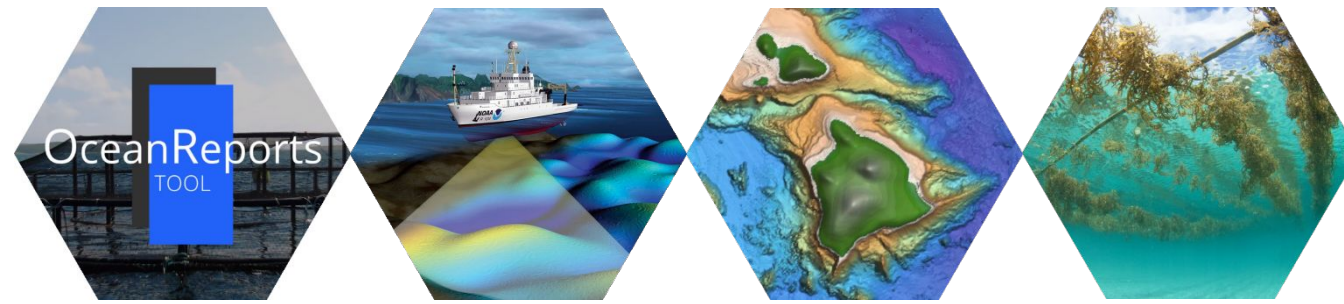


These slides and materials are for
limited distribution.

These slides contain deliberative
work that is subject to change.



Spatial Planning for Aquaculture Opportunity Areas

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Executive Order on Promoting American Seafood Competitiveness and Economic Growth

— ECONOMY & JOBS | Issued on: May 7, 2020



Section 7: Aquaculture Opportunity Areas

- Calls for a total of 10 AOAs within 7 years
- AOAs can be in state or federal waters
- This is a planning exercise with intense spatial planning and environmental review
- Does not change the permitting process



What is an Aquaculture Opportunity Area?

Aquaculture Opportunity Areas show high potential for commercial aquaculture. A science and community-based approach to identifying these areas helps minimize interference with other enterprises, account for current fishing patterns, and protect the ecosystem.

AOAs will expand economic opportunities in coastal and rural areas, and increase our nation's seafood security.

AOAs use the best available science to find appropriate spaces for sustainable aquaculture.

AOAs minimize interactions with other users, such as shipping, fishing, and the military.

Assessment and Use of AOAs

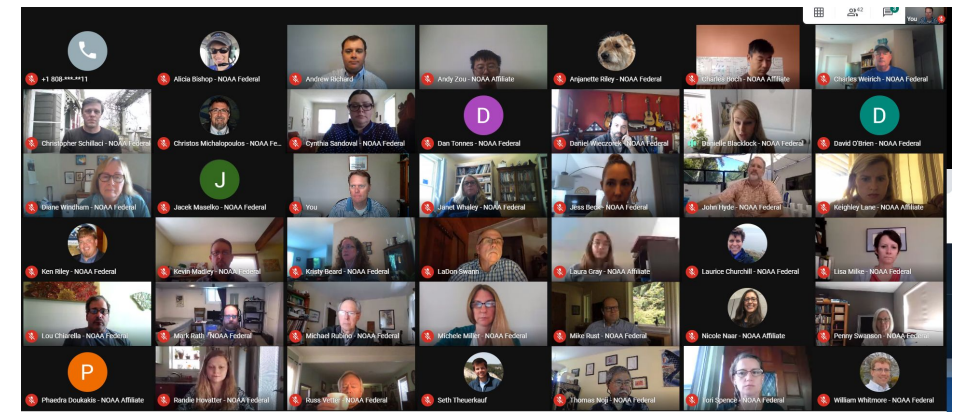
Stakeholder input is essential in the design and location of AOAs and NOAA expects these areas will be shaped through a public process that allows constituents to share their community and stewardship goals, as well as critical insights.

AOA size, exact location, and farm types will be determined through spatial analysis and public input to expand sustainable domestic seafood production while minimizing potential user conflicts. Farms will still need to go through the permitting process and environmental reviews.

Learn more: fisheries.noaa.gov

Stakeholder engagement

#s of Meetings - SoCal & General AOAs	As of 2/12/21	# Attendees
Military	19	53+
Natural Resources	46	209+
Regional Planning Bodies	8	15+
Industries	19	86+
Navigation	10	10+
Governance & Boundaries	22	93+
Social & Cultural	7	10+
Research Community	6	10+
ENGOS	5	11
Human Health	7	18
Totals	149	477+
Public meetings	Date	
National AOA public listening session #1	11/5/20	
Southern CA AOA listening session	11/12/20	
Gulf of Mexico listening session	11/17/20	
National AOA public listening session #2	11/19/20	
Gulf of Mexico listening session (Fishing Stakeholders)	12/3/20	



Coastal Manager Support

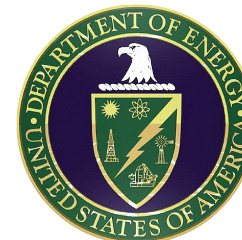
We have developed a blended research and services portfolio. Services inform science; science inform services.

Types of support

- Spatial planning
- Environmental modeling
- Environmental science advice
- Engineering review



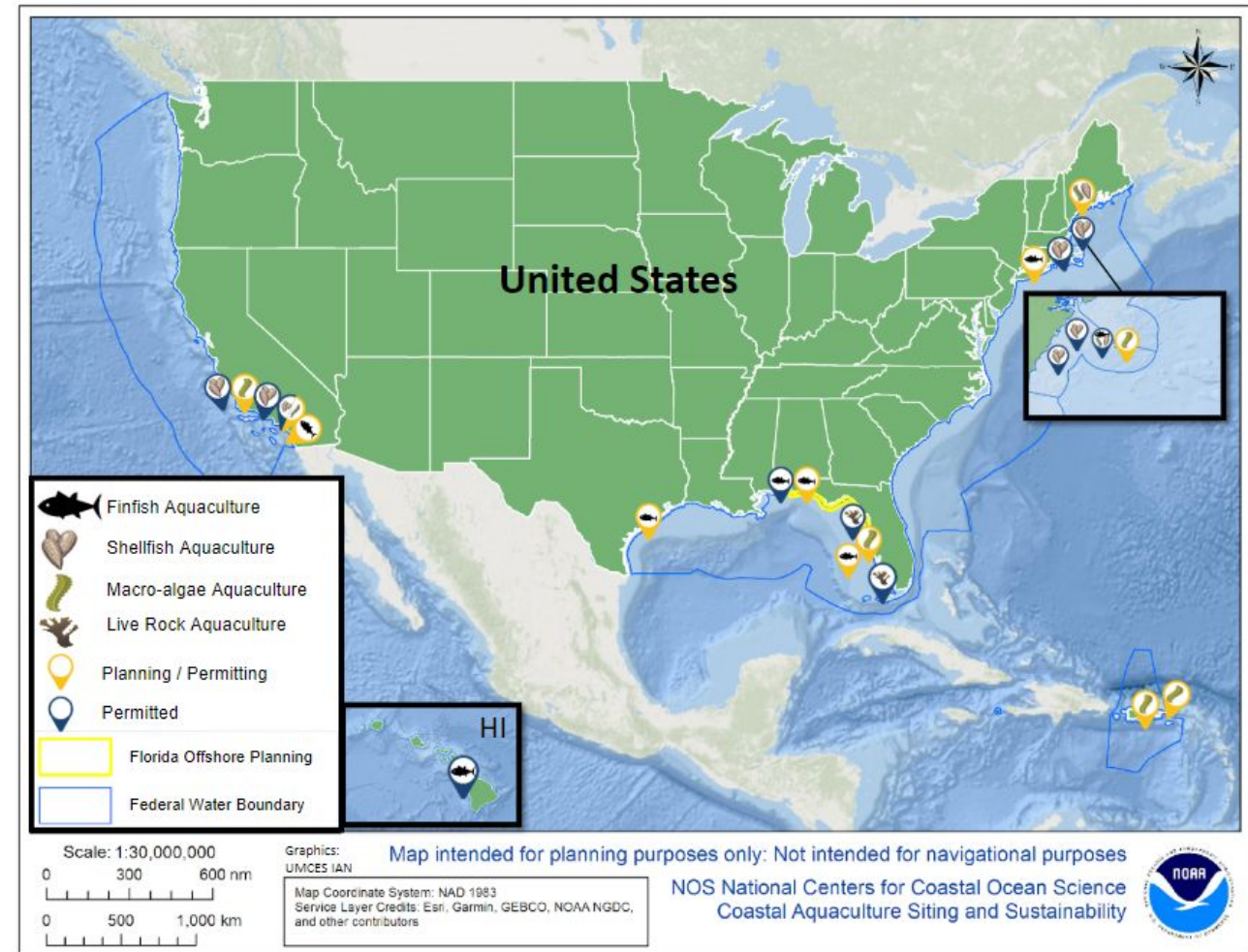
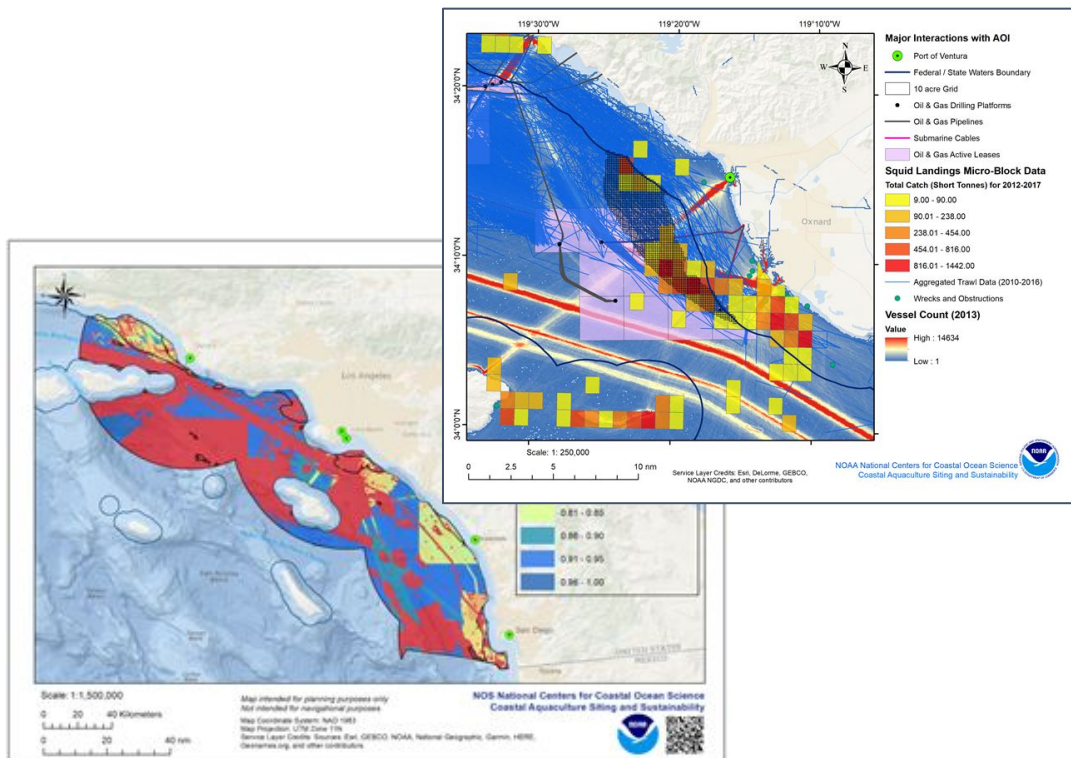
Customers - All federal and state agencies



