



# National Marine Sanctuaries, West Coast Region

## Presentation to Pacific Fishery Management Council on ONMS Coordination Report

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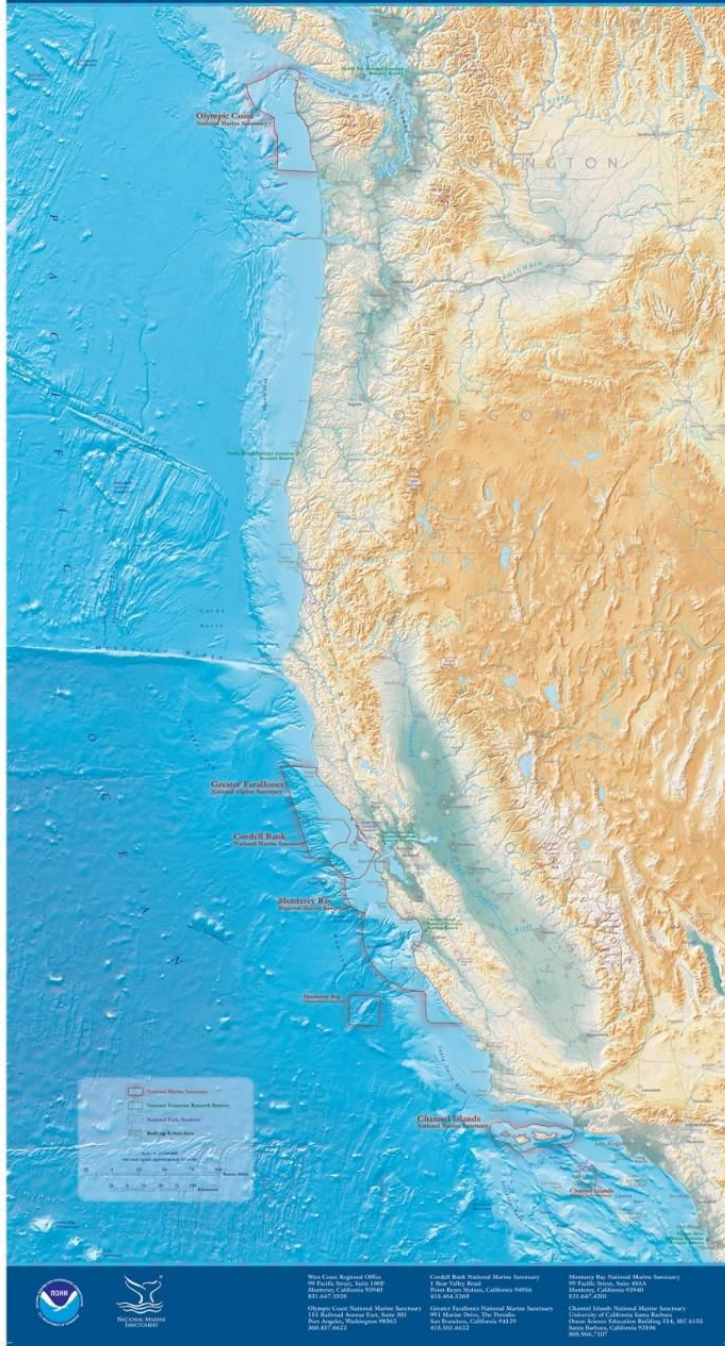
# Informing the PFMC of West Coast Sanctuaries Activities/Programs



## ONMS/NMFS/PFMC communication and coordination continuously improving

### Eighth annual ONMS coordination report with following topics:

- Nominations and designations
- Condition reports
- Management plan reviews
- Climate vulnerability assessments
- Deep-sea coral and kelp research and restoration
- Blue carbon, soundscapes, and seabird research
- Fishing outreach events
- Shipping protections for whales



