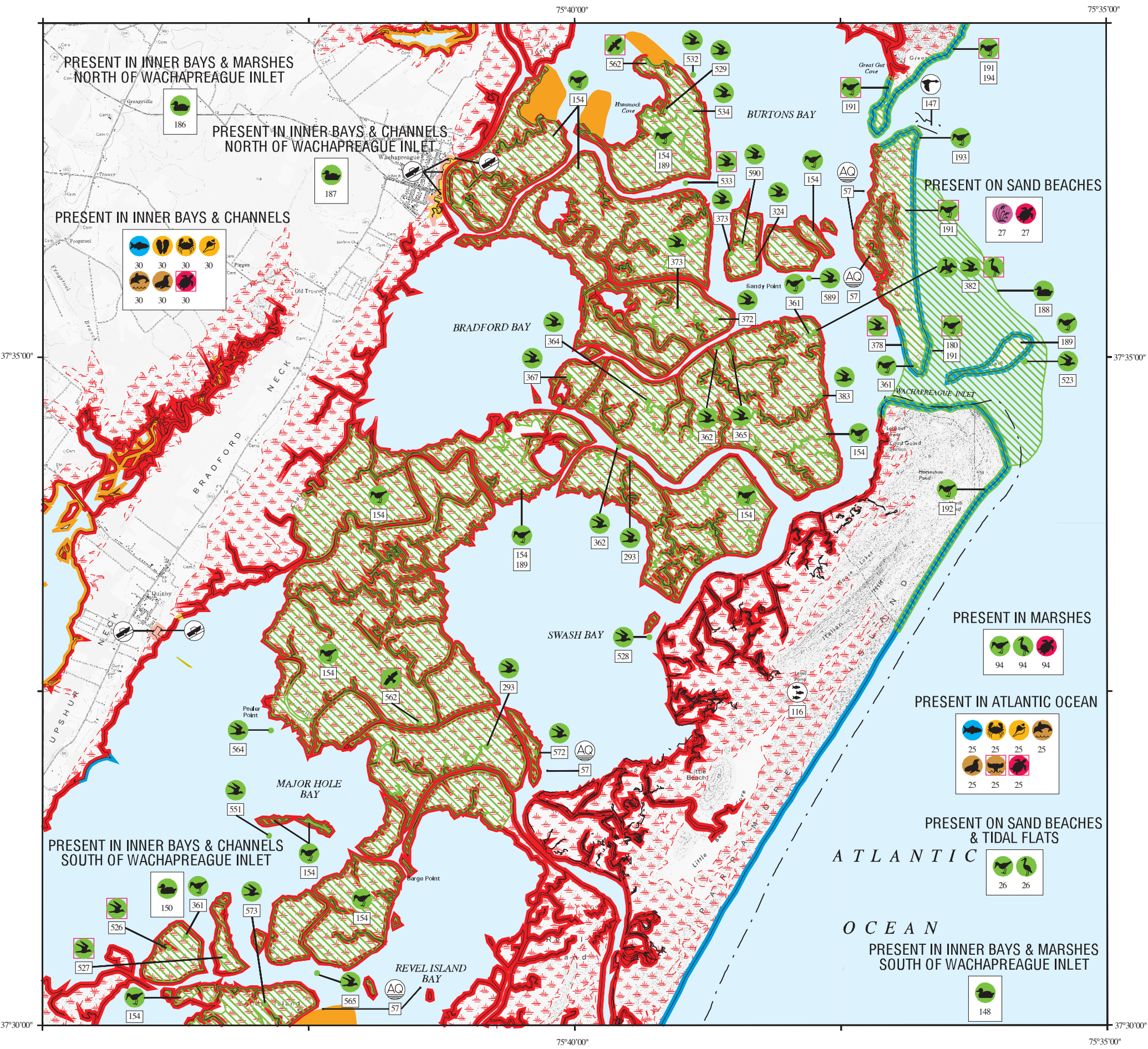


ENVIRONMENTAL SENSITIVITY INDEX MAP



**SHORELINE HABITATS (ESI)**

- 1B EXPOSED, SOLID MAN-MADE STRUCTURES
- 2A EXPOSED WAVE-CUT PLATFORMS IN CLAY
- 2B EXPOSED SCARPS AND STEEP SLOPES IN CLAY
- 3A FINE-TO MEDIUM-GRAINED SAND BEACHES
- 3B SCARPS AND STEEP SLOPES IN SAND
- 4 COARSE-GRAINED SAND BEACHES
- 5 MIXED SAND AND GRAVEL BEACHES
- 6A GRAVEL BEACHES
- 6B RIPRAP
- 7 EXPOSED TIDAL FLATS
- 8A SHELTERED SCARPS IN CLAY
- 8B SHELTERED, SOLID MAN-MADE STRUCTURES
- 8C SHELTERED RIPRAP
- 9A SHELTERED TIDAL FLATS
- 9B SHELTERED, VEGETATED LOW BANKS
- 10A SALT-AND BRACKISH-WATER MARSHES
- 10B FRESHWATER MARSHES
- 10C SWAMP
- 10D SCRUB-SHRUB WETLANDS