**US Army Corps
of Engineers®**

Planning/Siting

- Aquaculture Opportunity Areas
- State-designated aquaculture use areas
- Spatial planning for Ports/Harbors
- Completed 50+ analyses in last 5 years



Unleash the power of big data for spatial planning!



AquaData
Catalog

33 million

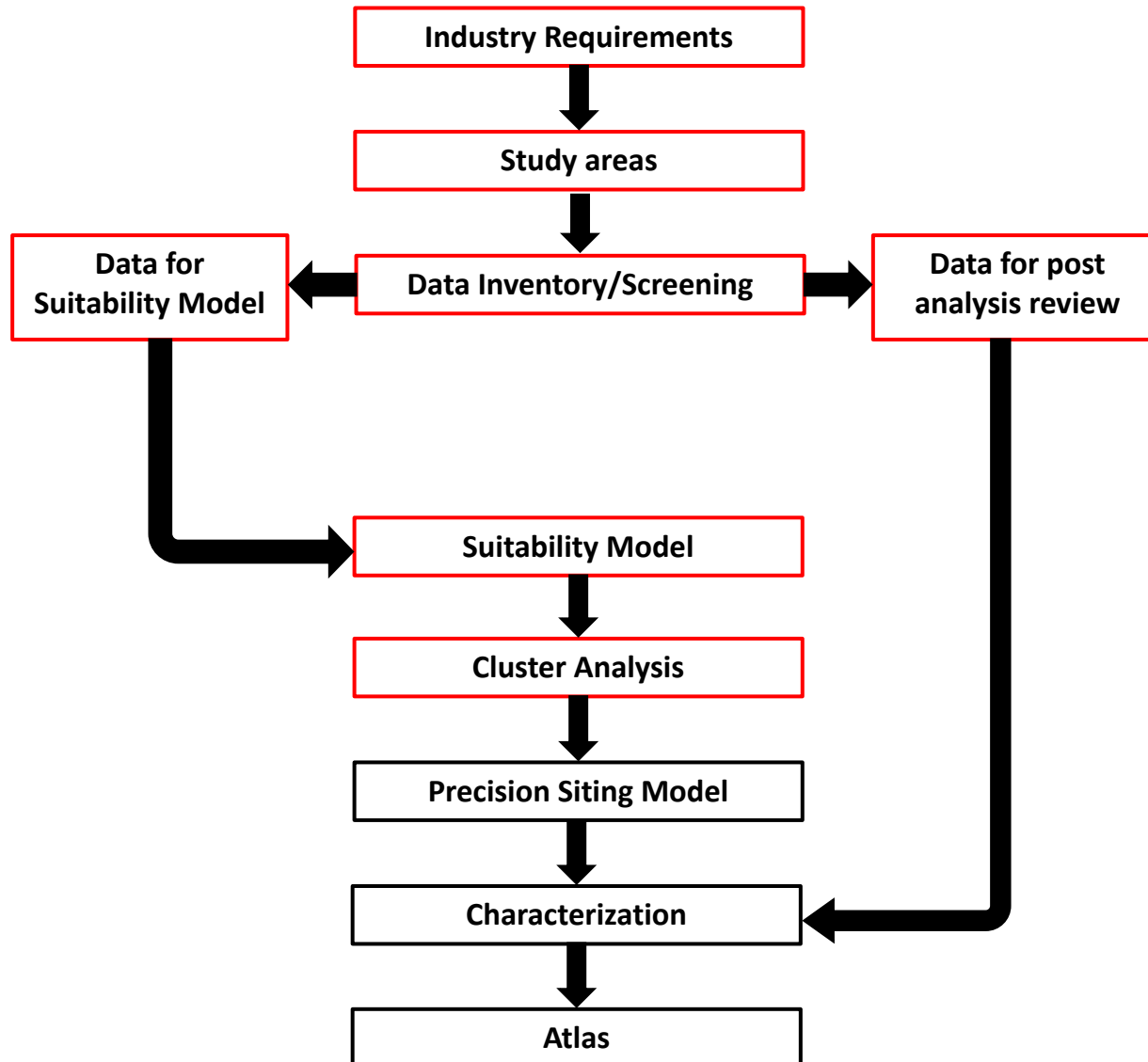
The number of data
layers we analyze to
find the right space
for your ocean
industry



See our work
featured in:



