wetlands, other s	urface water, upla	inds				
Assessment area (AA) hydrology and la regional stormwater drainage, interstate border of recently constructed residentia	rger surrounding w and local roadway al neighborhoods ar	etlands have bee / infrastructure, a nd a main develo	en altered (reduce nd development o opment access roa	ed hydro of the Na ad. Hydr	period and wet seasor aples, Florida area. Th rologically-altered wetl	n water elevations due to e AA occurs at the western ands lie to the east of the AA.		
Assessment area description The AA consists of a cypress-pine-cabb include a mix of bald cypress ( <i>Taxodium</i> ( <i>Quercus laurifolia</i> ). Groundcover and s <i>cerifera</i> ). Exotic species include Brazilia shrubby false buttonweed ( <i>Spermacoce</i>	age palm forested a distchum), slash j hrub species incluo n pepper ( <i>Schinus</i> verticillata).	wetland commun pine ( <i>Pinus elliott</i> de false nettle ( <i>Bo</i> <i>terebinthifolius</i> ),	ity with moderate ii), cabbage palm behmeria cylindric melaleuca ( <i>Melal</i>	(25-50% ( <i>Sabal</i> , sa), myrs leuca qu	6) exotic vegetation co palmetto), dahoon hol sine (Myrsine cubana) uinquenervia), Ceasen	ver. Dominant canopy species ly ( <i>llex cassine</i> ), and laurel oak and wax myrtle ( <i>Morella</i> weed ( <i>Urena lobata</i> ), and		
Significant nearby features			Uniqueness (cor landscape.)	nsidering	g the relative rarity in r	relation to the regional		
US 41 to the south, residential development to the north, south, and east mostly undeveloped land to west			Not unique to region					
Functions			Mitigation for pre	evious pe	ermit/other historic use	9		
Provides cover, substrate, and refuge; b water quality improvement; groundwater	preeding; foraging; recharge; wildlife h	water storage; nabitat	None					
Anticipated Wildlife Utilization Based on that are representative of the assessme be found)	Literature Review nt area and reason	(List of species ably expected to	Anticipated Utiliz (E, T, SSC), type	ation by e of use,	/ Listed Species (List s , and intensity of use o	pecies, their legal classification f the assessment area)		
Birds (green heron, red-bellied woodper snakes (banded and green watersnakes turtles (musk, red-bellied cooter, mud); f mammals (feral hog, opossum, armadille	rds (green heron, red-bellied woodpecker, red shouldered hawk, herons); akes (banded and green watersnakes, cottonmouth, mud, black racer); rtles (musk, red-bellied cooter, mud); frogs (leopard, pig, bull, green tree); ammals (feral hog, opossum, armadillo, raccoon, white-tailed deer)					s fox squirrel (state - T); Florida		
Observed Evidence of Wildlife Utilization	n (List species dire	ctly observed, or	other signs such a	as tracks	s, droppings, casings,	nests, etc.):		
Additional relevant factors:								
Assessment conducted by:			Assessment date	e(s):				
Taylor Engineering, Inc.			May 2020					

Site/Project Name		Application Number		Assessment Area Name or Number			
Collier Coun	ty CWIP	SFWMD: 200214-28	305	Impact 18			
Impact or Mitigation		Assessment conducted by:		Assessment date	):		
Impact - Se	condary	Taylor Engineering, Inc.			May 2020		
Scoring Guidance	Optimal (10)	Moderate(7)	Mir	nimal (4)	Not Present (0)		
I ne scoring of each indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal le	vel of support of	Condition is insufficient to		
would be suitable for the	tully supports	maintain most	wetland/	surface water	provide wetland/surface		
type of wetland or surface	functions	wetland/surface	fu	inctions	water functions		
water assessed		waterrunctions					
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point c	overall drop in UMAM score					
w/o pres or							
current with	4						
5 4							
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with							
.500(6)(c)Community structure <b>1. Vegetation and/or</b> 2. Benthic Community							
w/o pres or							
current with							
6 6							
Score - sum of above scores/30 /if	If procorrection as mitig	ation	<b> </b>	For impact access	smont areas		
uplands, divide by 20)			'	i or impact asses	Singil algas		
current	Preservation adjustme	nt factor =	FI =	delta x acres =	-0.09		
or w/o pres with	Adjusted mitigation del	ta =			0.00		
0.500 0.467	]		<u></u>				
	If mitigation		<u> </u>				
Delta = [with-current]	Time lag (t-factor) =		Fo	or mitigation asse	ssment areas		
0.000			RFG	= delta/(t-factor x	risk) =		
-0.033	HISK TACTOR =			`			

