



BOEM Bureau of
Ocean Energy Management

Gulf of Maine: Leasing Updates

Atlantic Highly Migratory Species Advisory Panel

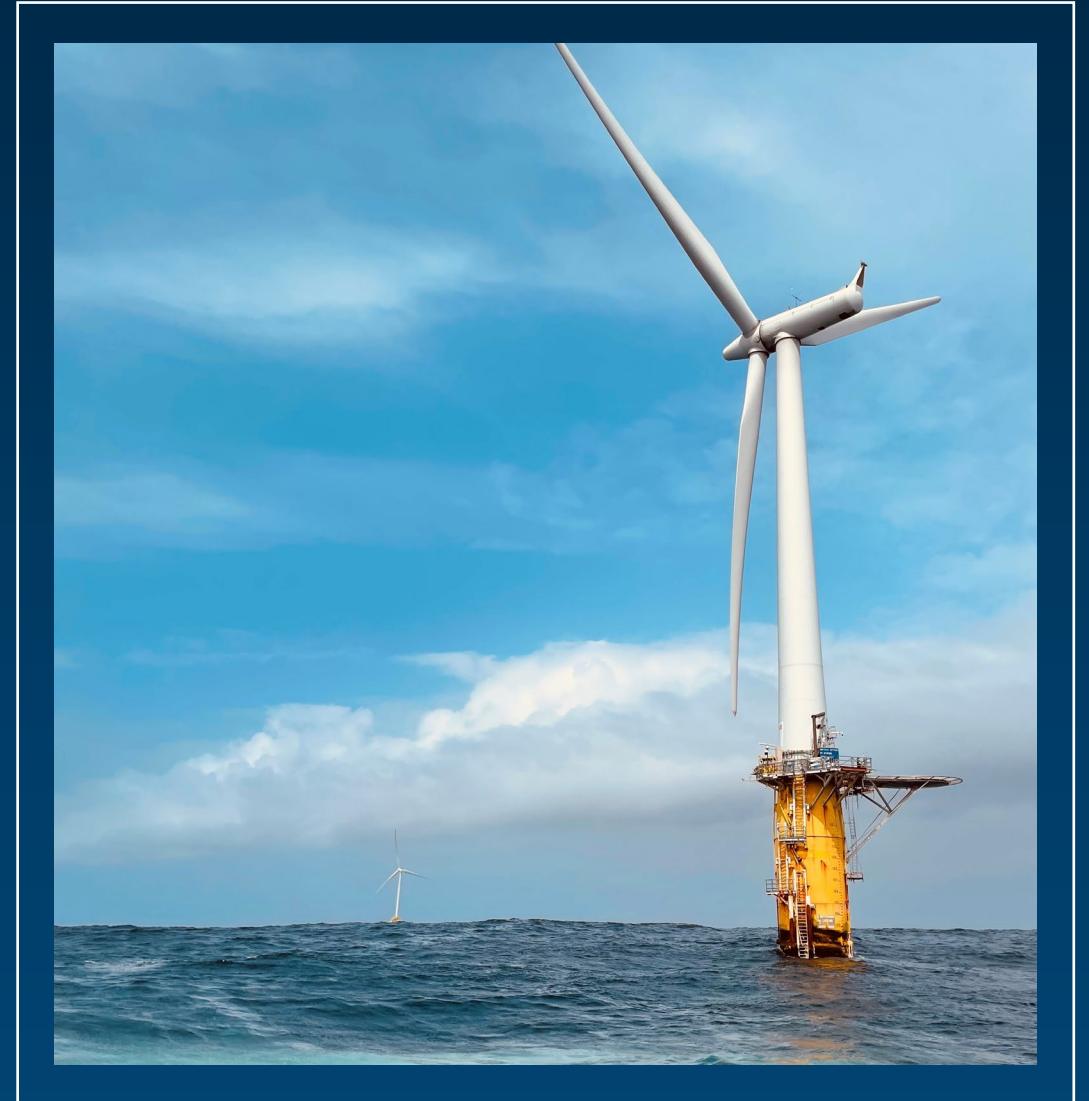