Spatial Planning Workflow

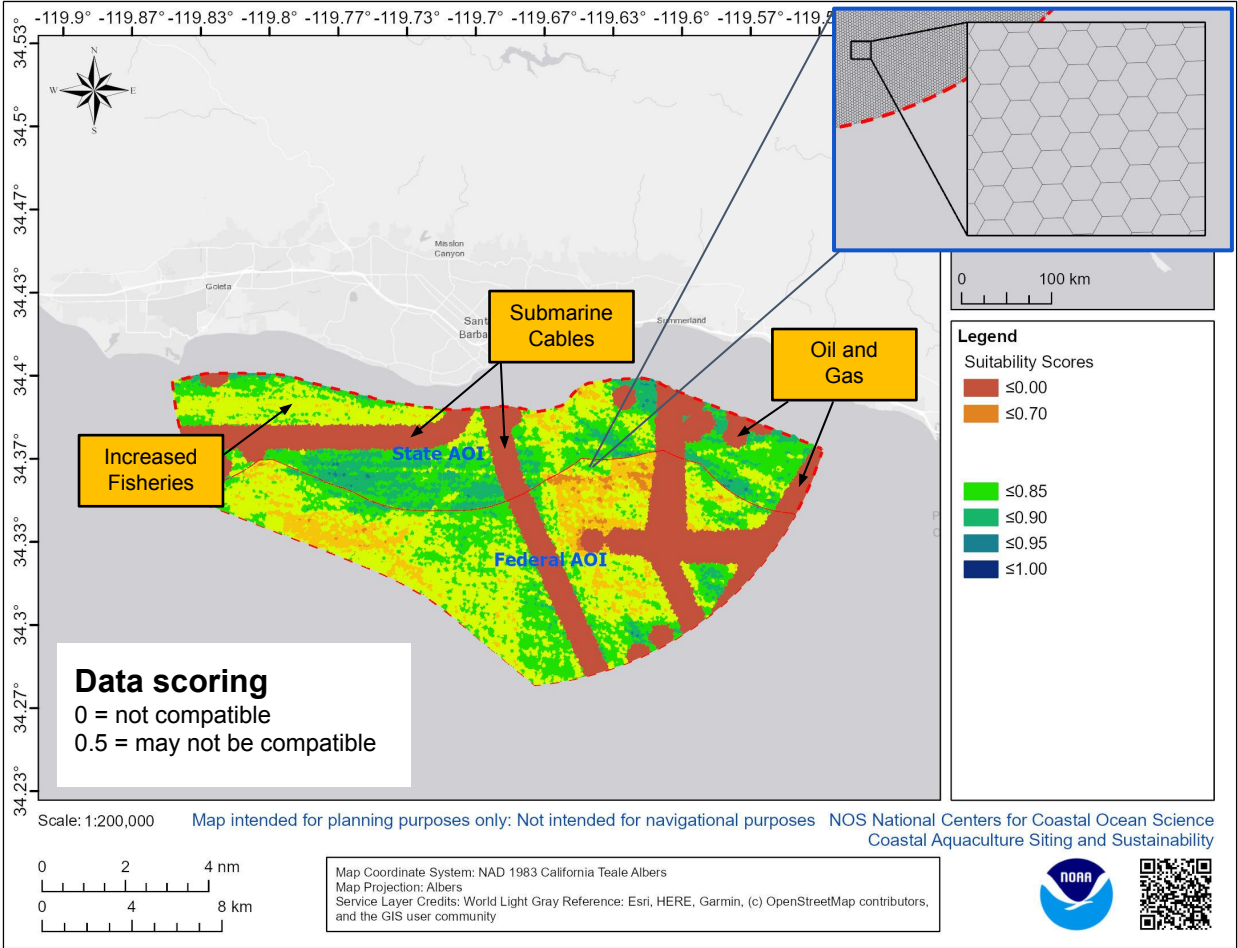


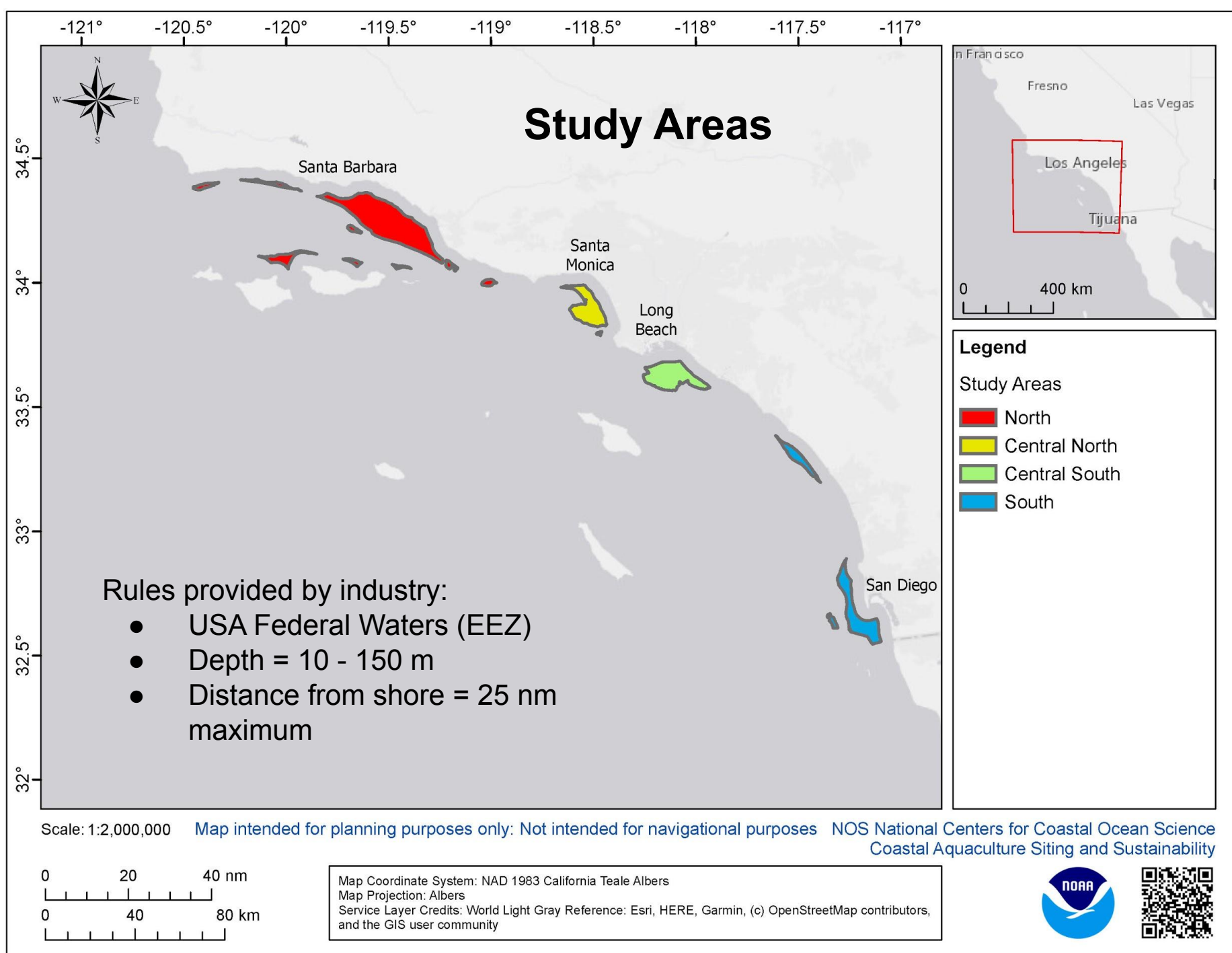
Suitability model

We identify areas of **highest opportunity** for aquaculture. Areas that provide highest conservation and lowest conflict with other users.

Data	Score
Hard Bottom Habitat	0
Marine Protected Areas & Preserves	0.5
Habitat Area of Particular Concern	0.5
Deep sea corals	0
Oil and Gas Pipelines (500 m buffer)	0
Oil and Gas Wells (500 m buffer)	0
Shipwrecks (500 m buffer)	0
Submarine Cables (500 m buffer)	0
Unexploded Ordnance	0.5
Wastewater Discharge (500 m buffer)	0
Vessel Traffic (continuous data)	0 - 1
Commercial Fishing (continuous data)	0 - 1

A **suitability model** is a **model** that weights locations relative to each other based on given criteria. A **common scale** allows for meaningful values to be produced when the criteria are combined. **Data** must be **transformed** into a common scale so the criteria can be compared. We are using a 0 to 1 scale.

