



San Diego Partnerships to Defend Against Climate Change and Encroachment: Past, Present, & Future

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Navy Region Southwest

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Forum*



Today's Discussion

- Setting the Stage
- Natural Resource Management
- Partnership Contributions
- Sea Level Rise
- Approaching a Sentinel Landscape





Setting the Stage: Military Impact to San Diego

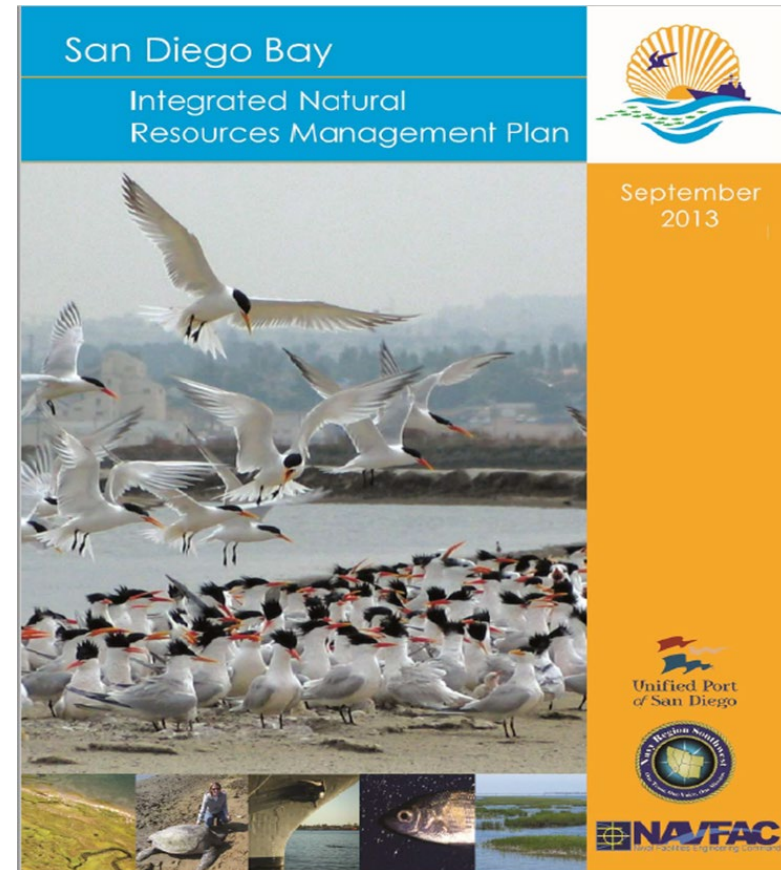
- \$52.4 billion, 25% of San Diego regional economy
- \$33.6 billion in direct military spending
- Military employs 342,486 people, 23% of San Diego jobs
- Aircraft carriers are a Top 10 employer in San Diego
- Each aircraft carrier brings an estimated \$767 million to the region, employs over 3,000 sailors.





San Diego Bay INRMP

- Only INRMP for a body of water
 - Covers roughly 11,400 acres
- Joint managed with Port of San Diego
- First signed in 2002, revised in 2013
- Supports the waterfront adjacent to the three Navy Installations
- Manages 5 ESA species





Eel Grass and Mitigation Banks

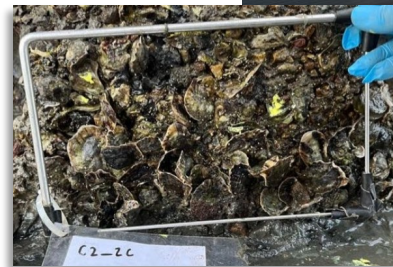
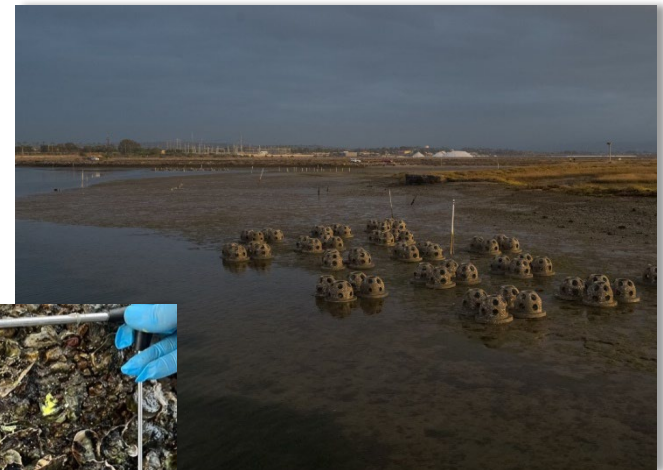
- Navy has an eelgrass mitigation bank that was established in 2008.
 - Navy has a 1:1 replacement for Navy activities that need mitigation
- With the Port, SD Bay has about 2,600 acres of eelgrass.
 - 50% of all eelgrass in SoCal & 17% in CA
- Significant source for carbon sequestration





