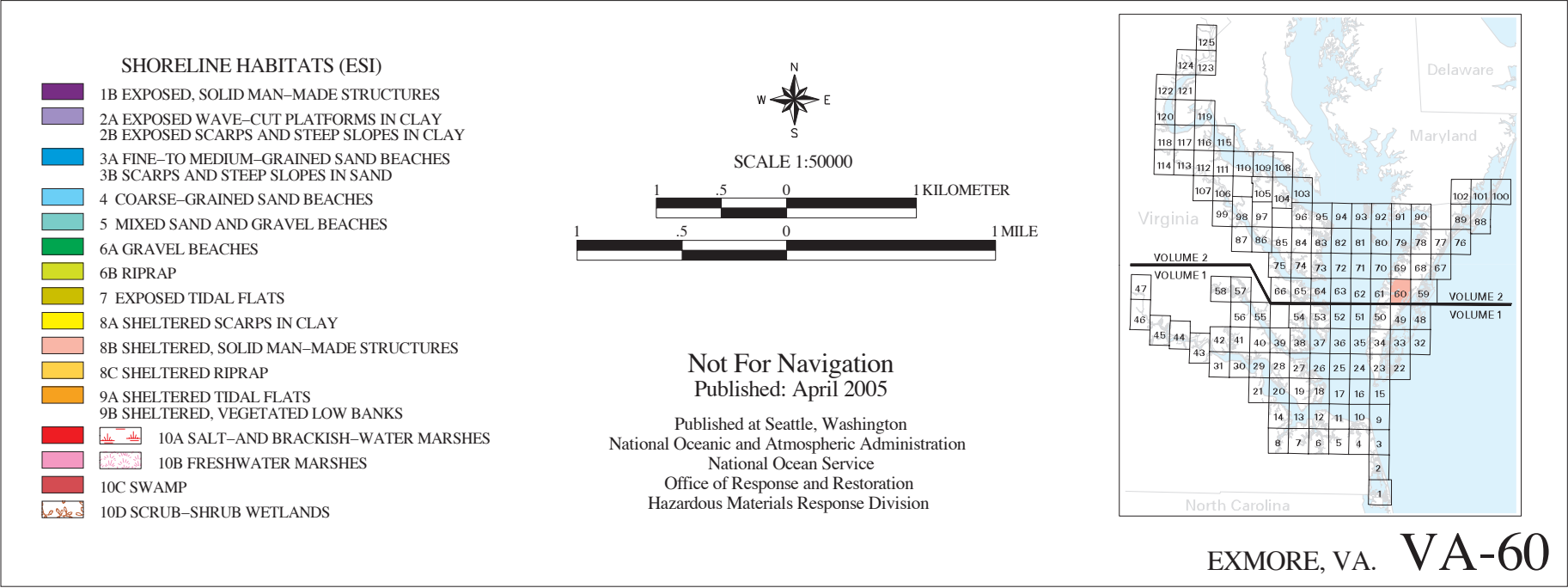
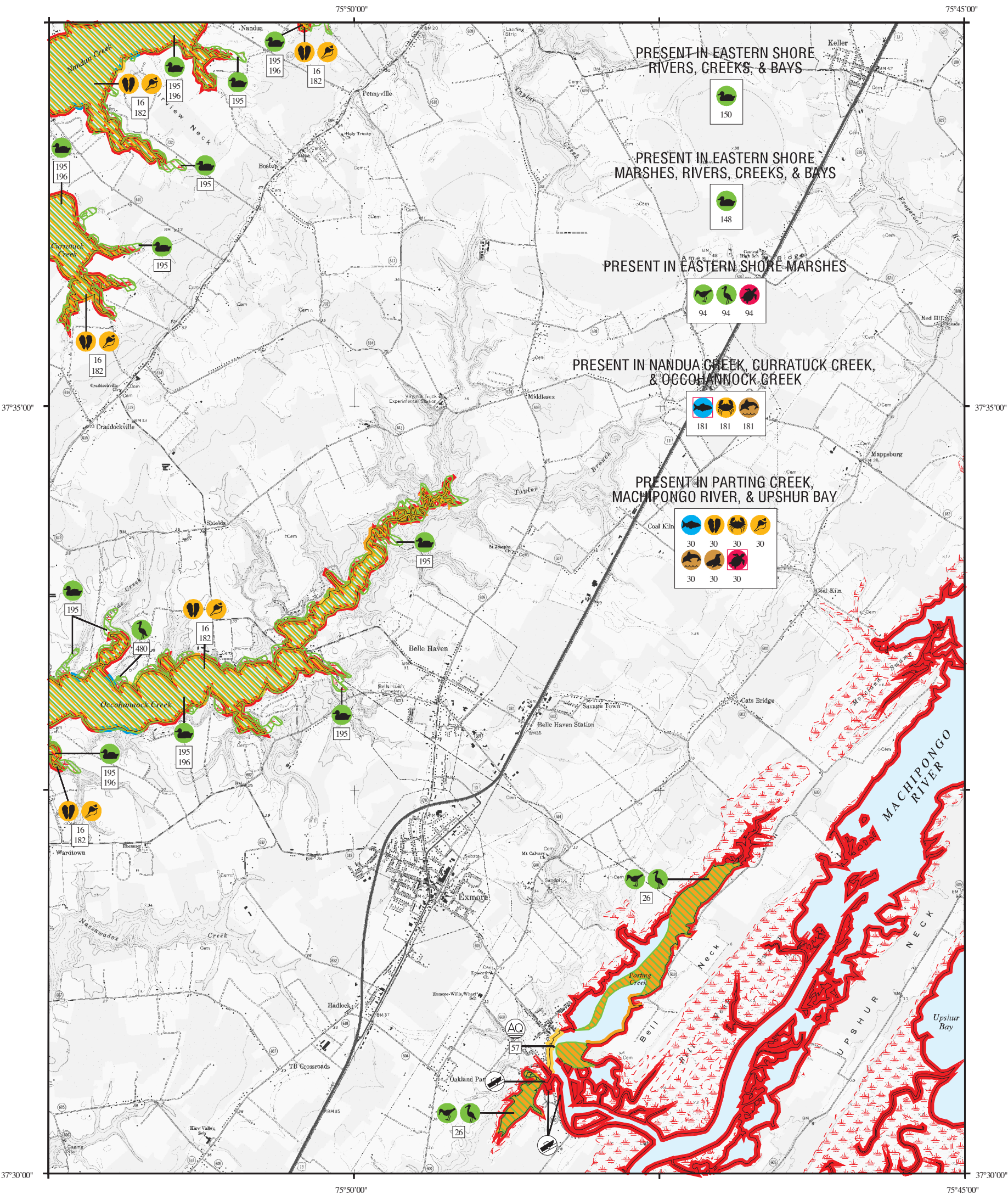


