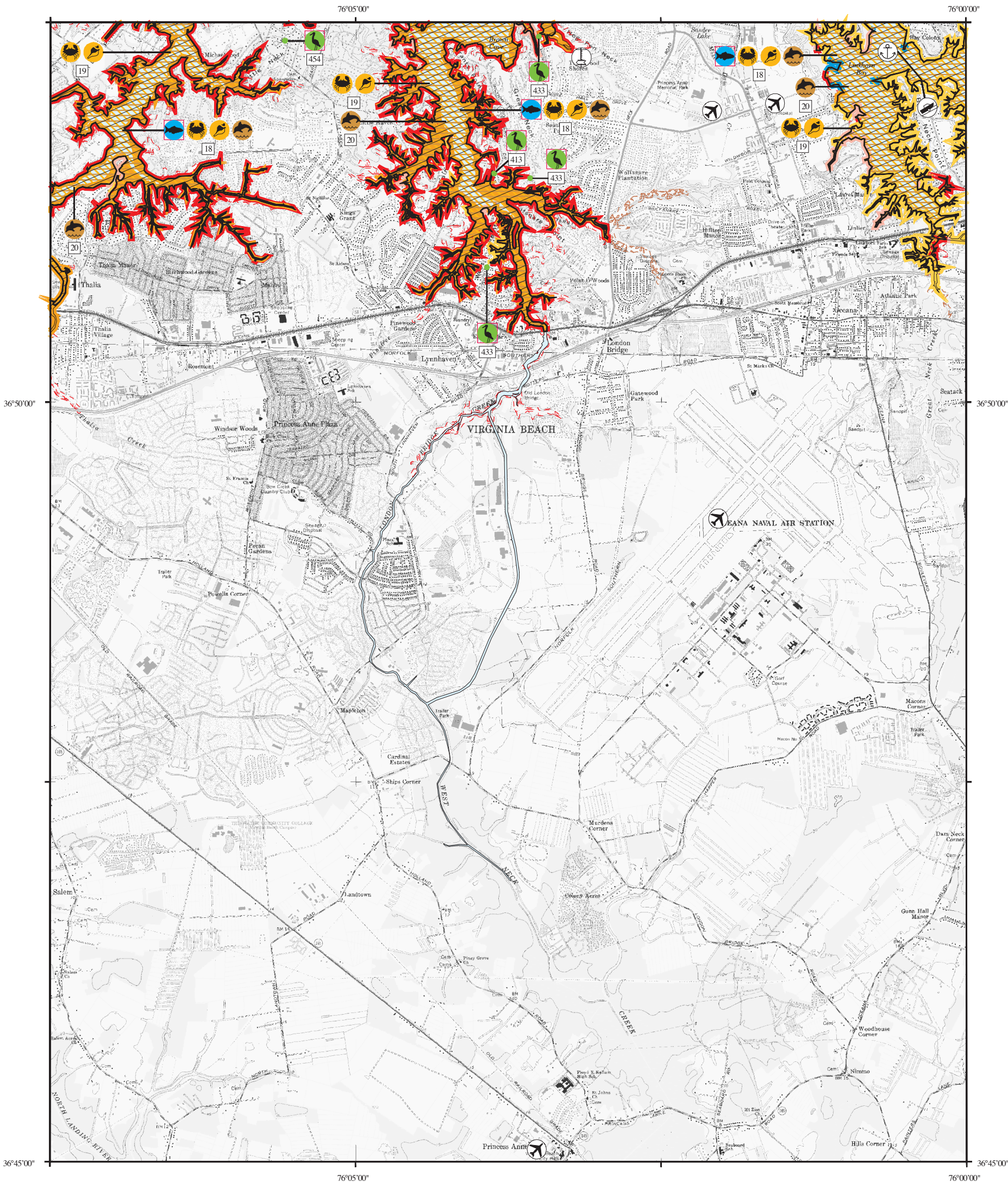
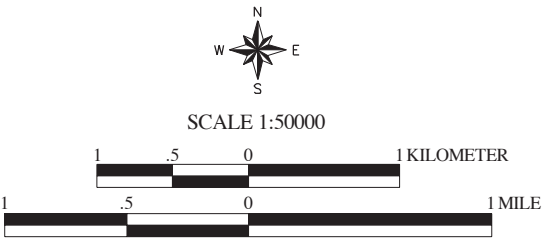


