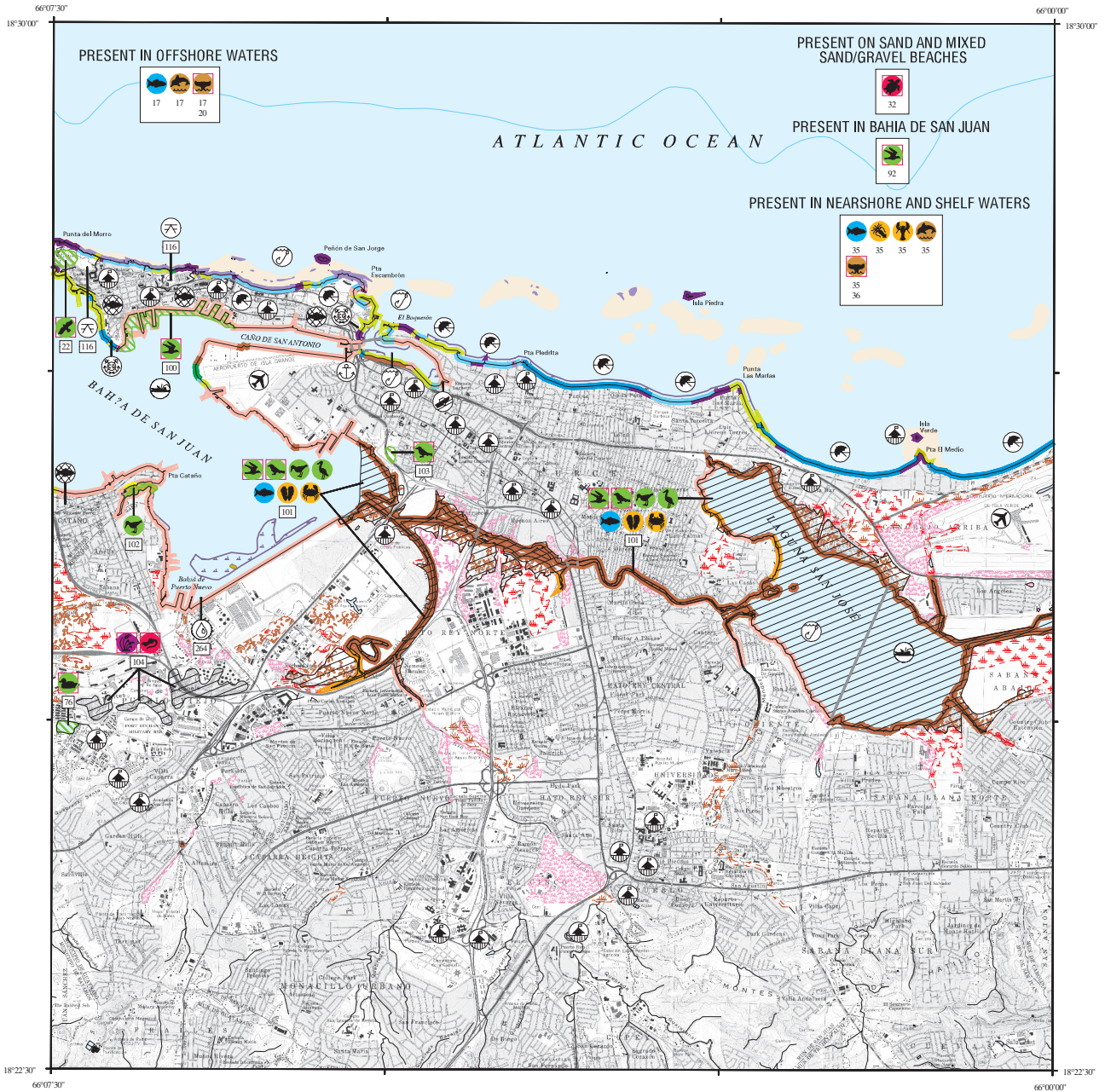
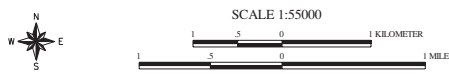
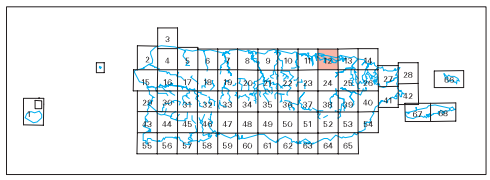


