

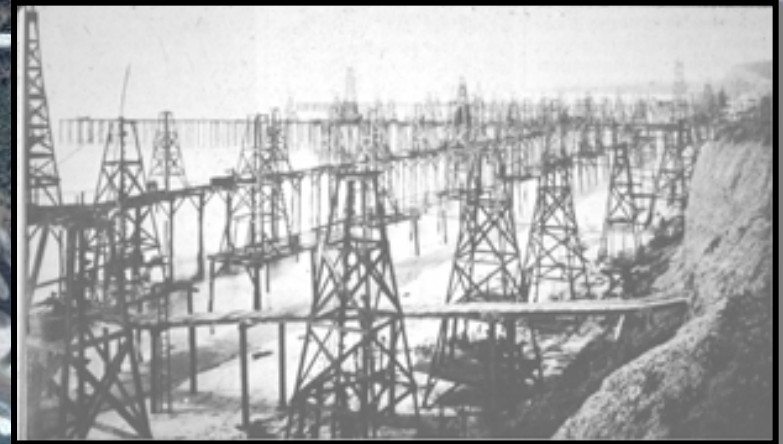
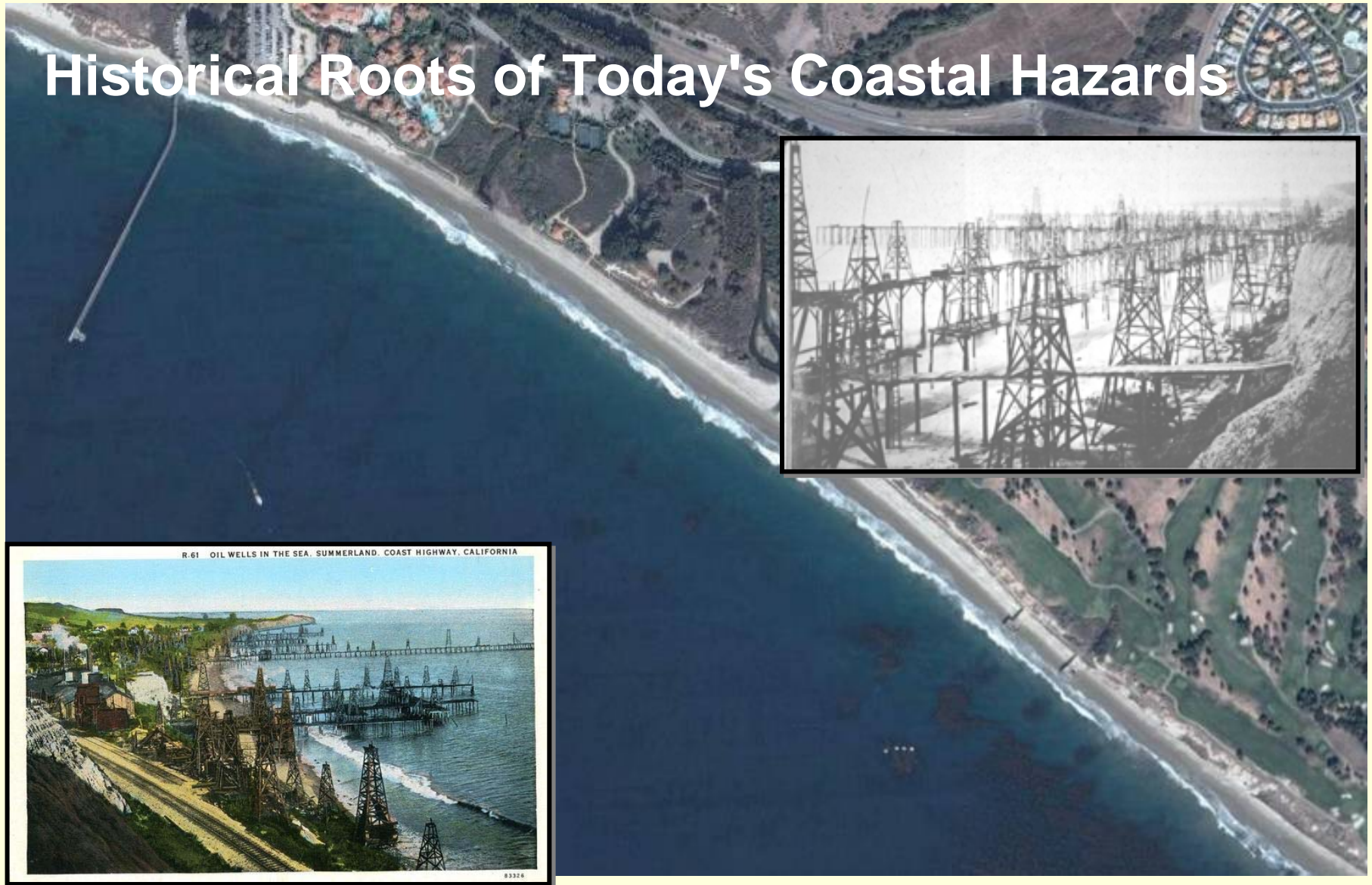
# Coastal Hazards Removal – Challenges to the Effective Removal While Minimizing Environmental Impacts

