

ST. JOHNS RIVER ESIMAP 1

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
2	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	X	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X						X	X	X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X						X	X	X	-	-	-	-
	Redhead			LOW	X	X	X								X	X	-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
232	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-

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ST. JOHNS RIVER ESIMAP 2

BIOLOGICAL RESOURCES:

BIRD:																				
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
2	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	X	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X								X	X	X	-	-
	Red-breasted merganser			LOW	X	X	X	X								X	X	X	-	-
	Redhead			LOW	X	X	X									X	X	-	-	-
39	Least tern	S	T				X	X	X	X	X	X	X				APR-AUG	-	-	-
65	Gull-billed tern			1			X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-
	Least tern	S	T	57			X	X	X	X	X	X	X				APR-AUG	-	-	-
	Willet			4	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
	Wilson's plover			20	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
66	Shorebirds			1000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

SHELLFISH:																			
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
232	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-
265	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV
	White shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-

HUMAN USE RESOURCES:

WATER_INTAKE:			
RAR#	Name	Owner	Phone
H055	NORTHSIDE P.P. AND ST. JOHNS RIVER P.P.	JACKSONVILLE ELECTRIC AUTHORITY	904-632-6258

ST. JOHNS RIVER ESIMAP 3

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
2	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	X	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X								X	X	X	-	-
	Red-breasted merganser			LOW	X	X	X	X								X	X	X	-	-
	Redhead			LOW	X	X	X									X	X	-	-	-
39	Least tern	S	T				X	X	X	X	X	X	X				APR-AUG	-	-	-
51	Gull-billed tern			12			X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-
	Least tern	S	T	60			X	X	X	X	X	X	X				APR-AUG	-	-	-
	Royal tern				X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
	Sandwich tern			6	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-
52	American oystercatcher				X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Black-bellied plover			127	X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Common snipe				X	X	X	X	X				X	X	X	X	-	-	-	-
	Dunlin				X	X	X	X				X	X	X	X	X	-	-	-	-
	Greater yellowlegs				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Hudsonian godwit				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Killdeer				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Lesser yellowlegs				X	X	X	X	X			X	X	X	X	X	-	-	-	-
	Lesser-golden plover						X	X	X				X	X	X		-	-	-	-
	Long-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Marbled godwit				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Pectoral sandpiper						X	X	X		X	X	X	X	X		-	-	-	-
	Peep			77	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Piping plover	S/F	T/T		X	X	X	X	X			X	X	X	X	X	-	-	-	-
	Purple sandpiper				X	X	X	X	X					X	X	X	-	-	-	-
	Red knot				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ruddy turnstone				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling			235	X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Semipalmated plover			634	X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Semipalmated sandpiper				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Sharp-tailed sandpiper				X	X							X	X	X	X	-	-	-	-
	Shorebirds			15	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Short-billed dowitcher			206	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Spotted sandpiper				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Stilt sandpiper				X	X	X					X	X	X	X	X	-	-	-	-
	Western sandpiper				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Whimbrel					X	X	X				X	X	X	X		-	-	-	-
	White-rumped sandpiper							X	X	X	X	X					-	-	-	-
	Willet				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
53	American oystercatcher			2	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least tern	S	T	8			X	X	X	X	X	X					APR-AUG	-	-	-
54	Cattle egret				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great egret				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
	Wading birds				X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	-	-	-
	Wood stork	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAY	-	-	-
55	Great egret				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
	Tricolored heron				X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
	Wood stork	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	NOV-MAY	-	-	-
56	American oystercatcher			2	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Black skimmer			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least tern	S	T	63			X	X	X	X	X	X	X				APR-AUG	-	-	-
	Royal tern			20	X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-
	Wilson's plover			2	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
57	Least tern	S	T	15			X	X	X	X	X	X	X				APR-AUG	-	-	-
	Willet			2	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
	Wilson's plover			2	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
58	Least tern	S	T	16			X	X	X	X	X	X	X				APR-AUG	-	-	-
59	American oystercatcher			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least tern	S	T	14			X	X	X	X	X	X					APR-AUG	-	-	-
	Wilson's plover			42	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
60	Piping plover	S/F	T/T	9	X	X	X	X	X			X	X	X	X	X	-	-	-	-
61	Great blue heron				X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-
62	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Least tern	S	T				X	X	X	X	X	X					APR-AUG	-	-	-
63	Black skimmer			250	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Laughing gull			1000	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-
	Least tern	S	T	50			X	X	X	X	X	X					APR-AUG	-	-	-
	Royal tern			150	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Ruddy turnstone			4	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Willet			1	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
64	Black skimmer				X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Black-bellied plover				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Least tern	S	T				X	X	X	X	X	X					APR-AUG	-	-	-
	Piping plover	S/F	T/T	8	X	X	X	X	X			X	X	X	X	X	-	-	-	-
	Red knot				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Shorebirds			1000	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Short-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Whimbrel						X	X	X			X	X	X	X		-	-	-	-
	Wilson's plover			12	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
67	Laughing gull			50	X	X	X	X	X	X	X	X	X	X	X	X	MAY-AUG	-	-	-
	Least tern	S	T	111			X	X	X	X	X	X					APR-AUG	-	-	-
	Wilson's plover			4	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	-
68	Cattle egret				X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great egret				X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
	Little blue heron				X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-