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SCALE 1:58000

1 .5 0 1 KILOMETER

1 .5 0 1 MILE

WACHAPREAGUE, VA. **VA-59**



Virginia: ESIMAP 59

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
26	American woodcock		X	X							X	X	X	X	-	-	-
	Black-bellied plover				X	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			-	-	-
	Killdeer						X	X	X						-	-	-
	Least sandpiper			X	X	X	X	X	X	X	X	X			-	-	-
	Lesser yellowlegs			X	X	X	X	X	X	X	X	X			-	-	-
	Pectoral sandpiper						X	X	X	X	X	X			-	-	-
	Red knot			X	X	X	X	X							-	-	-
	Ruddy turnstone			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			-	-	-
	Semipalmated sandpiper			X	X	X	X	X	X	X	X				-	-	-
	Short-billed dowitcher		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Stilt sandpiper						X	X	X	X	X	X			-	-	-
	Western sandpiper						X	X	X	X	X				-	-	-
	Whimbrel			X	X	X	X	X	X						-	-	-
	White-rumped sandpiper			X	X	X									-	-	-
	Willet		X	X	X	X	X	X	X	X	X	X	X		-	-	-
94	Clapper rail	HIGH	X	X	X	X	X	X	X	X	X	X	X		APR-AUG	-	-
	King rail		X	X	X	X	X	X	X	X	X	X	X		-	-	-
	Sora			X	X	X				X	X	X			-	-	-
	Virginia rail		X	X	X	X	X	X	X	X	X	X	X		APR-JUN	-	-
	Whimbrel	HIGH		X	X	X				X	X	X			-	-	-
	Willet	HIGH	X	X	X	X	X	X	X	X	X	X	X		APR-SEP	-	-
148	Bufflehead	MODERATE	X	X	X	X				X	X	X			-	-	-
	Long-tailed duck		X	X	X	X				X	X	X			-	-	-
	Mergansers		X	X	X	X				X	X	X			-	-	-
	Scoters		X	X	X	X				X	X	X			-	-	-
150	American black duck	HIGH	X	X	X	X	X	X	X	X	X	X	X		MAR-JUL	-	-
	American wigeon	MODERATE	X	X	X	X				X	X	X			-	-	-
	Brant	HIGH	X	X	X	X				X	X	X			-	-	-
	Canada goose	MODERATE	X	X	X	X	X	X	X	X	X	X	X		APR-JUN	-	-
	Gadwall	MODERATE	X	X	X	X	X	X	X	X	X	X	X		APR-JUN	-	-
	Green-winged teal		X	X	X	X				X	X	X			-	-	-
	Mallard	MODERATE	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Northern pintail		X	X	X	X				X	X	X			-	-	-
	Northern shoveler		X	X	X	X				X	X	X			-	-	-
154	American oystercatcher	HIGH		X	X	X	X	X	X	X					MAR-JUL	-	-
180	American oystercatcher	2 ADULTS		X	X	X	X	X	X	X					MAR-JUL	-	-
186	American black duck	HIGH	X	X	X	X	X	X	X	X	X	X	X		MAR-JUL	-	-
	American wigeon		X	X	X	X				X	X	X			-	-	-
	Brant	HIGH	X	X	X	X				X	X	X			-	-	-
	Canada goose	HIGH	X	X	X	X	X	X	X	X	X	X	X		APR-JUN	-	-
	Gadwall		X	X	X	X	X	X	X	X	X	X	X		APR-JUN	-	-
	Green-winged teal		X	X	X	X				X	X	X			-	-	-
	Mallard	MODERATE	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Northern pintail		X	X	X	X				X	X	X			-	-	-
	Snow goose	HIGH	X	X	X	X				X	X	X			-	-	-
187	Bufflehead	MODERATE	X	X	X	X				X	X	X			-	-	-
	Ring-necked duck		X	X	X	X				X	X	X			-	-	-
	Scaup		X	X	X	X				X	X	X			-	-	-
	Scoters		X	X	X	X				X	X	X			-	-	-
188	Scoters	HIGH	X	X	X	X				X	X	X			-	-	-
	Sea ducks	HIGH	X	X	X	X				X	X	X			-	-	-
189	American oystercatcher		X	X	X					X	X	X	X		-	-	-
191	Piping plover	T T HIGH		X	X	X	X	X	X	X					APR-SEP	-	-
	Wilson's plover	E HIGH		X	X	X	X	X	X	X					APR-SEP	-	-
192	American oystercatcher	7 ADULTS		X	X	X	X	X	X						MAR-JUL	-	-
193	American oystercatcher	18 ADULTS		X	X	X	X	X	X	X					MAR-JUL	-	-
194	American oystercatcher	121 ADULTS		X	X	X	X	X	X	X					MAR-JUL	-	-
293	Forster's tern	10 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
