

# Welcome to the BOEM-Oregon Science Exchange



July 20, 2016 - 10:00 am

Audio: call toll free 1-877-612-1641, passcode: 5729109

We will begin shortly!

If you are having technical difficulties, please call John Sanchez  
at 805-384-6315 or send us a chat message.

## Sara Gultinan



**Sara Gultinan is a Leasing Specialist in the BOEM Pacific Region's Renewable Energy Section. Sara joined the Pacific Region in 2011 as a Presidential Management Fellow. She holds a Bachelor of Arts degree in Environmental Science from Claremont McKenna College and a Master of Environmental Science and Management degree from the University of California at Santa Barbara. Sara supports the Pacific Region's programs by managing research contracts, conducting socio-economic analyses, and participating in regional marine planning and other collaborative efforts.**

**Today, Sara will present the Oregon component of the Pacific Regional Ocean Uses Atlas study.**



# The Pacific Regional Ocean Uses Atlas – Information for Oregon

***Sara Gultinan***

Bureau of Ocean Energy Management, Pacific OCS Region,  
Camarillo, CA

***Mimi D'lorio, Charles Wahle,  
Hugo Selbie, Jordan Gass***

NOAA National Marine Protected Areas Center, Monterey, CA

BOEM-OREGON SCIENCE EXCHANGE  
JULY 20, 2016 • CAMARILLO, CA





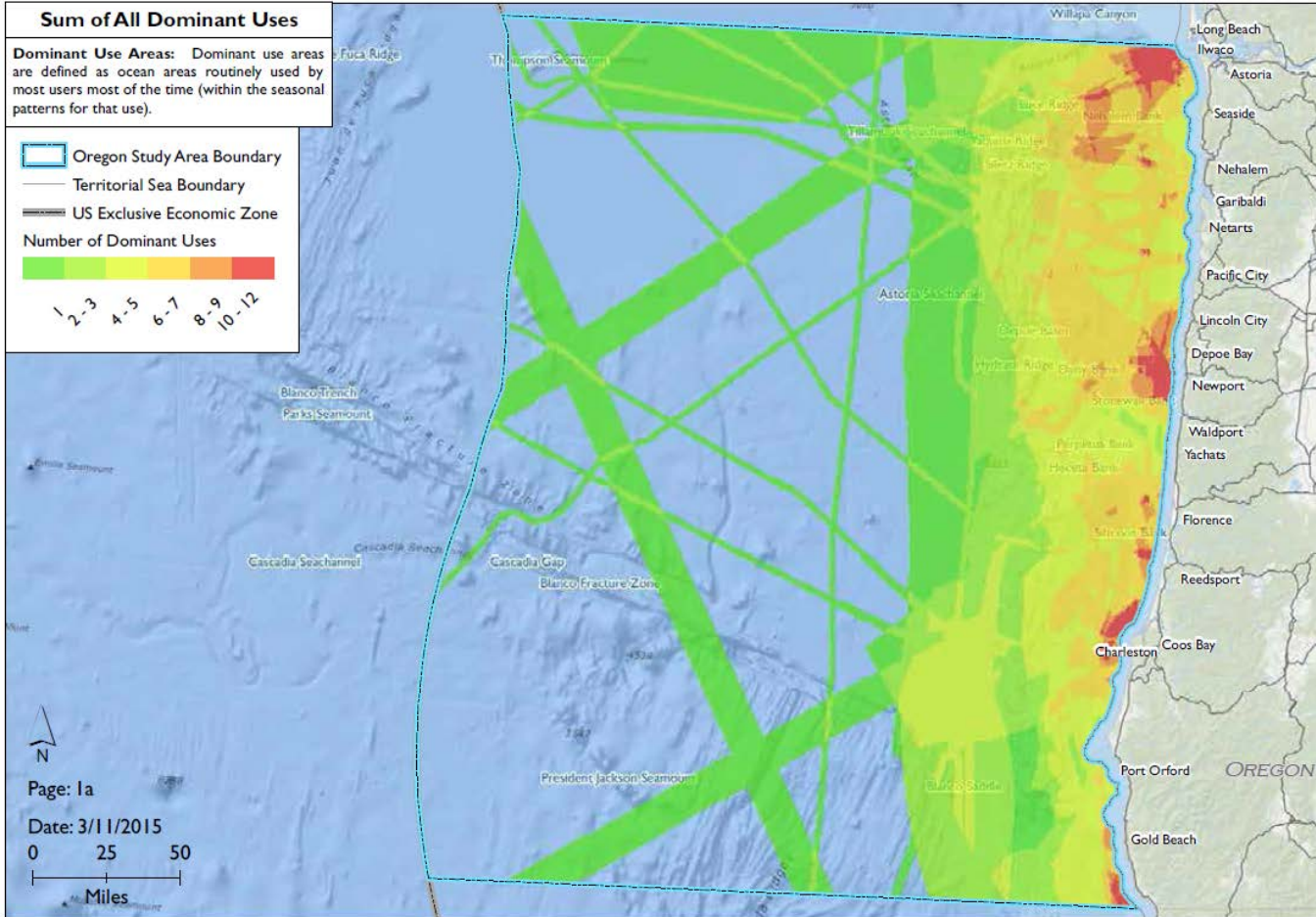
Photo credit: Sara Gultinan



## THE OREGON OCEAN USES ATLAS



*The Pacific Regional Ocean Uses Atlas*



## Energy Policy Act of 2005 (EPAAct)

Consideration must be given to “any other use of the sea or seabed, including use for a fishery, a sealane, a potential site of a deepwater port, or navigation” [Sec. 388 (a)(4)(J)(ii)]



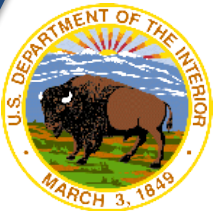
“...gathering and mapping spatial information to help communities learn, discuss, build consensus, and make decisions about their communities and associated resources.” – *NOAA Coastal Services Center*