ST. JOHNS RIVER ESIMAP 3 (continued)

BIOLOGICAL RESOURCES (continued):

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
224	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	X	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X								X	X	X	-	-
	Northern gannet			LOW	X	X	X	X								X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X								X	X	X	-	-
	Redhead			LOW	X	X	X									X	X	-	-	-
235	Wood stork	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
236	Piping plover	S/F	T/T		X	X	X	X	X			X	X	X	X	X	-	-	-	-
268	Brown pelican			VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Northern gannet			HIGH	X	X	X	X								X	-	-	-	-
	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Waterfowl			HIGH	X	X	X									X	X	-	-	-

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
233	Humpback whale	S/F	E/E	HIGH	X	X	X										X	X	-	-
	Northern right whale	S/F	E/E	HIGH	X	X	X										X	X	-	-
																		NOV-MAR	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
261	Loggerhead sea turtle	S/F	T/T	LOW			X	X	X	X	X	X	X	X	X	X	APR-OCT	MAY-NOV	MAR-OCT
266	Leatherback sea turtle	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X				FEB-AUG	MAR-SEP	JAN-AUG
	Loggerhead sea turtle	S/F	T/T	LOW			X	X	X	X	X	X	X	X	X	X	APR-OCT	MAY-NOV	MAR-OCT
267	Green sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Leatherback sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Loggerhead sea turtle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
232	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-
248	Blue crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-
	Brown shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-
	Spiny lobster			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	JAN-DEC	-
	White shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-
265	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV
	White shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-

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ST. JOHNS RIVER ESIMAP 4

BIOLOGICAL RESOURCES:

BIRD:																				
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
2	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	X	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X							X	X	X	-	-	-
	Red-breasted merganser			LOW	X	X	X	X							X	X	X	-	-	-
	Redhead			LOW	X	X	X									X	X	-	-	-

M_MAMMAL:																					
RAR#	Species		S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
262	West Indian manatee		S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
264	West Indian manatee		S/F	E/E	HIGH			X	X	X	X	X	X	X	X	X	X	-	-	-	-

SHELLFISH:																				
RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating	
232	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC	
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-	
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-	
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV	
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-	

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HUMAN USE RESOURCES:

WATER_INTAKE:																	
RAR#	Name	Owner										Contact					Phone
H054	SOUTHSIDE GENERATING STATION	JACKSONVILLE ELECTRIC AUTHORITY										STAN STOKES					904-632-6258

ST. JOHNS RIVER ESIMAP 5

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
2	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	X	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X						X	X	X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X						X	X	X	-	-	-	-
	Redhead			LOW	X	X	X								X	X	-	-	-	-
69	Black-bellied plover				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Buff-breasted sandpiper												X	X	X		-	-	-	-
	Common snipe				X	X	X	X	X					X	X	X	-	-	-	-
	Dunlin			300	X	X	X	X	X			X	X	X	X	X	-	-	-	-
	Greater yellowlegs				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Killdeer				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Least sandpiper			60	X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Lesser yellowlegs				X	X	X	X	X			X	X	X	X	X	-	-	-	-
	Long-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Pectoral sandpiper						X	X	X		X	X	X	X	X		-	-	-	-
	Peep				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Piping plover	S/F	T/T		X	X	X	X	X			X	X	X	X	X	-	-	-	-
	Ruddy turnstone				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Sanderling				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Semipalmated plover				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Semipalmated sandpiper				X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Sharp-tailed sandpiper			12	X	X							X	X	X	X	-	-	-	-
	Short-billed dowitcher				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Solitary sandpiper			1	X	X	X				X	X	X	X	X	X	-	-	-	-
	Spotted sandpiper			2	X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Stilt sandpiper			99	X	X	X					X	X	X	X	X	-	-	-	-
	Western sandpiper			99	X	X	X	X	X		X	X	X	X	X	X	-	-	-	-
	Willet			17	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wilson's phalarope											X	X	X	X	X	-	-	-	-
70	Killdeer			1	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	-
	Least tern	S	T	48			X	X	X	X	X	X					APR-AUG	-	-	-
71	Least tern	S	T	19			X	X	X	X	X	X					APR-AUG	-	-	-
74	Least tern	S	T	46			X	X	X	X	X	X					APR-AUG	-	-	-

