Coastal Resilience
Naval Base Ventura County

National Military Fish and Wildlife Association
Climate Resilience

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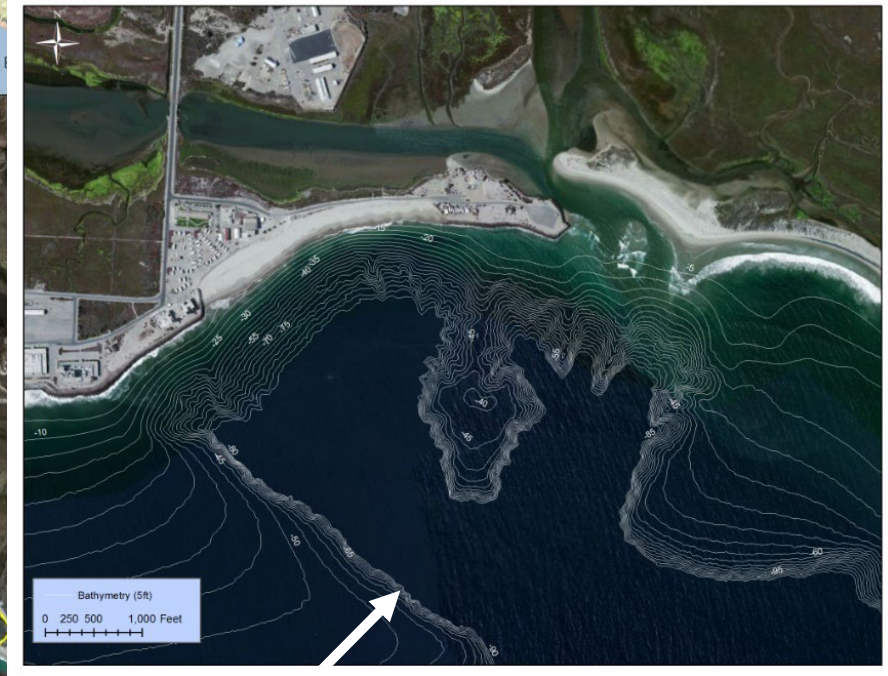
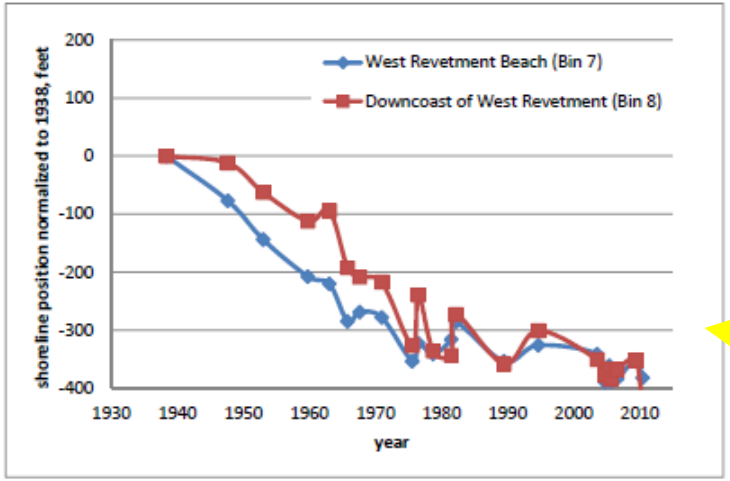
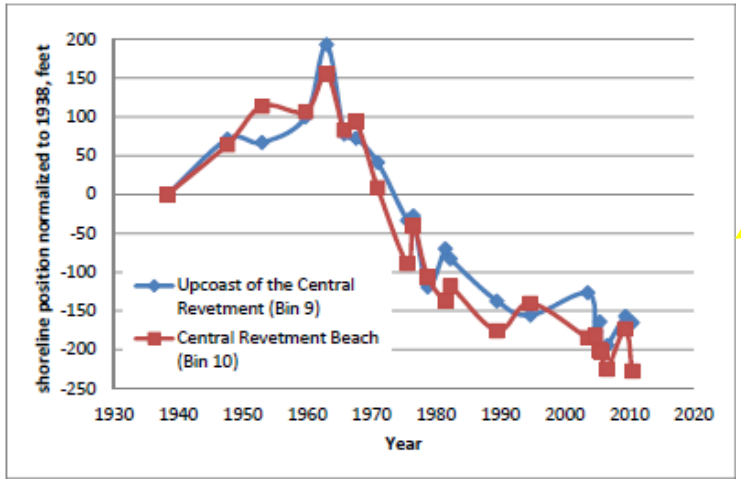
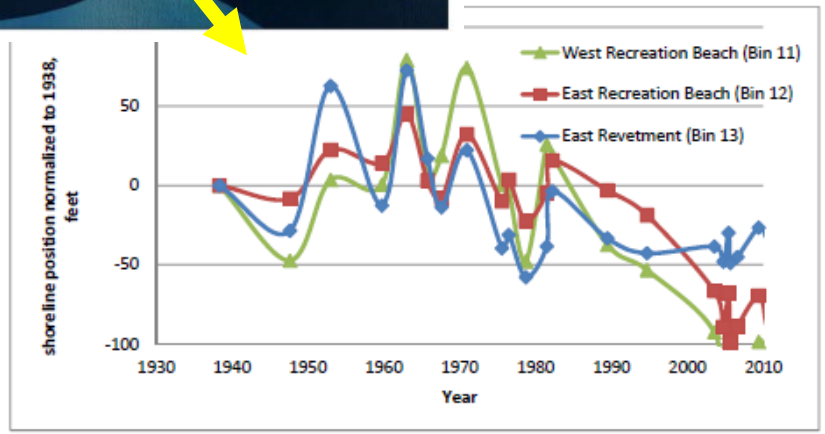
Impacts to Point Mugu



