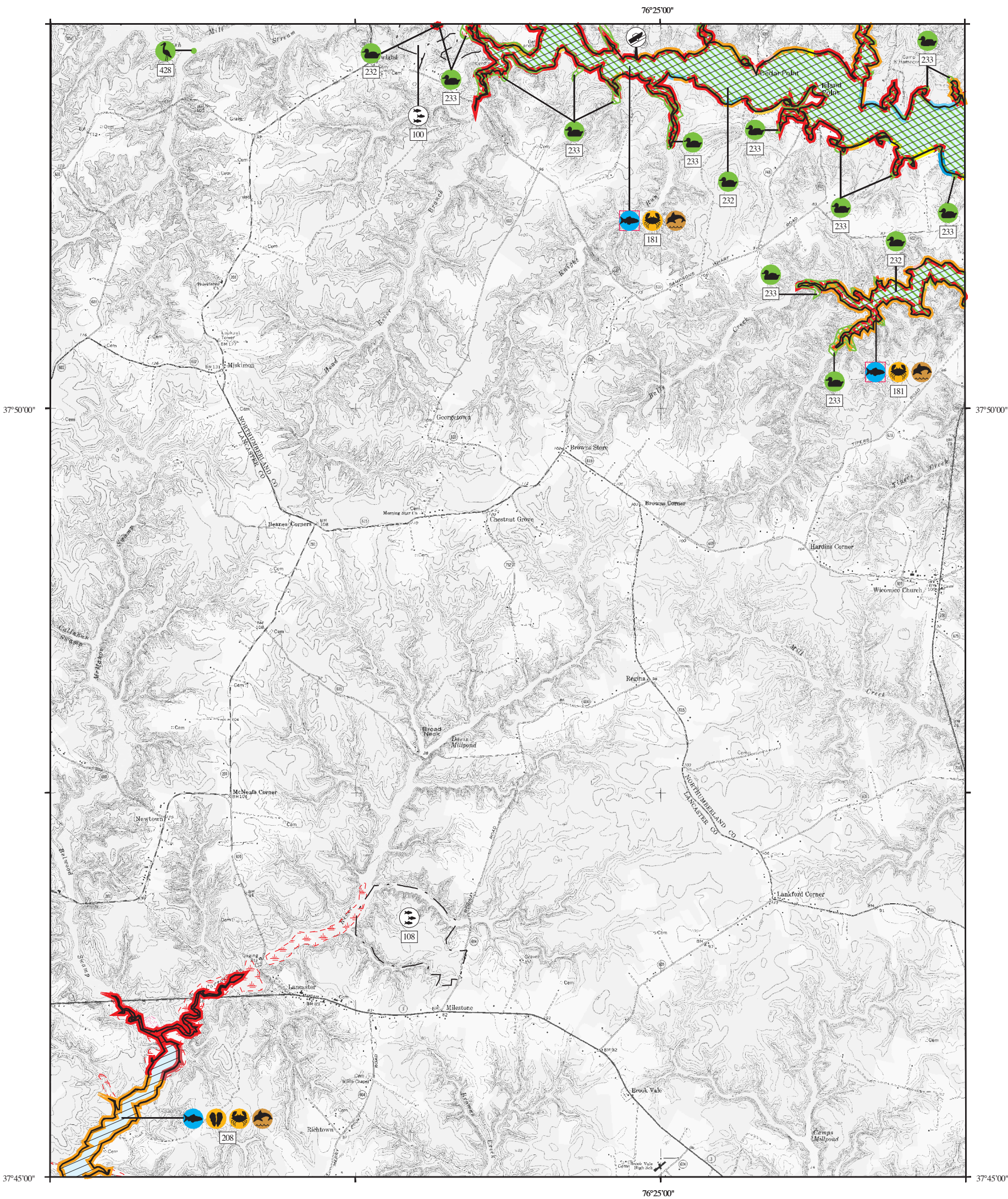
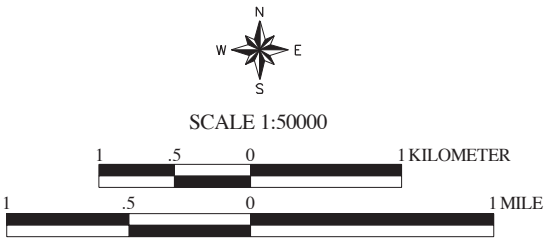