# What are National Marine Sanctuaries?

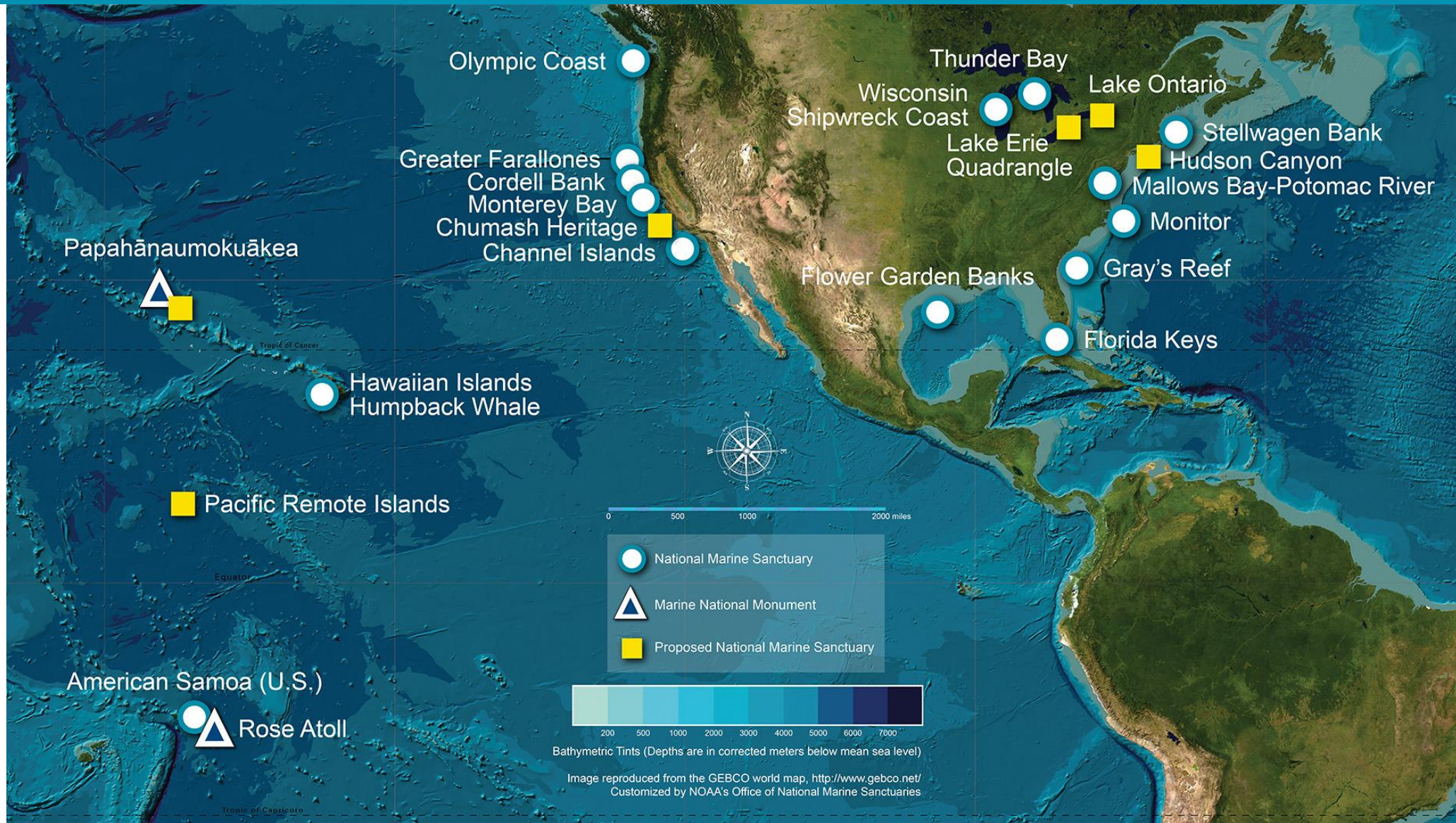


***“Areas of the marine environment with special conservation, recreational, ecological, historical, cultural, archaeological, or esthetic qualities...”*** – National Marine Sanctuaries Act (section 301)

- NMSA provides authority for comprehensive and coordinated conservation and management of marine areas (Great Lakes included) of special national significance, while also promoting multiple uses
- Raising public awareness and understanding through education and outreach
- Improving management through research (e.g., historical, conservation science, social science)
- Helping coastal economies by promoting and protecting healthy resources
- Facilitating public use compatible with resource protection



# National Marine Sanctuary System



# Status of Sanctuary Nominations and Designations To Date



## ● In Inventory of Candidate Sites

- St. George Unangan Heritage (St. George Island, Pribilofs, Bering Sea, AK)