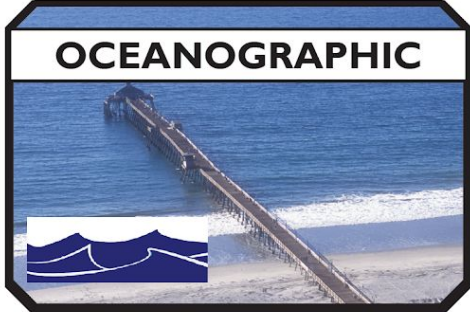




Data Inventory Results

Southern California

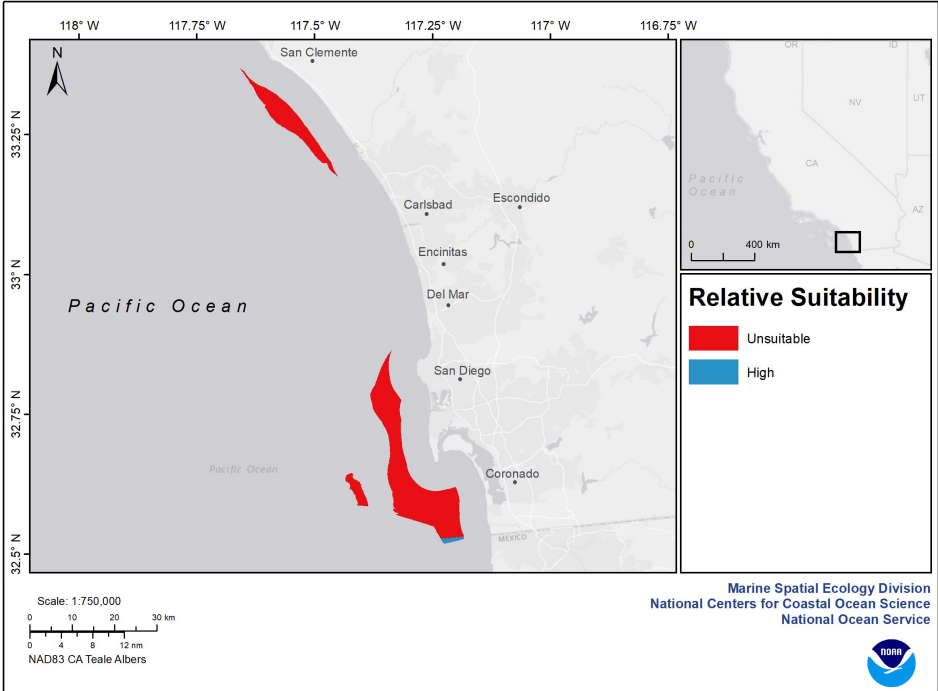
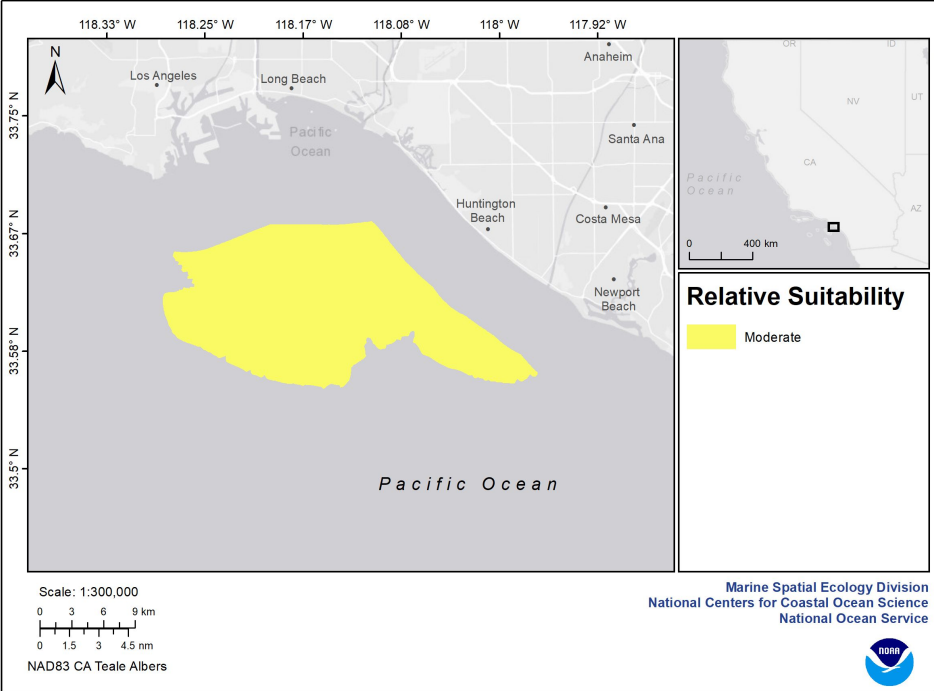
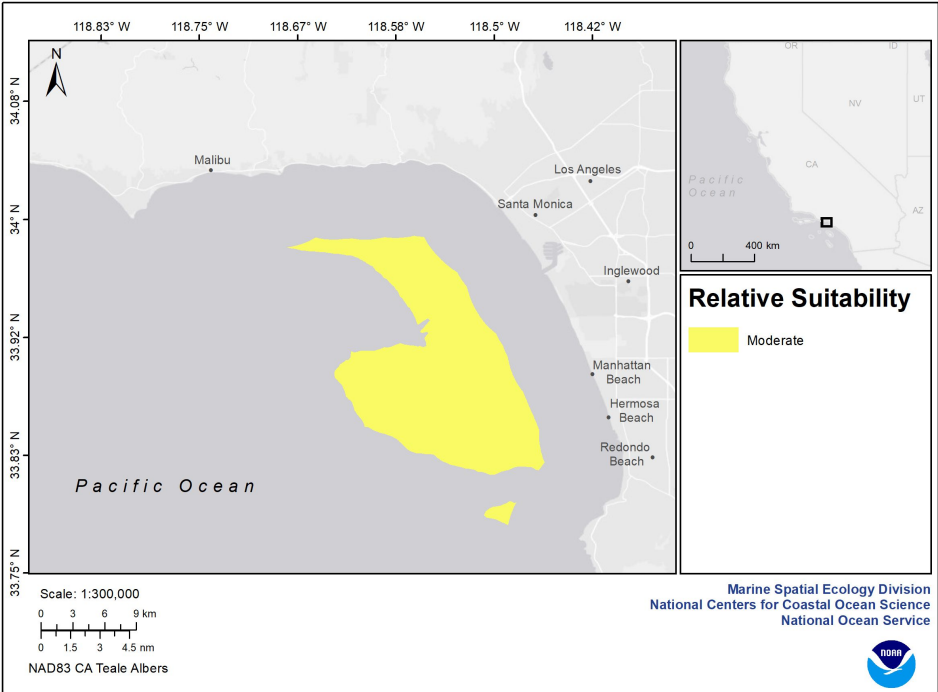
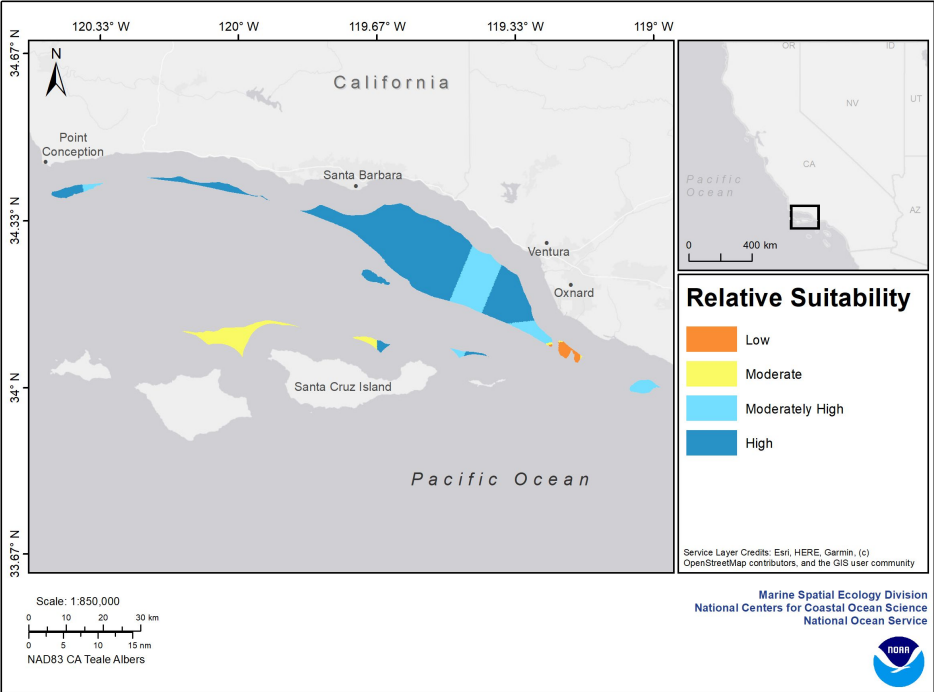
Data layer type	Model	Characterization	Total layers
National Security	27	8	35
Natural Resources	13	64	77
Industry, Navigation, and Transportation	32	10	42
Fishing and Aquaculture	16	34	50
Total layers	88	116	204