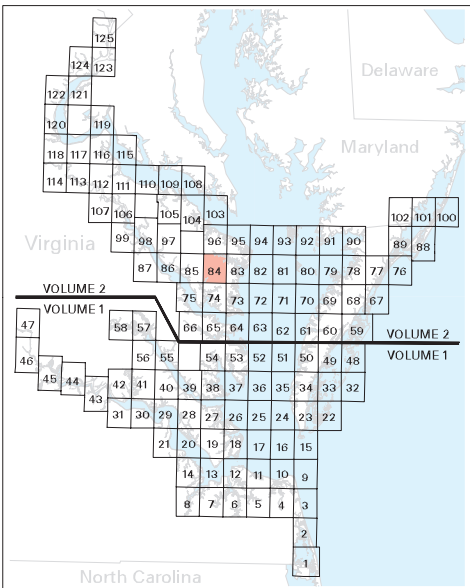
ENVIRONMENTAL SENSITIVITY INDEX MAP



- 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 84

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
232	American black duck		X	X	X	X						X	X	X	-	-	-
	American wigeon		X	X	X	X						X	X	X	-	-	-
	Canada goose	HIGH	X	X	X	X						X	X	X	-	-	-
	Mallard		X	X	X	X						X	X	X	-	-	-
	Tundra swan	HIGH	X	X	X	X						X	X	X	-	-	-
233	American black duck		X	X	X	X						X	X	X	-	-	-
428	Great blue heron	220 NESTS	X	X	X	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
181	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	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	X		-	-	-	AUG-OCT	AUG-NOV
	Atlantic sturgeon	C	X	X	X	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	X	X		APR-JUN	APR-JUN	APR-JUN	APR-NOV	APR-NOV
	Black sea bass					X	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	X		-	-	-	MAY-NOV	APR-NOV
	Butterfish				X	X	X	X	X	X	X	X	X		-	-	-	JUL-NOV	MAR-NOV
	Clearnose skate					X	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	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	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	SEP-NOV
	Sandbar shark						X	X	X	X	X	X			-	-	-	MAY-OCT	MAY-OCT
	Scup (porgy)				X	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	SEP-NOV
	Spotted seatrout					X	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	SEP-NOV
	Weakfish					X	X	X	X	X	X	X	X		APR-AUG	-	MAY-AUG	APR-NOV	APR-NOV
208	American eel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Atlantic croaker		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Atlantic menhaden					X	X	X	X	X	X				-	-	-	MAY-NOV	-
	Atlantic silverside		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Bay anchovy		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Hogchoker		X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	MAY-SEP	MAY-SEP	JAN-DEC	JAN-DEC
	Mummichog		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	Silver perch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Spot		X	X	X	X	X	X	X	X	X	X	X	X	-	-	DEC-APR	APR-NOV	-
	Striped bass					X	X	X	X	X					-	-	-	MAY-OCT	-
	Summer flounder		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Weakfish		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	White perch		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-

INVERTEBRATE:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
181	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-NOV	JAN-DEC	JAN-DEC
208	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-NOV	JAN-DEC	JAN-DEC
	Eastern oyster		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-SEP	JUN-SEP	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
181	Bottlenose dolphin					X	X	X	X	X	X	X			-	-	-	-
	Harbor porpoise		X	X	X	X	X						X		-	-	-	-
208	Bottlenose dolphin					X	X	X	X	X	X				-	-	-	-
	Harbor porpoise		X	X	X	X	X						X		-	-	-	-

HUMAN USE RESOURCES:

MANAGEMENT AREA:

HUN#	Name	Contact	Phone
100	BUSH MILL STREAM NATURAL AREA PRESERVE	VA DCR DNH	804/445-9117
108	HICKORY HOLLOW NATURAL AREA PRESERVE	VA DCR DNH	804/445-9117