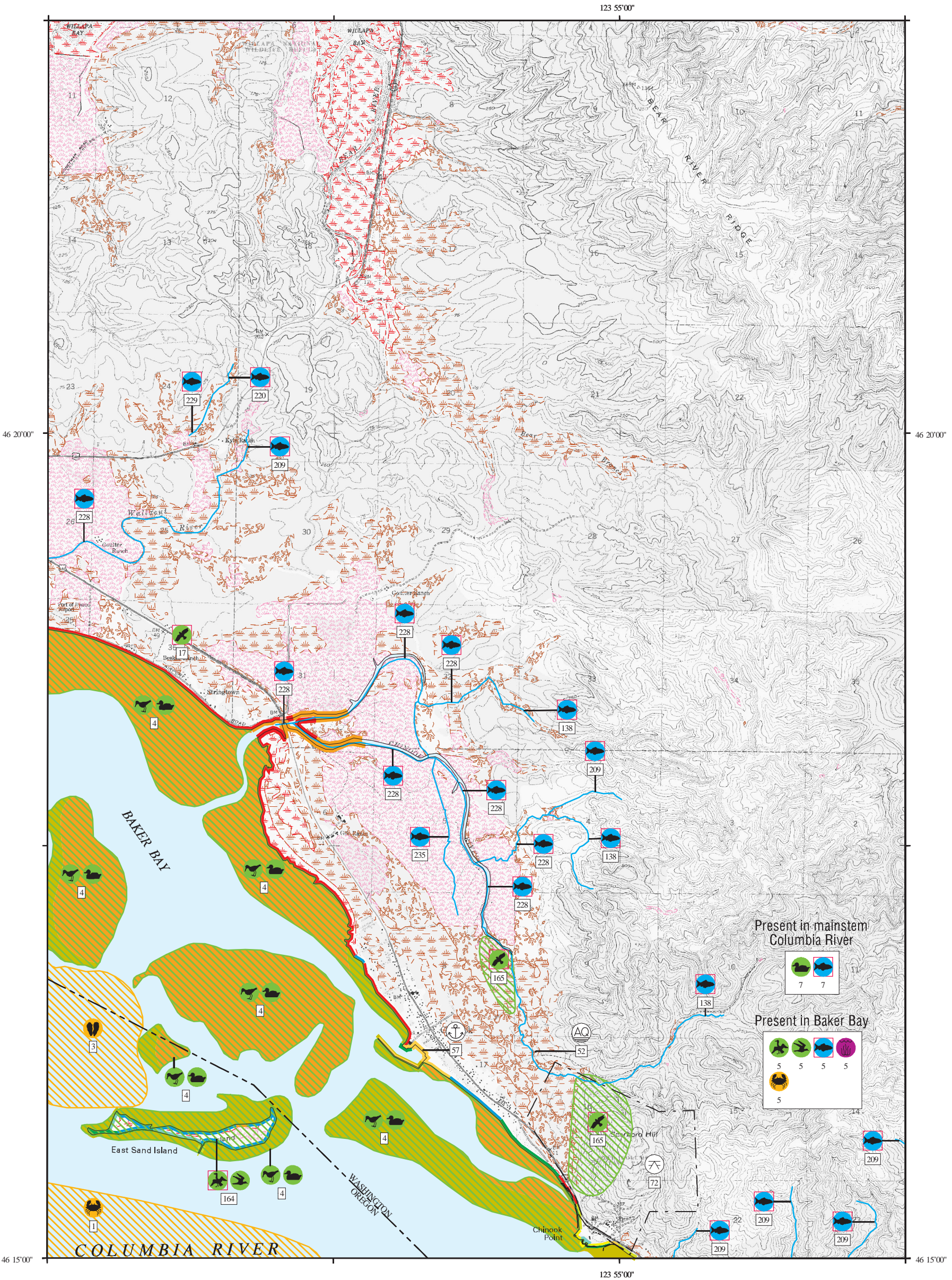
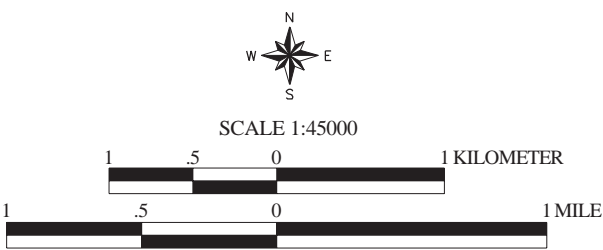