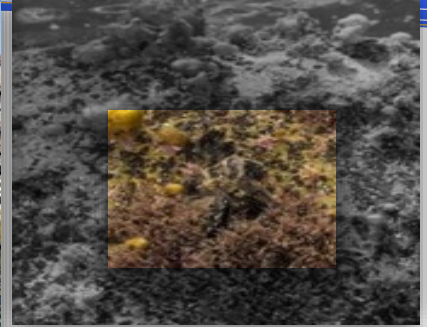
Partnership Contribution: Port of SD

- MOA signed in 2018
 - Initiating renewal
- Blue Economy Incubator
- Living Shoreline
- Aquaculture Planning
- Ecocrete

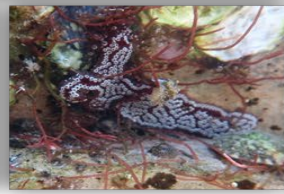
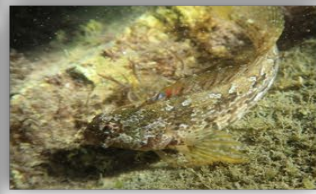




ECOcrete



2-3 Month Post-Deployment Surveys



14 Month Post-Deployment Monitoring





Scripps Institution of Oceanography

- Multiple MOAs throughout the region to use our installations as laboratories to understand real life climate change and sea level rise.
 - Their climate scientists work with the DOD to help understand impacts to climate change not only from a shore based perspective, but in many operational focus areas.
- Works with cities throughout the region to look for region-wide solutions to climate change.





Tijuana River National Estuarine Research Reserve

- The Tijuana River National Estuarine Research Reserve preserves, protects, and manages the natural and cultural resources of the Tijuana River Estuary by focusing on research and education with compatible recreation and resource use.
- As a major landowner within the reserve, Naval Base Coronado is a member of the TRNERR Advisory Council





State and Local Partnerships

- State of California: Legislature (Senate and Assembly) State Parks, California Coastal Commission, California Coastal Conservancy, CALTRANS, CALFIRE, State Lands Commission, California Energy Commission, Governor's Military Council, Housing and Community Development, etc.
- Local: SANDAG, County of San Diego, City of San Diego, City of National City, City of Imperial Beach, City of Coronado, Port of San Diego, etc.





Sentinel Landscape Introduction

- Designation of a defined geographic area where conservation, working lands, and national defense interests converge
- Coalition of federal, state and local agencies/governments, as well as NGOs to coordinate actions to accomplish goals of the partnership more efficiently

SENTINEL LANDSCAPES





Sentinel Landscape Introduction

- Overarching Landscape Program Goals:
 - Strengthen military readiness
 - Conserve natural resources
 - Bolster agricultural and forestry economies
 - Increase public access to outdoor recreation
 - Enhance resilience to climate change