## **3** PROUA mapping workshop locations Portland, Coos Bay, Newport June 3, 5, & 7, 2013



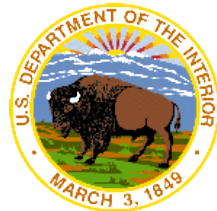
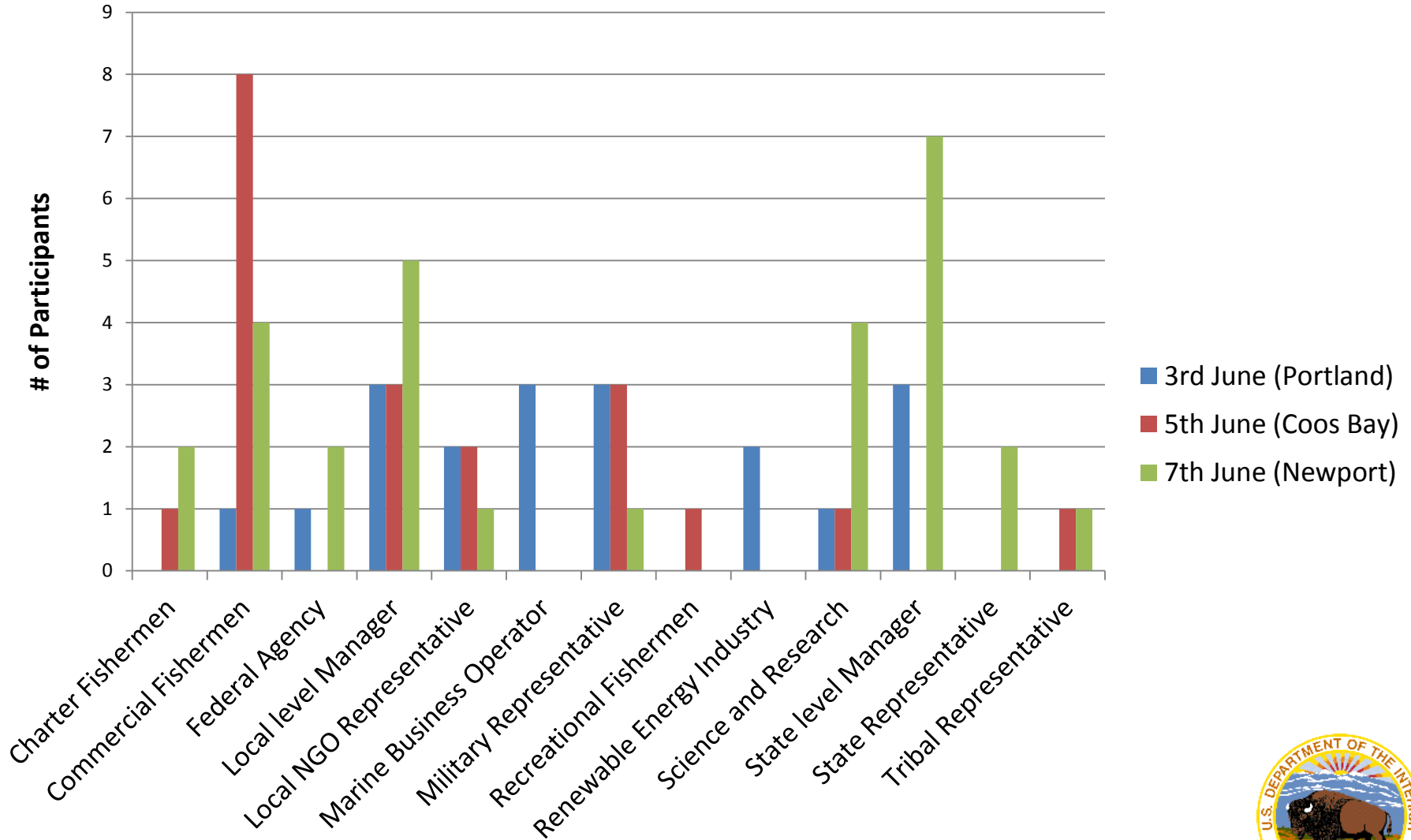


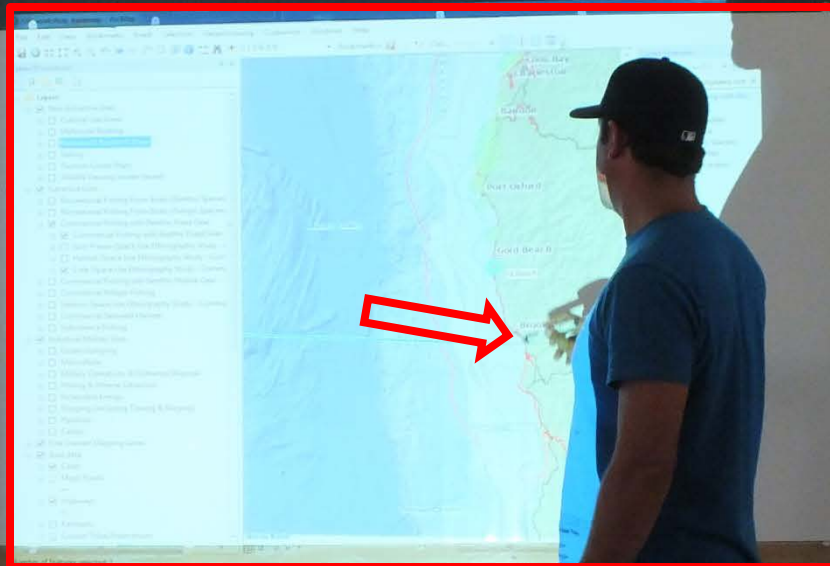
Image credit: NOAA Coastal Services Center