324	Laughing gull	300 ADULTS		X	X	X	X	X	X	X	X	X			MAY-JUL	-	-
361	American oystercatcher	HIGH	X	X	X					X	X	X	X		-	-	-
362	Laughing gull	10 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
364	Laughing gull	35 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
365	Herring gull	1 ADULT	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Laughing gull	138 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
367	Laughing gull	20 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
372	Laughing gull	133 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
373	Forster's tern	5 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
378	Least tern	C 15 ADULTS		X	X	X	X	X	X						MAY-JUL	-	-
382	Black-crowned night-heron		X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Cattle egret	16 ADULTS	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Double-crested cormorant		X	X	X	X	X	X	X	X	X	X			MAY-JUL	-	-
	Glossy ibis	C 26 ADULTS		X	X	X	X	X							MAY-JUL	-	-
	Great blue heron	1 ADULT	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Great egret	C 242 ADULTS	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Herring gull	15 ADULTS	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Laughing gull	23 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
	Snowy egret		X	X	X	X	X	X	X	X					MAY-JUL	-	-
383	Common tern	27 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
523	Black skimmer	496 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
	Common tern	154 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
526	Gull-billed tern	T 60 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
	Laughing gull	61 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
527	Forster's tern	7 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
	Gull-billed tern	T 66 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
	Laughing gull	900 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
528	Common tern	56 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
529	Laughing gull	150 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
532	Laughing gull	5 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
533	Common tern	13 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
	Gull-billed tern	T 1 ADULT		X	X	X	X	X	X	X					MAY-JUL	-	-
	Laughing gull	26 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
534	Herring gull	18 ADULTS	X	X	X	X	X	X	X	X	X	X			MAY-JUL	-	-
	Laughing gull	341 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
551	Laughing gull	145 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
562	Peregrine falcon	T		X	X	X	X	X							MAR-AUG	-	-
564	Herring gull	40 ADULTS	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
565	Forster's tern	3 ADULTS		X	X	X	X	X	X						MAY-JUL	-	-
572	Common tern	26 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-
573	Laughing gull	107 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
589	Herring gull	32 ADULTS	X	X	X	X	X	X	X	X	X	X	X		MAY-JUL	-	-
	Laughing gull	722 ADULTS		X	X	X	X	X	X	X	X				MAY-JUL	-	-
590	Forster's tern	18 ADULTS		X	X	X	X	X	X	X					MAY-JUL	-	-