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Number			Assessment Area Name or Number		
Collier County C	WIP	SFWMD	): 200214-2805		Impac	ct 20 - 21	
FLUCCs code	Further classifica	tion (optional)		Impa	ct or Mitigation Site?	Assessment Area Size	
624-E1	Cypress-Pine	e-Cabbage Palm (·	<25% exotics)	ľ	mpact - Secondary	0.619	
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loca	l/state/federal designation	
Rookery Bay	III				None		
Geographic relationship to and hyd	rologic connection with	wetlands, other su	Irface water, uplar	nds			
Assessment area (AA) hydrology a regional stormwater drainage, inter of an active, drained agricultural are	nd larger surrounding w state and local roadway ea.	etlands have beer infrastructure, and	n altered (reduced d development of	hydro the Na	period and wet season w ples, Florida area). The	water elevations due to AA occurs at the borders	
Assessment area description							
AA consists of a cypress-pine-cabbage palm wetland community with relatively low (<25%) exotic/invasive species cover. Canopy cover consists of mix of bald cypress ( <i>Taxodium distichum</i> ), slash pine ( <i>Pinus elliotii</i> ), cabbage palm ( <i>Sabal palmetto</i> ), and melaleuca ( <i>Melaleuca quinquenervia</i> ). Swamp fern ( <i>Blechnum serrulatum</i> ) commonly occupies the groundcover. Exotic species cover is low and consists of melaleuca, Ceasarweed ( <i>Ure lobata</i> ), shrubby false buttonweed ( <i>Spermacoce verticillata</i> ). Intense wildfire in the past decade has caused damage to the old growth forest canop in the AA and vicinity.						nopy cover consists of a euca quinquenervia). uca, Ceasarweed (Urena old growth forest canopy	
Significant nearby features			Uniqueness (cor landscape.)	nsideri	ng the relative rarity in re	elation to the regional	
Undeveloped land to the north, distubed land and residential developments to the south and west, agricultural lands to the east			No unique to region				
Functions			Mitigation for pre	vious p	permit/other historic use		
Provides cover, substrate, and refu water quality improvement; ground	ge; bredding; foraging; v water recharge; wildlife l	water storage; habitat	None				
Anticipated Wildlife Utilization Base that are representative of the asses be found)	ed on Literature Review ssment area and reason	(List of species ably expected to	Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied woo snakes (banded and green watersn turtles (musk, red-bellied cooter, m mammals (feral hog, opossum, arm	odpecker, red shouldere nakes, cottonmouth, muo ud); frogs (leopard, pig, nadillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	Florida panther (s Florida bonneted	state - bat (s	E, fed - E); Big Cypress tate - E, federal - E)	fox squirrel (state - T);	
Observed Evidence of Wildlife Utiliz	zation (List species dire	ctly observed, or o	ther signs such as	s track	s, droppings, casings, n	ests, etc.):	
Additional relevant factors:							
Assessment conducted by:			Assessment date	e(s):			
Taylor Engineering, Inc.			May 2020				