- Alaġum Kanuuġ (St. Paul Island, Pribilofs, AK)

## ● Nominations Declined by NOAA or Withdrawn by Nominator

- Aleutian Islands (AK)
- Southern CA Offshore Banks (CA)
- Eubalaena-Oculina Banks (FL)
- Shipwreck Coast (Lake Superior, MI)
- Mariana Trench (CNMI)

## ● Designations in Process

- Lake Ontario (NY)
- Papahānaumokuākea (HI)
- **Chumash Heritage (CA)**
- Hudson Canyon (NY)
- Pacific Remote Islands (HI)
- Lake Erie Quadrangle (PA)

## ● Nominations Under Review

- None

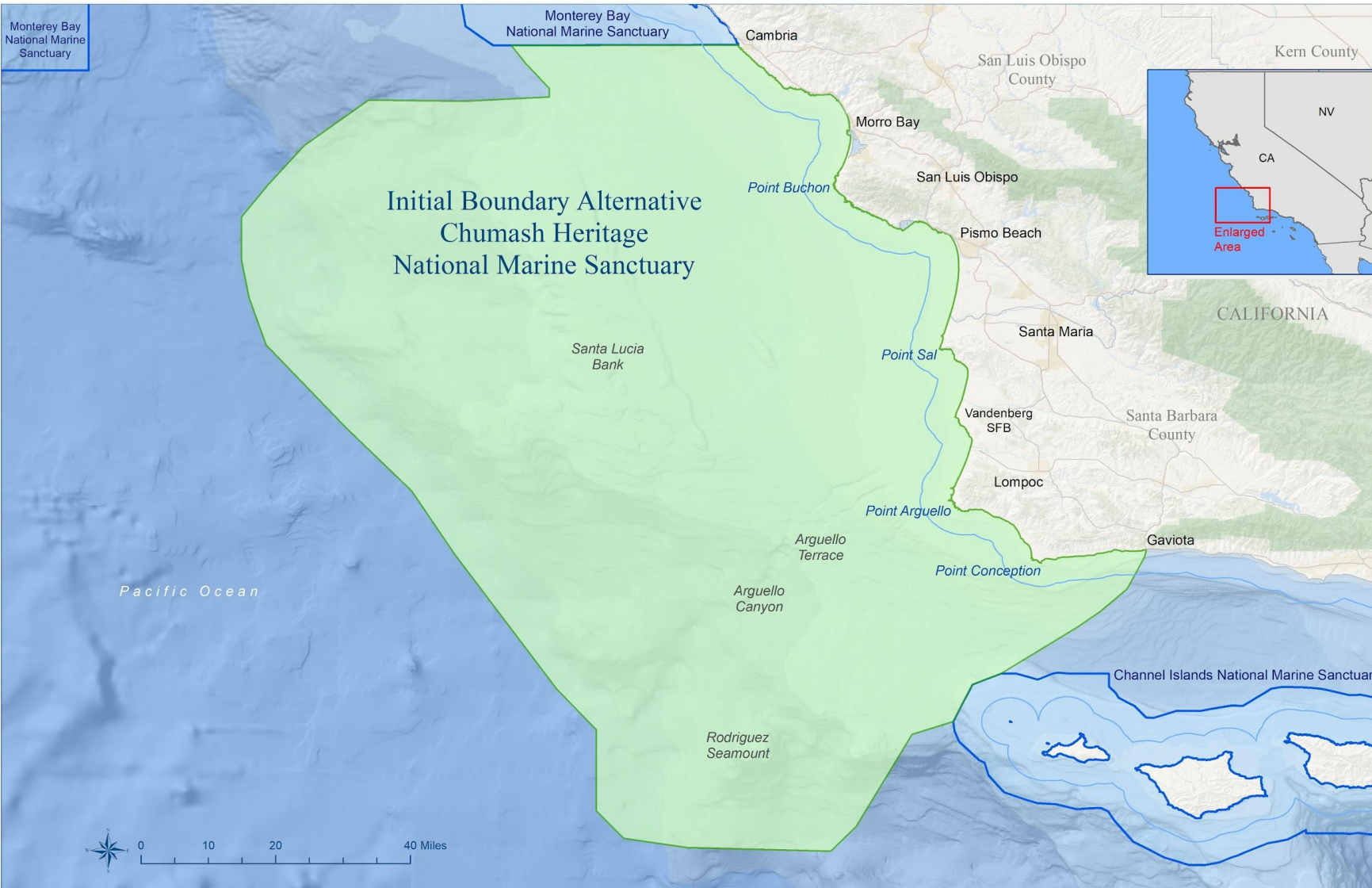


# Chumash Heritage National Marine Sanctuary (CHNMS) Designation



## Goals for the Proposed Sanctuary:

1. Protect nationally significant natural, historical and cultural resources
2. Guide comprehensive ecosystem-based management for myriad threats to these resources
3. Recognize and aid public awareness of Indigenous Tribal heritage and culture in the area