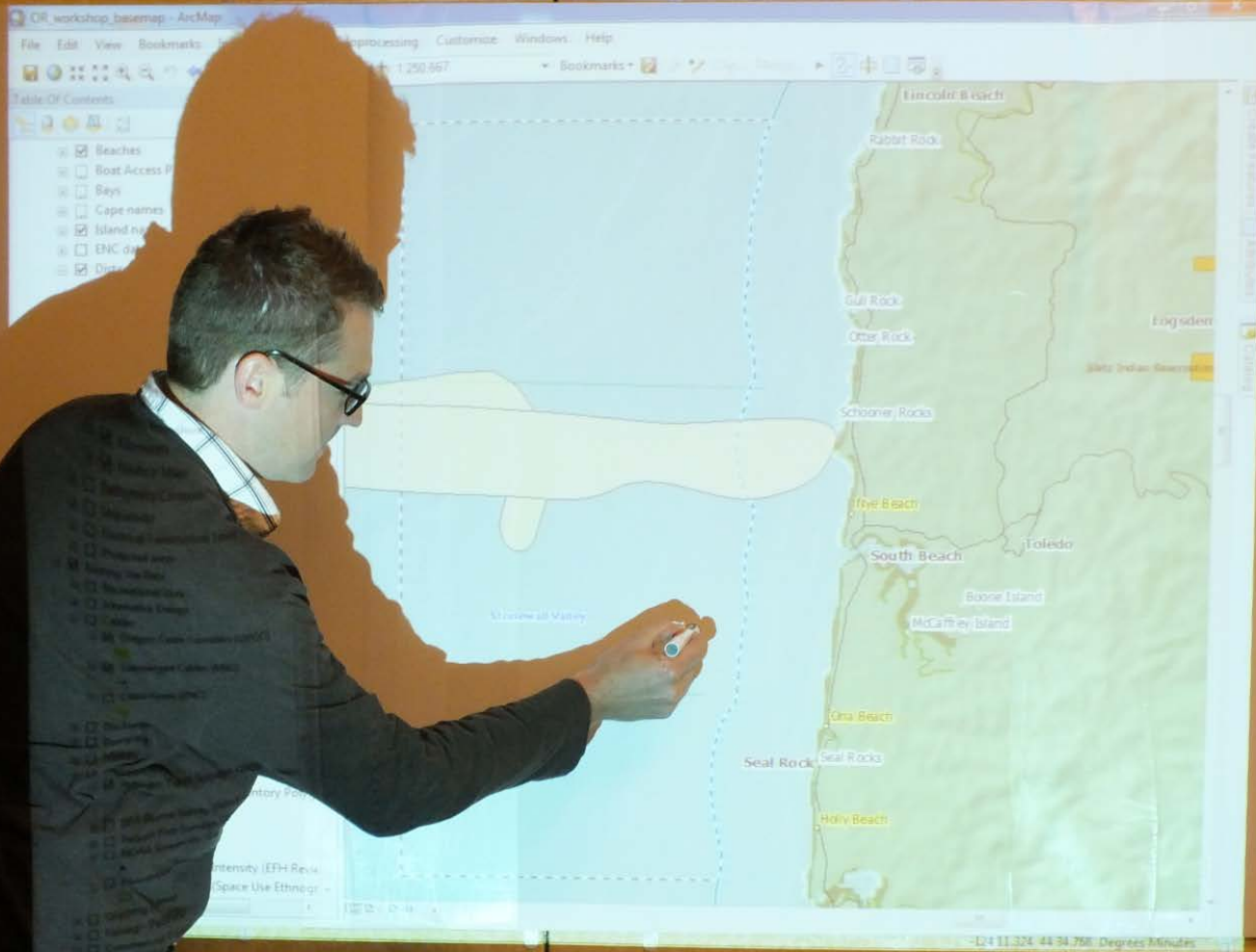


# Representation at Mapping Workshops





**Commercial Fishing  
Benthic Fixed Gear**  
Includes: Use of trawls, pots, bottom longlines, bottom or anchored gillnets, pound nets, weirs, and other bottom trawling gear types used to catch benthic fishes and invertebrates.  
Excludes: All other forms of fishing.





## Industry/Military Sector

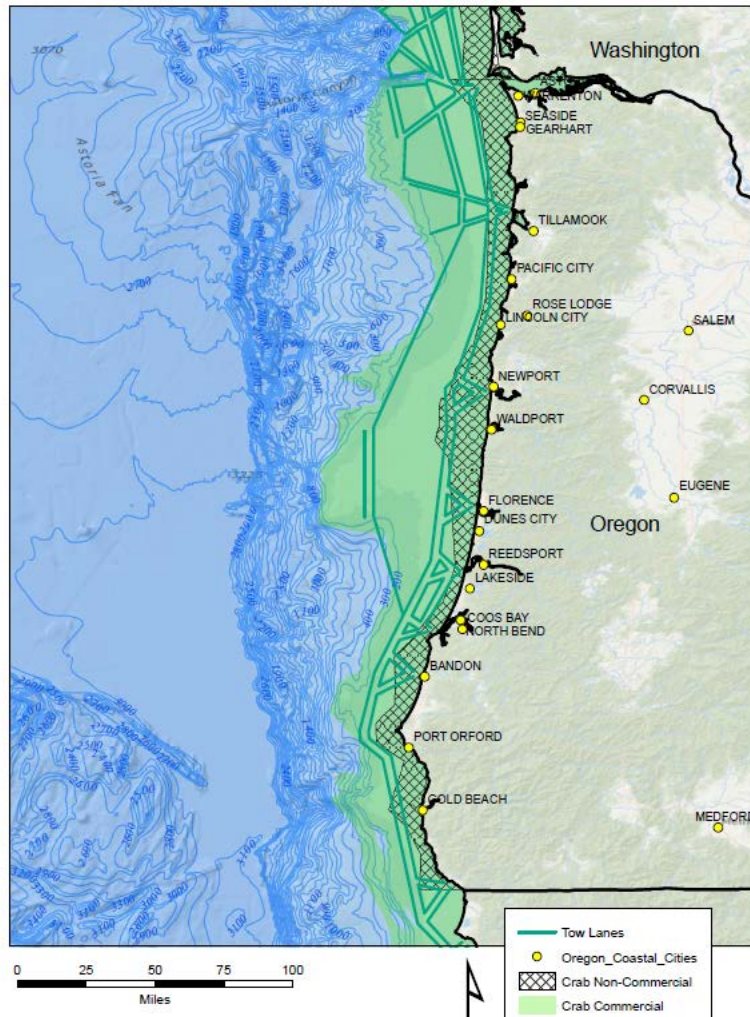
- Commercial Shipping
- Ocean Dumping
- Mariculture ★
- Military Operations
- Mining and Mineral Extraction ★
- Renewable Energy
- Underwater Pipelines ★
- Underwater Transmission Cables