Presented by: Simon A. Poulter  
Padre Associates, Inc.



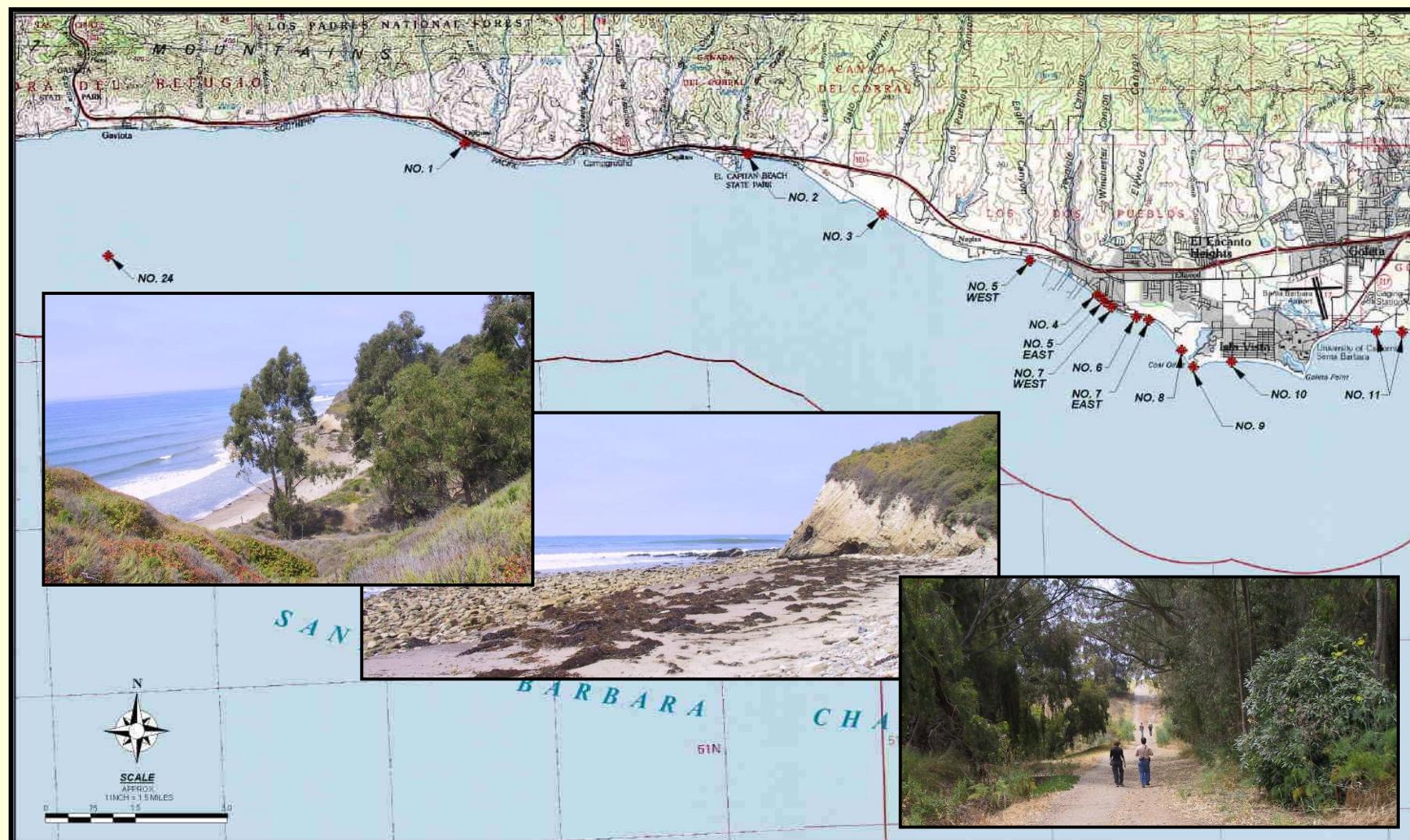
## Coastal Hazards Removal – Environmental Challenges