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
262	West Indian manatee	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
232	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-

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HUMAN USE RESOURCES:

WATER_INTAKE:

RAR#	Name	Owner	Contact	Phone
H053	KENNEDY GEN. STATION	JACKSONVILLE ELECTRIC AUTHORITY	STAN STOKES	904-632-6258

ST. JOHNS RIVER ESIMAP 6

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
2	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X									X	X	-	-	-	-
	Common loon			LOW	X	X	X	X							X	X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X						X	X	X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X						X	X	X	-	-	-	-
	Redhead			LOW	X	X	X								X	X	-	-	-	-
39	Least tern	S	T				X	X	X	X	X	X	X				APR-AUG	-	-	-
72	Least tern	S	T	70			X	X	X	X	X	X	X				APR-AUG	-	-	-
73	Least tern	S	T	54			X	X	X	X	X	X	X				APR-AUG	-	-	-
163	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
224	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X									X	X	-	-	-	-
	Common loon			LOW	X	X	X	X							X	X	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X						X	X	X	-	-	-	-
	Northern gannet			LOW	X	X	X	X							X	X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X						X	X	X	-	-	-	-
	Redhead			LOW	X	X	X								X	X	-	-	-	-
235	Wood stork	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
233	Humpback whale	S/F	E/E	HIGH	X	X	X								X	X	-	-	-	-
	Northern right whale	S/F	E/E	HIGH	X	X	X								X	X	-	NOV-MAR	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
230	Leatherback sea turtle	S/F	E/E	HIGH	X	X	X										-	-	-
259	Green sea turtle	S/F	E/E	LOW		X	X	X	X	X	X	X	X	X	X	X	APR-OCT	MAY-NOV	MAR-OCT
	Loggerhead sea turtle	S/F	T/T	LOW		X	X	X	X	X	X	X	X	X	X	X	APR-OCT	MAY-NOV	MAR-OCT
261	Loggerhead sea turtle	S/F	T/T	LOW		X	X	X	X	X	X	X	X	X	X	X	APR-OCT	MAY-NOV	MAR-OCT

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae/Juv	Mating
232	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	MAR-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	SEP-NOV
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	JAN-DEC	-
248	Blue crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-
	Brown shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-NOV	-	-
	Spiny lobster			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAR-OCT	JAN-DEC	-
	White shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	-	-

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ST. JOHNS RIVER ESIMAP 7

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
70	Great egret			MED	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
98	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X
97	St. John's susan	S	E		X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH			X	X	X	X	X	X	X	X	X		-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

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ST. JOHNS RIVER ESIMAP 8

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
3	Brown pelican			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Common loon			LOW	X	X	X	X								X	X	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X						X	X	X	-	-	-	-
	Red-breasted merganser			LOW	X	X	X	X						X	X	X	-	-	-	-
	Redhead			LOW	X	X	X									X	X	-	-	-
5	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wood stork	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
6	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wood stork	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
8	Great egret				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Little blue heron				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Tricolored heron				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
9	Yellow-crowned night heron				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
71	Least tern	S	T	24			X	X	X	X	X	X					APR-AUG	-	-	-
86	Least tern	S	T				X	X	X	X	X	X					-	-	-	-
93	Snowy egret				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
98	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
96	Atlantic sturgeon				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	MAY-AUG	JAN-DEC	MAR-NOV

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
94	Catesby's lily	S	T		X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH			X	X	X	X	X	X	X	X	X		-	-	-	-
7	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
4	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Pink shrimp			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Stone crab			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	SEP-NOV	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	APR-OCT	APR-NOV	-	JAN-DEC	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
5	Northern river otter			MED	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 9

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
11	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
13	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
88	Red-cockaded woodpecker	S/F	T/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
85	Spoon-flower				X	X	X	X	X	X	X	X	X	X	X	X
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X
99	Variable-leaf crownbeard				X	X	X	X	X	X	X	X	X	X	X	X
140	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X
	Catesby's lily	S	T		X	X	X	X	X	X	X	X	X	X	X	X

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
							X	X	X	X	X	X	X	X	X	X	-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
12	Blue crab			VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	-	JAN-DEC	-
	Brown shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
11	Northern river otter			MED	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 10

