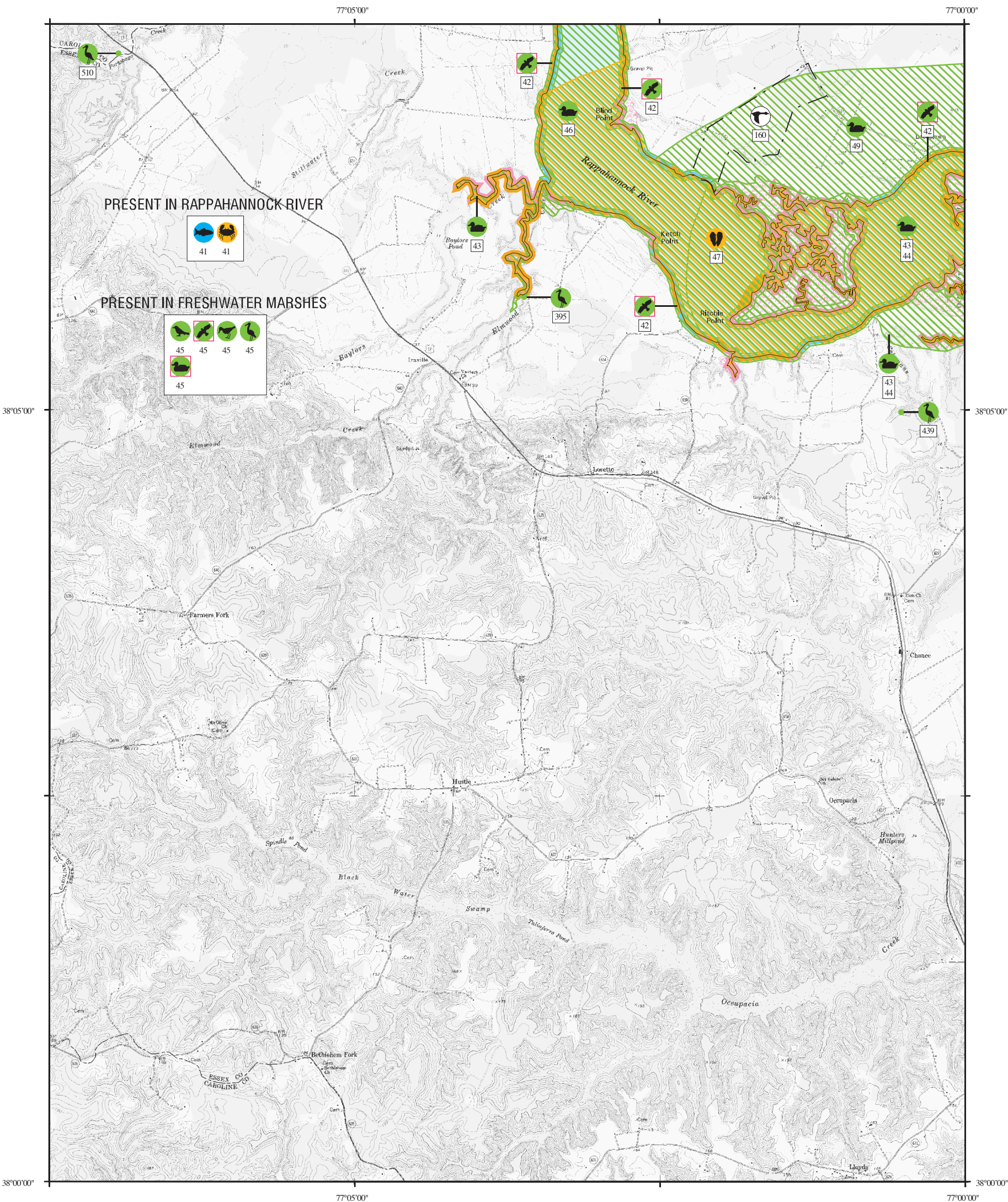


ENVIRONMENTAL SENSITIVITY INDEX MAP



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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BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
42	Bald eagle	T T HIGH	X	X	X	X	X	X	X					X	-	-	-
43	American black duck	HIGH	X	X	X	X					X	X	X		-	-	-
	American wigeon		X	X	X	X					X	X	X		-	-	-
	Canada goose	VERY HIGH	X	X	X	X					X	X	X		-	-	-
	Gadwall		X	X	X	X					X	X	X		-	-	-
	Green-winged teal	HIGH	X	X	X	X					X	X	X		-	-	-
	Mallard	HIGH	X	X	X	X					X	X	X		-	-	-
	Northern pintail		X	X	X	X					X	X	X		-	-	-
44	Bufflehead	HIGH	X	X	X	X					X	X	X		-	-	-
	Canvasback	HIGH	X	X	X	X					X	X	X		-	-	-
	Common goldeneye		X	X	X	X					X	X	X		-	-	-
	Long-tailed duck	MODERATE	X	X	X	X					X	X	X		-	-	-
	Mergansers	HIGH	X	X	X	X					X	X	X		-	-	-
	Ring-necked duck	VERY HIGH	X	X	X	X					X	X	X		-	-	-
	Ruddy duck	HIGH	X	X	X	X					X	X	X		-	-	-
	Tundra swan	HIGH	X	X	X	X					X	X	X		-	-	-
45	Bald eagle	T T			X	X	X	X							-	-	-
	Common moorhen	C			X	X	X	X							-	-	-
	Great blue heron				X	X	X	X							-	-	-
	Greater yellowlegs				X	X	X	X							-	-	-
	Green heron				X	X	X	X							-	-	-
	King rail				X	X	X	X							-	-	-
	Least bittern				X	X	X	X							-	-	-
	Marsh wren				X	X	X	X							-	-	-
	Osprey				X	X	X	X	X	X				MAR-AUG	-	-	-
	Sora				X	X	X	X						-	-	-	-
	Swamp sparrow				X	X	X	X						-	-	-	-
	Virginia rail				X	X	X	X						-	-	-	-
	Wood duck		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-
46	Canada goose	VERY HIGH	X	X	X	X					X	X	X		-	-	-
49	Canada goose	VERY HIGH	X	X	X	X					X	X	X		-	-	-
	Tundra swan	HIGH	X	X	X	X					X	X	X		-	-	-
395	Great blue heron	12 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
439	Great blue heron	8 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
510	Great blue heron	42 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
41	Alewife		X	X	X	X	X	X	X	X	X				-	FEB-JUN	FEB-JUN	FEB-OCT	FEB-JUN