# CHNMS Designation Process



- Scoping comments and input from Tribes, federal agencies, state agencies, and local governments have helped NOAA shape the draft management plan, regulations, and determine what boundary and regulatory alternatives to evaluate in the draft EIS.
- NOAA released draft designation materials August 25, 2023, and took comments until October 25, 2023. NOAA held three informational workshops and three public comment meetings. In total, 2,600 individual comment submissions totalled more than 110,000 comments. No fishing regulations were proposed. PFMC submitted a comment letter.
- NOAA is in the process of considering all public comments, writing a response to comments, and revising the EIS, management plan, and rule.
- If NOAA decides to pursue a final designation, will first release EIS, followed at least 30 days later by other final materials.
- **Anticipate final action (release of final EIS) late-Summer 2024.**

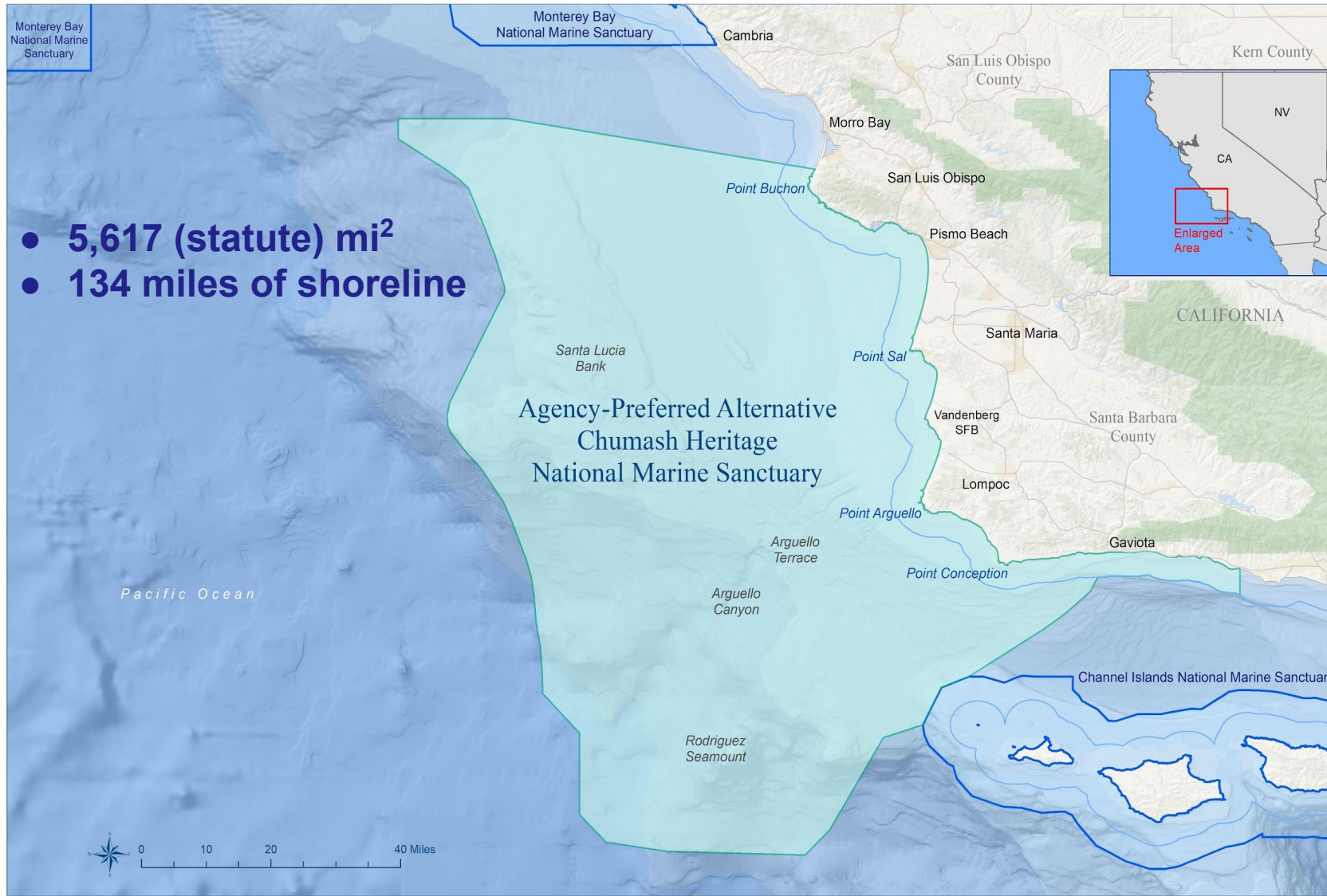
# Highlights of CHNMS Comments



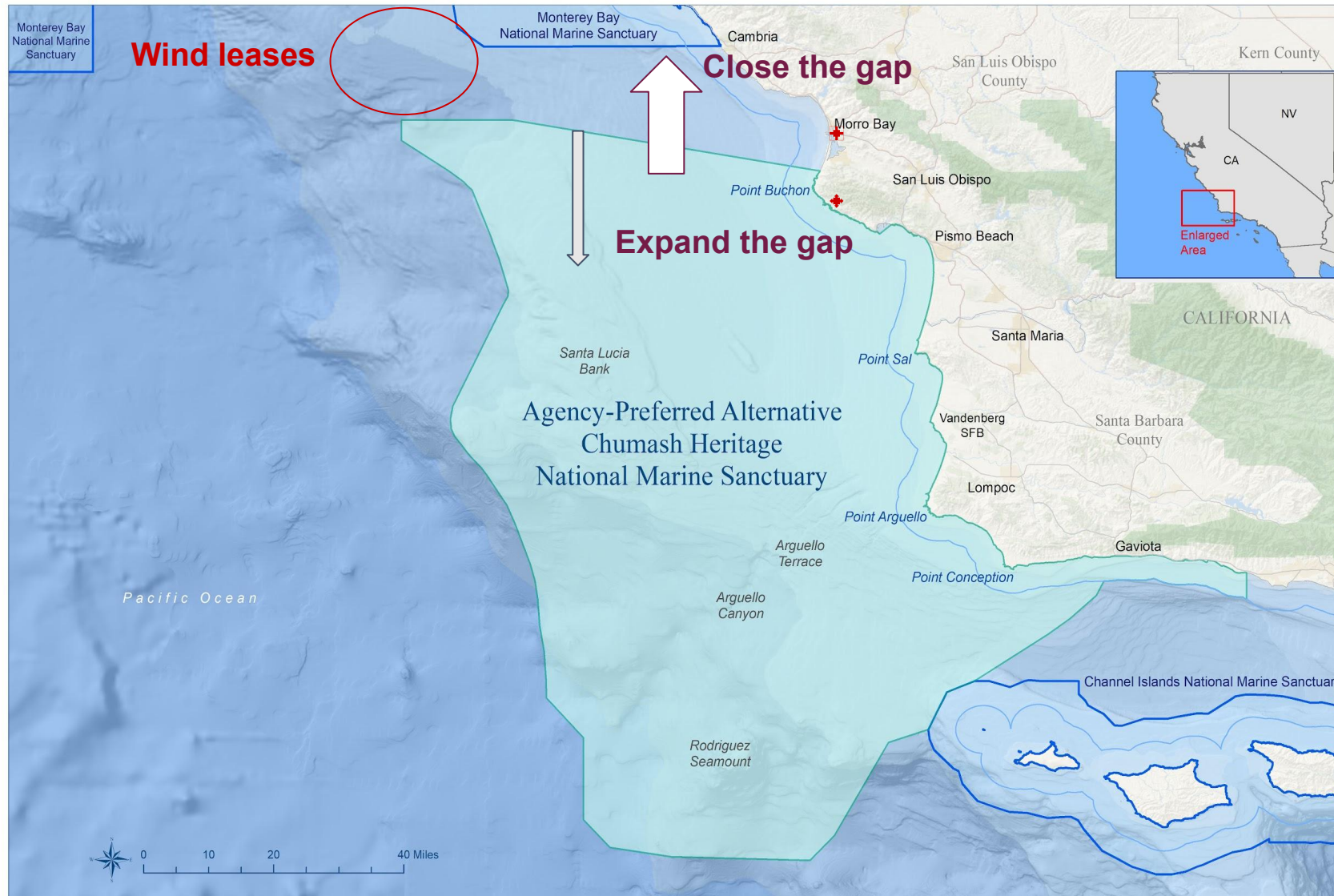
- The vast majority (>98%) of the 110,000+ comments supported completing the designation by “closing the gap” created by the Agency-Preferred Alternative in the draft EIS. Both the Initial Boundary Alternative and Alternative 1 achieve this.
- OSW industry seeking exceptions and exclusions to avoid having to get a permit from NOAA for cables. Two (of three) Morro Bay leaseholders are urging a larger gap be approved to avoid permitting. Also they have suggested a future boundary expansion process after cables are permitted/built to “close the gap”. Could be 10 years away.
- Other commenters sought: different permit processes (telecom industry); regulatory exceptions for decommissioning (oil and gas); and additional boundary exclusion areas around harbors.
- Tribal comments sought changes to co-stewardship plan and name for the sanctuary.
- Few commenters sought sanctuary regulation of fishing.
- ***If NOAA anticipates needing regulations that would regulate fishing, NOAA staff will bring any such need to the PPMC for its consideration, feedback, or action.***