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D				
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X				
97	St. John's susan	S	E		X	X	X	X	X	X	X	X	X	X	X	X				
99	Variable-leaf crownbeard				X	X	X	X	X	X	X	X	X	X	X	X				
100	Florida mountain-mint				X	X	X	X	X	X	X	X	X	X	X	X				
141	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X				
	St. John's susan	S	E		X	X	X	X	X	X	X	X	X	X	X	X				
	Florida mountain-mint				X	X	X	X	X	X	X	X	X	X	X	X				
142	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X				
	St. John's susan	S	E		X	X	X	X	X	X	X	X	X	X	X	X				

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH			X	X	X	X	X	X	X	X	X		-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
14	Blue crab			VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	-	JAN-DEC	-
15	Black Creek crayfish			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-AUG	JAN-SEP	AUG-MAR	JAN-DEC
16	St. Johns elephantear				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D				
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X				

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ST. JOHNS RIVER ESIMAP 11

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
6	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wood stork	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
18	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wood stork	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X
101	Slender-leaved dragon-head				X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH			X	X	X	X	X	X	X	X	X		-	-	-	-
17	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
12	Blue crab			VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	-	JAN-DEC	-
	Brown shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
14	Blue crab			VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	-	JAN-DEC	-

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
18	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 12

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
13	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X
100	Florida mountain-mint				X	X	X	X	X	X	X	X	X	X	X	X
104	Green milkweed	S	T		X	X	X	X	X	X	X	X	X	X	X	X
105	Lake-side sunflower	S	E		X	X	X	X	X	X	X	X	X	X	X	X
106	Fall-flowering pleat-leaf	S	E		X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
17	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
103	Spotted turtle				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
12	Blue crab			VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	-	JAN-DEC	-
	Brown shrimp			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 13

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
107	Snail bullhead				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D					
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X					

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH						X	X	X	X	X	X	X	-	-	-	-
17	West Indian manatee	S/F	E/E	MED						X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

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ST. JOHNS RIVER ESIMAP 14

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
18	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wood stork	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH				X	X	X	X	X	X	X	X	X	-	-	-	-
17	West Indian manatee	S/F	E/E	MED				X	X	X	X	X	X	X	X	X	-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
1	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	Brown shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
18	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 15

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
21	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wood stork	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
22	Cattle egret			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great egret			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
	Little blue heron			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
	Osprey			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
108	Atlantic sturgeon				X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	MAY-AUG	JAN-DEC	MAR-NOV
	Shortnose sturgeon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
17	West Indian manatee	S/F	E/E	MED				X	X	X	X	X	X	X	X	X	-	-	-	-
20	West Indian manatee	S/F	E/E	LOW				X	X	X	X	X	X	X	X	X	-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
21	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 16

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
23	Dusky shiner				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
24	Dusky shiner				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
110	River goby				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
95	Bartram's ixia	S	E		X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH				X	X	X	X	X	X	X	X	X	-	-	-	-
17	West Indian manatee	S/F	E/E	MED				X	X	X	X	X	X	X	X	X	-	-	-	-
20	West Indian manatee	S/F	E/E	LOW				X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
23	Black Creek crayfish			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	JUL-AUG	JAN-SEP	AUG-MAR	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Owner	Contact	Phone
21	FISH HATCHERY			

WATER_INTAKE:

HUN#	Name	Owner	Contact	Phone
20	SEMINOLE POWER STATION	SEMINOLE ELECTRIC COOPERATIVE	JIM PITTMAN	904-328-9255

ST. JOHNS RIVER ESIMAP 17

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
6	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wood stork	S/F	E/E	LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
13	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
97	St. John's susan	S	E		X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH				X	X	X	X	X	X	X	X	X	-	-	-	-
17	West Indian manatee	S/F	E/E	MED				X	X	X	X	X	X	X	X	X	-	-	-	-
20	West Indian manatee	S/F	E/E	LOW				X	X	X	X	X	X	X	X	X	-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Owner	Contact	Phone
25	AQUACULTURE PONDS			

WATER_INTAKE:

HUN#	Name	Owner	Contact	Phone
23	PUTNAM POWER PLANT	FLORIDA POWER & LIGHT (FPL)	PLANT SUPERVISOR	904-325-9061

ST. JOHNS RIVER ESIMAP 18

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
25	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
88	Red-cockaded woodpecker	S/F	T/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
27	Snail bullhead				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
28	Shortnose sturgeon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
17	West Indian manatee	S/F	E/E	MED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
20	West Indian manatee	S/F	E/E	LOW			X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
103	Spotted turtle				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
26	Florida black bear	S	T	POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X
82	Florida long-tailed weasel			3	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 19