	American shad		X	X	X	X	X	X	X	X					-	FEB-JUN	FEB-JUN	FEB-OCT	FEB-JUN
	Atlantic menhaden					X	X	X	X	X	X	X			-	-	-	MAY-NOV	-
	Banded killifish		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	JAN-DEC	JAN-DEC
	Black crappie		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-	JAN-DEC	JAN-DEC
	Blue catfish		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	JAN-DEC	JAN-DEC
	Blueback herring		X	X	X	X	X	X	X	X					-	FEB-JUN	FEB-JUN	FEB-OCT	FEB-JUN
	Bluegill		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	-	JAN-DEC
	Channel catfish		X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	JAN-DEC	JAN-DEC
	Hickory shad		X	X	X	X	X	X	X	X					-	FEB-JUN	FEB-JUN	FEB-OCT	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
	Inland silverside		X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	JAN-DEC	JAN-DEC
	Largemouth bass		X	X	X	X	X	X	X	X	X	X	X	X	MAR-MAY	-	-	-	JAN-DEC
	Longnose gar		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	Minnows		X	X	X	X	X	X	X	X	X	X	X	X	APR-AUG	-	-	JAN-DEC	JAN-DEC
	Pumpkinseed		X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN	-	-	JAN-DEC	JAN-DEC
	Redbreast sunfish		X	X	X	X	X	X	X	X	X	X	X	X	JUN-JUL	-	-	JAN-DEC	JAN-DEC
	Striped bass		X	X	X	X	X	X	X	X					FEB-JUN	FEB-JUN	FEB-JUN	FEB-OCT	FEB-JUN
	Tessellated darter		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	-	JAN-DEC
	White catfish		X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUN	-	-	JAN-DEC	JAN-DEC
	White perch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	APR-JUN	APR-JUN	JAN-DEC	JAN-DEC
	Yellow perch		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	JAN-DEC	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
41	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-NOV	JAN-DEC	JAN-DEC
47	Eastern oyster		X	X	X	X	X	X	X	X	X	X	X	X	JUN-SEP	JUN-SEP	JUN-SEP	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

WILDLIFE REFUGE:

HUN#	Name	Contact	Phone
160	RAPPAHANNOCK RIVER VALLEY NWR	U.S. FISH AND WILDLIFE SERVICE	804/333-1470