Suitability Modeling

Military

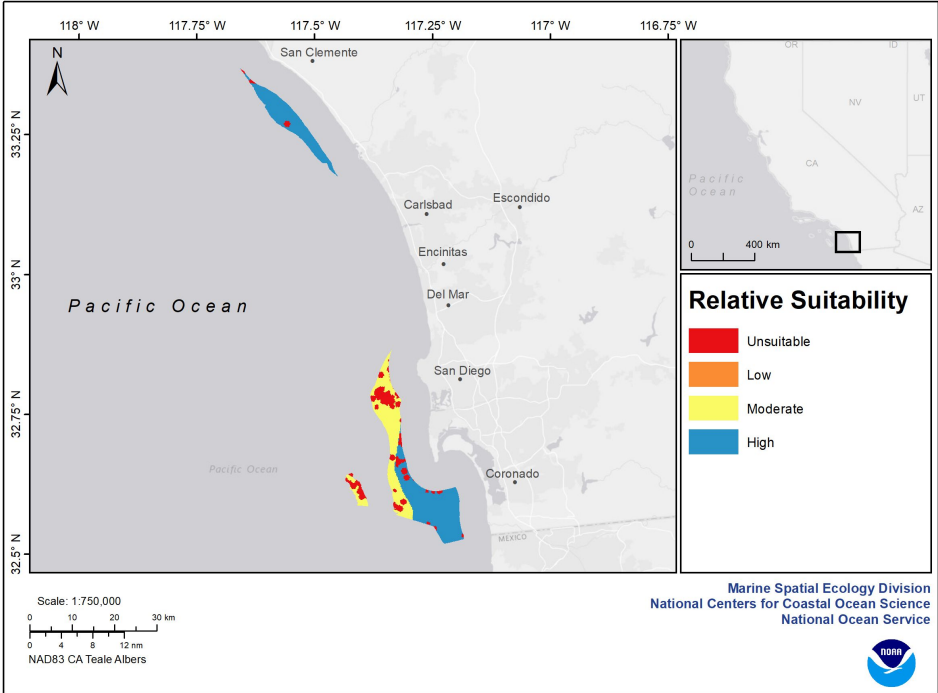
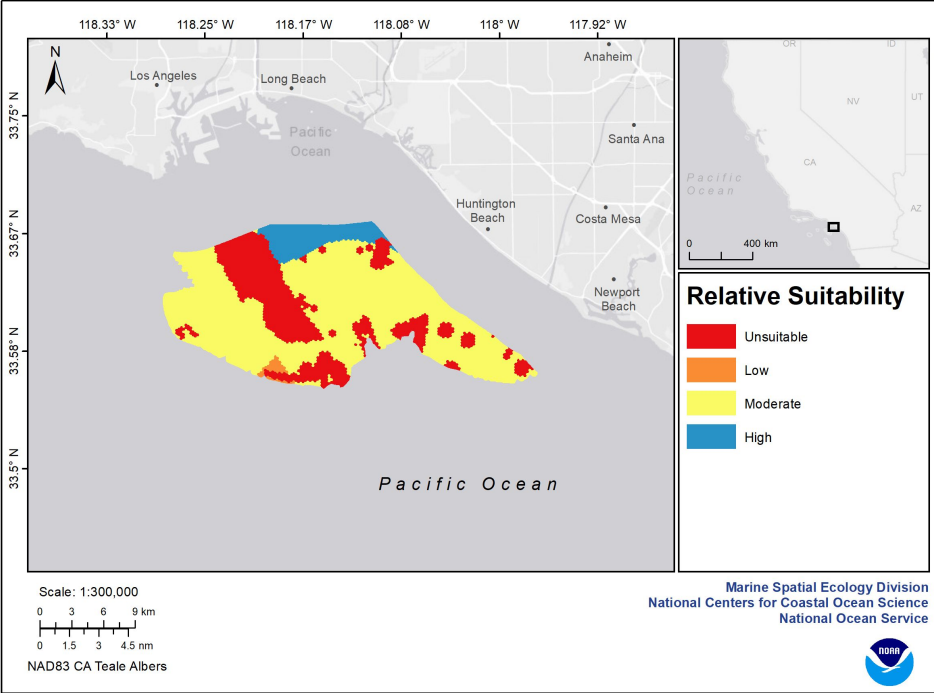
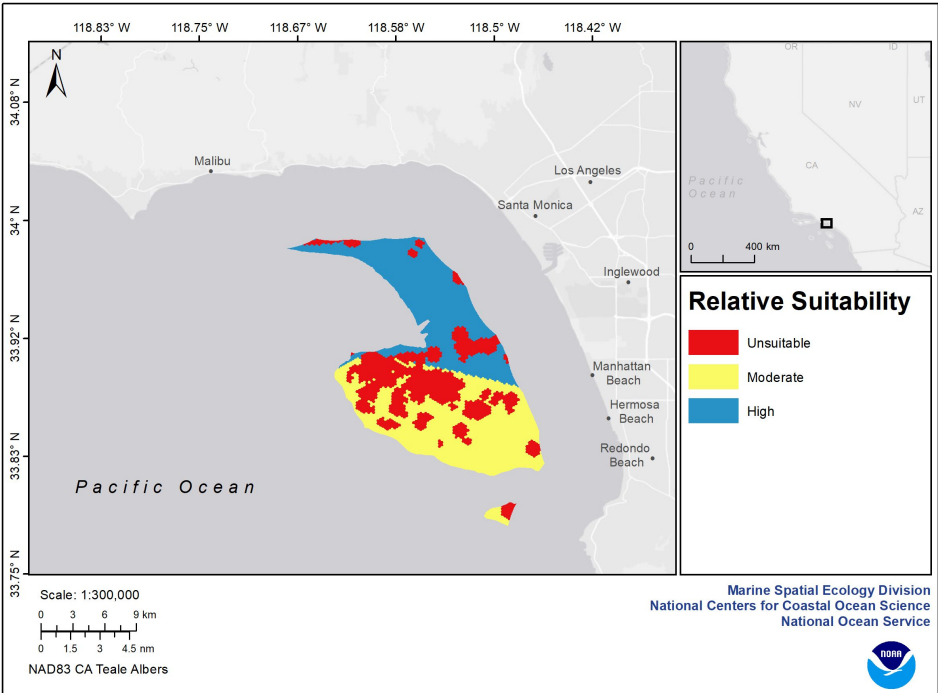
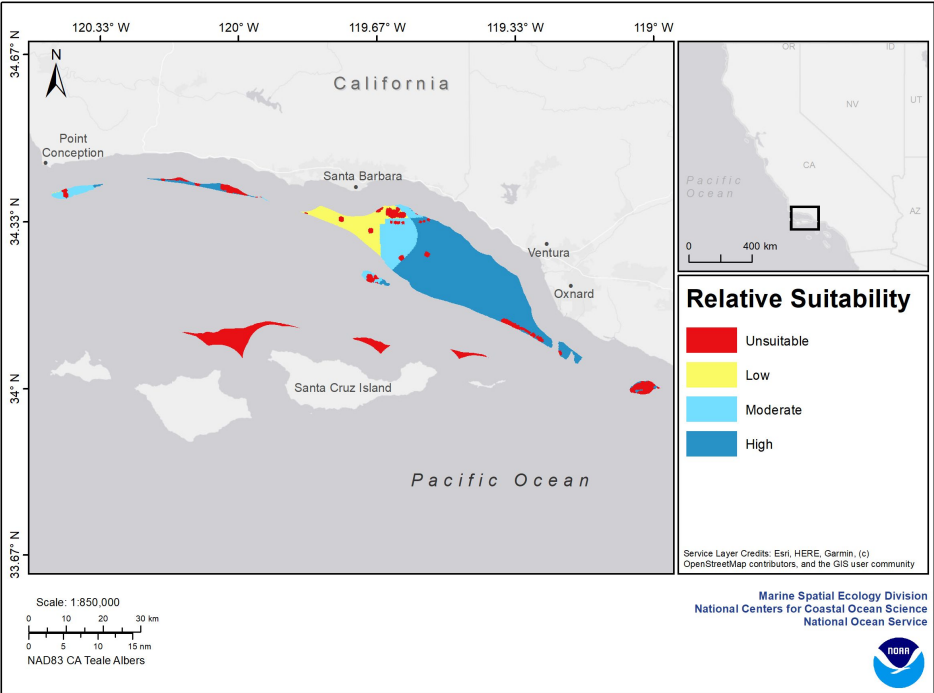
Preliminary findings