## Extractive Sector

- Commercial Fishing with Benthic Fixed Gear
- Commercial Fishing with Benthic Mobile Gear
- Commercial Pelagic Fishing
- Commercial Seaweed Harvest ★
- Recreational Fishing from Boats for Benthic Species
- Recreational Fishing from Boats for Pelagic Species
- Subsistence Fishing and Harvest ★

## Non-Extractive Sector

- Cruise Ships
- Cultural Use Areas
- Motorized Boating
- Permanent Research Areas
- Sailing
- Wildlife Viewing at Sea



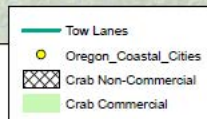
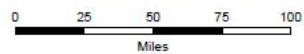
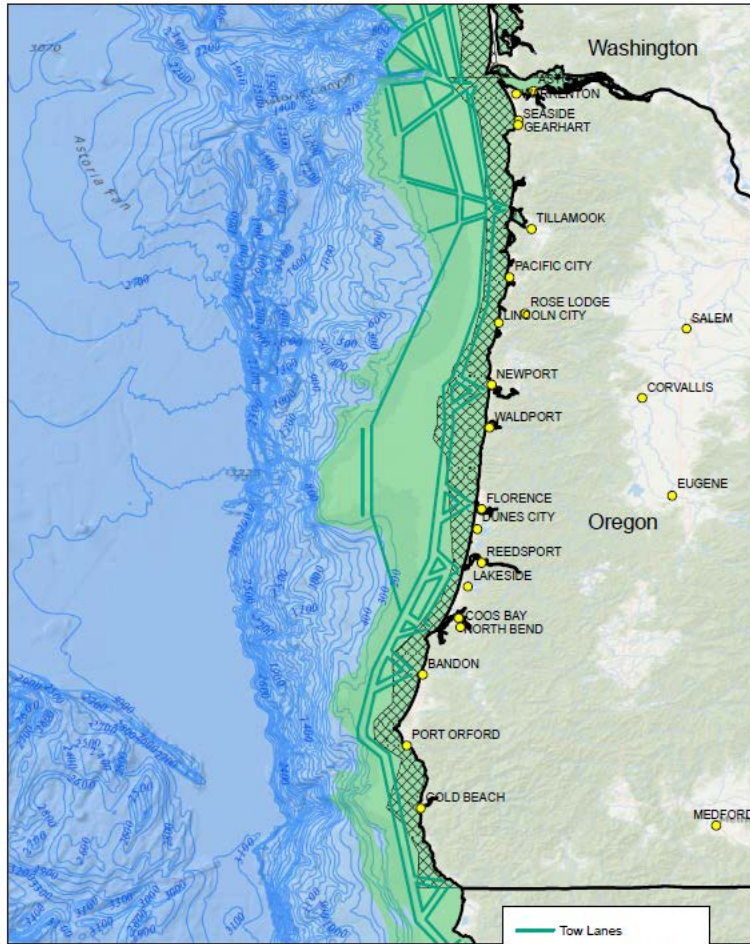
Data from Conway and Pomeroy Interviews  
Map Projection: North American Datum 1983

Existing data from various sources included in basemap.

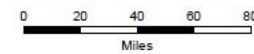
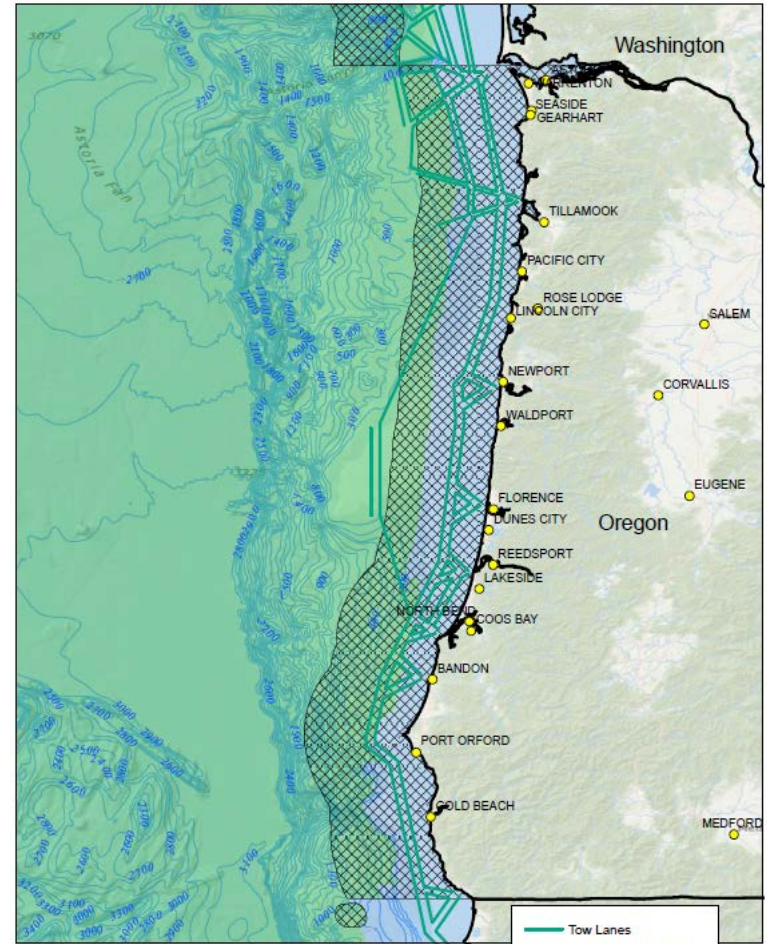
Key reference:  
*Identification of OCS Renewable Energy Space-Use Conflicts and Analysis of Potential Mitigation Measures Study (2009-2012)*