Disappearing Coastline



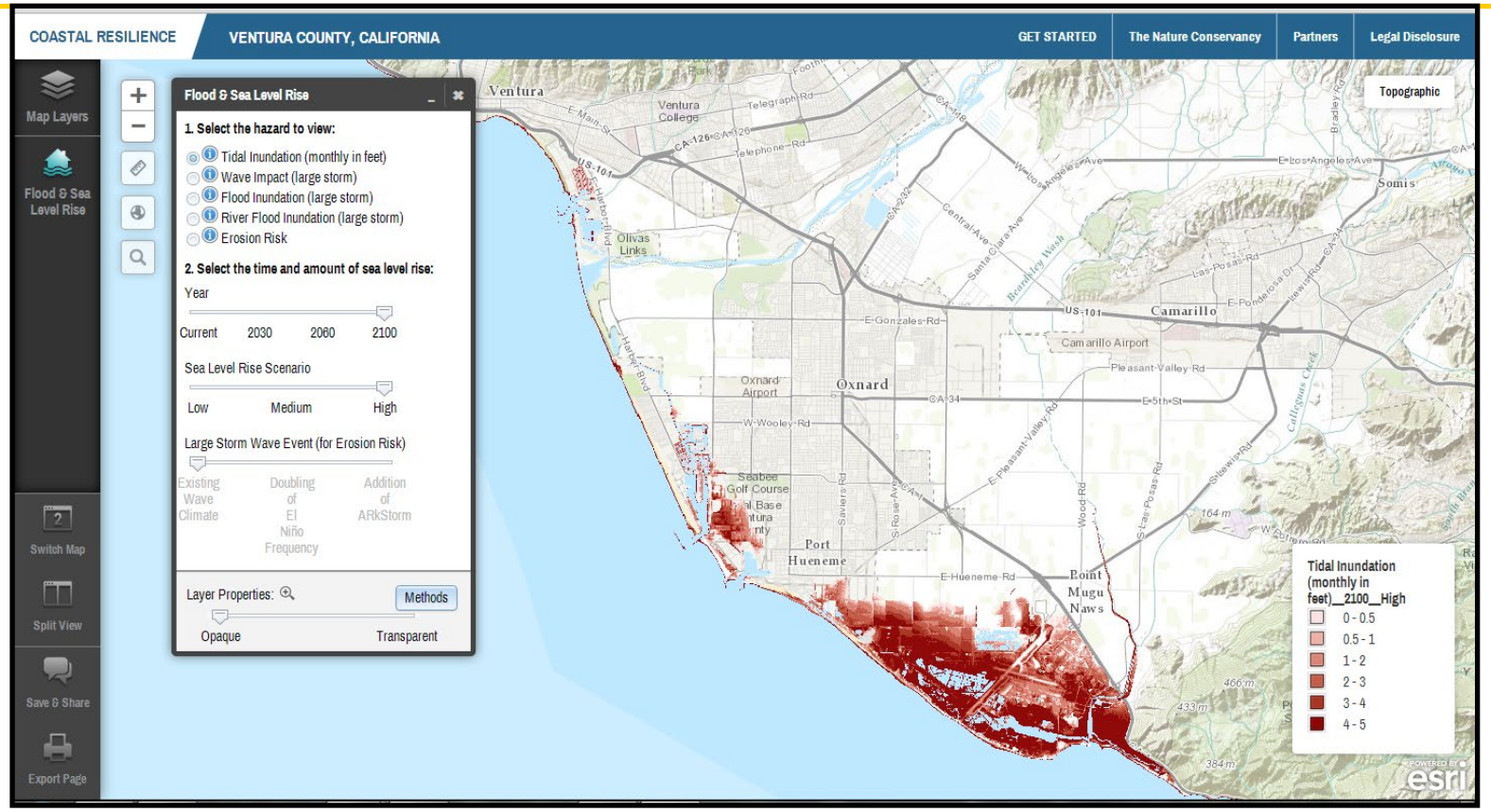




Sand Deficit

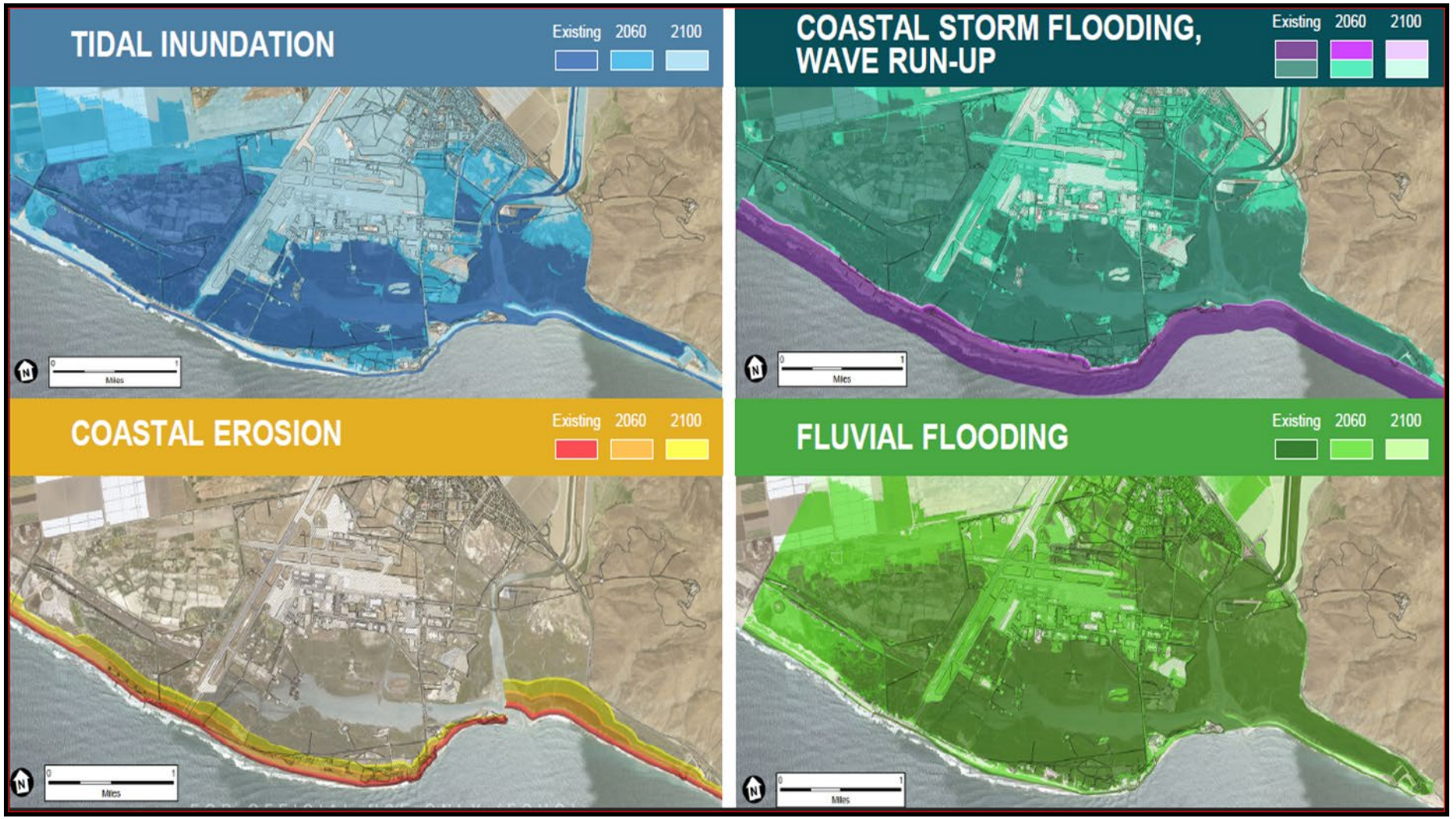
- Biennial requirement: 2.5M cubic yards (cy)
- Funding deficits since 1980 have reduced the amount of sand by-passed by over 50%
- Sand is available at Channel Islands Harbor Sand Trap:
  - Since 2012, 3.3M cy available on average
  - Since 2012, only 1.75M cy dredged on average (53% of normal)
  - Overall sand deficit grew by 4.5M cy during the 2012 to 2022 period
- Cumulative sand deficit to Hueneme Beach/Point Mugu shoreline is 32M cy as of 2023
- Increase in sand bypassed 2022/23 to 2.24M cy