September 7, 2023

Zach Jylkka

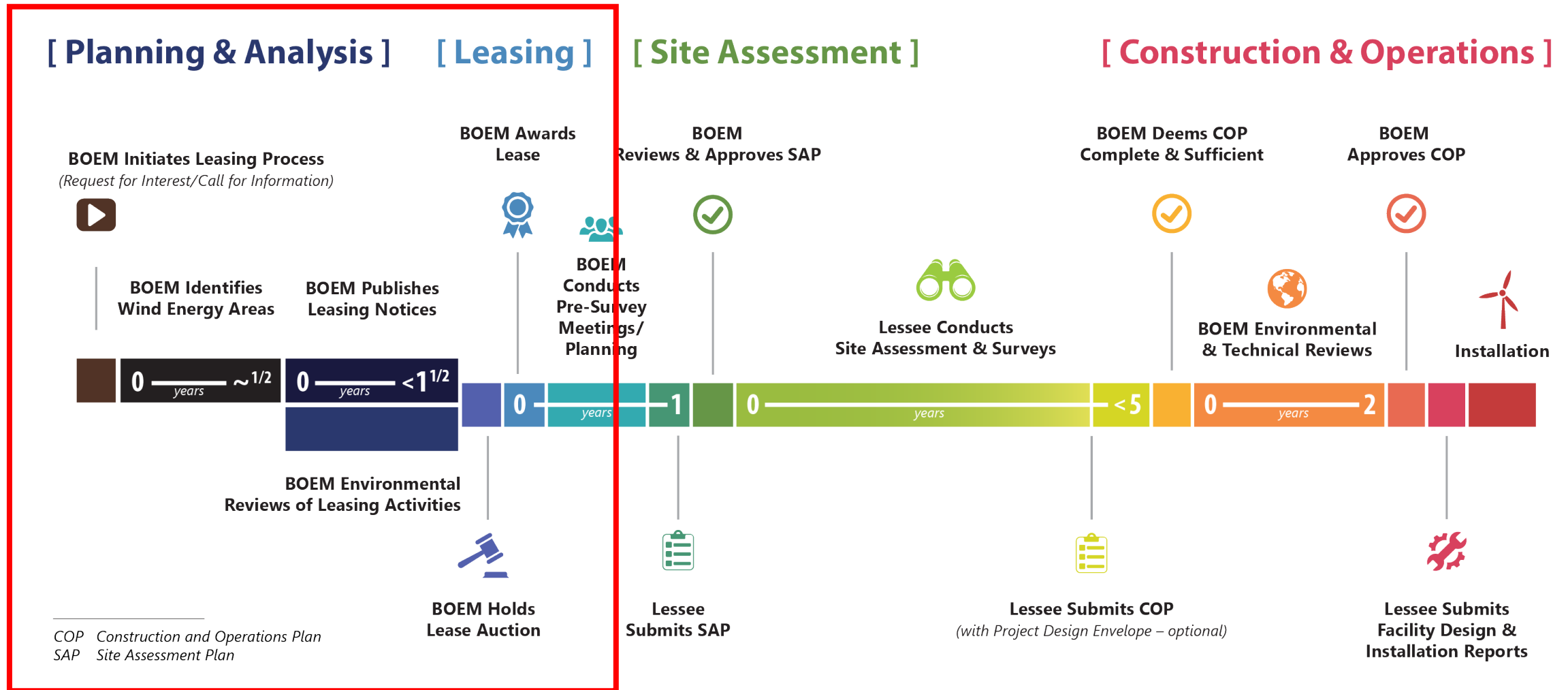
Energy Program Specialist

Agenda

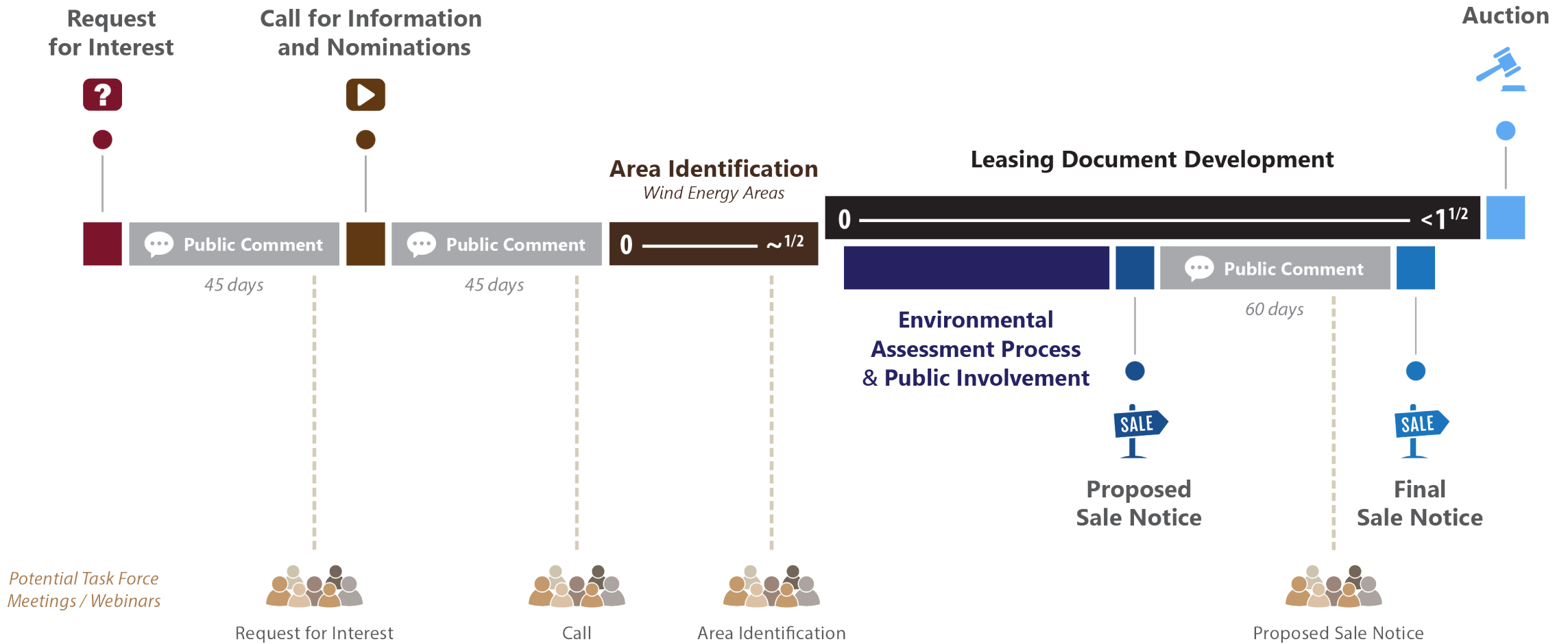
- BOEM Process, what is it and where are we?
- Call for Information and Nominations
- Modeling & Transparency
- Other items as requested