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
11	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
27	Snail bullhead				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
28	Shortnose sturgeon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
17	West Indian manatee	S/F	E/E	MED				X	X	X	X	X	X	X	X	X	-	-	-	-
20	West Indian manatee	S/F	E/E	LOW				X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
11	Northern river otter			MED	X	X	X	X	X	X	X	X	X	X	X	X
26	Florida black bear	S	T	POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 20

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
13	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
25	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
31	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
32	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
83	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
98	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
27	Snail bullhead				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
110	River goby				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
111	Bluenose shiner				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
31	Rare plant			LOW	X	X	X	X	X	X	X	X	X	X	X	X
113	American chaffseed	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X
117	Curtiss' milkweed	S	E		X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
2	West Indian manatee	S/F	E/E	HIGH			X	X	X	X	X	X	X	X	X		-	-	-	-
17	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-
30	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
33	Florida lance				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	St. Johns elephantear				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
26	Florida black bear	S	T	POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X
31	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
32	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
80	Florida long-tailed weasel			1	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Owner	Contact	Phone
34	WELAKA NATIONAL FISH HATCHERY (WNFH)	USFWS	ALAN BROWN	904-467-2374
36	WNFH BEECHER SPRING UNIT	USFWS	ALAN BROWN	904-467-2374

WATER_INTAKE:

HUN#	Name	Owner	Contact	Phone
35	WELAKA NATIONAL FISH HATCHERY (WNFH)	USFWS	ALAN BROWN	904-467-2374

ST. JOHNS RIVER ESIMAP 21

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
81	Cattle egret			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-
	Great blue heron			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-
	White ibis			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-
83	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
98	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
115	Pond spice	S	E		X	X	X	X	X	X	X	X	X	X	X	X

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
116	Eastern indigo snake	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
80	Florida long-tailed weasel			1	X	X	X	X	X	X	X	X	X	X	X	X
112	Round-tailed muskrat				X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 22

BIOLOGICAL RESOURCES:

BIRD:

[illegible]

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
28	Shortnose sturgeon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

HABITAT:

[illegible]

M MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
116	Eastern indigo snake	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
119	Florida scrub lizard				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T_MAMMAL:

[illegible]

ST. JOHNS RIVER ESIMAP 23

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
34	American coot			3328	X	X	X	X					X	X	X	X	-	-	-	-
	American wigeon			28	X	X	X	X						X	X	X	-	-	-	-
	Bufflehead			2	X	X										X	-	-	-	-
	Canvasback			75	X	X	X								X	X	-	-	-	-
	Green-winged teal			59	X	X	X	X					X	X	X	X	-	-	-	-
	Lesser scaup			150	X	X	X	X						X	X	X	-	-	-	-
	Merganser			112	X	X	X	X						X	X	X	-	-	-	-
	Northern shoveler			2	X	X	X	X					X	X	X	X	-	-	-	-
	Ring-necked duck			1599	X	X	X	X						X	X	X	-	-	-	-
	Ruddy duck			650	X	X	X	X						X	X	X	-	-	-	-
	Wood duck			2	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
83	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
							X	X	X	X	X	X	X	X	X		-	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
26	Florida black bear	S	T	POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 24

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
34	American coot			3328	X	X	X	X					X	X	X	X	-	-	-	-
	American wigeon			28	X	X	X	X						X	X	X	-	-	-	-
	Bufflehead			2	X	X										X	-	-	-	-
	Canvasback			75	X	X	X								X	X	-	-	-	-
	Green-winged teal			59	X	X	X	X					X	X	X	X	-	-	-	-
	Lesser scaup			150	X	X	X	X					X	X	X	X	-	-	-	-
	Merganser			112	X	X	X	X					X	X	X	X	-	-	-	-
	Northern shoveler			2	X	X	X	X					X	X	X	X	-	-	-	-
	Ring-necked duck			1599	X	X	X	X						X	X	X	-	-	-	-
	Ruddy duck			650	X	X	X	X						X	X	X	-	-	-	-
	Wood duck			2	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
58	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
59	American swallow-tailed kite			1		X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
60	American swallow-tailed kite			3		X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-
98	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
120	Florida scrub jay	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
35	Bluenose shiner				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Snail bullhead				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D					
117	Curtiss' milkweed	S	E		X	X	X	X	X	X	X	X	X	X	X	X					
118	Yellow star anise	S	E		X	X	X	X	X	X	X	X	X	X	X	X					
121	Ocala vetch	S	E		X	X	X	X	X	X	X	X	X	X	X	X					
122	Florida bonamia	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X					
123	Ashe's savory	S	T		X	X	X	X	X	X	X	X	X	X	X	X					
124	Florida willow	S	E		X	X	X	X	X	X	X	X	X	X	X	X					
127	Scrub holly				X	X	X	X	X	X	X	X	X	X	X	X					
128	Florida hartwrightia	S	T		X	X	X	X	X	X	X	X	X	X	X	X					
143	Florida willow	S	E		X	X	X	X	X	X	X	X	X	X	X	X					
	Large-flowered grass-of-parnassus	S	E		X	X	X	X	X	X	X	X	X	X	X	X					
	Chapman's sedge				X	X	X	X	X	X	X	X	X	X	X	X					