TNC Coastal Resilience Ventura



TNC Goal: Work closely with partners * Choose relevant management contexts * Build on best available science * Incorporate economic impacts * Create custom, user-friendly tools

Navy Assets are Vulnerable to Erosion and Flooding



Soft Armoring

5’ x 4’ sandbags were buried in front of the scoured-out section of Beach Road

So Far, So Good

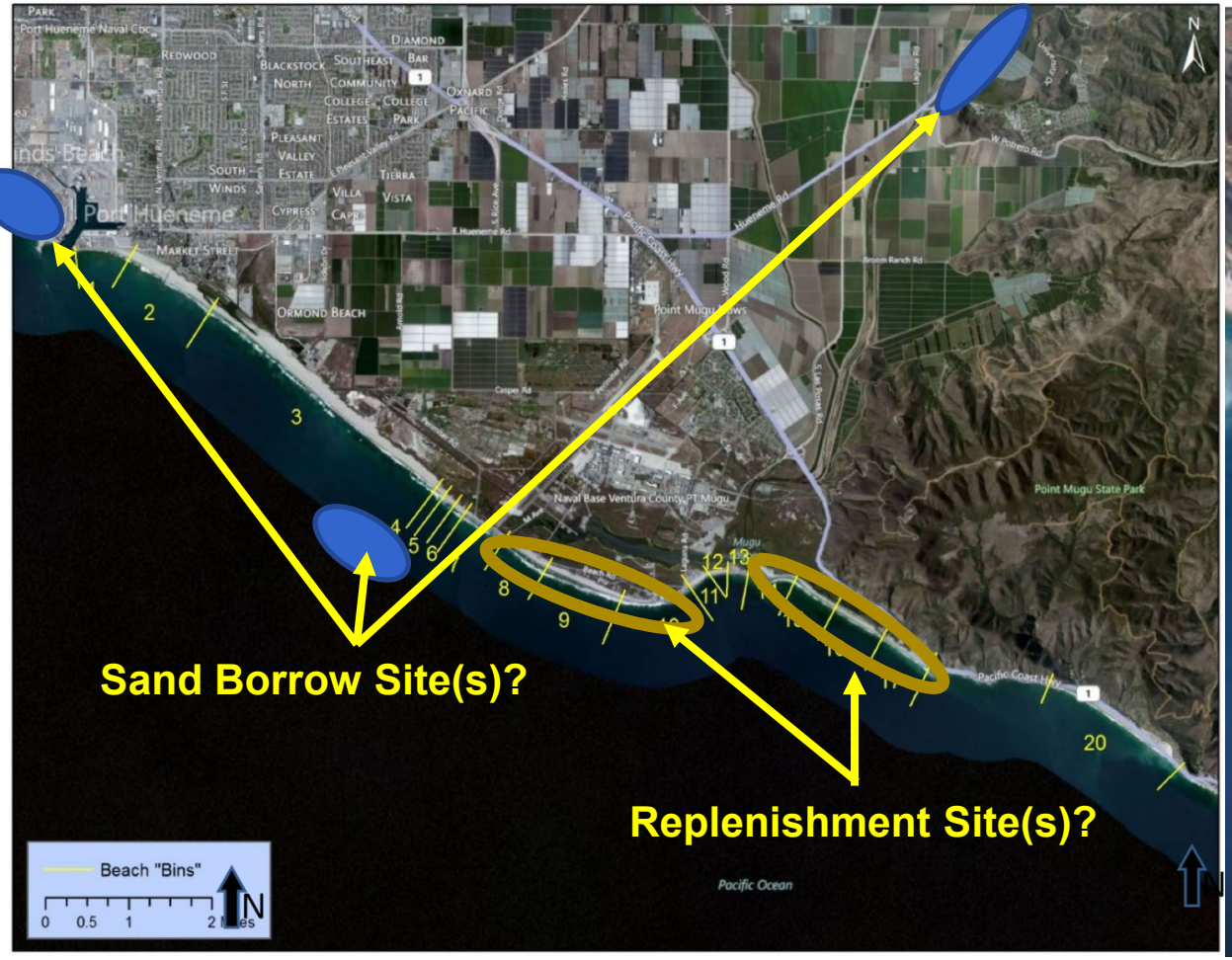
Programmatic Permits

Develop programmatic permits with the ACOE to take sand from areas where it accumulates on base and move it to retreating beaches.