ENVIRONMENTAL SENSITIVITY INDEX MAP



Virginia: ESIMAP 60

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	X	-	-	-
	Greater yellowlegs			X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Killdeer						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	X	-	-	-
	Pectoral sandpiper						X	X	X	X	X	X	X	X	-	-	-
	Red knot			X	X	X	X	X	X						-	-	-
	Ruddy turnstone			X	X	X	X	X	X						-	-	-
	Sanderling		X	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	-	-	-
	Short-billed dowitcher		X	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	-	-	-
	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	X	-	-	-
94	Clapper rail	HIGH	X	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	X	-	-	-
	Sora			X	X	X				X	X	X			-	-	-
	Virginia rail		X	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	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	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	X	APR-JUN	-	-
	Gadwall	MODERATE	X	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	X	MAY-JUL	-	-
	Northern pintail		X	X	X	X					X	X	X		-	-	-
	Northern shoveler		X	X	X	X					X	X	X		-	-	-
195	American black duck	VERY HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUL	-	-
	American wigeon	HIGH	X	X	X	X					X	X	X		-	-	-
	Brant		X	X	X	X					X	X	X		-	-	-
	Canada goose	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-
	Gadwall	LOW	X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-
	Green-winged teal		X	X	X	X					X	X	X		-	-	-
	Mallard	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
	Northern pintail		X	X	X	X					X	X	X		-	-	-
	Snow goose		X	X	X	X					X	X	X		-	-	-
196	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		X	X	X	X					X	X	X		-	-	-
	Redhead	HIGH	X	X	X	X					X	X	X		-	-	-
	Ring-necked duck	LOW	X	X	X	X					X	X	X		-	-	-
	Ruddy duck	HIGH	X	X	X	X					X	X	X		-	-	-
	Scaup		X	X	X	X					X	X	X		-	-	-
	Scoters	MODERATE	X	X	X	X					X	X	X		-	-	-
	Tundra swan	HIGH	X	X	X	X					X	X	X		-	-	-
480	Great blue heron	44 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	
30	Tautog				X	X	X	X							X	X	X	-	-	-	-	OCT-APR
	Weakfish					X	X	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	
	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	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	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	X				-	-	-	-	APR-OCT	
	Black sea bass						X	X	X	X	X	X					-	-	-	APR-SEP	APR-SEP	
	Blueback herring				X	X	X	X	X	X	X	X	X	X			-	-	FEB-JUN	FEB-OCT	FEB-JUN	
	Bluefish							X	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	X			JUL-NOV	-	-	AUG-SEP	MAY-NOV	
	Red hake				X	X	X	X					X	X	X		-	-	-	FEB-MAY	FEB-MAY	
	181	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	APR-MAY	APR-MAY	APR-JUN	JAN-DEC	JAN-DEC		
Silversides					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	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	X			MAY-JUL	-	-	APR-NOV	APR-NOV		
Striped anchovy						X	X	X	X	X	X	X				APR-SEP	-	-	APR-NOV	APR-NOV		
Summer flounder						X	X	X	X	X	X	X	X			-	-	-	APR-NOV	APR-NOV		
Alewife						X	X	X	X	X						-	-	-	-	FEB-JUN		
American eel					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		

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 60 (cont.)

BIOLOGICAL RESOURCES: (cont.)

FISH: (cont.)

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
181	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			-	-	-	-	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				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			-	-	-	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	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				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		-	-	-	-	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	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
16	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
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
181	Blue crab		X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAY-NOV	JAN-DEC	JAN-DEC
182	Knobbed 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
30	Bottlenose dolphin					X	X	X	X	X	X				-	-	-	-
	Harbor porpoise		X	X	X	X							X		-	-	-	-
	Harbor seal		X	X							X	X	X		-	-	-	-
181	Bottlenose dolphin					X	X	X	X	X	X				-	-	-	-
	Harbor porpoise		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	Internesting	Juveniles	Adults
30	Green sea turtle	T T					X	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
94	Diamondback terrapin			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		