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Virginia: ESIMAP 59 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
			-	-	-	-	-	-	-	-	-	-	-	-					
25	Atlantic croaker					X	X	X	X	X	X	X	X	X	-	-	-	AUG-DEC	MAY-NOV
	Atlantic mackerel				X	X									-	-	-	-	MAR-APR
	Atlantic menhaden		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	MAY-OCT
	Black drum				X	X	X	X	X	X					-	-	-	-	APR-OCT
	Black sea bass				X	X	X	X	X	X					JUN-OCT	-	-	APR-OCT	APR-OCT
	Bluefish				X	X	X	X	X	X	X	X			-	-	-	MAY-NOV	APR-NOV
	Butterfish				X	X	X	X	X	X	X	X			-	-	-	JUL-NOV	MAR-NOV
	Crevalle jack		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Northern kingfish				X	X	X	X	X	X					MAY-AUG	-	-	-	APR-OCT
	Northern searobin				X	X	X	X	X	X	X				-	-	-	-	MAR-OCT
	Pollock		X	X	X									X	-	-	-	-	DEC-APR
	Red drum				X	X	X	X	X	X	X	X			JUL-NOV	-	-	-	MAY-NOV
	Red hake			X	X	X	X			X	X	X			-	-	-	FEB-MAY	FEB-MAY
																			SEP-NOV
	Sandbar shark					X	X	X	X	X	X				-	-	-	MAY-OCT	MAY-OCT
	Scup (porgy)				X	X	X	X	X	X	X				-	-	-	JUN-OCT	MAR-OCT
	Silver hake		X	X	X	X	X				X	X	X		-	-	-	-	OCT-MAY
	Southern kingfish (whiting)				X	X	X	X	X	X					-	-	-	-	APR-OCT
	Spanish mackerel				X	X									-	-	-	-	APR-MAY
	Spiny dogfish		X	X	X	X							X	X	-	-	-	-	NOV-APR
	Spot		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	MAR-NOV	MAR-NOV
	Spotted hake			X	X	X	X			X	X	X			-	-	-	MAR-JUN	MAR-JUN
																			SEP-NOV
	Spotted seatrout					X	X	X	X	X	X	X	X		MAY-JUL	-	-	APR-NOV	APR-NOV
	Summer flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAY	-	APR-OCT
	Tautog		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	-	JAN-DEC
	Weakfish				X	X	X	X	X	X	X				APR-AUG	-	MAY-AUG	APR-NOV	APR-NOV
30	Alewife		X	X	X	X	X								-	-	-	-	FEB-JUN
	American eel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	American shad		X	X	X	X	X								-	-	-	-	FEB-JUN
	Atlantic croaker				X	X	X	X	X	X	X	X			-	-	-	MAY-DEC	-
	Atlantic herring		X	X	X	X	X								-	-	-	-	FEB-JUN
	Atlantic mackerel			X	X										-	-	-	-	MAR-APR
	Atlantic menhaden				X	X	X	X	X	X	X				-	-	-	MAY-NOV	MAY-OCT
	Bay anchovy		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Black drum				X	X	X	X	X	X					-	-	-	-	APR-OCT
	Black sea bass				X	X	X	X	X						-	-	-	APR-SEP	APR-SEP
	Blueback herring		X	X	X	X	X	X	X	X					-	-	FEB-JUN	FEB-OCT	FEB-JUN
	Bluefish				X	X	X	X	X						-	-	-	MAY-OCT	MAY-OCT
	Crevalle jack		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Gobies		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-SEP	APR-OCT	JAN-DEC	JAN-DEC
	Hickory shad		X	X	X	X	X								-	-	-	-	FEB-JUN
	Hogchoker		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Killifish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP	-	-	JAN-DEC	JAN-DEC
	Minnows		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	Mummichog		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	Northern pipefish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Northern searobin				X	X	X								-	-	-	JUN-AUG	JUN-AUG
	Pollock		X	X	X	X								X	-	-	-	-	DEC-APR
	Red drum				X	X	X	X	X	X					JUL-NOV	-	-	AUG-SEP	MAY-NOV
	Red hake			X	X	X	X			X	X	X			-	-	-	FEB-MAY	FEB-MAY
																			SEP-NOV
	Sandbar shark					X	X	X	X	X	X				-	-	-	MAY-OCT	MAY-OCT
	Scup (porgy)				X	X	X	X	X	X	X				-	-	-	JUN-OCT	MAR-OCT
	Silver hake		X	X	X	X	X				X	X	X		-	-	-	-	OCT-MAY
	Silver perch		X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	APR-MAY	APR-JUN	JAN-DEC	JAN-DEC
	Silversides		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	MAR-JUL	APR-SEP	JAN-DEC	JAN-DEC
	Spanish mackerel				X	X									-	-	-	-	APR-MAY
	Spot			X	X	X	X	X	X						-	-	-	APR-OCT	JUL-SEP
	Spotted hake		X	X	X	X					X	X	X		-	-	-	OCT-APR	-
	Spotted seatrout				X	X	X	X	X	X	X				MAY-JUL	-	-	APR-NOV	APR-NOV
	Striped anchovy				X	X	X	X	X	X					APR-SEP	-	-	APR-NOV	APR-NOV
	Summer flounder				X	X	X	X	X	X					-	-	-	APR-NOV	APR-NOV
	Tautog		X	X	X	X					X	X	X		-	-	-	-	OCT-APR
	Weakfish			X	X	X	X	X	X	X					APR-AUG	-	-	MAR-OCT	APR-OCT
	White hake			X	X	X				X	X	X			-	-	-	-	MAR-MAY
																			SEP-NOV
	White perch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	APR-JUN	APR-JUN	JAN-DEC	JAN-DEC
	Winter flounder		X	X	X	X	X	X					X		-	-	-	DEC-JUL	DEC-MAY