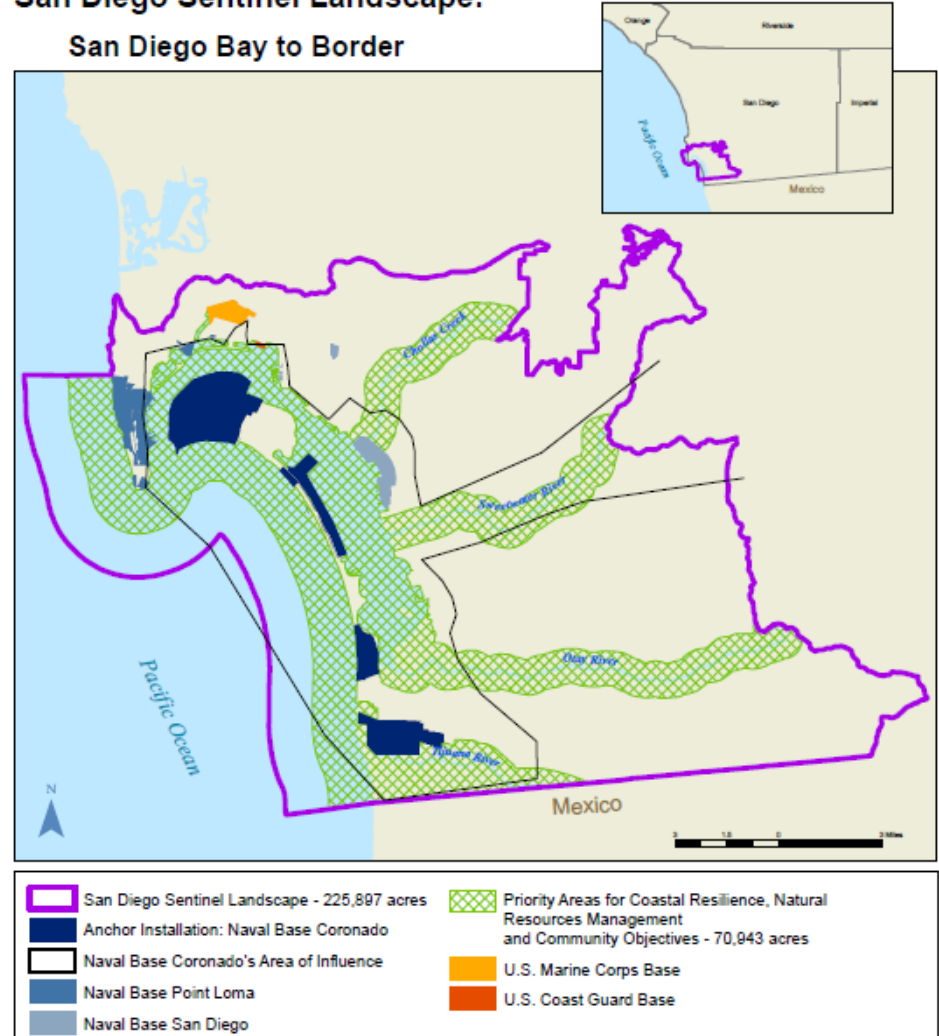


San Diego Bay to Border Sentinel Landscape

- Working boundary*
 - San Diego Bay Pueblo watershed northern extent
 - Otay, Sweetwater, Pueblo sub-basin watersheds eastern extent
 - US/Mexico Border southern border
 - Pacific Ocean (3nm)* western extent

*subject to change as we sharpen the application

San Diego Sentinel Landscape:
San Diego Bay to Border





Landscape Goals

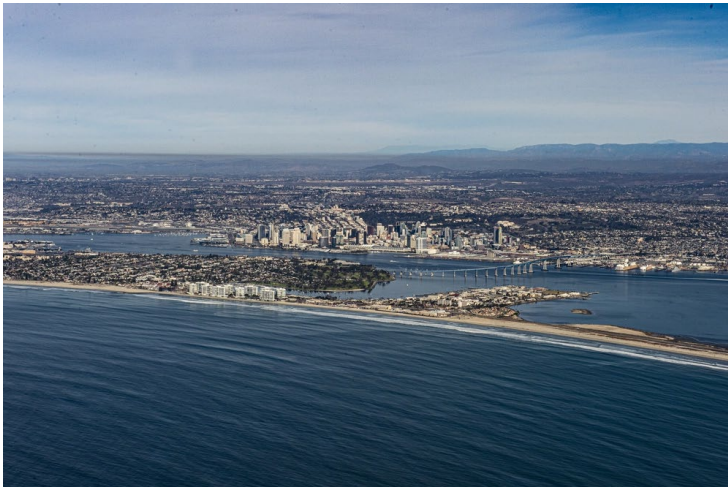
1. **Military Sustainment and Readiness**: align and implement local, regional, and installation plans and programs, including installation encroachment action plans; San Diego Association of Governments Military Installation Resilience goals; Integrated Natural Resources Management Plans; promote compatible development around military installations and ranges to sustain military readiness.





Landscape Goals

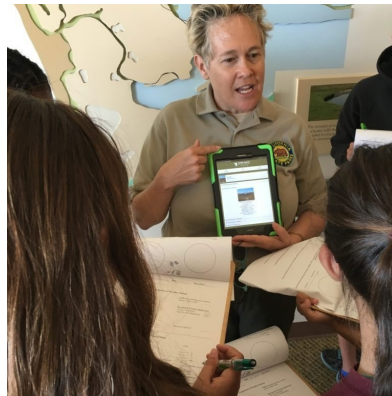
1. **Coastal Resilience:** develop a shared coastal resilience program for infrastructure, economy, and recreation within and surrounding the San Diego Bay and Tijuana River Valley. Develop and implement projects that maintain essential transportation corridors for mission readiness; increase functionality of hard shorelines through nature-based shoreline solutions; increase acreage of natural or living shorelines in the Bay; increase resilience of the outer shore and the Tijuana River Estuary from sea-level rise and storm surge; address coastal flooding and inundation, and incentivize new technology to strengthen community and coastal resilience (including aquaculture).





Landscape Goals

- 3. Natural Resources Management:** an intact ecosystem and watershed/water quality through enhancement, creation, restoration, and protection of native habitats and species, with focus on federally listed species (California least tern, western snowy plover, Ridgway's rail, East Pacific green sea turtle).
- 4. Community Outreach & Communication:** bolster community engagement in planning, address environmental justice, and protect and enhance natural resources important to Tribes. Develop new outreach, education, and community connection, establish community science projects, partner with urban farming initiatives, and continue and expand existing outreach efforts.





Questions?





Building on Past and Present for a Stronger Future

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