# ENVIRONMENTAL SENSITIVITY INDEX MAP



- SHORELINE HABITATS (ESI)**
- 1A EXPOSED ROCKY CLIFFS
  - 1B EXPOSED, SOLID MAN-MADE STRUCTURES
  - 2A EXPOSED WAVE-CUT PLATFORMS IN BEDROCK
  - 2B SCARPS AND STEEP SLOPES IN MUDDY SEDIMENTS
  - 3A FINE- TO MEDIUM-GRAINED SAND BEACHES
  - 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
  - 9A SHELTERED TIDAL FLATS
  - 9B SHELTERED VEGETATED LOW BANKS
  - 10D MANGROVES
  - SALT- AND BRACKISH-WATER MARSHES
  - FRESHWATER MARSHES
  - FRESHWATER SWAMPS
  - FRESHWATER SCRUB/SHRUB

- STREAM REACHES (RSI)**
- 1 QUIET POOL: LOW-SENSITIVE BANKS
  - 2 STRAIGHT CHANNEL WITH CURRENTS, LOW-SENSITIVE BANKS (MED DOMINANT)
  - 3 MEANDERING CHANNEL: SAND POINT BARS
  - 4 MEANDERING CHANNEL: VEGETATED POINT BARS
  - 5 RAPIDS OVER BEDROCK
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**PUERTO RICO - ESIMAP 12**

**BIOLOGICAL RESOURCES:**

**BIRD:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting
22	Peregrine falcon	S	E		X	X	X	X							X	X	X
76	Ruddy duck	S	T		X	X	X	X	X	X	X	X	X	X	X	X	X
92	Brown pelican	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	X
	Gulls				X	X	X	X	X	X	X	X	X	X	X	X	X
	Terns				X	X	X	X	X	X	X	X	X	X	X	X	X
100	Brown pelican	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	X
	Seabirds				X	X	X	X	X	X	X	X	X	X	X	X	X
101	Brown pelican	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	X
	Least tern	S	T		X	X	X	X									
	Roseate tern	S/F	E/T		X	X	X	X	X								
	Royal tern			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	X
	Sandwich tern			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	X
	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	X
	Wading birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	X
	Yellow-shouldered blackbird	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP
102	Shorebirds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	X
103	Yellow-shouldered blackbird	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP

**FISH:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
17	Pelagic fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
35	Pelagic fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Reef fish				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
101	Nursery fish				X	X	X	X	X	X	X	X	X	X	X	X				JAN-DEC	JAN-DEC
	Snook				X	X	X	X	X	X	X	X	X	X	X	X	APR-FEB	APR-FEB	JAN-DEC	JAN-DEC	JAN-DEC
	Tarpon				X	X	X	X	X	X	X	X	X	X	X	X			MAY-DEC	JAN-DEC	JAN-DEC

**PLANT:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D
104	Ottoschulzia rhodoxylon	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X

**INVERTEBRATE:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
35	Caribbean spiny lobster				X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC	JAN-DEC
	Octopus				X	X	X	X	X	X	X	X	X	X	X	X	DEC-MAR	DEC-APR	-	JAN-DEC	JAN-DEC
101	Blue crabs			HIGH	X	X	X	X	X	X	X	X	X	X	X	X				JAN-DEC	JAN-DEC
	Blue land crab				X	X	X	X	X	X	X	X	X	X	X	X	JUL-AUG	JUL-AUG	JUL-SEP	JAN-DEC	JAN-DEC
	Quahog (hard clam)				X	X	X	X	X	X	X	X	X	X	X	X				-	JAN-DEC