# Agency-Preferred Alt. from Draft EIS

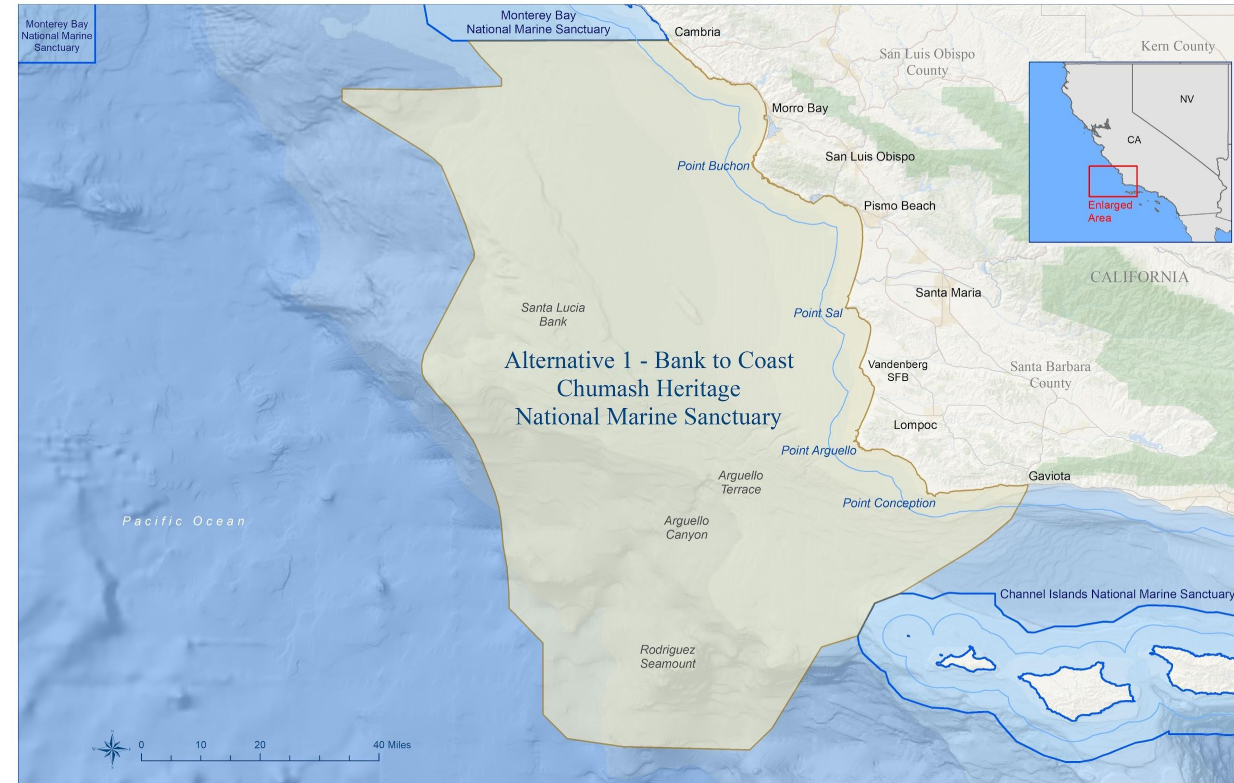
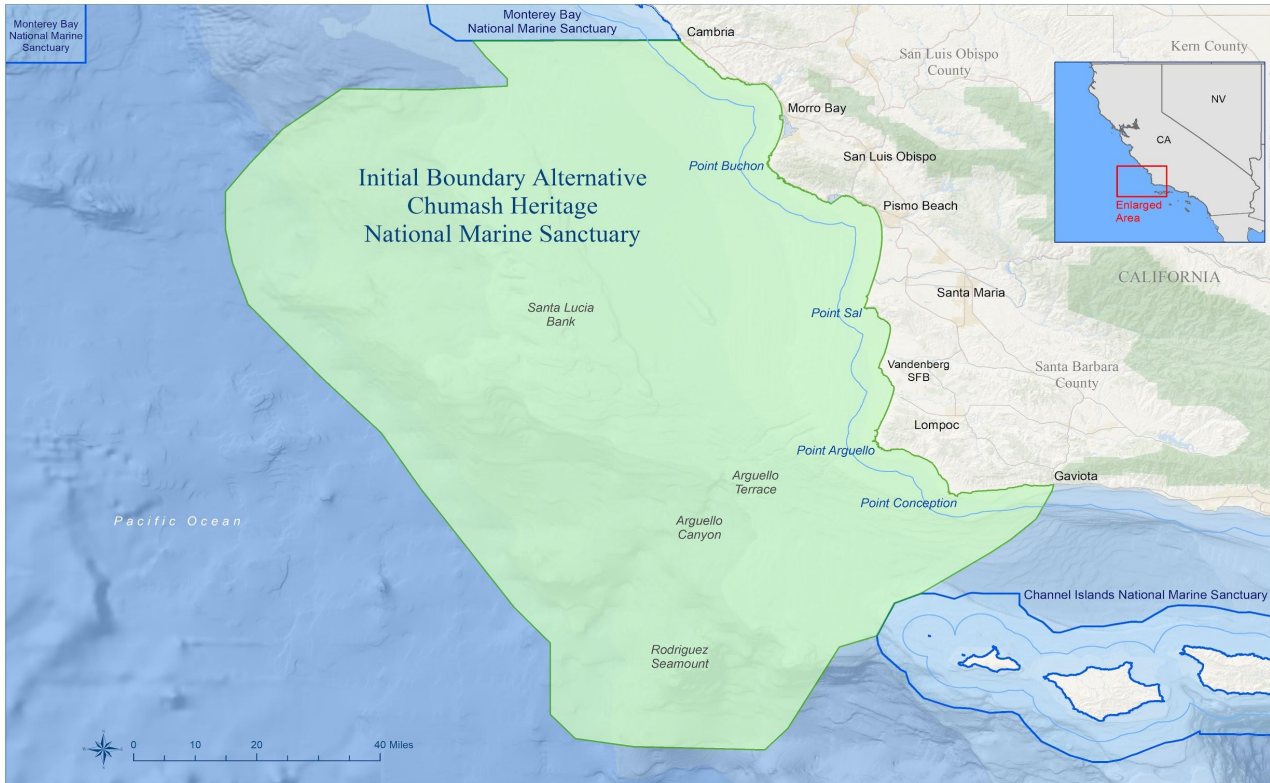