Suitability Modeling

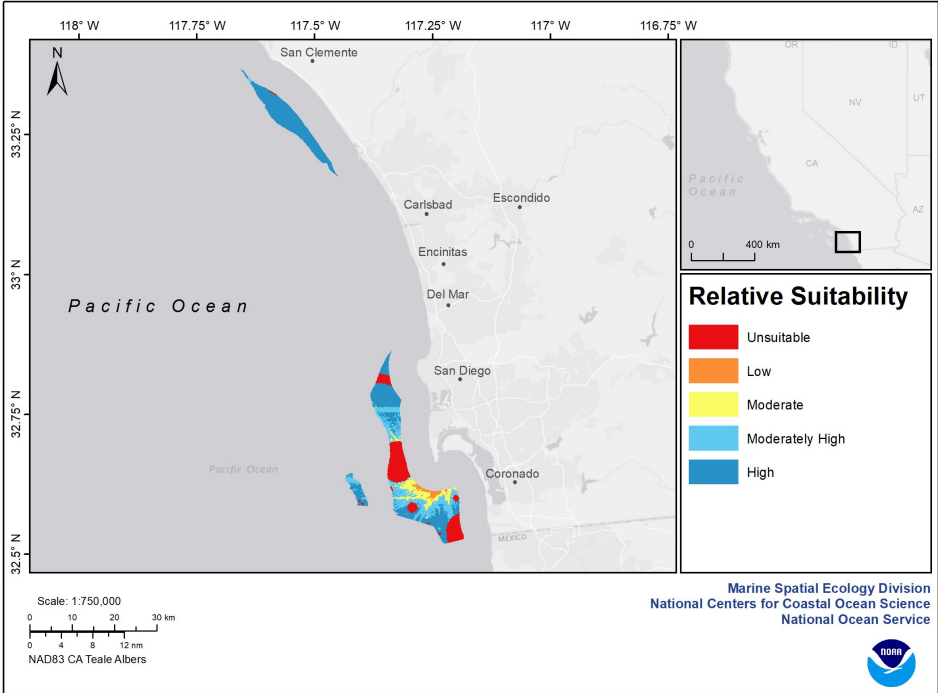
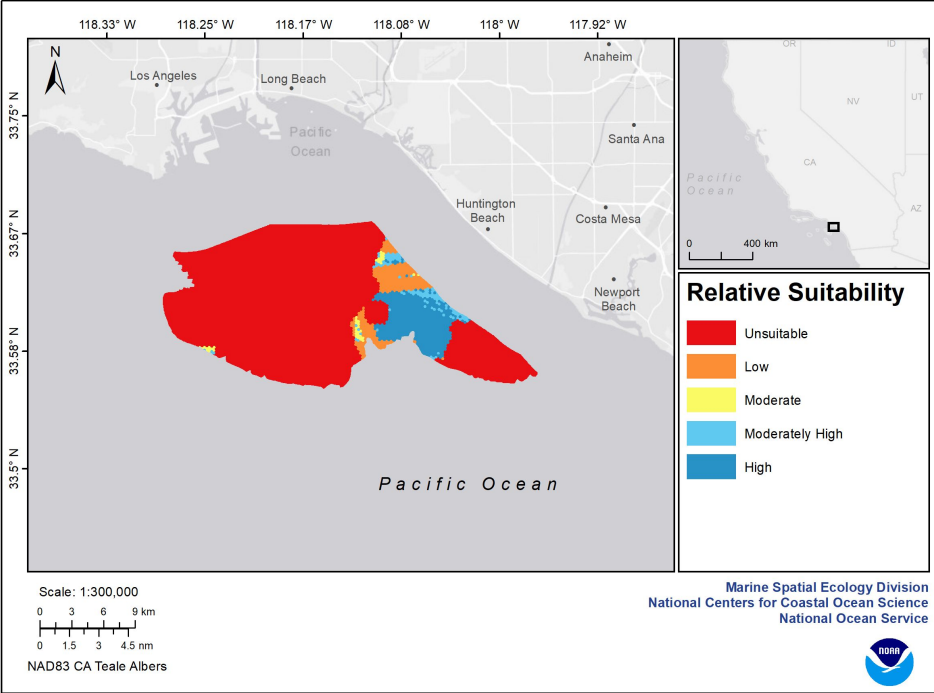
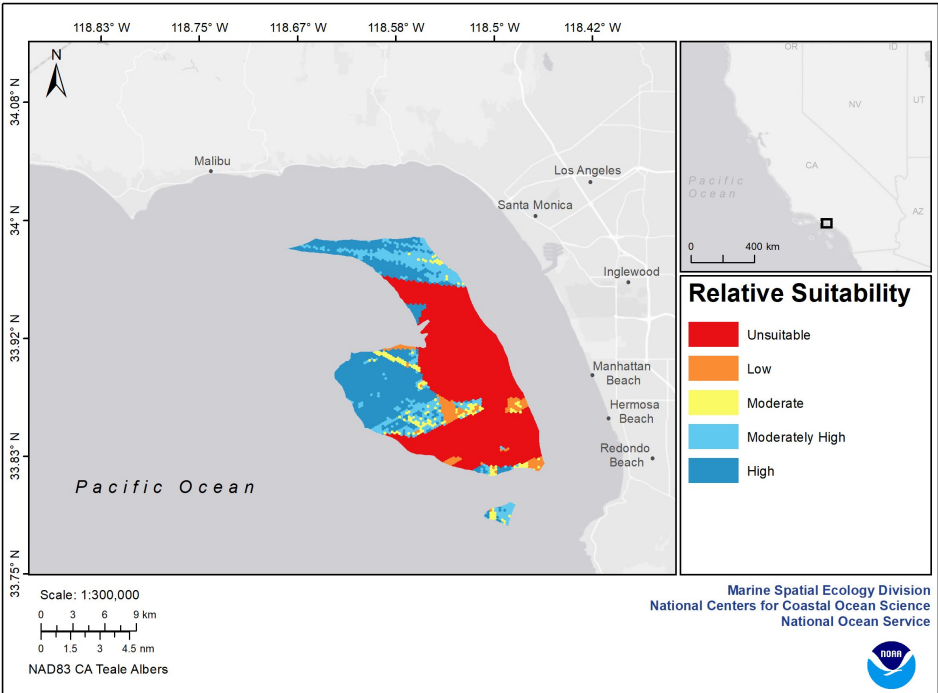
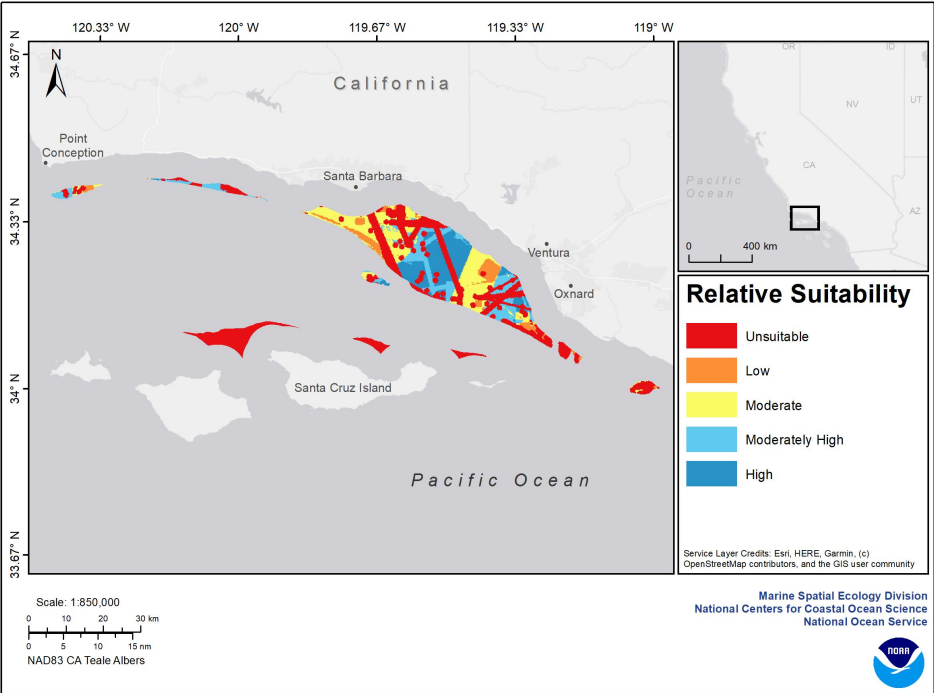
Living Resources