Site/Project Name		Application Number		Assessment Area Name or Number			
Collier Coun	ty CWIP	SFWMD: 200214-28	305	In	npact 20 -21		
Impact or Mitigation		Assessment conducted by:		Assessment date	):		
Impact - See	condary	Taylor Engineering, Inc.			May 2020		
Scoring Guidance	Optimal (10)	Moderate(7)	Mir	nimal (4)	Not Present (0)		
indicator is based on what	Condition is optimal and	optimal, but sufficient to	Minimal le	vel of support of	Condition is insufficient		
would be suitable for the	tully supports wetland/surface water	maintain most	wetland	/surface water	provide wetland/surface		
type of wetland or surface water assessed	functions	wetland/surface waterfunctions	fu	inctions	water functions		
Water abbeebed		Waterranettene					
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point c	overall drop in UMAM score					
w/o pres or							
current with							
5 4							
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 4 4							
.500(6)(c)Community structure <b>1. Vegetation and/or</b> 2. Benthic Community w/o pros or							
w/o pres or with							
7 7							
	· ·	ı	, <b></b>				
Score = sum of above scores/30 (if	If preservation as mitig	ation,		For impact asses	sment areas		
current or w/o pres 0.533 0.500	Preservation adjustme Adjusted mitigation del	nt factor = ta =	FL =	e delta x acres =	-0.02		
	If mitigation		r		i		
Delta = [with-current]	Time lag (t-factor) =		F	or mitigation asse	ssment areas		
-0.033	Risk factor =		RFG	= delta/(t-factor x	risk) =		
L	I L						

Form 62-345.300(2) [effective date 02-04-2004]

Site/Project Name		Application Number			Assessment Area Name or Number		
Collier County C	WIP	SFWMD	: 200214-2805		Imp	pact 22	
FLUCCs code	Further classifica	tion (optional)		Impac	pact or Mitigation Site? Assessment Are		
621-E1	Су	press (<25% exot	ics)	Impact - Secondary 0.356			
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loca	l/state/federal designation	
Rookery Bay	Ш		None				
Geographic relationship to and hyd	rologic connection with	wetlands, other su	ırface water, uplar	nds			
Assessment area (AA) hydrology ar regional stormwater drainage, inter- of an active, drained agricultural are	nd larger surrounding we state and local roadway ea.	etlands have bee infrastructure, and	n altered (reduced d development of t	l hydro the Na	period and wet season ples, Florida area). The	water elevations due to AA occurs at the borders	
Assessment area description							
AA consists of a cypress-dominated wetland community with relatively low (<25%) exotic/invasive species cover. Canopy cover consists of bald cypress ( <i>Taxodium distichum</i> ). Swamp fern ( <i>Blechnum serrulatum</i> ) commonly occupies the groundcover. Exotic species cover is low and consists of melaleuca ( <i>Melaleuca quinquenervia</i> ), Ceasarweed ( <i>Urena lobata</i> ), shrubby false buttonweed ( <i>Spermacoce verticillata</i> ). Intense wildfire in the past decade has caused damage to the old growth forest canopy in the AA and vicinity.							
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)				
Undeveloped land to the north, dist to the south and west, agricultural la	ubed land and residentiands to the east	al development	Not unique to area				
Functions			Mitigation for prev	vious p	permit/other historic use		
Provides cover, substrate, and refuge; bredding; foraging; water storage; water quality improvement; groundwater recharge; wildlife habitat			None				
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)				
Birds ( green heron, red-bellied woodpecker, red shouldered hawk, herons) snakes (banded and green watersnakes, cottonmouth, mud, black racer); turtles (musk, red-bellied cooter, mud); frogs (leopard, pig, bull, green tree); mammals (feral hog, opossum, armadillo, raccoon, white-tailed deer)			Florida panther (state - E, fed - E); Big Cypress fox squirrel (state - T); Florida bonneted bat (state - E, federal - E)				
Observed Evidence of Wildlife Utiliz	zation (List species dired	ctly observed, or c	ther signs such as	s track	s, droppings, casings, n	ests, etc.):	
Additional relevant factors:				_			
Assessment conducted by:			Assessment date(s):				
Taylor Engineering, Inc.			May 2020				