# How Public Comments Change the Agency-Preferred Alt.



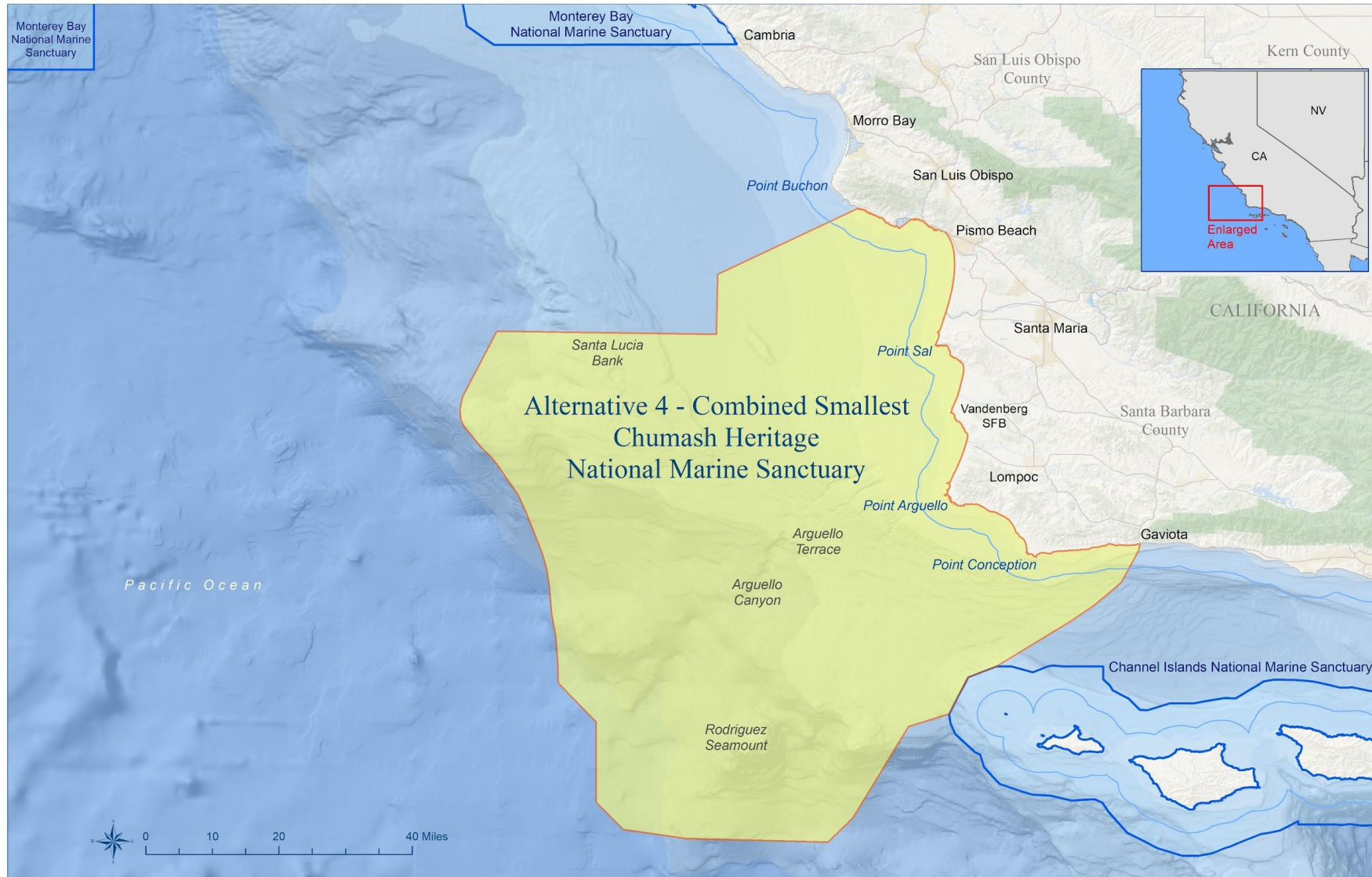


# Boundary Alternatives that Close the Gap





# Boundary Alt. that Increases the Gap



# Condition Report Updates for CBNMS and GFNMS



- **Condition reports precede management plans** and are periodically updated and reviewed (5–10 year timeline)
- Condition reports evaluate status and trends of sanctuary resources:
  - Update to past condition report
  - Integrate with partner processes
  - Incorporate NOAA IEA indicators
  - Use of confidence scores
- Each process collaborative with NMFS – use of IEA indicators

- **CBNMS:** released in July 2023
- **GFNMS:** likely release in June 2024
- **Sanctuary Watch** platform provides web-enabled, interactive tools to track and better understand the changing nature of sanctuary ecosystems. Developed marine heatwave tracker for each WC sanctuary in collaboration with CCIEA team.

<b>Status:</b>	Good	Good/Fair	Fair	Fair/Poor	Poor	Undet.
<b>Trends:</b>	Conditions appear to be improving .....					▲
	Conditions do not appear to be changing .....					—
	Conditions appear to be declining .....					▼
	Undetermined trend .....					?
	Question not applicable .....					N/A

# Management Plan Reviews (MPRs) for CINMS, GFNMS/CBNMS, and OCNMS



## CINMS MPR:

- **Final documents** released March 9, 2023
- **No amendments** to regulations or terms of designation

## GFNMS/CBNMS MPR:

- Will treat both sanctuaries as one management unit
- Process will begin after release of condition reports
- **Scoping process:** expected early 2025

## OCNMS MPR:

- Working groups: **1)** Achieve effective collaborative and coordinated management; **2)** Conduct collaborative research, assessments, and monitoring; **3)** Improve ocean literacy; **4)** Conserve resources in the sanctuary
- **Working groups** reviewed draft MPR materials, provided recommendations to SAC March 2024
- **IPC** will review draft MPR materials April 2024
- **SAC** will provide recommendations to Superintendent May 2024
- **Release of draft documents:** expected late 2024 / early 2025

***If NOAA anticipates needing regulations that would regulate fishing, NOAA staff will bring any such need to the PFMC for its consideration, feedback, or action.***



# Climate Vulnerability Assessments (CVAs) for GFNMS/CBNMS, OCNMS, MBNMS, and CINMS



## What is Climate Vulnerability?

- A function of:
  - the **sensitivity** of a particular resource to climate change,
  - its **exposure** to those changes, and
  - its **adaptive capacity** to those changes
- **Vulnerability** = (Exposure + Sensitivity) / Adaptive Capacity

## GFNMS/CBNMS CVA:

- New CVA Addendum (anticipated April 2024) provides update to original CVA (published 2015) for use in upcoming MPR process

## OCNMS CVA:

- Report and quick look summary anticipated to be released later in 2024

## CVAs can help:

- **Prioritize** species and systems for management actions
- **Inform** management strategies to address climate change
- Provide additional **support/justification** for existing management strategies
- Efficiently **allocate funding and staff time**
- **What** things are most and least vulnerable, and **why** they are vulnerable or not

## CVAs for MBNMS and CINMS:

- MBNMS & CINMS processes initiated early 2023
- **MBNMS:** Report anticipated release by Spring 2024
- **CINMS:** Report anticipated release by Summer 2024

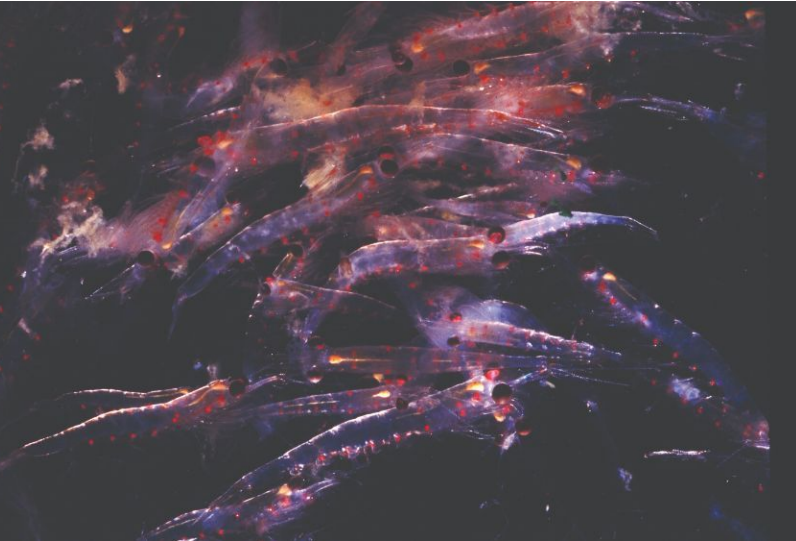
# GFNMS/CBNMS CVA



## Key Takeaways:

Provides updated info for 25 of 40 resources assessed in original CVA

- 25 resource assessments required revision based on changing ecological conditions and improved scientific understanding since the original CVA publication in 2015
- **Revisions resulted in increased vulnerability scores for 17 species and 6 habitats**
  - Primary driving factor: increased exposure and sensitivity to elevated water temps due to increasing frequency and severity of **marine heatwaves**
  - Resources with high increases in vulnerability since 2015 CVA: **kelp forest and rocky intertidal habitat, and krill, pteropod, red abalone, and blue whale species**