## Existing Ocean Uses Information



Data from Conway and Pomeroy Interviews  
Map Projection: North American Datum 1983



Data from Conway and Pomeroy Interviews  
Map Projection: North American Datum 1983

## THE OREGON OCEAN USES ATLAS

**DRAFT RESULTS**



*The Pacific Regional Ocean Uses Atlas*

### Recreational Fishing from Boats for Benthic Species

**Includes:**

Recreational fishing from head boats, party boats, charters, or private boats targeting benthic species including mobile invertebrates

**Excludes:**

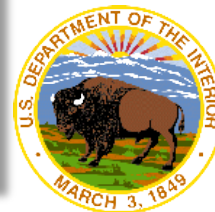
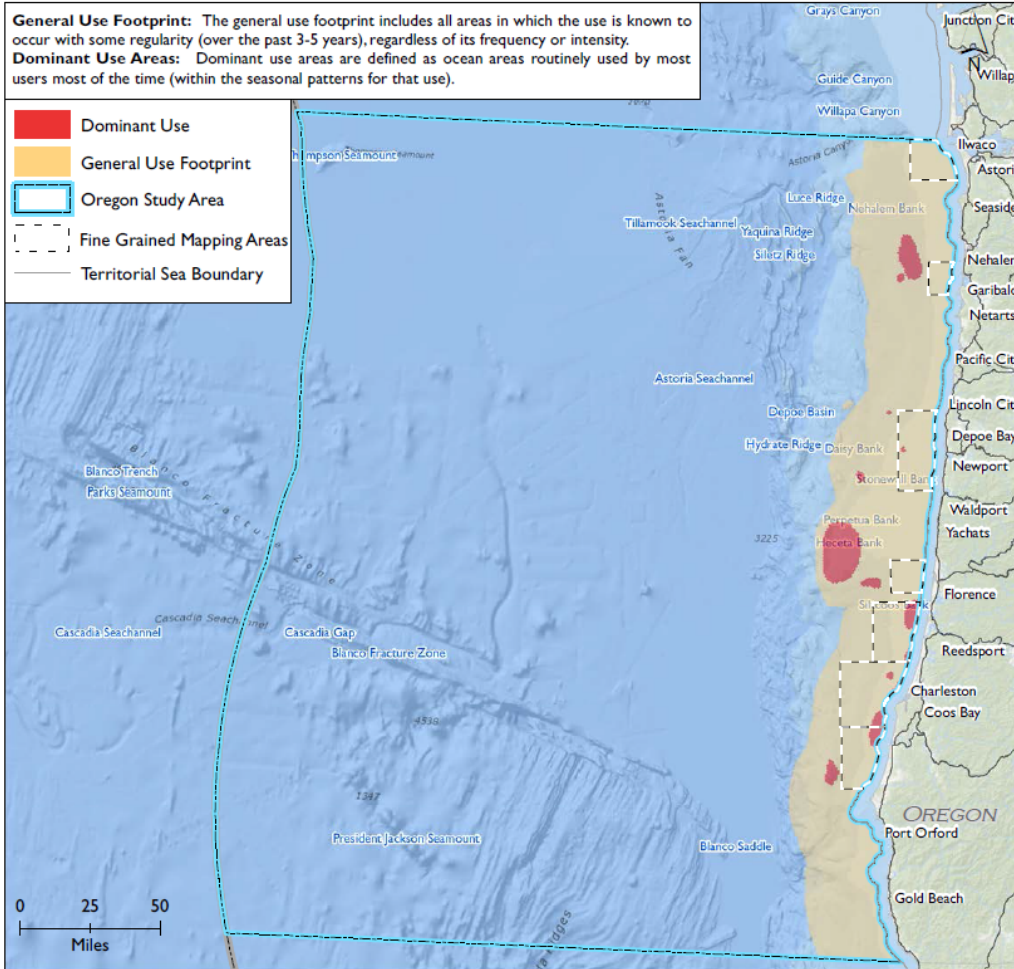
Any other boat- or shore-based fishing

**Use Notes:**

Most recreational benthic fishers are catching Rockfish, Halibut or Crab during the spring and summer seasons. These boats use hook and line for Rockfish or Halibut and traps or pots for Crab. Charter boats targeting Rockfish and Crab will fish in state waters at 45 – 60 fathoms and host up to 18 people on board. The larger charter boats are concentrated around Depoe Bay (10 – 15 boats), Newport (20 boats) and Garibaldi. Halibut is one of the main species recreationally fished outside 3 NM. When fishing for Halibut and Lingcod, fishers typically stay within a day's sail of port, around 30 miles. Legally, these fishers are allowed to fish out to 100 miles. There are some specific areas that Halibut fishers will target such as 'Halibut Hill' off of Garibaldi, 'Bandon High Spot', and 'Chicken Ranch' by Perpetua Bank.

**General Use Footprint:** The general use footprint includes all areas in which the use is known to occur with some regularity (over the past 3-5 years), regardless of its frequency or intensity.  
**Dominant Use Areas:** Dominant use areas are defined as ocean areas routinely used by most users most of the time (within the seasonal patterns for that use).