# Historical Roots of Today's Coastal Hazards





## Coastal Hazards Removal – Environmental Challenges



## Coastal Hazards Removal – Environmental Challenges

# Site Condition Summary

Site No.	Name	Access	Staging	Site-Specific Special Considerations	Preventative Measures
1	Tajiguas Creek	Private Property via Arroyo Cuemada	Private Property	<ul style="list-style-type: none"> <li>Tajiguas Creek</li> <li>Coordination with UPRR</li> <li>Red-legged frogs and steelhead in Arroyo Hondo</li> </ul>	<ul style="list-style-type: none"> <li>Pre-construction biological surveys</li> </ul>
2	El Capitan State Beach	Gated paved road before park entrance station, east side	State Park maint. yard	<ul style="list-style-type: none"> <li>State Beach - Public</li> </ul>	<ul style="list-style-type: none"> <li>Public Noticing</li> </ul>
4 & 5	Ellwood	Through VENOCO pier lot access and private property owner	Above Ellwood Pier parking lot - private property	<ul style="list-style-type: none"> <li>Bell Canyon Creek - tidewater goby</li> <li>Monarch Butterflies</li> <li>Proximity to Sandpiper and Bacara</li> <li>Archaeological Resources</li> </ul>	<ul style="list-style-type: none"> <li>Pre-construction biological surveys</li> <li>Arch monitoring during construction required at Site Nos. 4 &amp; 5</li> <li>Public Noticing</li> </ul>
6 & 7	Santa Barbara Shores A and B	Through gate on Santa Barbara Shores Dr.	On bluff top, erect temp fencing	<ul style="list-style-type: none"> <li>Monarch Butterflies</li> <li>Archaeological Resources at Site No. 7</li> </ul>	<ul style="list-style-type: none"> <li>Pre-construction biological surveys</li> <li>Arch monitoring during construction required at Santa Barbara Shores (B) Site No. 7</li> </ul>
8, 9, & 10	Sands Beach at Devereaux Slough, Devereux Point, and Isla Vista	Via Storke Rd to El Colegio Rd and past Devereaux Ranch School	In gravel parking lot at access location	<ul style="list-style-type: none"> <li>Devereux Slough - snowy plovers</li> <li>Archaeological Resources at Site No. 10</li> </ul>	<ul style="list-style-type: none"> <li>Pre-construction biological surveys</li> <li>Arch monitoring during construction required at Isla Vista site No. 10</li> </ul>