## Key Takeaways:

- Expert-driven process evaluated vulnerabilities of 66 focal resources to climate change, including 6 habitats, 46 species, 3 categories of maritime heritage resources, and 11 ecosystem services.
- Climate change effects are adversely affecting resources off Olympic Coast; climate projections for next 20-30 years suggest worsening changes.
- Resources with **higher vulnerability** to climate change include salmonids, forage fish, deep-sea corals and sponges, Southern Resident killer whales, urchins, recreation activities, and subsistence harvest.
- Resources with **lower vulnerability** to climate change include Pacific whiting, lingcod, petrale sole, halibut, sablefish, black rockfish, Dungeness crab, and pinnipeds.
- OCNMS SAC reviewed the report and provided various strategy recommendations, including some recommendations outside of OCNMS's authority/jurisdiction





## Key Takeaways:

- All materials have been peer reviewed; report in editing stage now
- Focal resources
  - Initially, **62 focal resources** were identified:
    - NMFS West Coast Fish Stock CVA overlap: 3 fish species
    - NMFS Pacific Marine Mammal CVA overlap: 8 species
    - Collaboration w/CDFW on giant kelp & bull kelp
  - Ultimately have settled on **48 resources**: 8 habitats, 30 taxa, 8 ecosystem services, 2 maritime heritage resource categories
  - 2 species added to MBNMS CVA different from other WCR sites: black abalone and pickle weed
- Next Steps: Adaptation Planning
  - E.g., prioritize resources with: high vulnerability, high adaptive capacity; focus on high sensitivity & exposure variables we can change/influence through management



## Key Takeaways:

- **Draft materials in peer review stage now; report drafting in progress**
- Growing # of relevant CVAs outside ONMS allows us to supplement our data:
  - NMFS CA Current Large Marine Ecosystem CVA (2023)
  - NMFS Pacific Marine Mammal CVA (in progress)
  - CDFW CVA (in progress)
- Workshop held Nov. 1-2, 2023 consisting of **36 experts** across 15 organizations, universities and government agencies
- Workshop concluded with adaptation strategy brainstorming: **~50 strategies suggested** (with varying degrees of cost/efficacy)
- **Focal resources** will be 22 species representing 6 sanctuary habitats
- **Next Steps: Adaptation Planning**
  - Identify resources with high vulnerability, high adaptive capacity, and non-climate stressors that increase vulnerability and can be influenced through management (i.e., restoration, lack of data, marine debris)

# Blue Carbon Research



## Blue Carbon in MPAs - 3 reports

- Part 1: literature review
- Part 2: sequestration pathways (how carbon gets to deep sea)
- Part 3: how much carbon is in surficial sediment, and where that carbon is accumulating more densely than other areas
- Parts 1 & 2 revealed **biggest carbon store in MPAs is on seafloor**, especially in places like CBNMS where there's no coastline (no seagrass, kelp)
- Part 3 report contains pilot demo look at limited trawling data overlaid on carbon hotspot map, but **no conclusions about fishing impacts or intent to restrict fishing**

## Applications & Next Steps

- **Assess leading causes of disturbance to seafloor** in GFNMS & CBNMS (e.g., permitted infrastructure/activities, violations of sanctuary regs) and **overlay on carbon hotspot map**
- Consideration during upcoming MPR:
  - Better understanding disturbance of seafloor sequestered carbon
  - How permitting processes should consider this new information source
  - Increasing protection to sensitive deep-sea habitat (e.g. DSC)





# Deep-Sea Coral - Two Highlights



## West Coast Deep-Sea Coral Initiative

- 100+ visual surveys in sanctuaries
- New coral and sponge species, **petrale sole spawning aggregation site**, novel glass sponge reef
- [Final report](#) published July 2023



## DSC Research & Restoration Areas

- **Three areas in MBNMS** being analyzed for potential PFMC action in June: Sur Ridge, Año Nuevo Canyon, and Ascension Canyon
- **MBNMS in communication with local fishing community**—with a focus on the sablefish pot fishery—to **better understand fishing patterns**; discussions are ongoing
- **ONMS thanks PFMC for their effort on DSC** and is looking forward to a positive outcome in June