- Dominant Use
- General Use Footprint
- Oregon Study Area
- Fine Grained Mapping Areas
- Territorial Sea Boundary



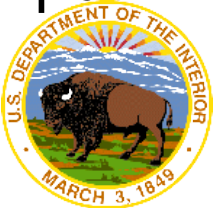


## Process concerns:

- Inadequate comm/rec fishing representation
- Need more time and effort to engage affected communities and industries
- Engagement process

## Ensuing Actions:

- Outreach to 5 established fishing groups + ODFW
  - FINE, NSAT, FACT, SOORC, FISHCRED
- Extended validation period, added 2<sup>nd</sup> draft
- Attended fishing group meetings to listen & solicit input
  - FINE, FACT
- Coordination with FISHCRED

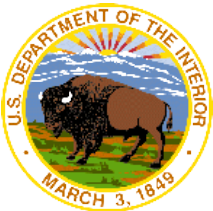


GIS Data

Maps (and maps and maps and maps...)

Study Report

Interactions/conflict/compatibility  
analysis



**Marine Cadastre National Viewer**

DRAW IDENTIFY BASEMAP

Ocean Uses: Oregon and Washington (PROUA)

A DOMINANT USE SUMMARY	4
AQUACULTURE	No Use
COMMERCIAL DIVE FISHING	No Use
COMMERCIAL FISHING WITH BENTHIC FIXED GEAR	General Use
COMMERCIAL FISHING WITH BENTHIC MOBILE GEAR	No Use
COMMERCIAL GATHERING FROM SHORE	No Use
COMMERCIAL PELAGIC FISHING	Dominant Use
CRUISE SHIPS	Dominant Use

Map Legend

Dominant Ocean Use Summary

- 1 - 3 overlapping dominant ocean uses
- 4 - 5 overlapping dominant ocean uses
- 6 - 8 overlapping dominant ocean uses
- 9 - 11 overlapping dominant ocean uses
- 12 - 17 overlapping dominant ocean uses

United States Department of Commerce | National Oceanic and Atmospheric Administration | National Ocean Service | Website owner: Office for Coastal Management

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## THE OREGON OCEAN USES ATLAS



### Recreational Fishing from Boats for Benthic Species

**Includes:**

Gear Types: Recreational fishing from head boats, charters, or private boats  
 Fisheries: Benthic species including mobile invertebrates (Rockfish, Halibut, and Crab)

**Excludes:**

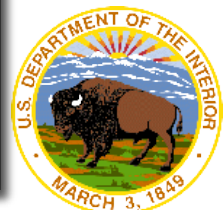
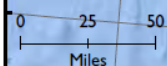
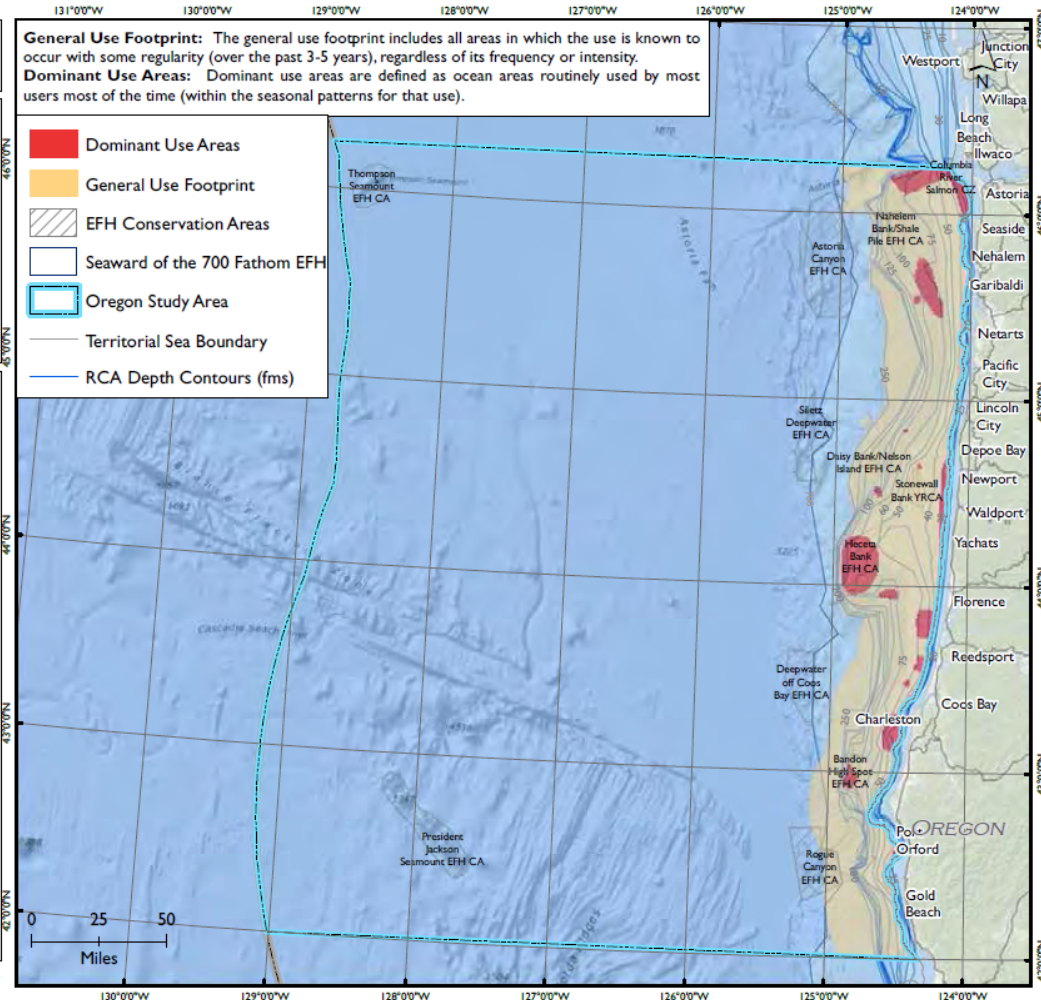
Any other boat- or shore-based fishing

