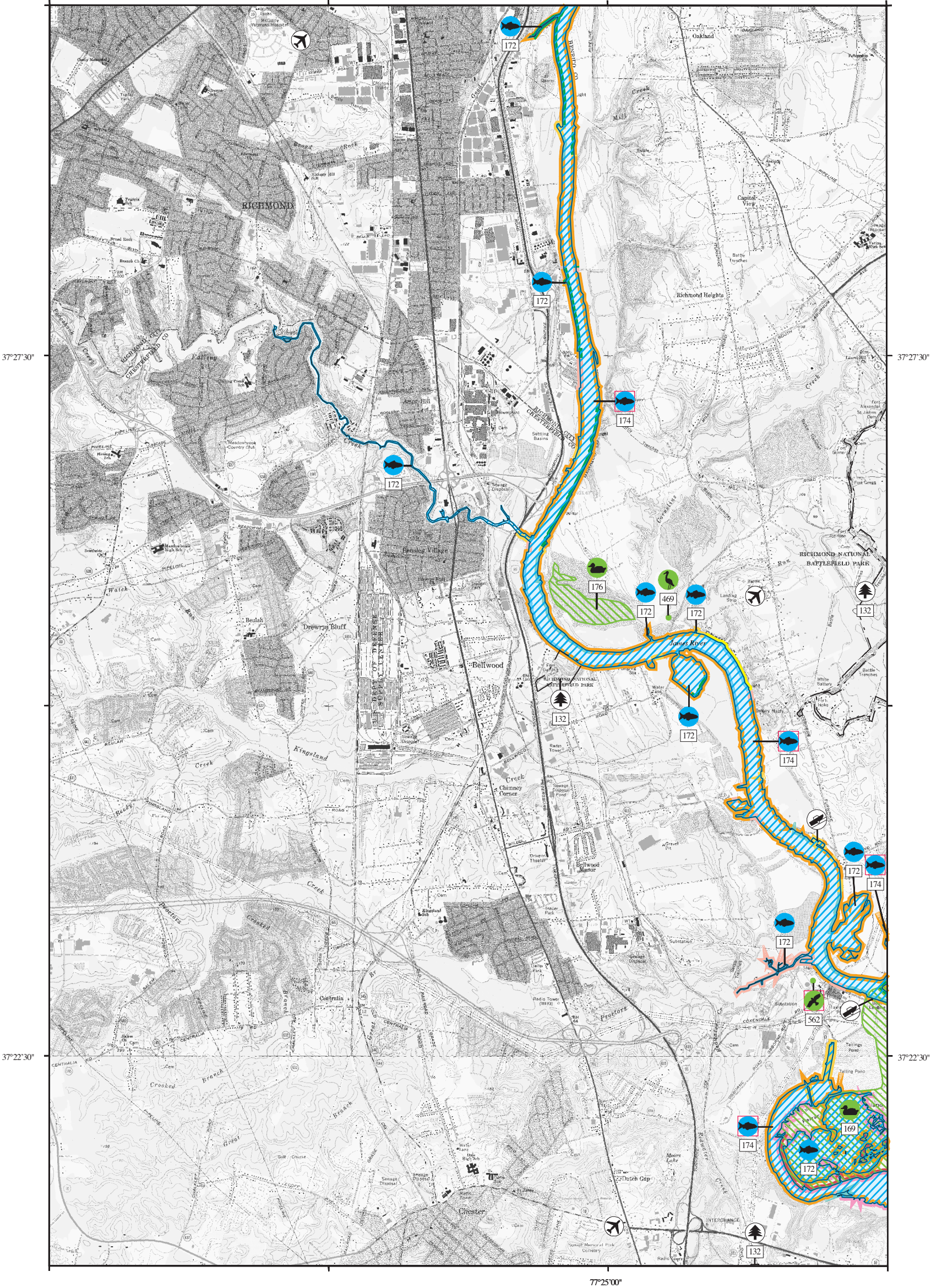
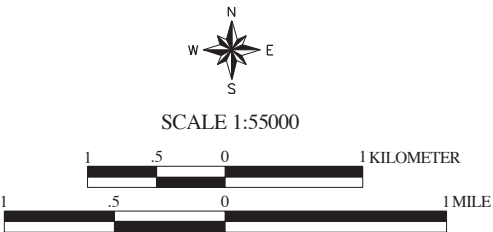