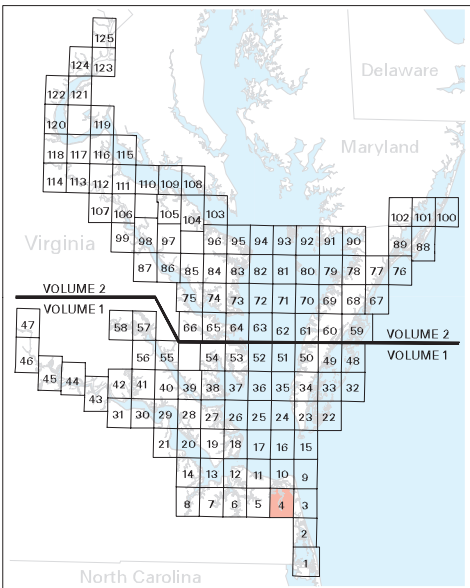
ENVIRONMENTAL SENSITIVITY INDEX MAP



- 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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Virginia: ESIMAP 4

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
413	Yellow-crowned night-heron	C 3 NESTS		X	X	X	X	X	X	X	X	X			MAY-JUL	-	-
433	Yellow-crowned night-heron	C 4 NESTS		X	X	X	X	X	X	X	X	X			MAY-JUL	-	-
454	Yellow-crowned night-heron	C 8 NESTS		X	X	X	X	X	X	X	X	X			MAY-JUL	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
18	Alewife			X	X	X	X	X							-	-	-	-	FEB-JUN
	American eel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	SEP-DEC
	American shad		X	X	X	X	X					X	X		-	-	-	NOV-MAR	JAN-JUN
	Atlantic croaker				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	-	-	MAY-NOV	JAN-DEC	MAY-OCT
	Atlantic silverside		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Atlantic spadefish								X	X	X				-	-	-	AUG-OCT	AUG-NOV
	Atlantic sturgeon	C	X	X	X	X	X	X	X	X					-	-	-	-	JAN-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-JUN	APR-JUN	APR-JUN	APR-NOV	APR-NOV
	Black sea bass			X	X	X	X	X	X						JUN-OCT	-	-	APR-OCT	APR-OCT
	Blueback herring		X	X	X	X	X					X	X		-	-	-	NOV-MAR	JAN-JUN
	Bluefish			X	X	X	X	X	X	X					-	-	-	MAY-NOV	APR-NOV
	Butterfish			X	X	X	X	X	X	X					-	-	-	JUL-NOV	MAR-NOV
	Clearnose skate			X	X	X	X	X	X						-	-	-	-	MAY-NOV
	Gobies		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	APR-SEP	APR-OCT	JAN-DEC	JAN-DEC
	Harvestfish			X	X	X	X	X	X						-	-	-	JUL-OCT	APR-OCT
	Hickory shad		X	X	X	X	X				X	X			-	-	-	NOV-MAR	JAN-JUN
	Hogchoker		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Inland silverside		X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	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 kingfish			X	X	X	X	X							-	-	-	-	APR-OCT
	Northern pipefish		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Northern puffer			X	X	X	X	X	X	X					MAY-AUG	-	-	MAR-OCT	MAR-OCT
	Northern searobin			X	X	X	X	X	X						MAY-JUL	-	-	-	MAR-OCT
	Red drum			X	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	-	-	JAN-DEC	JAN-DEC
	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					MAY-JUL	-	-	APR-NOV	APR-NOV
	Striped bass		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Striped killifish		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Summer flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	OCT-MAY	JAN-DEC	APR-OCT
	Tautog		X	X	X	X			X	X	X				-	-	-	-	OCT-APR
	Threadfin shad		X	X	X	X			X	X	X				-	-	-	-	FEB-MAY
																		SEP-NOV	
	Weakfish			X	X	X	X	X	X	X					APR-AUG	-	MAY-AUG	APR-NOV	APR-NOV

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
18	Horseshoe crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Knobbed whelk		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
19	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	MAY-OCT	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

MARINE MAMMAL:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving	Pupping	Molting
18	Harbor porpoise		X	X	X	X	X						X		-	-	-	-
20	Bottlenose dolphin			X	X	X	X	X	X	X					-	-	-	-