**Use Notes:**

Most recreational benthic fishermen catch Rockfish, Halibut or Crab during the spring and summer seasons. These boats use hook and line for Rockfish or Halibut and traps or pots for Crab. Charter boats targeting Rockfish and Crab will fish in state waters hosting up to 18 people on board. Crab boats will fish up to the breakers. The larger boats are concentrated around Depoe Bay (200 sport boats per day is not unusual), Newport (20 boats) and Garibaldi. Halibut is one of the main species recreationally fished outside 3 NM. When fishing for Halibut and Lingcod, fishermen typically stay within a day's sail of port (around 30 miles). There are some specific areas that Halibut fishers will target such as 'Halibut Hill' off of Garibaldi, 'Bandon High Spot', and 'Chicken Ranch' by Perpetua Bank. Groundfish are fished commercially and recreationally May 1 – September 30, inside 30 fathoms.

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**Dominant Use Areas:** Dominant use areas are defined as ocean areas routinely used by most users most of the time (within the seasonal patterns for that use).

- Dominant Use Areas
- General Use Footprint
- EFH Conservation Areas
- Seaward of the 700 Fathom EFH
- Oregon Study Area
- Territorial Sea Boundary
- RCA Depth Contours (fms)



## THE OREGON OCEAN USES ATLAS



*The Pacific Regional Ocean Uses Atlas*

### Sailing

**Includes:**

Transit, mooring, motoring or anchoring by sailboats, including sailing kayaks and canoes

**Excludes:**

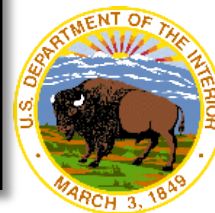
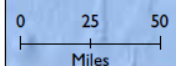
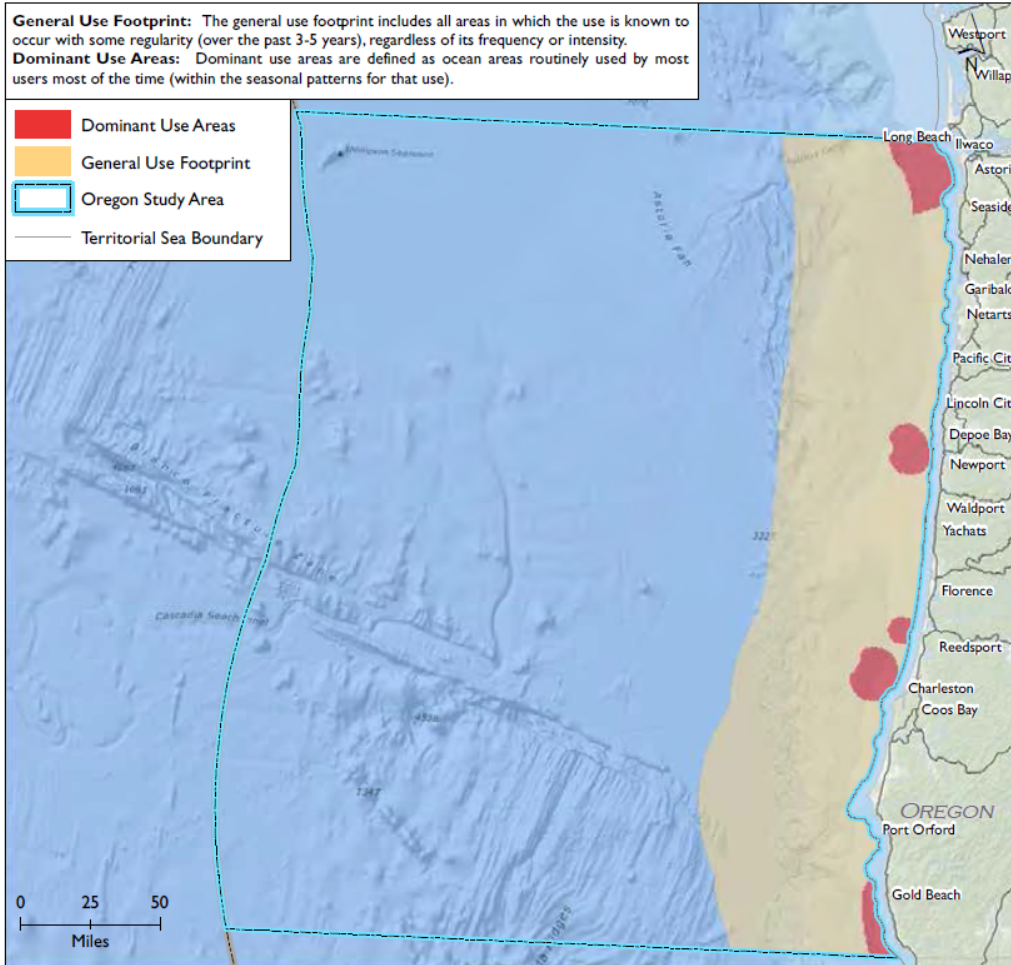
Motorized Boating, Paddling

**Use Notes:**

Sailing in the study region is a seasonal use with limited activity in the winter due to extreme weather conditions. Much of the activity includes transiting through Oregon waters out to 50 NM offshore. Recreational sailors tend to congregate locally around major harbors such as Astoria, Newport and Coos Bay; there is an annual race (10 – 20 boats) from Astoria to Newport. Charter sailboats run seasonally from Garibaldi north to the San Juan Islands and south to Newport around 10 miles offshore.