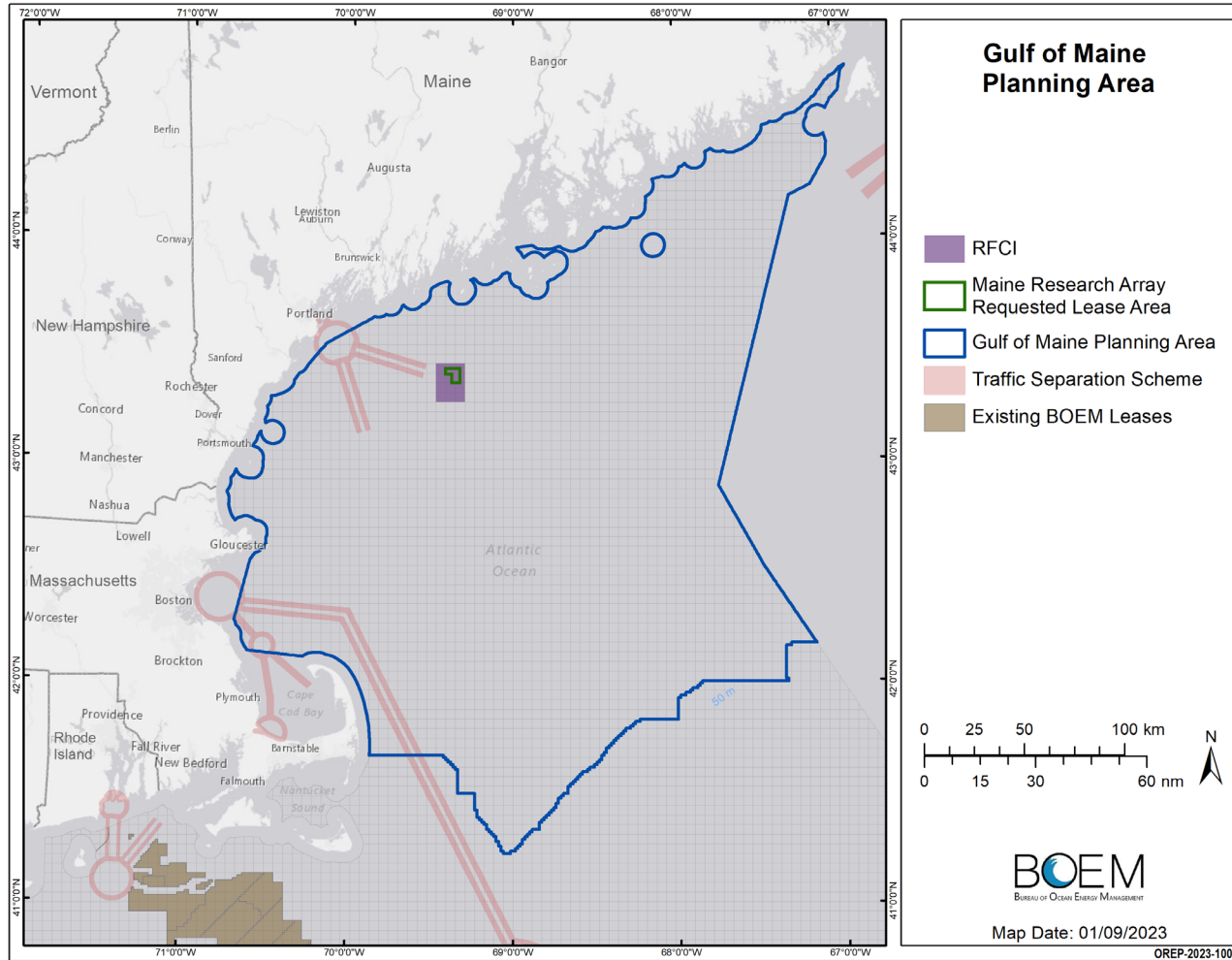
Renewable Energy Authorization Process



Commercial Track: Request for Interest → Lease Sale



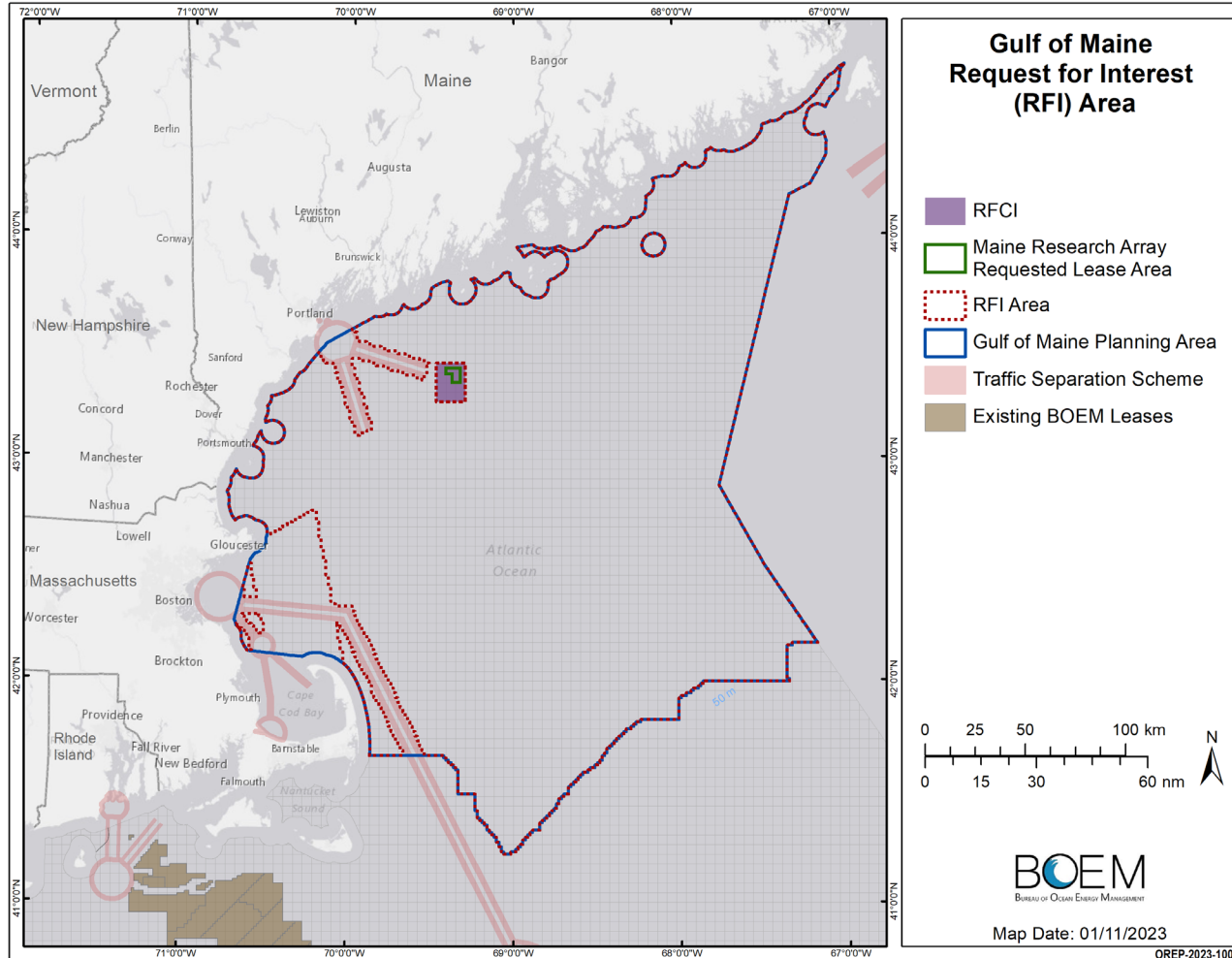
Gulf of Maine: Planning Area



- Preliminary and optional step in the BOEM Planning Process



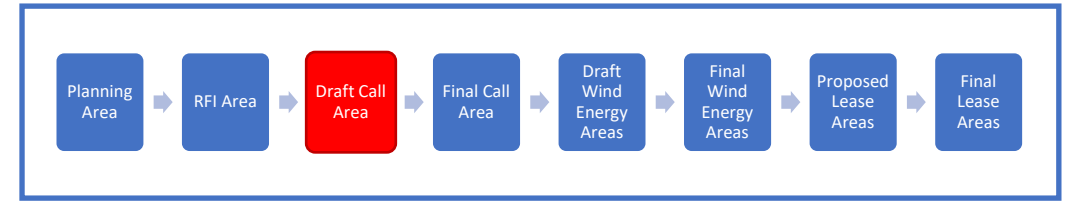