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED	-	-	-	-	-	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
116	Eastern indigo snake	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
119	Florida scrub lizard				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
130	Florida pine snake				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
147	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Florida scrub lizard				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
36	Silver Glen Springs cave crayfish				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D					
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X					
26	Florida black bear	S	T	POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X					
79	Florida long-tailed weasel			9	X	X	X	X	X	X	X	X	X	X	X	X					
80	Florida long-tailed weasel			1	X	X	X	X	X	X	X	X	X	X	X	X					

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ST. JOHNS RIVER ESIMAP 25

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
34	American coot			3328	X	X	X	X					X	X	X	X	-	-	-	-
	American wigeon			28	X	X	X	X					X	X	X		-	-	-	-
	Bufflehead			2	X	X										X	-	-	-	-
	Canvasback			75	X	X	X								X	X	-	-	-	-
	Green-winged teal			59	X	X	X	X					X	X	X	X	-	-	-	-
	Lesser scaup			150	X	X	X	X					X	X	X		-	-	-	-
	Merganser			112	X	X	X	X					X	X	X		-	-	-	-
	Northern shoveler			2	X	X	X	X					X	X	X	X	-	-	-	-
	Ring-necked duck			1599	X	X	X	X					X	X	X		-	-	-	-
	Ruddy duck			650	X	X	X	X					X	X	X		-	-	-	-
	Wood duck			2	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
62	American swallow-tailed kite			1		X	X	X	X	X	X	X	X	X			MAR-JUN	-	-	-
64	Florida scrub jay	S/F	T/T	7	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
98	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
131	Florida sandhill crane	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
35	Bluenose shiner				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Snail bullhead				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

HABITAT:

[illegible]

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

REPTILE:

[illegible]

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
19	Blue crab			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	APR-OCT	MAR-DEC	JAN-DEC	JAN-DEC
	White shrimp			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
37	Blue crab			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	JAN-DEC	JAN-DEC

T_MAMMAL:

[illegible]

ST. JOHNS RIVER ESIMAP 26

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
25	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
39	Limpkin			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
40	American coot			HIGH	X	X	X	X					X	X	X	X	-	-	-	-
	American wigeon			LOW	X	X	X	X						X	X	X	-	-	-	-
	Blue-winged teal			MED	X	X	X						X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X										X	-	-	-	-
	Canvasback			RARE	X	X	X									X	X	-	-	-
	Fulvous whistling-duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Gadwall			LOW	X	X	X							X	X	X	-	-	-	-
	Green-winged teal			MED	X	X	X	X						X	X	X	X	-	-	-
	Lesser scaup			MED	X	X	X	X						X	X	X	-	-	-	-
	Merganser			LOW	X	X	X	X						X	X	X	-	-	-	-
	Mottled duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
	Northern pintail			LOW	X	X	X							X	X	X	-	-	-	-
	Northern shoveler			LOW	X	X	X	X						X	X	X	X	-	-	-
	Ring-necked duck			MED	X	X	X	X						X	X	X	-	-	-	-
	Ruddy duck			LOW	X	X	X	X						X	X	X	-	-	-	-
	Wood duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
75	Florida scrub jay	S/F	T/T	6	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
88	Red-cockaded woodpecker	S/F	T/E		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
98	Bald eagle	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
49	Bluenose shiner				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
106	Fall-flowering pleat-leaf	S	E		X	X	X	X	X	X	X	X	X	X	X	X
118	Yellow star anise	S	E		X	X	X	X	X	X	X	X	X	X	X	X
121	Ocala vetch	S	E		X	X	X	X	X	X	X	X	X	X	X	X
126	Chapman's sedge				X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED						X	X	X	X	X	X	X	-	-	-	-
38	West Indian manatee	S/F	E/E	HIGH						X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
76	Florida gopher frog			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
149	Eastern indigo snake	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Florida pine snake				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
37	Blue crab			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	JAN-DEC	JAN-DEC
49	Dense hydrobe				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
133	Big-cheeked cave crayfish				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
26	Florida black bear	S	T	POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X
39	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
63	Florida black bear	S	T	1	X	X	X	X	X	X	X	X	X	X	X	X