HABITAT:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D
			-	-	-	-	-	-	-	-	-	-	-	-
27	Maritime dune scrub		X	X	X	X	X	X	X	X	X	X	X	X
	Native coastal strand vegetation		X	X	X	X	X	X	X	X	X	X	X	X
	Sea-beach knotweed		X	X	X	X	X	X	X	X	X	X	X	X
	Southern beach spurge		X	X	X	X	X	X	X	X	X	X	X	X

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
			-	-	-	-	-	-	-	-	-	-	-	-					
25	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-NOV	JAN-DEC	JAN-DEC
	Channeled whelk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
30	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	MAY-SEP	MAY-NOV	JAN-DEC	JAN-DEC
	Channeled whelk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Northern quahog (hard clam)		X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	MAY-OCT	MAY-OCT	JAN-DEC	JAN-DEC

MARINE MAMMAL:

RAR#	Species	S	F	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
		-	-		-	-	-	-	-	-	-	-	-	-	-	-				
25	Bottlenose dolphin						X	X	X	X	X	X	X				-	-	-	-
	Common dolphin							X	X	X	X	X	X				-	-	-	-
	Harbor porpoise				X	X	X	X	X							X	-	-	-	-
	Harbor seal				X	X								X	X	X	-	-	-	-
	Humpback whale	E	E		X	X	X	X	X	X	X	X	X	X	X	X	-	JAN-DEC	-	-
30	Bottlenose dolphin						X	X	X	X	X	X	X				-	-	-	-
	Harbor porpoise				X	X	X	X	X							X	-	-	-	-
	Harbor seal				X	X								X	X	X	-	-	-	-

REPTILE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
			-	-	-	-	-	-	-	-	-	-	-	-					
25	Green sea turtle	T T			X	X	X	X	X	X					-	-	-	MAY-NOV	-
	Kemp's ridley sea turtle	E E			X	X	X	X	X	X					-	-	-	MAY-NOV	MAY-NOV
	Leatherback sea turtle	E E			X	X	X	X	X	X					-	-	-	-	MAY-NOV
	Loggerhead sea turtle	T T			X	X	X	X	X	X					-	-	-	MAY-NOV	MAY-NOV
27	Diamondback terrapin		X	X	X	X	X	X	X	X					MAY-JUL	-	-	MAR-NOV	MAR-NOV
30	Green sea turtle	T T			X	X	X	X	X	X					-	-	-	MAY-NOV	-
	Kemp's ridley sea turtle	E E			X	X	X	X	X	X					-	-	-	MAY-NOV	MAY-NOV

Biological information shown on the maps represents known concentration areas or occurrences, but does not necessarily represent the full distribution or range of each species. This is particularly important to recognize when considering potential impacts to protected species.

Virginia: ESIMAP 59 (cont.)

BIOLOGICAL RESOURCES: (cont.)

REPTILE: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Internesting	Juveniles	Adults
30	Leatherback sea turtle	E E						X	X	X	X	X	X	X	-	-	-	-	MAY-NOV
	Loggerhead sea turtle	T T						X	X	X	X	X	X	X	-	-	-	MAY-NOV	MAY-NOV
94	Diamondback terrapin				X	X	X	X	X	X	X	X	X	X	-	-	-	MAR-NOV	MAR-NOV

HUMAN USE RESOURCES:

AQUACULTURE:

HUN#	Name	Contact	Phone
57	AQUACULTURE: HARD CLAMS		

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
116	PARRAMORE ISLAND NATURAL AREA PRESERVE	THE NATURE CONSERVANCY	757/442-3049

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
147	CHINCOTEAGUE ISLAND NWR	U.S. FISH AND WILDLIFE SERVICE	757/336-6122

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