…and move it to this beach

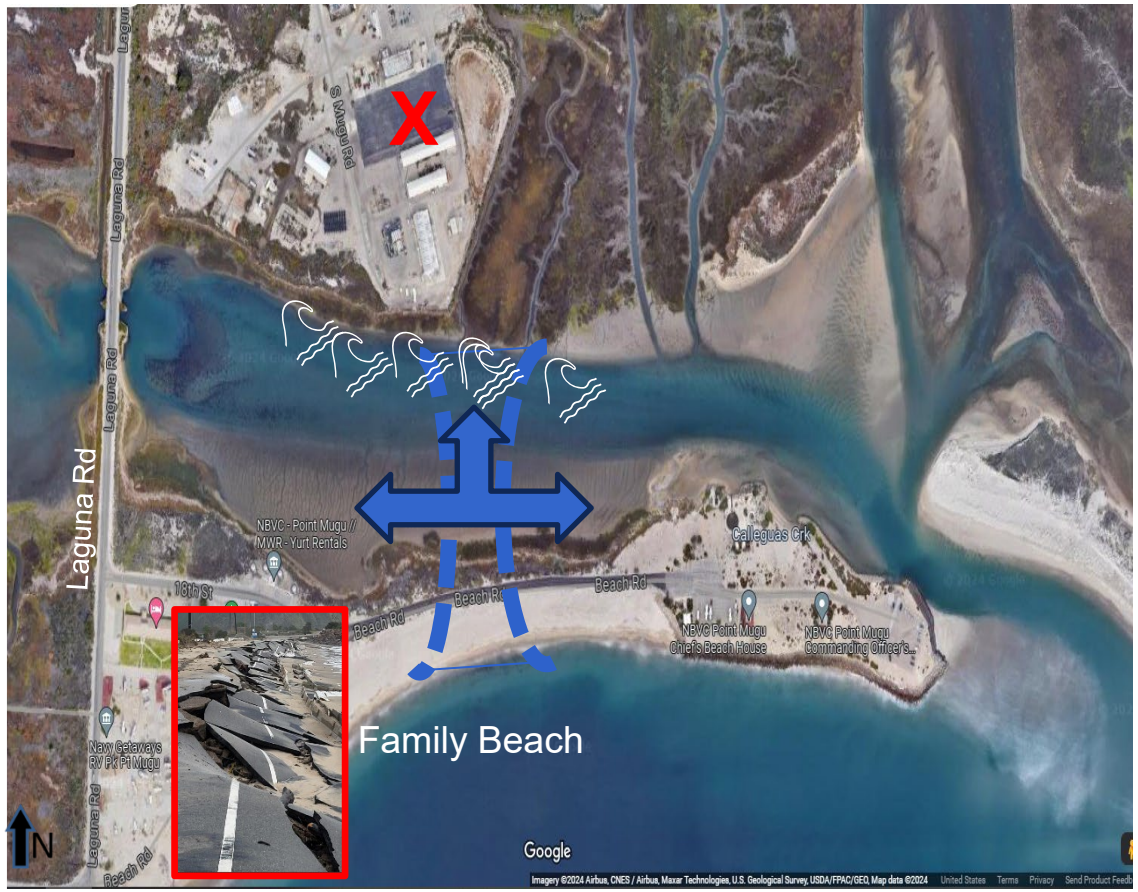
Immediate Future

Future Sand


Sand Borrow Site(s)?
Replenishment Site(s)?
Beach "Bins"
0 0.5 1 2 Miles
N
Pacific Ocean
Port Hueneme
Point Mugu State Park
Naval Base Ventura County PT Mugu
Ormond Beach
Pacific Coast Hwy

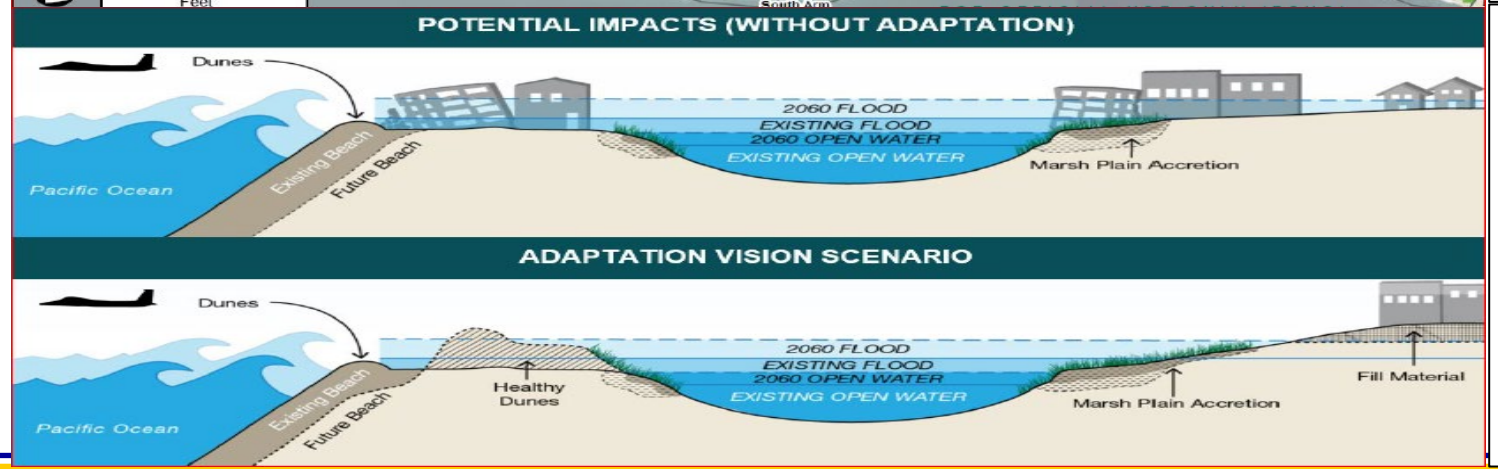

Mugu Canyon Rest Area
Pacific Coast Hwy
Sand spit
(replenishment site)
Chumash Trailhead
NBVC Seabee Range

The Future for Family Beach



Serving the Fleet, Fighter and Family in Ventura County

Future Point Mugu Resiliency Vision: Benefits to Infrastructure and Habitats



REDUCED EXPOSURE TO BUILT ASSETS:

- Benefits conferred from removed assets.
- Additional protective services and resilience from natural infrastructure and adapting 2A on fill.

RESTORED HABITAT AREAS:

- Over 500 acres added to over 1,000 acres of existing habitat area.
- Opportunities for restoring hydraulic connectivity.

Point Mugu's Resilient Future

- Vulnerable areas subject to storm surges are continually identified and managed with funding that covers both regular maintenance and occasional storm impacts
- Sand is managed throughout the year to maintain beach width and protect infrastructure and operational areas
- Lagoon monitoring provides area specific data on tide range, salinity, and current flow to better conduct maintenance, repairs, or decisions on where to place various structures
- Sediment augmentation in lagoon keeps up with Sea Level Rise and minimized flooding events

Questions?

It's all about the sand!