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ST. JOHNS RIVER ESIMAP 27

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging	
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
13	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
25	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-	
32	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
39	Limpkin			LOW	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
40	American coot			HIGH	X	X	X	X					X	X	X	X	-	-	-	-	
	American wigeon			LOW	X	X	X	X					X	X	X		-	-	-	-	
	Blue-winged teal			MED	X	X	X					X	X	X	X	X	-	-	-	-	
	Bufflehead			LOW	X	X										X	-	-	-	-	
	Canvasback			RARE	X	X	X								X	X	-	-	-	-	
	Fulvous whistling-duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-	-
	Gadwall			LOW	X	X	X						X	X	X		-	-	-	-	
	Green-winged teal			MED	X	X	X	X				X	X	X	X		-	-	-	-	
	Lesser scaup			MED	X	X	X	X				X	X	X			-	-	-	-	
	Merganser			LOW	X	X	X	X				X	X	X			-	-	-	-	
	Mottled duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-	-
	Northern pintail			LOW	X	X	X						X	X	X		-	-	-	-	
	Northern shoveler			LOW	X	X	X	X				X	X	X	X		-	-	-	-	
	Ring-necked duck			MED	X	X	X	X					X	X	X		-	-	-	-	
	Ruddy duck			LOW	X	X	X	X					X	X	X		-	-	-	-	
	Wood duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-	-
43	American coot			2285	X	X	X	X				X	X	X	X		-	-	-	-	
	Anhinga			6	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Belted kingfisher			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Black rail			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Blue-winged teal			514	X	X	X					X	X	X	X		-	-	-	-	
	Common moorhen			39	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Glossy ibis			95	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Great blue heron			9	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Great egret			5	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Green-backed heron			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Green-winged teal			2	X	X	X	X				X	X	X	X		-	-	-	-	
	Hooded merganser			6	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Limpkin			7	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Little blue heron			77	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Northern harrier			1	X	X	X	X	X			X	X	X	X		-	-	-	-	
	Pied-billed grebe			21	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Snowy egret			6	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Tricolored heron			1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	White ibis			22	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
	Wood stork	S/F	E/E	1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
44	American coot			2500	X	X	X	X				X	X	X	X		-	-	-	-	
	Ring-necked duck			2000	X	X	X	X				X	X	X			-	-	-	-	
45	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-	-
46	Osprey			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	-	-	-	-
48	Great blue heron			MED	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-	-
	Great egret			MED	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-	-
50	Anhinga			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-	-
	Cattle egret			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-	-
	Double-crested cormorant			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-AUG	-	-	-	-
	Great blue heron			MED	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-	-
	Great egret			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-	-
	Little blue heron			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-	-
	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	DEC-AUG	-	-	-	-
61	Florida scrub jay	S/F	T/T	2	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	-	-
65	Florida scrub jay	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
120	Florida scrub jay	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	
131	Florida sandhill crane	S	T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	

FISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Outmig.	Larvae	Juveniles	Adults
49	Bluenose shiner				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
38	West Indian manatee	S/F	E/E	HIGH				X	X	X	X	X	X	X	X		-	-	-	-
47	West Indian manatee	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interneeting
130	Florida pine snake				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
16	St. Johns elephantear				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
37	Blue crab			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	JAN-DEC	JAN-DEC
49	Dense hydrobe				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

T_MAMMAL:

[illegible]

ST. JOHNS RIVER ESIMAP 27 (continued)

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Owner	Contact	Phone
58	AQUACULTURE SITE			

ST. JOHNS RIVER ESIMAP 28

BIOLOGICAL RESOURCES:

BIRD:

[illegible]

HABITAT:

[illegible]

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
47	West Indian manatee	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
92	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
37	Blue crab			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	JAN-DEC	JAN-DEC

T MAMMAL:

[illegible]

ST. JOHNS RIVER ESIMAP 29

BIOLOGICAL RESOURCES:

BIRD:

[illegible]

HABITAT:

[illegible]

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
47	West Indian manatee	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
53	West Indian manatee	S/F	E/E	VERY HIGH	X	X	X								X	X	-	-	-	-

REPTILE:

[illegible]

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
16	St. Johns elephantear				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
37	Blue crab			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	JAN-DEC	JAN-DEC
54	Blue Spring siltsnail				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
55	Blue Spring hydrobe				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

T_MAMMAL:

[illegible]