Preliminary findings



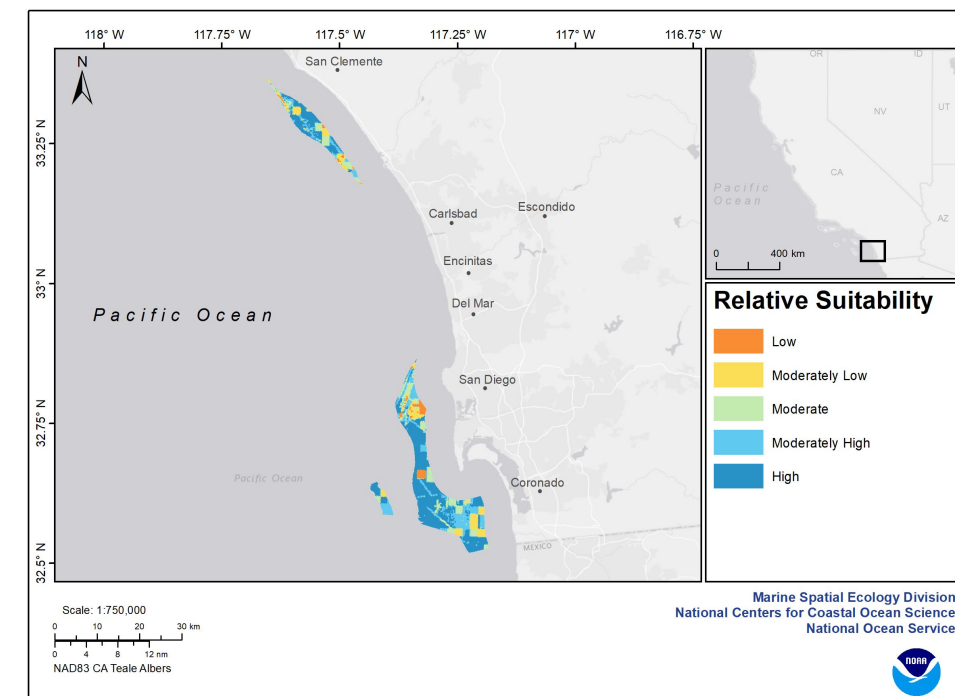
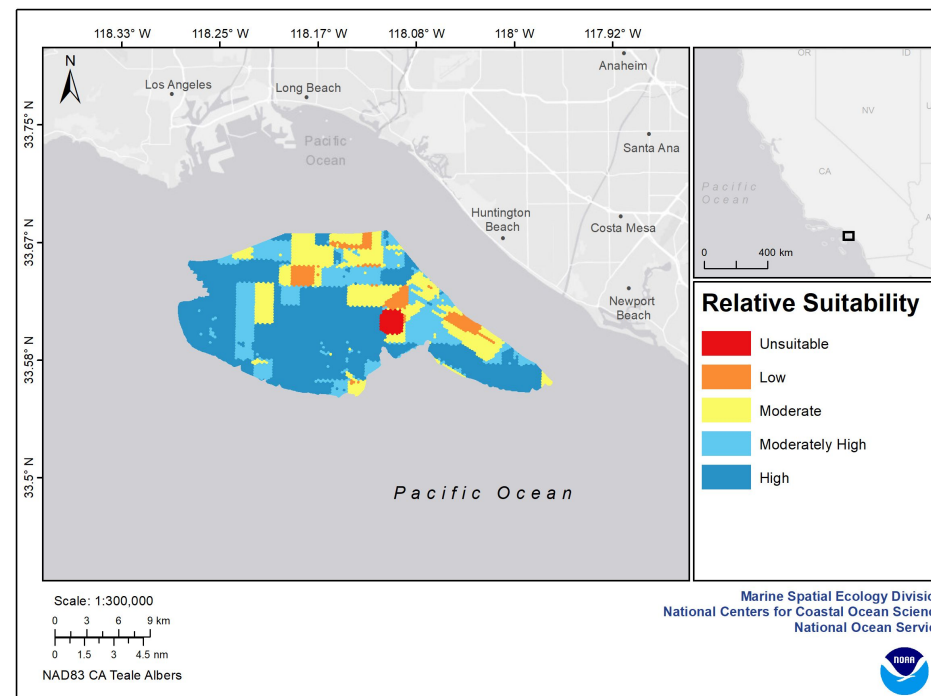
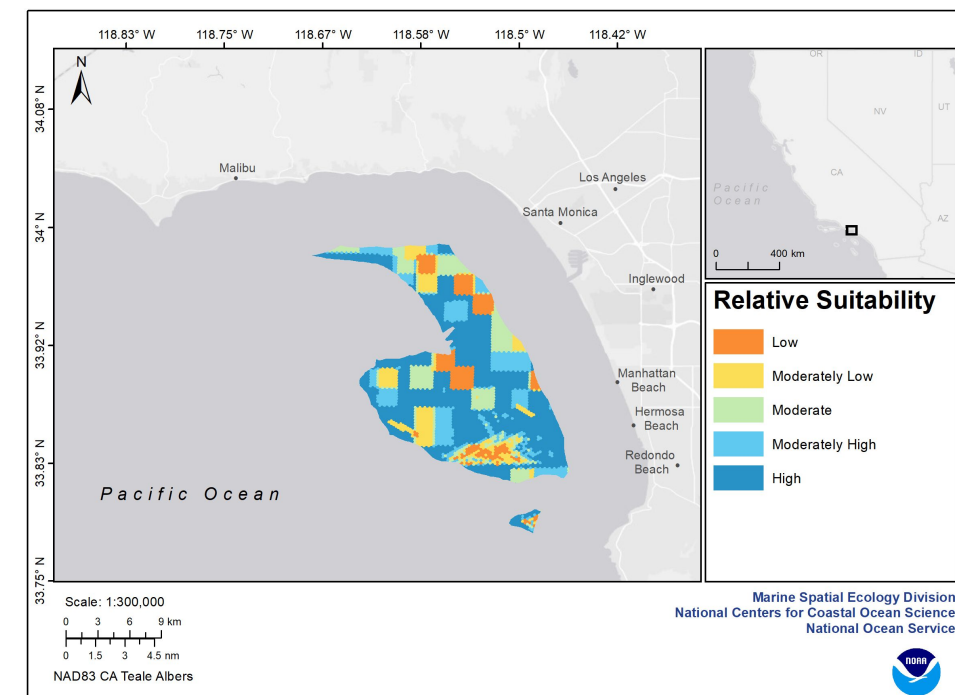
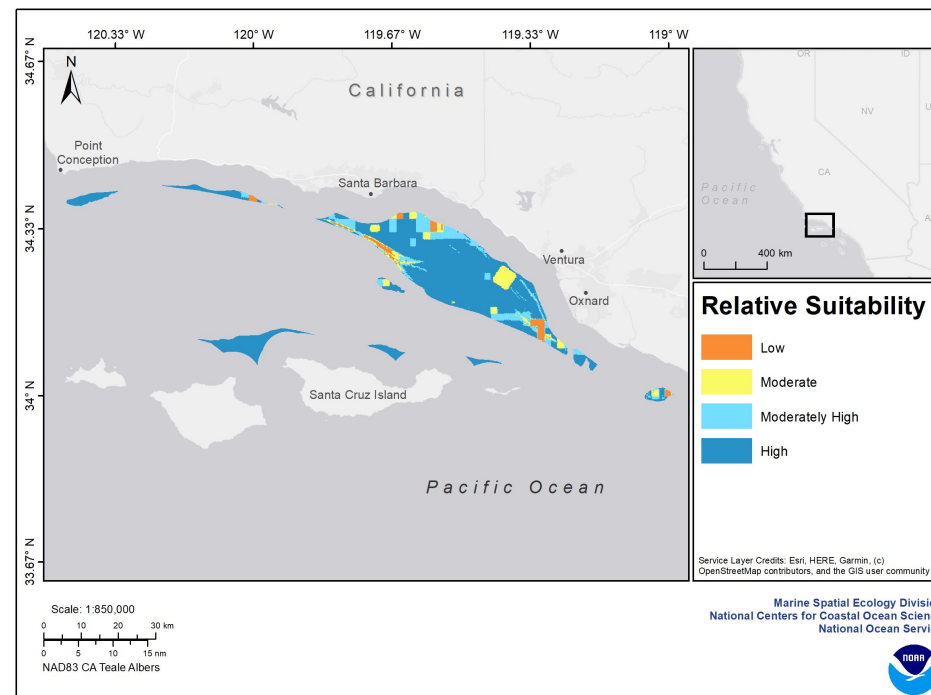
Suitability Modeling Industry