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- Territorial Sea Boundary



## THE OREGON OCEAN USES ATLAS



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### Underwater Transmission Cables

**Includes:**

Cables installed on the seafloor to transmit data, communications, and electricity generated on land

**Excludes:**

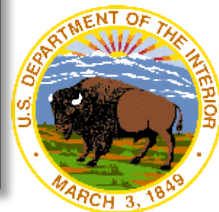
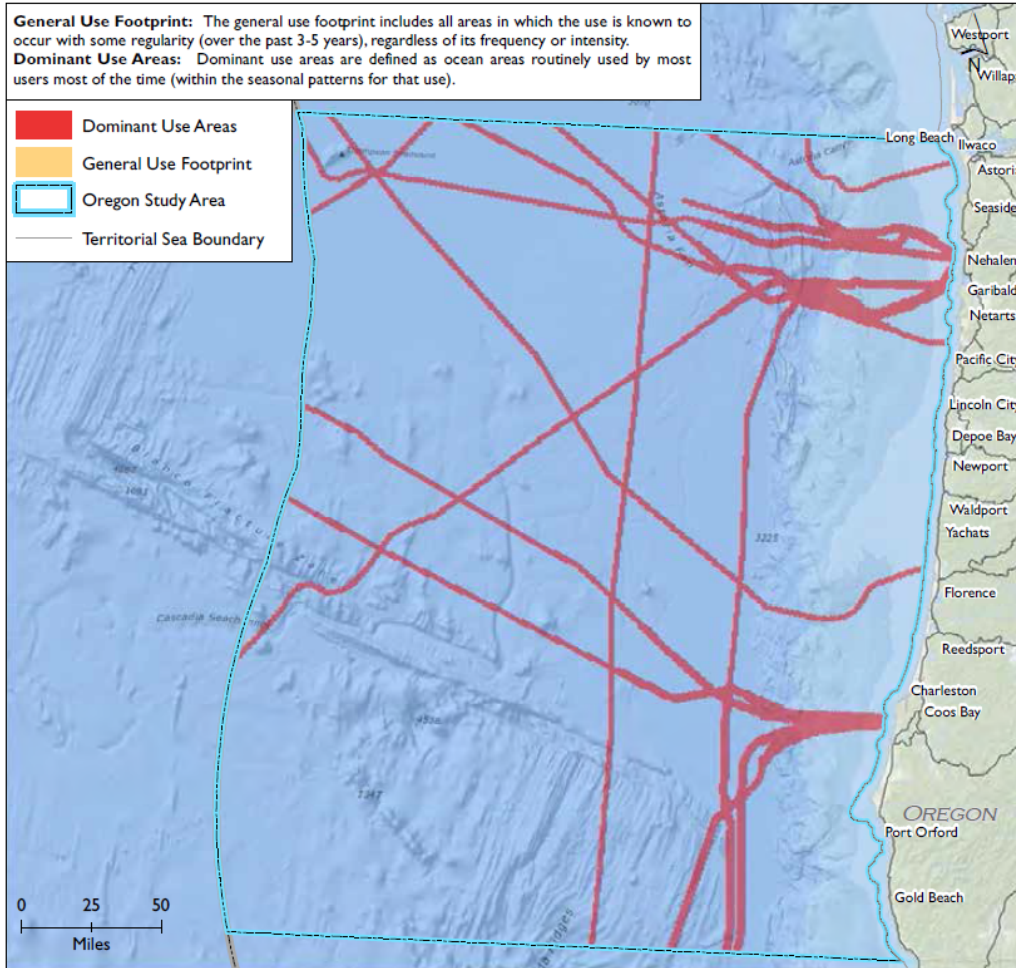
Lost fishing gear, renewable electricity transmission cables

**Use Notes:**

Underwater transmission cables are present throughout the study region. Out to 700 fathoms, cables are buried to 1 meter to protect against trawling (burial does not protect against potential anchoring damage). Beyond this depth, the cables are simply laid on the seafloor. Existing cables are used predominantly for telecommunication and vary in length from north-south cables that span the west coast to transpacific cables. There are research cables around Coos Bay that include research arrays for the Ocean Observing Initiative (OOI).

**General Use Footprint:** The general use footprint includes all areas in which the use is known to occur with some regularity (over the past 3-5 years), regardless of its frequency or intensity.  
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- Dominant Use Areas
- General Use Footprint
- Oregon Study Area
- Territorial Sea Boundary



OCS Study  
BOEM 2015-014

## THE PACIFIC REGIONAL OCEAN USES ATLAS

Data and tools for understanding ocean space use  
in Washington, Oregon and Hawaii

Authors:

Mimi D'lorio  
Hugo Selbie  
Charles Wahle  
Jordan Gass

June 2015

Prepared under BOEM-NOAA Interagency Agreement  
M12PG00029

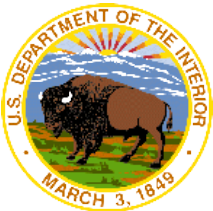
By

National Oceanic and Atmospheric Administration  
99 Pacific Street, Suite F  
Monterey, CA 93940

This project was funded by the U.S. Department of the Interior, Bureau of Ocean Energy Management, Pacific OCS region, through an Interagency Agreement with the U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Ocean Service.



- Space Use Profiles
- Ocean Use Interaction Assessment Tool
- Interactions between Renewable Energy and other Ocean Uses
- Maps of Potential Interaction between Renewable Energy and Other Uses







Understand context of existing uses

Inform project-scale analysis

Inform further communication

\*See report section 5.1 – Considerations and Caveats



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BOEM Pacific Region Info:

[www.boem.gov/Pacific-Region/](http://www.boem.gov/Pacific-Region/)

PROUA Report:

<http://www.boem.gov/2015-014/>

Space-Use Conflicts Study:

[www.data.boem.gov/PI/PDFImages/ESPIS/5/5203.pdf](http://www.data.boem.gov/PI/PDFImages/ESPIS/5/5203.pdf)

Marine Cadastre National Viewer:

<http://marinecadastre.gov/nationalviewer/>

GIS Data Download:

<https://coast.noaa.gov/dataregistry/search/collection>