ENVIRONMENTAL SENSITIVITY INDEX MAP

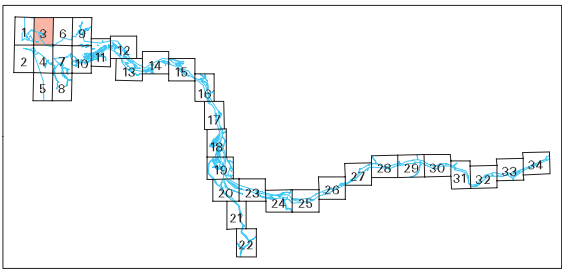


- SHORELINE HABITATS (ESI)
- 1A EXPOSED ROCKY SHORES
 - 1B EXPOSED, SOLID MAN-MADE STRUCTURES
 - 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK
 - 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
 - 3B SCARPS AND STEEP SLOPES IN SAND
 - 4 COARSE-GRAINED SAND BEACHES
 - 5 MIXED SAND AND GRAVEL BEACHES
 - 6A GRAVEL BEACHES
 - 6B RIPRAP
 - 7 EXPOSED TIDAL FLATS
 - 8A SHELTERED ROCKY SHORES
 - 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 SWAMPS
 - 10D SCRUB-SHRUB WETLANDS



Not For Navigation
Published: June 2004

Published at Seattle, Washington
National Oceanic and Atmospheric Administration
National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division



Columbia River: ESIMAP 3

BIOLOGICAL RESOURCES:

BIRD:

RAR#	Species	S	F	ST	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Migrating	Molting
4	American wigeon					X	X	X	X	X				X	X	X	X	-	-	-
	Dunlin					X	X	X	X	X				X	X	X	X	-	-	-
	Western sandpiper					X	X	X	X	X				X	X	X	X	-	-	-
	Sanderling					X	X	X	X	X				X	X	X	X	-	-	-
	Northern pintail					X	X									X	X	-	-	-
	Green-winged teal					X	X	X	X	X				X	X	X	X	-	-	-
	Canvasback					X	X	X	X	X				X	X	X	X	-	-	-
	White-winged scoter				1000S	X	X	X	X	X				X	X	X	X	-	-	-
	Surf scoter				HIGH	X	X	X	X	X				X	X	X	X	-	-	-
	Canada goose					X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-
	Mallard										X	X	X					-	-	-
	Diving ducks				2000-6000	X	X	X	X	X				X	X	X	X	-	-	-
	Scaup					X	X	X	X	X				X	X	X	X	-	-	-
	Shorebirds				HIGH					X	X	X		X	X	X		-	-	-
5	Gulls					X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
	Caspian tern								X	X	X	X	X	X				-	-	-
	Double-crested cormorant					X	X	X	X	X	X	X	X	X	X	X	X	-	-	-
7	Canada goose					X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-
	Common goldeneye					X	X									X	X	-	-	-
	Scaup					X	X	X	X	X				X	X	X	X	-	-	-
	Dabbling ducks					X	X	X	X	X				X	X	X	X	-	-	-
17	Bald eagle	T	T		1 PAIR	X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	-	-
164	Brown pelican	E	E		10000			X	X	X	X	X	X	X	X	X	X	-	-	-
	Caspian tern				9900 PAIRS			X	X	X	X	X	X					APR-SEP	-	-
	Loons					X	X	X	X	X				X	X	X	X	-	-	-
	Double-crested cormorant				8900 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-
	Brandt's cormorant				40-80 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	JUL-SEP	-	-
	Pelagic cormorant					X	X	X	X	X	X	X	X	X	X	X	X	MAY-SEP	-	-
	Glaucous-winged gull				5000 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-
	Western gull				5000 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	APR-SEP	-	-
	Ring-billed gull				500-1000 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	MAY-JUL	-	-
	Grebes					X	X									X	X	-	-	-
165	Bald eagle	T	T		11 PAIRS	X	X	X	X	X	X	X	X	X	X	X	X	JAN-AUG	-	-

FISH:

RAR#	Species	S	F	ST	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
5	Sockeye salmon	*	*		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	-	JAN-DEC	AUG-FEB
	Chinook salmon (fall)	*	*		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	-
	Salmon					X	X	X	X	X	X	X	X	X	X	X	X	-	-	JAN-DEC	JAN-DEC	JAN-DEC
	Starry flounder					X	X	X	X	X	X	X	X	X	X	X	X	-	-	MAR-MAY	JAN-DEC	JAN-DEC
	Steelhead (winter)	*	*		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-JUN	-	JAN-DEC	NOV-MAR
	Steelhead (summer)	*	*		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	JAN-JUN	-	JAN-DEC	MAR-OCT
	Chinook salmon (spring)	*	*		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	AUG-SEP	SEP-DEC	-	JAN-DEC	JAN-SEP
	Chinook salmon (summer)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	SEP-NOV	SEP-APR	-	MAR-SEP	JUN-NOV
	Chum salmon	*	*			X	X	X	X	X				X	X	X	X	NOV-DEC	DEC-MAR	-	FEB-MAY	OCT-DEC
	Coho salmon	*	*		HIGH	X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-MAR	-	JAN-DEC	AUG-JAN
7	Chinook salmon (summer)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	SEP-NOV	SEP-APR	-	MAR-SEP	JUN-NOV
	Sockeye salmon	*	*			X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	-	-	JAN-DEC	AUG-FEB
	White sturgeon					X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Coastal Cutthroat trout	C		OR		X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAY	JAN-JUN	-	JAN-DEC	JAN-DEC
	Coho salmon	*	*			X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-MAR	-	JAN-DEC	AUG-JAN
	Chum salmon	*	*			X	X	X	X	X				X	X	X	X	NOV-DEC	DEC-MAR	-	FEB-MAY	OCT-DEC
	Chinook salmon (fall)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	OCT-DEC	OCT-FEB	-	FEB-NOV	AUG-DEC
	Chinook salmon (spring)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	AUG-SEP	SEP-DEC	-	JAN-DEC	JAN-SEP
	Steelhead (summer)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN	JAN-JUN	-	JAN-DEC	MAR-OCT
	Steelhead (winter)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-JUN	-	JAN-DEC	NOV-MAR
	Bull trout	C	T			X	X	X	X	X	X	X	X	X	X	X	X	SEP-OCT	SEP-JAN	-	JAN-DEC	JAN-DEC
138	Coho salmon	*	*			X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-MAR	-	JAN-DEC	AUG-JAN
	Steelhead (winter)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-JUN	-	JAN-DEC	NOV-MAR
209	Coho salmon	*	*			X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-MAR	-	JAN-DEC	AUG-JAN
220	Steelhead (winter)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-JUN	-	JAN-DEC	NOV-MAR
228	Steelhead (winter)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-JUN	-	JAN-DEC	NOV-MAR
	Chum salmon	*	*			X	X	X	X					X	X	X	X	NOV-DEC	DEC-MAR	-	FEB-MAY	OCT-DEC
	Coho salmon	*	*			X	X	X	X	X	X	X	X	X	X	X	X	OCT-JAN	OCT-MAR	-	JAN-DEC	AUG-JAN
229	Steelhead (winter)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-JUN	-	JAN-DEC	NOV-MAR
	Chum salmon	*	*			X	X	X	X	X				X	X	X	X	NOV-DEC	DEC-MAR	-	FEB-MAY	OCT-DEC
235	Chum salmon	*	*			X	X	X	X					X	X	X	X	NOV-DEC	DEC-MAR	-	FEB-MAY	OCT-DEC
	Chinook salmon (fall)	*	*			X	X	X	X	X	X	X	X	X	X	X	X	OCT-DEC	OCT-FEB	-	FEB-NOV	AUG-DEC

HABITAT:

RAR#	Species	S	F	ST	Conc.	J	F	M	A	M	J	J	A	S	O	N	D
5	Eelgrass					X	X	X	X	X	X	X	X	X	X	X	X

INVERTEBRATE:

RAR#	Species	S	F	ST	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
1	Dungeness crab				HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC
3	Nuttall cockle				HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
	Pacific littleneck				HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Freshwater mussel				HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	-	JAN-DEC
5	Dungeness crab					X	X	X	X	X	X	X	X	X	X	X	X	-	-	APR-JUN	JAN-DEC	JAN-DEC

HUMAN USE RESOURCES:

HATCHERY:

HUN#	Name	Contact	Phone
52	SEA RESOURCES HATCHERY		

MARINA:

HUN#	Name	Contact	Phone
57	MARINA		

PARK:

HUN#	Name	Contact	Phone
72	FORT COLUMBIA STATE PARK	WASHINGTON STATE PARKS	360/642-3074

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.