ST. JOHNS RIVER ESIMAP 30

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
25	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
40	American coot			HIGH	X	X	X	X					X	X	X	X	-	-	-	-
	American wigeon			LOW	X	X	X	X					X	X	X		-	-	-	-
	Blue-winged teal			MED	X	X	X					X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X									X		-	-	-	-
	Canvasback			RARE	X	X	X								X	X	-	-	-	-
	Fulvous whistling-duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Gadwall			LOW	X	X	X						X	X	X		-	-	-	-
	Green-winged teal			MED	X	X	X	X					X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X					X	X	X		-	-	-	-
	Merganser			LOW	X	X	X	X					X	X	X		-	-	-	-
	Mottled duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
	Northern pintail			LOW	X	X	X						X	X	X		-	-	-	-
	Northern shoveler			LOW	X	X	X	X					X	X	X		-	-	-	-
	Ring-necked duck			MED	X	X	X	X					X	X	X		-	-	-	-
	Ruddy duck			LOW	X	X	X	X					X	X	X		-	-	-	-
	Wood duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
64	Florida scrub jay	S/F	T/T	7	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
73	Florida scrub jay	S/F	T/T	2	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
84	Least tern	S	T	45			X	X	X	X	X	X					APR-AUG	-	-	-
120	Florida scrub jay	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
106	Fall-flowering pleat-leaf	S	E		X	X	X	X	X	X	X	X	X	X	X	X
129	Scrub bay				X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-
47	West Indian manatee	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting
148	Gopher tortoise				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Florida pine snake				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
16	St. Johns elephantear				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
33	Florida lance				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	St. Johns elephantear				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
37	Blue crab			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	JAN-DEC	JAN-DEC
139	Enterprise siltsnail				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X
26	Florida black bear	S	T	POTENTIAL	X	X	X	X	X	X	X	X	X	X	X	X
80	Florida long-tailed weasel			1	X	X	X	X	X	X	X	X	X	X	X	X

HUMAN USE RESOURCES:

WATER_INTAKE:

HUN#	Name	Owner	Contact	Phone
65	SANFORD POWER PLANT	FLORIDA POWER & LIGHT (FPL)	PLANT SUPERVISOR	407-668-8625

ST. JOHNS RIVER ESIMAP 31

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Laying	Hatching	Fledging
10	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
25	Wading birds			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
29	Bald eagle	S/F	T/T	1	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUN	-	-	-
40	American coot			HIGH	X	X	X	X					X	X	X	X	-	-	-	-
	American wigeon			LOW	X	X	X	X					X	X	X		-	-	-	-
	Blue-winged teal			MED	X	X	X					X	X	X	X	X	-	-	-	-
	Bufflehead			LOW	X	X									X		-	-	-	-
	Canvasback			RARE	X	X	X								X	X	-	-	-	-
	Fulvous whistling-duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-	-
	Gadwall			LOW	X	X	X						X	X	X		-	-	-	-
	Green-winged teal			MED	X	X	X	X					X	X	X	X	-	-	-	-
	Lesser scaup			MED	X	X	X	X					X	X	X		-	-	-	-
	Merganser			LOW	X	X	X	X					X	X	X		-	-	-	-
	Mottled duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-SEP	-	-	-
	Northern pintail			LOW	X	X	X						X	X	X		-	-	-	-
	Northern shoveler			LOW	X	X	X	X					X	X	X		-	-	-	-
	Ring-necked duck			MED	X	X	X	X					X	X	X		-	-	-	-
	Ruddy duck			LOW	X	X	X	X					X	X	X		-	-	-	-
	Wood duck			LOW	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUL	-	-	-
48	Great blue heron			MED	X	X	X	X	X	X	X	X	X	X	X	X	NOV-JUL	-	-	-
	Great egret			MED	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	-	-	-
73	Florida scrub jay	S/F	T/T	2	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-
120	Florida scrub jay	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-

HABITAT:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
127	Scrub holly				X	X	X	X	X	X	X	X	X	X	X	X
129	Scrub bay				X	X	X	X	X	X	X	X	X	X	X	X

M_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
30	West Indian manatee	S/F	E/E	MED			X	X	X	X	X	X	X	X	X		-	-	-	-

REPTILE:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting
116	Eastern indigo snake	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-

SHELLFISH:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Larvae	Mating	Juveniles	Adults
16	St. Johns elephantear				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
37	Blue crab			MED	X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-DEC	JAN-DEC	JAN-DEC

T_MAMMAL:

RAR#	Species	S/F	T/E	Concen	J	F	M	A	M	J	J	A	S	O	N	D
10	Northern river otter			HIGH	X	X	X	X	X	X	X	X	X	X	X	X

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