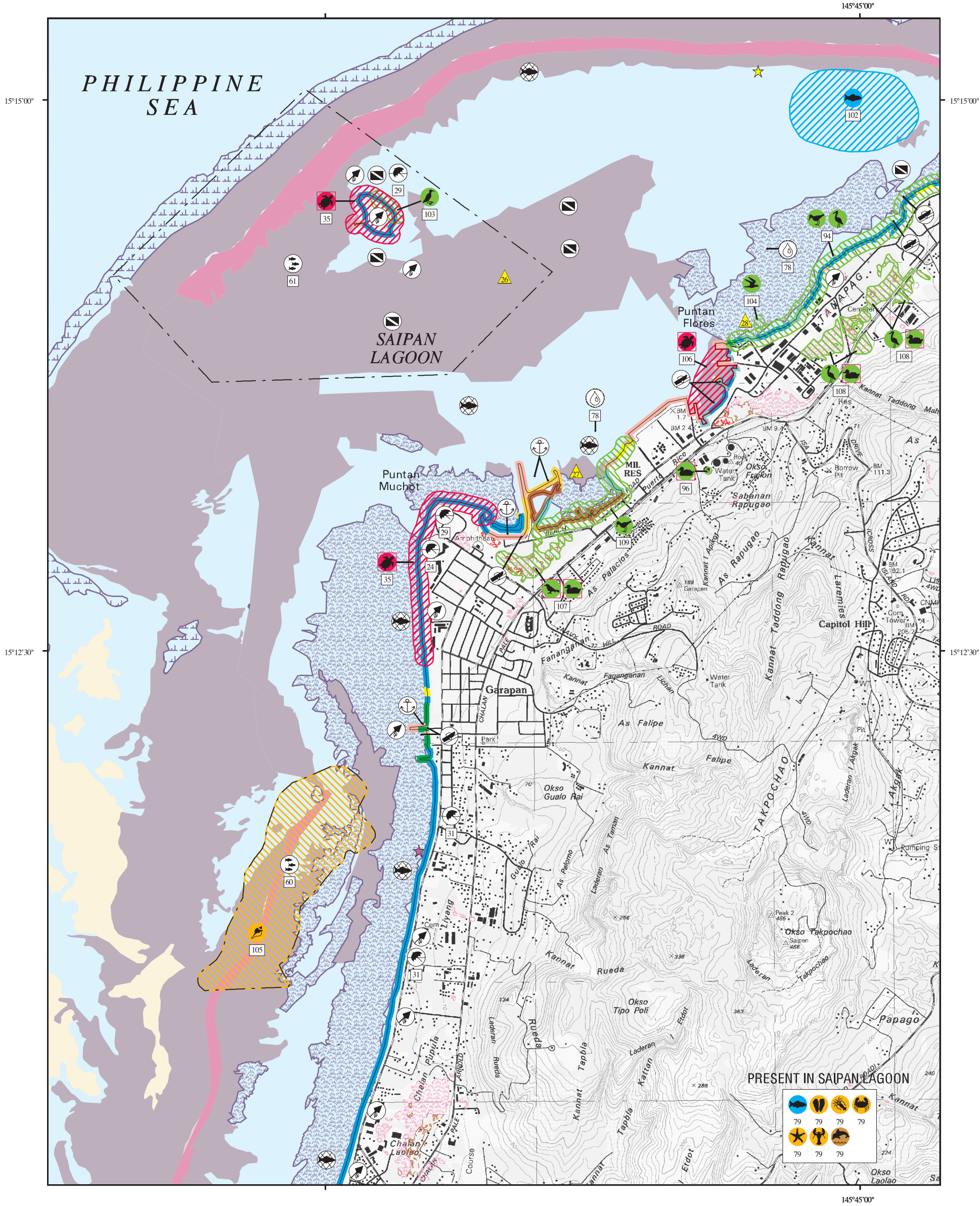
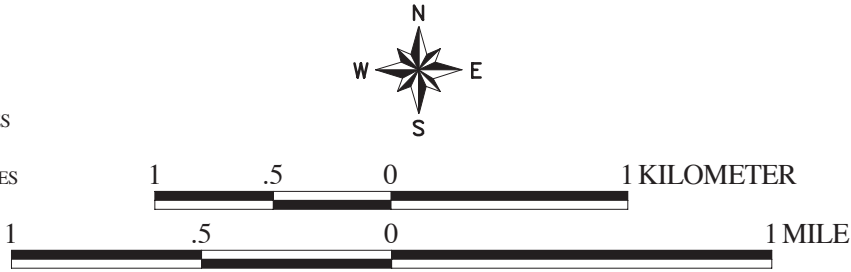


ENVIRONMENTAL SENSITIVITY INDEX MAP



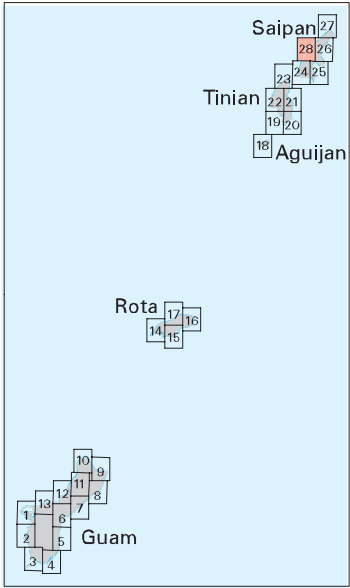
- SHORELINE HABITATS (ESI)
- 1A EXPOSED ROCKY SHORES
 - 1B EXPOSED, SOLID, MAN-MADE STRUCTURES
 - 2A EXPOSED WAVE-CUT PLATFORMS
 - 3A FINE-TO MEDIUM-GRAINED SAND BEACHES
 - 5 MIXED SAND AND GRAVEL BEACHES
 - 6A GRAVEL BEACHES
 - 6B RIPRAP
 - 8A SHELTERED ROCKY SHORES
 - 8B SHELTERED, SOLID MAN-MADE STRUCTURES
 - 8C SHELTERED RIPRAP
 - 9B VEGETATED LOW BANKS
 - 10A SALT- AND BRACKISH-WATER MARSHES
 - 10B FRESHWATER MARSHES
 - 10C SWAMP
 - 10D SCRUB-SHRUB WETLANDS
 - 10D MANGROVES