## Coastal Hazards Removal – Environmental Challenges



## Coastal Hazards Removal – Environmental Challenges

# Site Condition Summary

Site No.	Name	Access	Staging	Site-Specific Special Considerations	Preventative Measures
14, 15, & 22	Miramar, Santa Barbara-Carpinteria, Fernald Pt, and Ortega Hill East	SB County Parks ramp	Within Miramar Hotel construction site	<ul style="list-style-type: none"> <li>Archaeological Resources at Site No. 22</li> </ul>	<ul style="list-style-type: none"> <li>Arch monitoring during construction required at Ortega Hill Site No. 22</li> </ul>
16	Ortega at Summerland East End-Padaro Lane	Thru road adjacent to SSD above Summerland Beach	Fenced yard at SSD above Summerland Beach		<ul style="list-style-type: none"> <li>Potential abalone survey required.</li> </ul>
18	Carpinteria State Beach	from Carpinteria State Beach	Clean Seas lot or VENOCO Casitas Pier parking lot	<ul style="list-style-type: none"> <li>Snowy plovers</li> <li>Steelhead in Carp Creek</li> <li>Archaeological Resources</li> </ul>	<ul style="list-style-type: none"> <li>Pre-construction biological surveys</li> <li>Arch monitoring during construction required</li> </ul>
19	Casitas Pier - East Side	VENOCO Casitas Pier turnaround	Clean Seas lot or VENOCO Casitas Pier parking lot	<ul style="list-style-type: none"> <li>Harbor seal haul-out area restrictions</li> </ul>	<ul style="list-style-type: none"> <li>Construction Timing Preclusions to Avoid Haul-Out Season</li> <li>Biological Monitoring During Construction</li> </ul>
20	Rincon/Mussels Shoals at Mussel Rock/Pitas Pt.	Mussel Shoals Rd to Ocean Ave to pier/causeway access road	Rincon Pier parking lot		<ul style="list-style-type: none"> <li>Potential abalone survey required.</li> </ul>
21	Ventura River, Ventura	Fairground frontage road at turnaround	Fairgrounds or CalTrans yard	<ul style="list-style-type: none"> <li>Ventura River Habitat</li> <li>Construction Area is Primarily Underwater</li> </ul>	<ul style="list-style-type: none"> <li>Potential surf grass survey required.</li> </ul>
23	Rincon Point	Walk in from west parking lot	Staging not necessary	<ul style="list-style-type: none"> <li>Archaeological Resources</li> </ul>	<ul style="list-style-type: none"> <li>Arch monitoring during construction required</li> </ul>