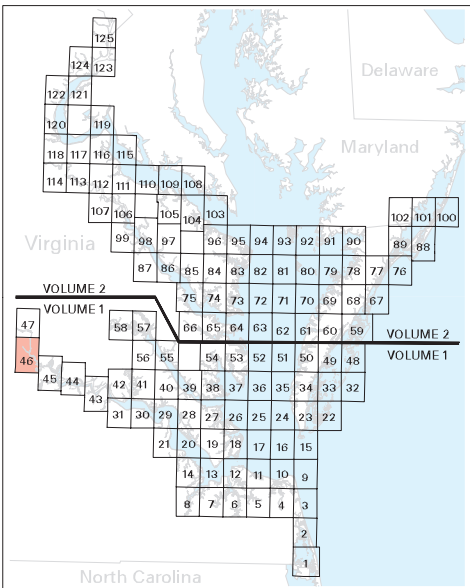
ENVIRONMENTAL SENSITIVITY INDEX MAP



- 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



Not For Navigation
Published: April 2005
Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division



Virginia: ESIMAP 46

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
169	American black duck	MODERATE	X	X	X	X						X	X	X	-	-	-
	American wigeon	MODERATE	X	X	X	X						X	X	X	-	-	-
	Canada goose	VERY HIGH	X	X	X	X						X	X	X	-	-	-
	Gadwall	MODERATE	X	X	X	X						X	X	X	-	-	-
	Green-winged teal	MODERATE	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	-	-	-
	Northern shoveler		X	X	X	X						X	X	X	-	-	-
	Snow goose		X	X	X	X						X	X	X	-	-	-
	Tundra swan	HIGH	X	X	X	X						X	X	X	-	-	-
176	Canada goose	MODERATE-HIGH	X	X	X	X						X	X	X	-	-	-
469	Great blue heron	35 NESTS	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
562	Peregrine falcon	T		X	X	X	X	X	X	X					MAR-AUG	-	-

FISH:

RAR#	Species	S F Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
172	Alewife		X	X	X	X	X								FEB-JUN	FEB-JUN	-	-	FEB-JUN
	Blueback herring		X	X	X	X	X								FEB-JUN	FEB-JUN	-	-	FEB-JUN
174	Alewife		X	X	X	X	X	X	X	X	X	X			-	FEB-JUN	FEB-JUN	FEB-JUN	FEB-OCT
	American eel		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	American shad		X	X	X	X	X	X	X	X	X				FEB-JUN	FEB-JUN	FEB-JUN	FEB-OCT	FEB-JUN
	Atlantic menhaden					X	X	X	X	X	X	X			-	-	-	MAY-NOV	-
	Atlantic sturgeon	C	X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	-	-	JAN-DEC	APR-NOV
	Banded killifish		X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-	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
	Gizzard shad		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Hickory shad		X	X	X	X	X	X	X	X					FEB-JUN	FEB-JUN	FEB-JUN	FEB-OCT	FEB-JUN
	Hogchoker		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Inland silverside		X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY	-	-	JAN-DEC	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
	Mummichog		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
	Quillback		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	JAN-DEC	JAN-DEC
	Shorthead redhorse		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUL	-	-	JAN-DEC	JAN-DEC
	Tessellated darter		X	X	X	X	X	X	X	X	X	X	X	X	APR-JUN	-	-	-	JAN-DEC
	Threadfin shad		X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	FEB-MAY
																			SEP-NOV
	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

HUMAN USE RESOURCES:

NATIONAL PARK:

HUN#	Name	Contact	Phone
132	RICHMOND NATIONAL BATTLEFIELD PARK	NATIONAL PARK SERVICE	804/226-1981