Site/Project Name		Application Number	Assessment Area Name or Number			
Collier County CWIP		SFWMD: 200214-2805		Impact 22		
Impact or Mitigation		Assessment conducted by:		Assessment date	9:	
Impact - Sec	condary	Taylor Engineering, I	Inc.		May 2020	
Scoring Guidance	Optimal (10)	Moderate(7)	Mi	nimal (4)	Not Present	(0)
The scoring of each	Condition is optimal and	Condition is less than	Minimal Io	vol of support of	Condition is insuf	ficient to
would be suitable for the	fully supports	maintain most	wetland	/surface water	provide wetland/	surface
type of wetland or surface	functions	wetland/surface	fu	unctions	water function	ons
water assessed		waterrunctions				
.500(6)(a) Location and Landscape Support	Secondary Impact - 1 point c	overall drop in UMAM score				
w/o pres or						
current with	4					
5 4						
.500(6)(b)Water Environment (n/a for uplands) w/o pres or						
current with	4					
4 4						
.500(6)(c)Community structure <b>1. Vegetation and/or</b> 2. Benthic Community						
w/o pres or						
current with						
7 7						
		ation.			amount our	
uplands, divide by 20)	in preservation as mitig	allon,		For impact asses	sment areas	
current	Preservation adjustme	nt factor =	FL	- dolta v acros -	-0.01	
or w/o pres with	Adjusted mitigation del	ta =	1		-0.01	
0.533 0.500			L			
	If mitigation	I	<b>—</b>		1	
Delta – [with-current]	Time lag (t-factor) -		F	or mitigation asse	essment areas	
	$\frac{1}{1000} = \frac{1}{1000}$		DEC	- dolta//t factor ::	rick) _	
-0.033	Risk factor =		AFG.		113N) =	

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Site/Project Name		Application Number			Assessment Area Name or Number			
Collier County C	WIP	SFWMD	): 200214-2805		Miti	gation 1		
FLUCCs code	Further classifica	tion (optional)		Impac	ct or Mitigation Site?	Assessment Area Size		
621/624/625/6172/630/643	Cypress(624) / C Hydric Pine Flatw Wetland Forest	Cypress-Pine-Cabl voods (625) / Mixe ed Mixed (630) / V	bage Palm (624) / ed Shrubs (6172) / Vet Prairie (643)	24) / 72) / 43) Mitigation		527.700		
Basin/Watershed Name/Number	Affected Waterbody (C	lass)	Special Classifica	ation (i	.e. OFW, AP, other loca	al/state/federal designation		
Rookery Bay	III				None			
Geographic relationship to and hyd	rologic connection with	wetlands, other su	urface water, uplar	nds				
Assessment area (AA) hydrology ar regional stormwater drainage, inters	nd larger surrounding w state and local roadway	etlands have bee infrastructure, and	n altered (reduced d development of	l hydro the Na	pperiod and wet season ples, Florida area).	water elevations due to		
Assessment area description								
AA consists primarily of cypress-do flatwoods, wet forested mixed, mixe cypress ( <i>Taxodium distichum</i> ). Car cabbage palm ( <i>Sabal palmetto</i> ), an slash pine with occassional cabbag	minated forested wetlar ed shrub, and wet prairie lopy species within the d Melaleuca ( <i>Melaleuc</i> ) e palm.	nd community with e wetland commur cypress-pine-cabb a quinquenervia).	smaller, intermitte nity types. Canopy bage palm commu Canopy species v	ent pate specie nity inc vithin t	ches of cypress-pine-ca es within cypress comm clude bald cypress, slas he hydric pine flatwood	abbage palm, hydric pine unity consists of bald h pine ( <i>Pinus elliottii</i> ), s community consists of		
Significant nearby features			Uniqueness (considering the relative rarity in relation to the regional landscape.)					
Undeveloped land surrounds the AA, I-75 2.8 miles to the north, resident development 2.5 mile to the west, agricultural lands 3.2 miles to the sout			Not unique to area					
Functions			Mitigation for previous permit/other historic use					
Provides cover, substrate, and refuge water quality improvement; ground	ge; bredding; foraging; vater recharge; wildlife	water storage; habitat	None					
Anticipated Wildlife Utilization Based on Literature Review (List of species that are representative of the assessment area and reasonably expected to be found)			Anticipated Utilization by Listed Species (List species, their legal classification (E, T, SSC), type of use, and intensity of use of the assessment area)					
Birds ( green heron, red-bellied woo snakes (banded and green watersn turtles (musk, red-bellied cooter, mu mammals (feral hog, opossum, arm	odpecker, red shouldere akes, cottonmouth, mu ıd); frogs (leopard, pig, adillo, raccoon, white-ta	ed hawk, herons); d, black racer); bull, green tree); ailed deer)	Florida panther (s federal - E); Big ( (state - E, federal	state - Cypres I - E)	E, fed - E); red cockade s fox squirrel (state - T)	ed woodpecker (state - E, ; Florida bonneted bat		
Observed Evidence of Wildlife Utiliz	zation (List species dire	ctly observed, or c	ther signs such as	s track:	s, droppings, casings, r	nests, etc.):		
Additional relevant factors:								
Assessment conducted by:			Assessment date(s):					
Taylor Engineering, Inc.			May 2020					