## Coastal Hazards Removal – Environmental Challenges

# Case Study - Goleta Beach Exposure (1998)





## Coastal Hazards Removal – Environmental Challenges

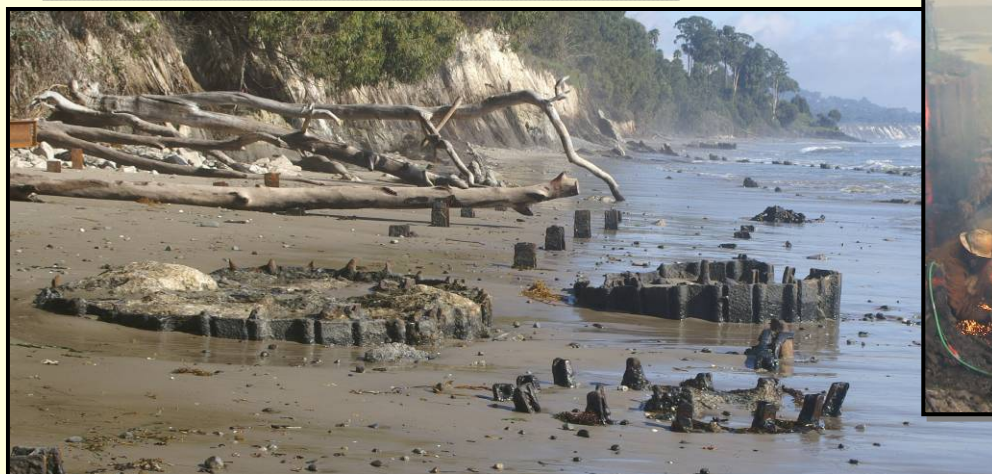
# 1998 Goleta Beach Caisson Removal





## Coastal Hazards Removal – Environmental Challenges

### 2006-07 Goleta Beach Caisson Removal





## Coastal Hazards Removal – Environmental Challenges

# Goleta Beach Hazards Removal





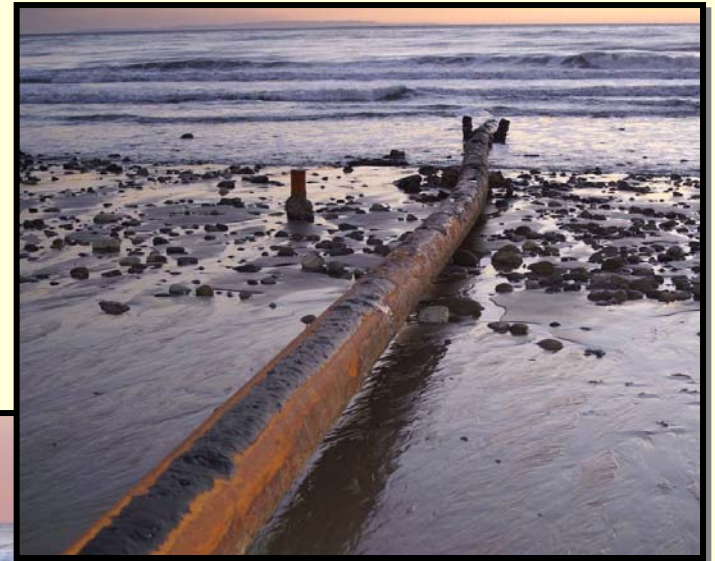
## Coastal Hazards Removal – Environmental Challenges

# Goleta Beach Hazards Removal



## Coastal Hazards Removal – Environmental Challenges

### Ellwood Beach Exposure - 2007





## **Current Hazards Removal Program**

- CSLC has Established Hazards Removal Program.
- Removal Contractor Under Contract.
- CEQA Compliance Completed and Permits Issued.
- Effective Mitigation Monitoring and Compliance Program in Place.
- Private Funded Site Removals Completed.
- Additional Funding Still Required.

### Permitting Requirements

- California Coastal Commission
- Army Corps of Engineers
- Regional Water Quality Control Board
- USFWS/NOAA Fisheries/CDF&G
- State Parks Department
- Santa Barbara County
- Ventura County
- City of Carpinteria
- City of Goleta



### Key Program Issues

- Exposures of Hazards are Periodic and Short Term in Nature.
- Site Conditions Change Rapidly.

# Effective Site Exposure





### Key Program Issues

- Exposures of Hazards are Periodic and Short Term in Nature
- Site Conditions Change Rapidly
- Site Access is Limited

## Coastal Hazards Removal – Environmental Challenges

### Site Access Limitations





### Key Program Issues

- Exposures of Hazards are Periodic and Short Term in Nature.
- Site Conditions Change Rapidly.
- Site Access is Limited.
- Hazards Located in Areas of Sensitive Environmental Resources.
- Hazards are Often Located in Areas of Active Public Use.

## Coastal Hazards Removal – Environmental Challenges

# Heavy Equipment in Sensitive Areas





### Key Program Issues

- Exposures of Hazards are Periodic and Short Term in Nature.
- Site Conditions Change Rapidly.
- Site Access is Limited
- Hazards Located in Areas of Sensitive Environmental Resources.
- Hazards are Often Located in Areas of Active Public Use.
- Funding is Currently Limited.

## Coastal Hazards Removal – Environmental Challenges

### Key Environmental Issues

- Access Routes.
  - Upland Routes and Staging
  - Lateral Beach Transit Routes
- Seasonal Site Restrictions.
- Sensitive Resources.
  - Water Quality
  - Biological
  - Cultural
  - Recreational
- Site Safety Considerations.
  - Slope stability
  - Sea State and Beach Profile





## Coastal Hazards Removal – Environmental Challenges

### Environmental Considerations



### Key Program Issues

- Exposures of Hazards are Periodic and Short Term in Nature.
- Site Conditions Change Rapidly.
- Site Access is Limited.
- Hazards Located in Areas of Sensitive Environmental Resources.
- Hazards are Often Located in Areas of Active Public Use.
- Funding is Currently Limited.



# Key Program Recommendations

- Review exposure history and implement detailed GPS mapping program.
- Maintain detail removal and access methodology.
- Acquire long term permits and access approvals.
- Active monitoring of sites during significant coastal erosion events.
- Implement immediate all pre-activity surveys and provide timely notification of all responsible agencies.
- Obtain well maintained equipment operated by knowledgeable operators.
- Implement active site monitoring during all work activities to identify changing site conditions.

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