Preliminary findings



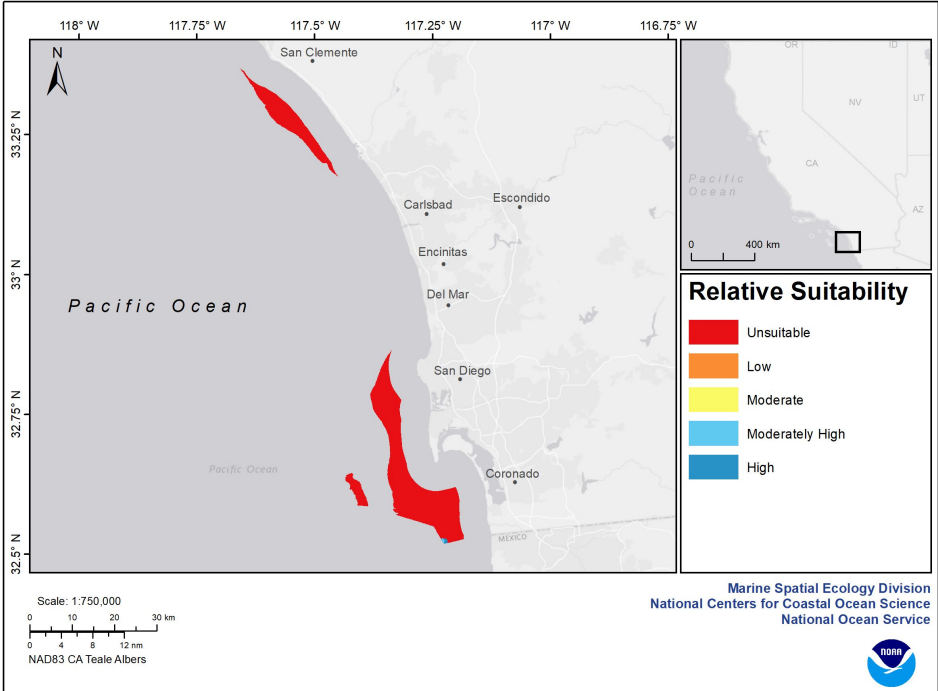
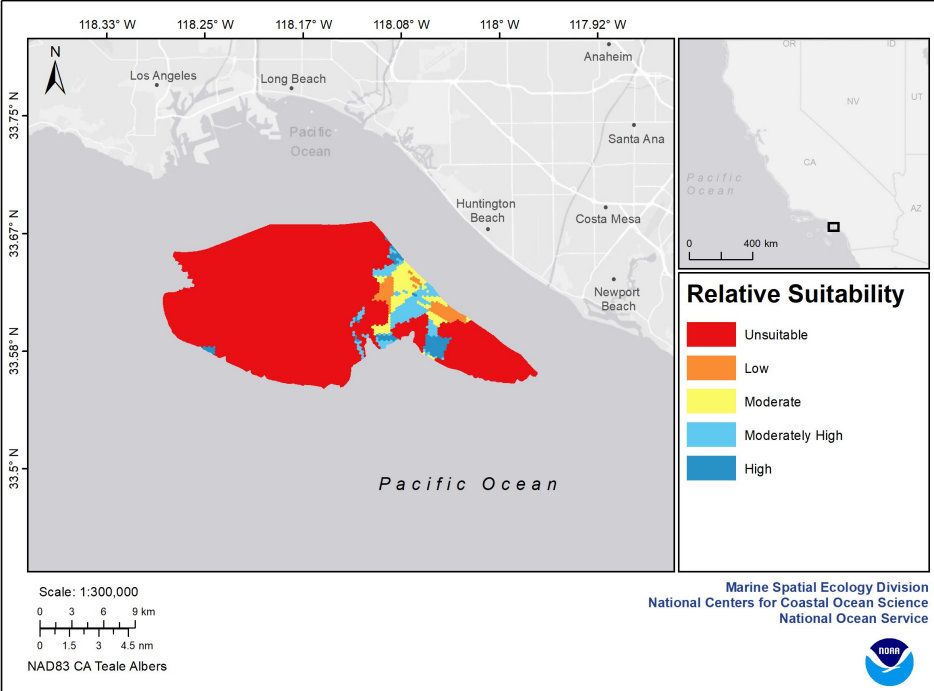
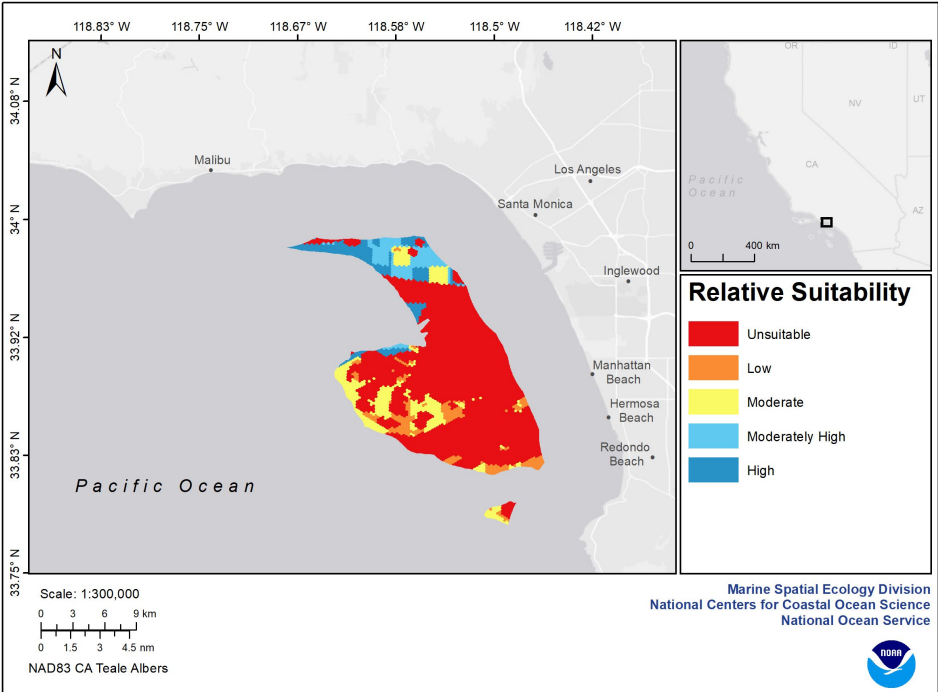
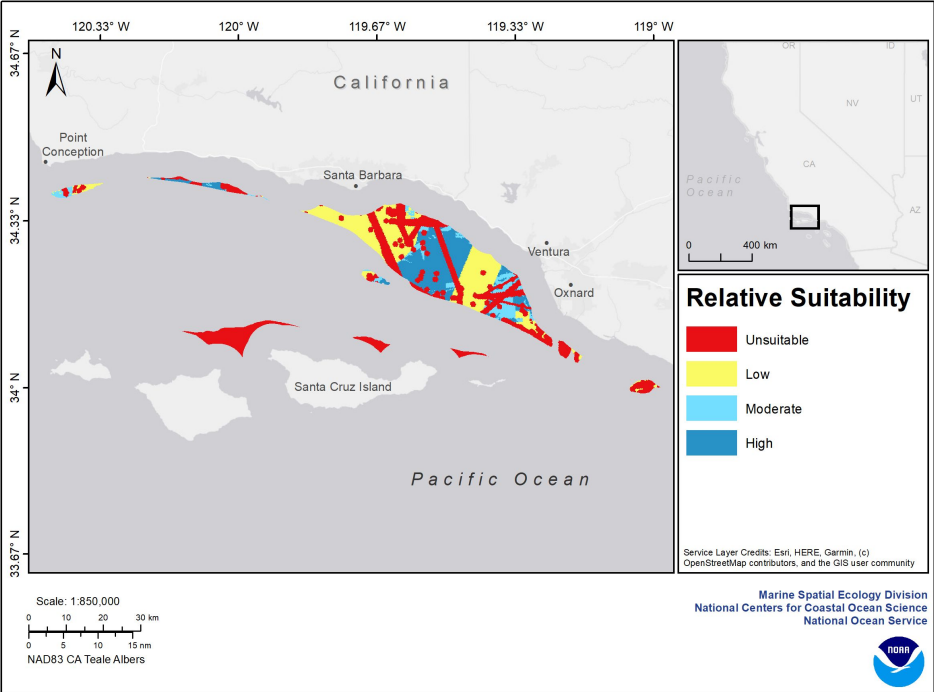
Suitability Modeling Fishing and Aquaculture

Preliminary findings



Overall suitability (All layers)

Preliminary findings



We look forward to working with YOU!