**MARINE MAMMAL:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Mating	Calving
17	Dolphins				X	X	X	X	X	X	X	X	X	X	X	X		
	Whales				X	X	X	X	X	X	X	X	X	X	X	X		
20	Sperm whale	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X		
35	Dolphins				X	X	X	X	X	X	X	X	X	X	X	X		
	Whales				X	X	X	X	X	X	X	X	X	X	X	X		
36	Humpback whale	S/F	E/E	VERY HIGH	X	X	X	X							X	X		

**REPTILE:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
32	Green sea turtle	S/F	E/T		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Hawksbill sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-DEC	JAN-DEC	-	JAN-DEC	JAN-DEC
	Leatherback sea turtle	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	FEB-JUN	APR-SEP	-	APR-SEP	FEB-JUN
104	Puerto Rican boa	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X			-	JAN-DEC	JAN-DEC

**HUMAN USE RESOURCES:**

**NATIONAL PARK:**

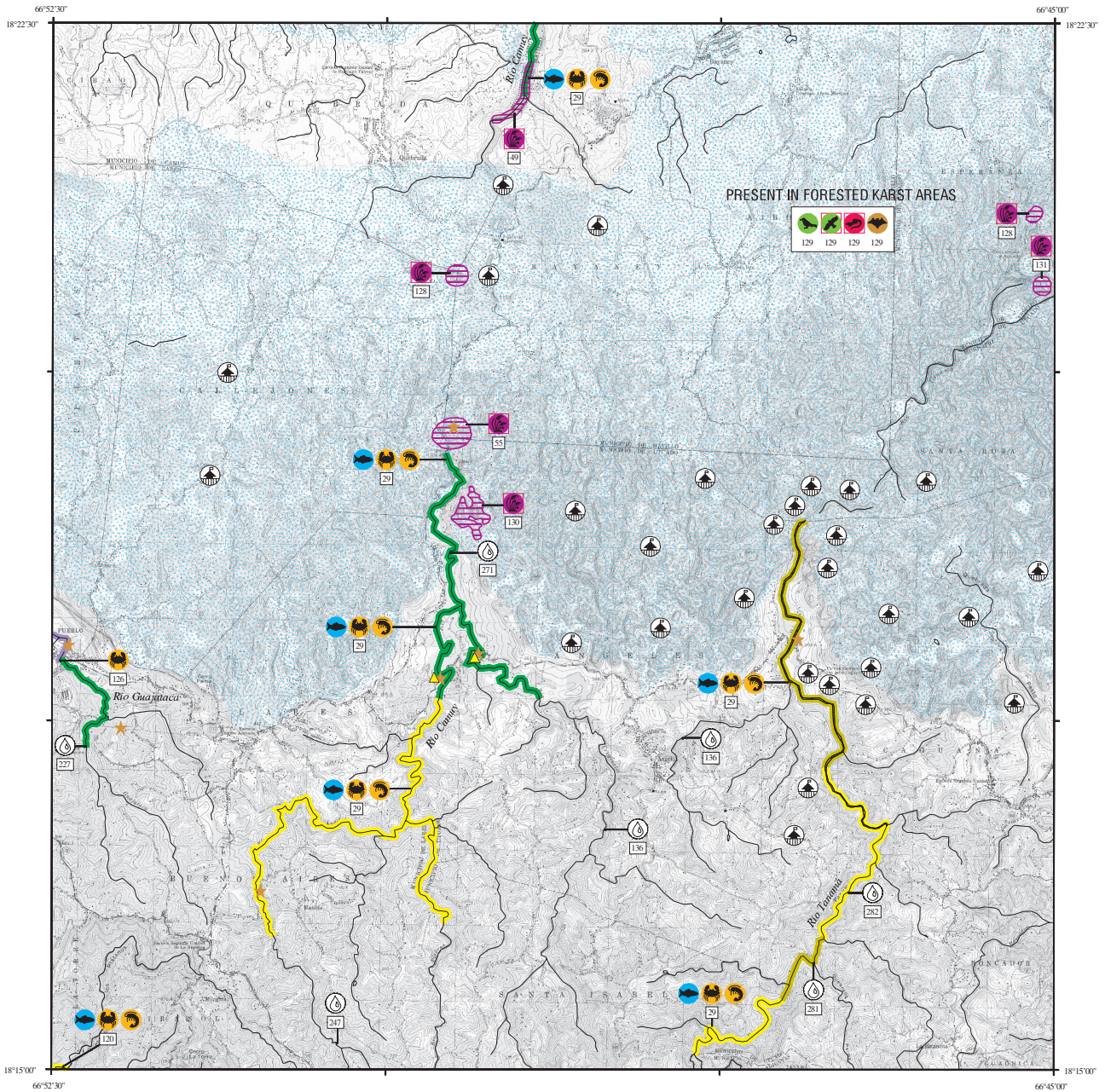
HUN#	Name	Owner/Manager	Contact	Phone
116	SAN JUAN NATIONAL HISTORIC SITE	NPS	PARK MANAGER	787/729-6777