SCALE 1:32000

Not For Navigation
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National Ocean Service
Office of Response and Restoration
Hazardous Materials Response Division



Guam and the Northern Mariana Islands: ESIMAP 28

BIOLOGICAL RESOURCES:

BIRD:

| RAR# | Species | S F Conc. | J F M A M J J A S O N D | Nesting | Migrating | Molting |
|------|--------------------------|-----------|-------------------------|---------|-----------|---------|
| 94 | Black-bellied plover | | X X X | X X X | - | - |
| | Common sandpiper | | X X X | X X X | - | - |
| | Curlews | | X X X | X X X | - | - |
| | Gray-tailed tattler | | X X X | X X X | - | - |
| | Greater yellowlegs | | X X X | X X X | - | - |
| | Lesser yellowlegs | | X X X | X X X | - | - |
| | Mongolian plover | | X X X | X X X | - | - |
| | Pacific golden-plover | | X X X | X X X | - | - |
| | Pacific reef-heron | | X X X X X X X X X X X X | JAN-DEC | - | - |
| | Ruddy turnstone | | X X X | X X X | - | - |
| | Shorebirds | 40 | X X X X | X X X X | - | - |
| | Stints | | X X X | X X X | - | - |
| | Wandering tattler | | X X X | X X X | - | - |
| | Whimbrel | | X X X | X X X | - | - |
| 96 | Mariana common moorhen | E E | X X X X X X X X X X X X | JAN-DEC | - | - |
| 103 | Wedge-tailed shearwater | 200 | X X X X X X X X X X X X | APR-DEC | - | - |
| 104 | Little tern | | X X X X X X X X X X X X | JAN-DEC | - | - |
| 107 | Mariana common moorhen | E E | X X X X X X X X X X X X | JAN-DEC | - | - |
| | Nightingale reed-warbler | E E | X X X X X X X X X X X X | - | - | - |
| 108 | Mariana common moorhen | E E | X X X X X X X X X X X X | JAN-DEC | - | - |
| | Northern pintail | | X X X | X X X | - | - |
| | Pacific reef-heron | | X X X X X X X X X X X X | JAN-DEC | - | - |
| | Yellow bittern | | X X X X X X X X X X X X | JAN-DEC | - | - |
| 109 | Shorebirds | | X X X | X X X | - | - |

FISH:

| RAR# | Species | S F Conc. | J F M A M J J A S O N D | Spawning | Eggs | Larvae | Juveniles | Adults |
|------|-----------------|-----------|-------------------------|----------|------|--------|-----------|---------|
| 79 | Bigeyes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Butterflyfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Damselfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Emperors | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Fusiliers | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Goatfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Groupers | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Jacks | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Milkfish | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Mullet | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Parrotfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Rabbitfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Rudderfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Skipjack tuna | HIGH | X X X X X X X X X X X X | - | - | - | JAN-DEC | - |
| | Snappers | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Soldierfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | APR-FEB |
| | Squirrelfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Surgeonfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Sweetlips | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Triggerfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Unicornfishes | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Wrasses | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| 102 | Giant manta | | X X X X X X X X X X X X | - | - | - | - | 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 |
|------|--------------------|-----------|-------------------------|----------|------|--------|-----------|---------|
| 79 | Giant clams | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Octopus | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Reef invertebrates | HIGH | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Sea cucumbers | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Slipper lobsters | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| | Spiny lobsters | | X X X X X X X X X X X X | - | - | - | JAN-DEC | JAN-DEC |
| 105 | Topshell | HIGH | 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 |
|------|-----------------|-----------|-------------------------|--------|---------|---------|---------|
| 79 | Spinner dolphin | | X X X X X X X 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 | Interesting | Juveniles | Adults |
|------|------------------|-----------|-------------------------|---------|----------|-------------|-----------|---------|
| 35 | Green sea turtle | E T | X X X X | APR-JUL | - | - | APR-JUL | APR-JUL |
| 106 | Green sea turtle | E T | X X X X X X X X X X X X | - | - | - | JAN-DEC | - |

HUMAN USE RESOURCES:

BEACH:

| HUN# | Name | Contact | Phone |
|------|--------------------|---------|-------|
| 24 | RECREATIONAL BEACH | | |
| 29 | RECREATIONAL BEACH | | |
| 31 | RECREATIONAL BEACH | | |

MANAGEMENT AREA:

| HUN# | Name | Contact | Phone |
|------|-----------------------------------|----------|-------|
| 60 | LIGHTHOUSE REEF TROCHUS RESERVE | CNMI DFW | |
| 61 | MANAGAHA MARINE CONSERVATION AREA | CNMI DFW | |

SEWAGE OUTFALL:

| HUN# | Name | Contact | Phone |
|------|---------|---------|-------|
| 78 | OUTFALL | | |

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.