Site/Project Name	e/Project Name Ar			Assessment Area Name or Number		
Collier Cour	nty CWIP	SFWMD: 200214-28	05	Mitigation 1		
Impact or Mitigation		Assessment conducted by:		Assessment date: May 2020		
Mitiga	tion	Taylor Engineering, I	nc.		May 2020	
	-				-	
Scoring Guidance	Optimal (10)	Moderate(7)	Min	nimal (4)	Not Present	(0)
I he scoring of each	Condition is optimal and	Condition is less than	Minimal Io	al of support of	Condition is insuff	iciont to
would be suitable for the	fully supports	maintain most	wetland/	surface water	provide wetland/s	surface
type of wetland or surface	wetland/surface water	wetland/surface	fu	nctions	water function	ons
water assessed	TUNCTIONS	waterfunctions				
	Τ					
.500(6)(a) Location and Landscape Support w/o pres or current with	Availability of habitat outside Opportunites for wildlife acce	of assessment area is good. ass to and utilization of the AA	Large expansis good.	ses of undevelop	ed land borders the	AA.
7 7						
.500(6)(b)Water Environment (n/a for uplands) w/o pres or current with 5 6	Hydroperiod, wet season ave area have been negatively ir development. The AA occurs wetland hydrology.	erage water levels, and dry sea npacted by agricultural stormw s within the proposed core rehy	ason water ta vater drainag ydration area	able elevations in le and infrastructu a. The proposed p	the AA and surrou ure and residential project will restore n	nding natural
E00(6)(a)Community attracture						
.500(6)(c)Community structure       AA consists primarily of cypress-dominated forested wetland community with smaller, intermittent patchess cypress-pine-cabbage palm, hydric pine flatwoods, wet forested mixed, mixed shrub, and wet prairie wetla community types. Canopy species within cypress community consists of bald cypress ( <i>Taxodium distichur</i> Canopy species within the cypress-pine-cabbage palm cabbage palm ( <i>Sabal palmetto</i> ), and Melaleuca ( <i>Melaleuca quinquenervia</i> ). Canopy species within the hydrology which may benefit the vegetation community.         w/o pres or current       with         7       7						of d ). elliottii), Iric pine ore
			_			
Score = sum of above scores/30 (i	f If preservation as mitig	ation,	F	or impact asses	sment areas	
uplands, divide by 20)	Drocementiers	nt factor		-		
current	Preservation adjustme	ni iacior =	FI =	delta x acres =		
or w/o pres with	Adjusted mitigation de	ta =		2510 1 20100 -		
0.633 0.667						
	IT mitigation		Fo	or mitigation asse	ssment areas	
Delta = [with-current]	Time lag (t-factor) = 1					
0.033	Risk factor = 1		RFG =	= delta/(t-factor x	risk) = 0.033	

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