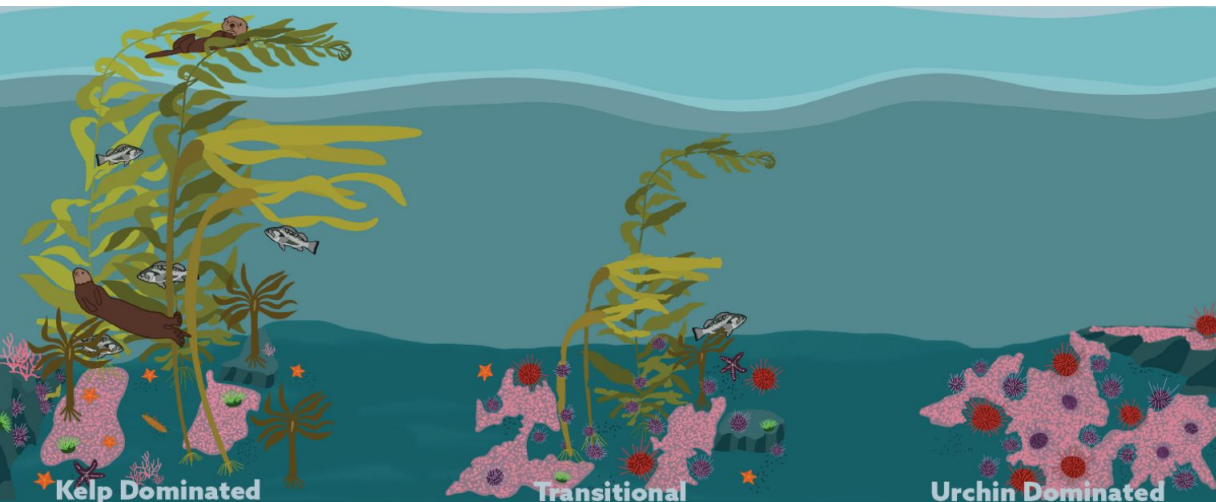


# Kelp Forest Research & Restoration



## MBNMS - Tanker Reef

- Monitoring of kelp and urchins will continue through 2024 to determine whether urchin densities remain low in culled area and if giant kelp continues to grow in culled area
- Analyzing centimeter-scale project data; manuscript submission in Fall 2024



## GFNMS - Sonoma Sites

- Sites selected to develop and evaluate bull kelp restoration techniques and strategies: Fort Ross Cove, Timber Cove, Ocean Cove, and Stillwater Cove in Sonoma County
- \$9.2 million in funding received
- Research to inform future restoration efforts began in 2023
- Project will move to restoration phase (TBD)



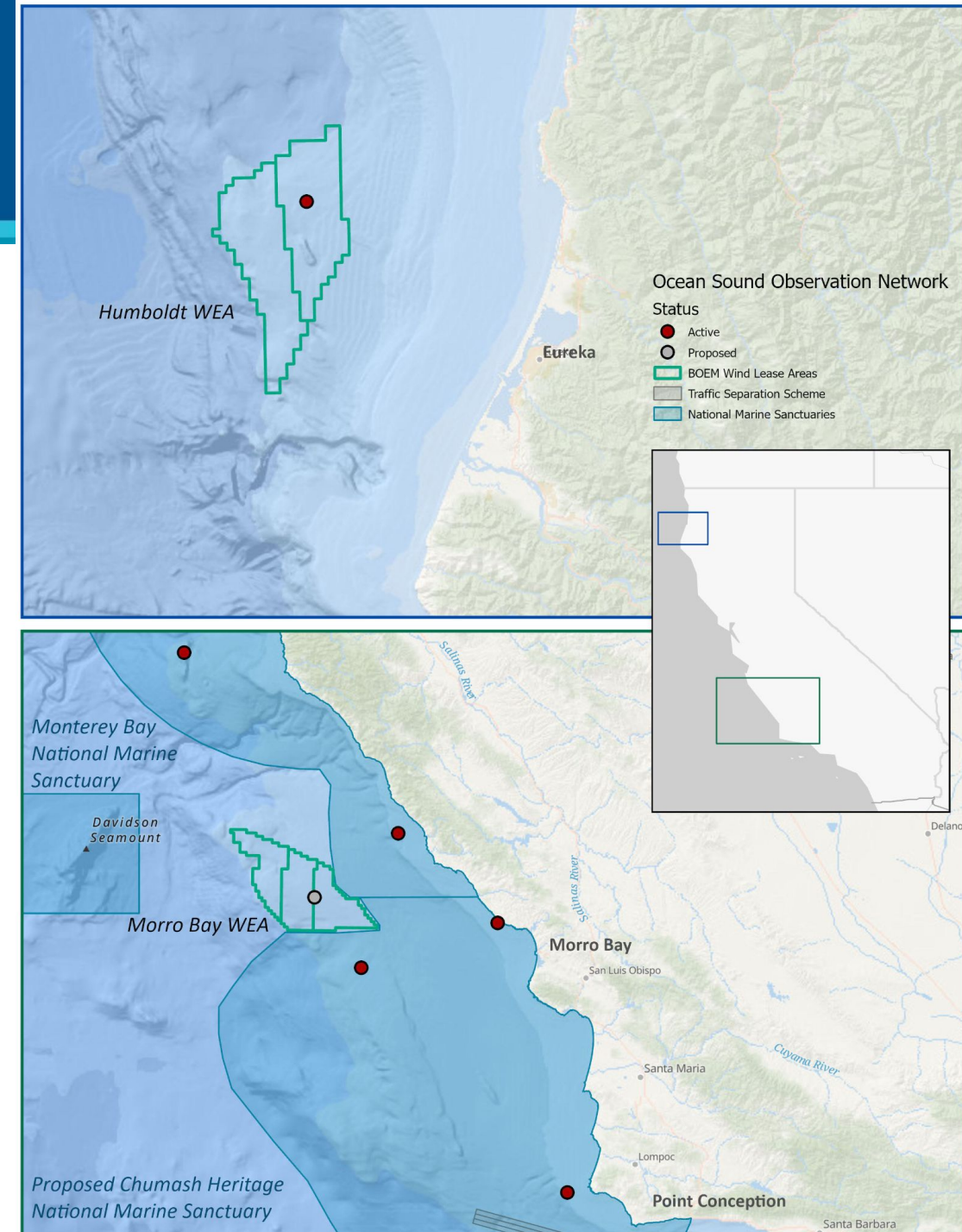


# Soundscape Monitoring

## See ONMS Coordination Report re Soundscape Program Details

### ONMS listening stations inside CA WEAs

- **Morro Bay WEA** listening station is *proposed*
  - Still seeking funding
- **Humboldt WEA** listening station is *funded, but not yet deployed* in the water
  - Funded by CeNCOOS (Scripps academic lead)
  - Looking for cost-sharing so Scripps can service the mooring 2x/yr (currently can only support servicing once/yr)
  - Hope for initial deployment summer '24







## More information at:

<https://olympiccoast.noaa.gov/>

<https://farallones.noaa.gov/>

<https://cordellbank.noaa.gov/>

[https://montereybay.noaa.gov](https://montereybay.noaa.gov/)

<https://channelislands.noaa.gov/>

<https://sanctuaries.noaa.gov/about/westcoast.html>

<https://sanctuaries.noaa.gov/chumash-heritage/>

[www.nominate.noaa.gov](http://www.nominate.noaa.gov)



**NOAA's Office of National Marine Sanctuaries**

<https://sanctuaries.noaa.gov/>



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