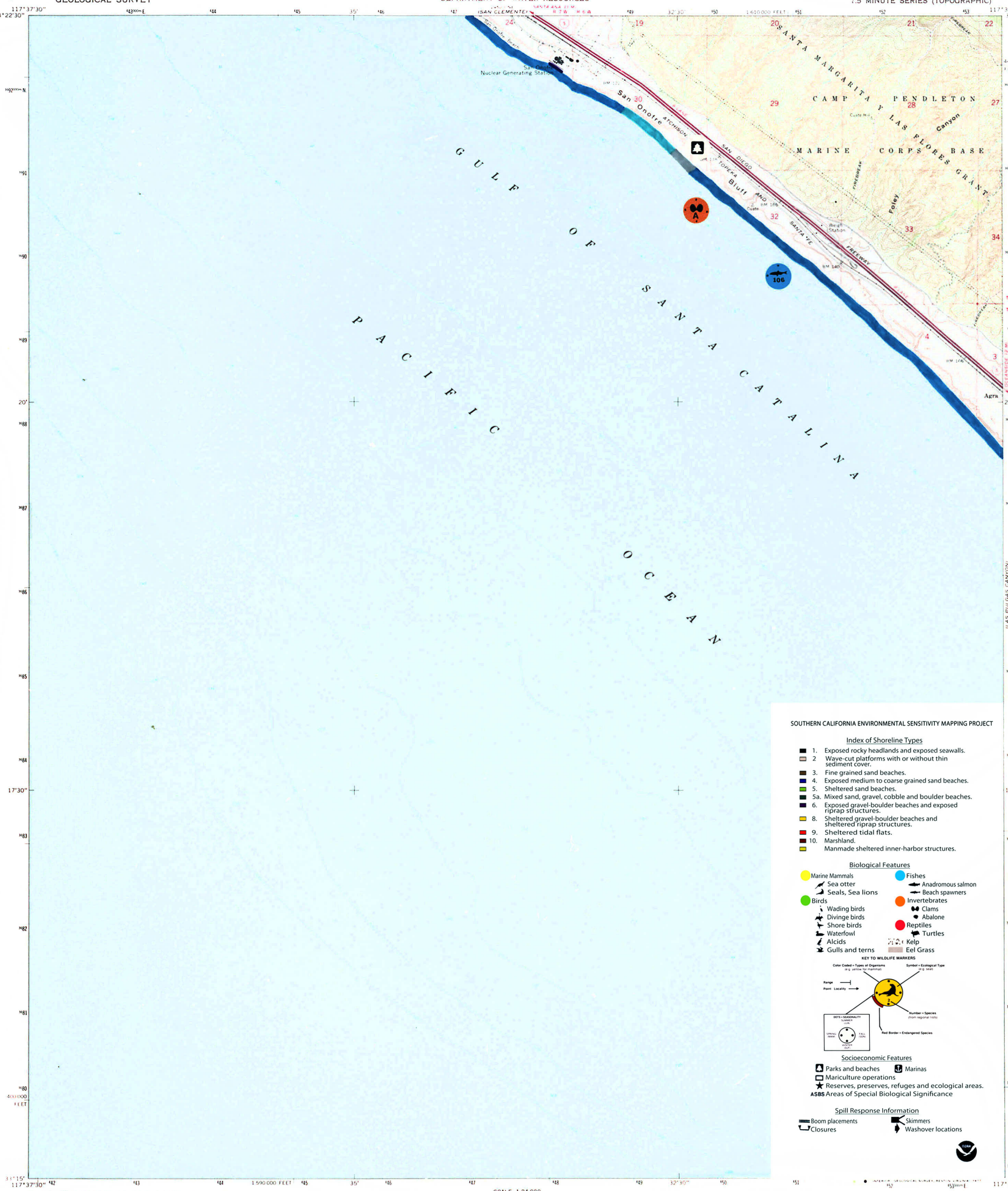
UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF CALIFORNIA
DEPARTMENT OF WATER RESOURCES

SAN ONOFRE BLUFF QUADRANGLE
CALIFORNIA – SAN DIEGO CO.
7.5 MINUTE SERIES (TOPOGRAPHIC)



SOUTHERN CALIFORNIA ENVIRONMENTAL SENSITIVITY MAPPING PROJECT

Index of Shoreline Types

1. Exposed rocky headlands and exposed seawalls.
2. Wave-cut platforms with or without thin sediment cover.
3. Fine grained sand beaches.
4. Exposed medium to coarse grained sand beaches.
5. Sheltered sand beaches.
5a. Mixed sand, gravel, cobble and boulder beaches.
6. Exposed gravel-boulder beaches and exposed riprap structures.
8. Sheltered gravel-boulder beaches and sheltered riprap structures.
9. Sheltered tidal flats.
10. Marshland.

Manmade sheltered inner-harbor structures.

Biological Features

- Marine Mammals
  - Sea otter
  - Seals, Sea lions
- Birds
  - Wading birds
  - Diving birds
  - Shore birds
  - Waterfowl
  - Alcids
  - Gulls and terns
- Fishes
  - Anadromous salmon
  - Beach spawners
- Invertebrates
  - Clams
  - Abalone
- Reptiles
  - Turtles
- Kelp
- Eel Grass

KEY TO WILDLIFE MARKERS

Color Coded = Types of Organisms (e.g. yellow for mammal)
Symbol = Ecological Type (e.g. seal)
Range
Point Locality
Number = Species (from regional lists)
Red Border = Endangered Species
DOTS = SEASONALITY
SUMMER (JUN)
SPRING (MAR)
FALL (SEP)
WINTER (DEC)

Socioeconomic Features

- Parks and beaches
- Marinas
- Mariculture operations
- Reserves, preserves, refuges and ecological areas.
- ASBS Areas of Special Biological Significance

Spill Response Information

- Boom placements
- Closures
- Skimmers
- Washover locations

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1946. Field checked 1948. Revised from aerial photographs taken 1967. Field checked 1968

Selected hydrographic data compiled from USC&GS surveys (1924, 1934–35)
This information is not intended for navigational purposes

Polyconic projection. 1927 North American datum
10,000-foot grid based on California coordinate system, zone 6
1000-meter Universal Transverse Mercator grid ticks, zone 11, shown in blue

Dotted land lines established by private survey

Map photoinspected 1975
No major culture or drainage changes observed

UTM GRID AND 1968 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24 000

CONTOUR INTERVAL 20 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION
Heavy-duty — Light-duty
Unimproved dirt
Interstate Route

ESI MAP NUMBER
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