**WATER INTAKE:**

HUN#	Name	Owner/Manager	Location	Phone
264	POWER PLANT	PREPA		

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.

# ENVIRONMENTAL SENSITIVITY INDEX MAP



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SCALE 1:55000

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National Ocean Service  
Office of Response and Restoration  
Hazardous Materials Response Division

BAYANEY, P.R. (1982) **PR-18**

**PUERTO RICO - ESIMAP 18**

**BIOLOGICAL RESOURCES:**

**BIRD:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting
129	Passerine birds			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-
	Puerto Rican broad-winged hawk	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X	JAN-JUN
	Scaly-naped pigeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-JUN
	White-crowned pigeon			HIGH	X	X	X	X	X	X	X	X	X	X	X	X	MAR-SEP

**FISH:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
29	Native stream fish				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	APR-MAY AUG-NOV	JAN-DEC	JAN-DEC
120	Hog-nosed mullet				X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC
	Native stream fish				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	APR-MAY AUG-NOV	JAN-DEC	JAN-DEC

**PLANT:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D
49	Calyptronoma rivalis	S/F	T/T		X	X	X	X	X	X	X	X	X	X	X	X
55	Thelypteris verecunda	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X
128	Cornutia obovata	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X
130	Cornutia obovata	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X
131	Tectaria estremerana	S/F	E/E		X	X	X	X	X	X	X	X	X	X	X	X

**INVERTEBRATE:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Spawning	Eggs	Larvae	Juveniles	Adults
29	Freshwater crab				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	-	JAN-DEC	JAN-DEC
	Native stream shrimp				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	APR-MAY AUG-NOV	JAN-DEC	JAN-DEC
120	Freshwater crab				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	-	JAN-DEC	JAN-DEC
	Native stream shrimp				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	APR-MAY AUG-NOV	JAN-DEC	JAN-DEC
126	Freshwater crab				X	X	X	X	X	X	X	X	X	X	X	X	APR-MAY AUG-NOV	APR-MAY AUG-NOV	-	JAN-DEC	JAN-DEC

**REPTILE:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D	Nesting	Hatching	Interesting	Juveniles	Adults
129	Puerto Rican boa	S/F	E/E	HIGH	X	X	X	X	X	X	X	X	X	X	X	X	-	-	-	JAN-DEC	JAN-DEC

**TERRESTRIAL MAMMAL:**

RAR#	Species	S/F	T/E	Conc.	J	F	M	A	M	J	J	A	S	O	N	D
129	Bats			HIGH	X	X	X	X	X	X	X	X	X	X	X	X

**HUMAN USE RESOURCES:**

**WATER INTAKE:**

HUN#	Name	Owner/Manager	Location	Phone
136	ANGELES PARTIAL PLANT	PRASA		
227	LARES FILTER PLANT	PRASA	PR 128, KM 38.3 FINAL	787/897-1280
247	MIRASOL CHLORINATION PLANT	PRASA		
271	QUEBRADA PARTIAL PLANT	PRASA		
281	RONCADOR PACKAGE PLANT, GRAVEDAD	PRASA	PR 603, KM 4.9 INTERIOR	
282	RONCADOR PACKAGE PLANT, TANAMA PUMPS	PRASA	PR 603, KM 4.4 INTERIOR	

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