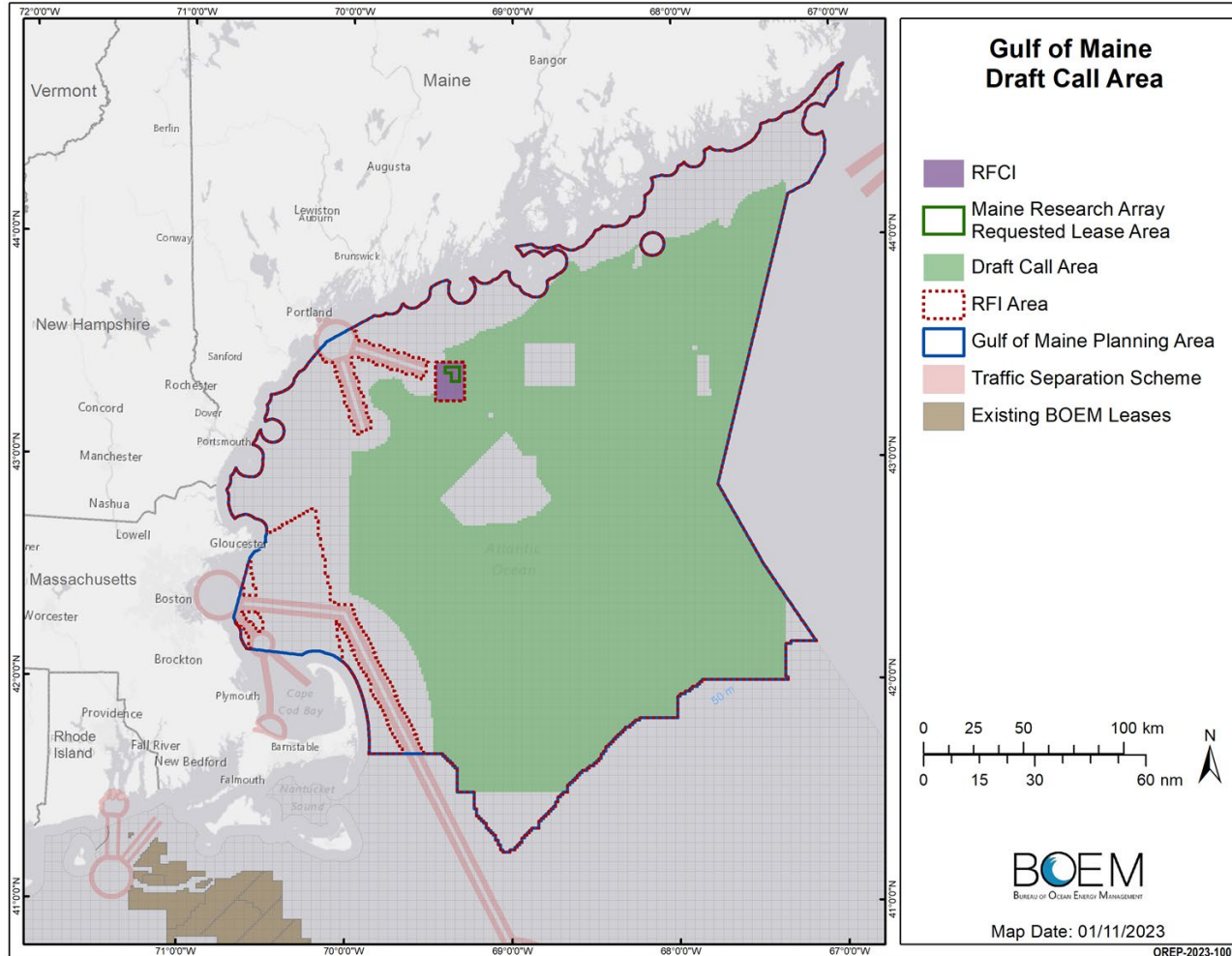
RFI Area



- Shared **Draft RFI** Area at May 2022 Task Force Meeting
- **Published RFI** in August 2022
 - 45-day comment period closed October 2022
- RFI Area removed:
 - National Park System, National Wildlife Refuge System, **National Marine Sanctuary System**, or any National Monument (\$585.204)
 - **Existing Traffic Separation Schemes (TSS)**, fairways, or other internationally recognized navigation measures
 - **Unsolicited lease request areas** that are the subject of a separate request for competitive interest



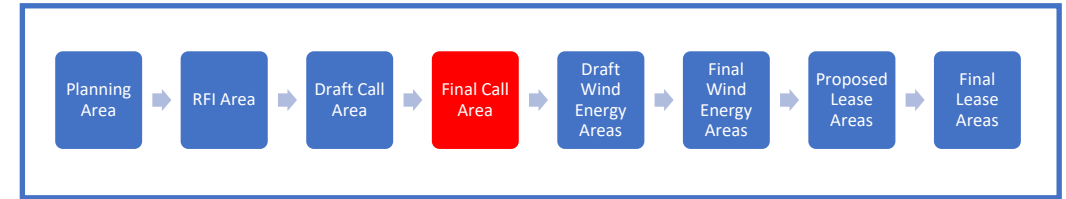
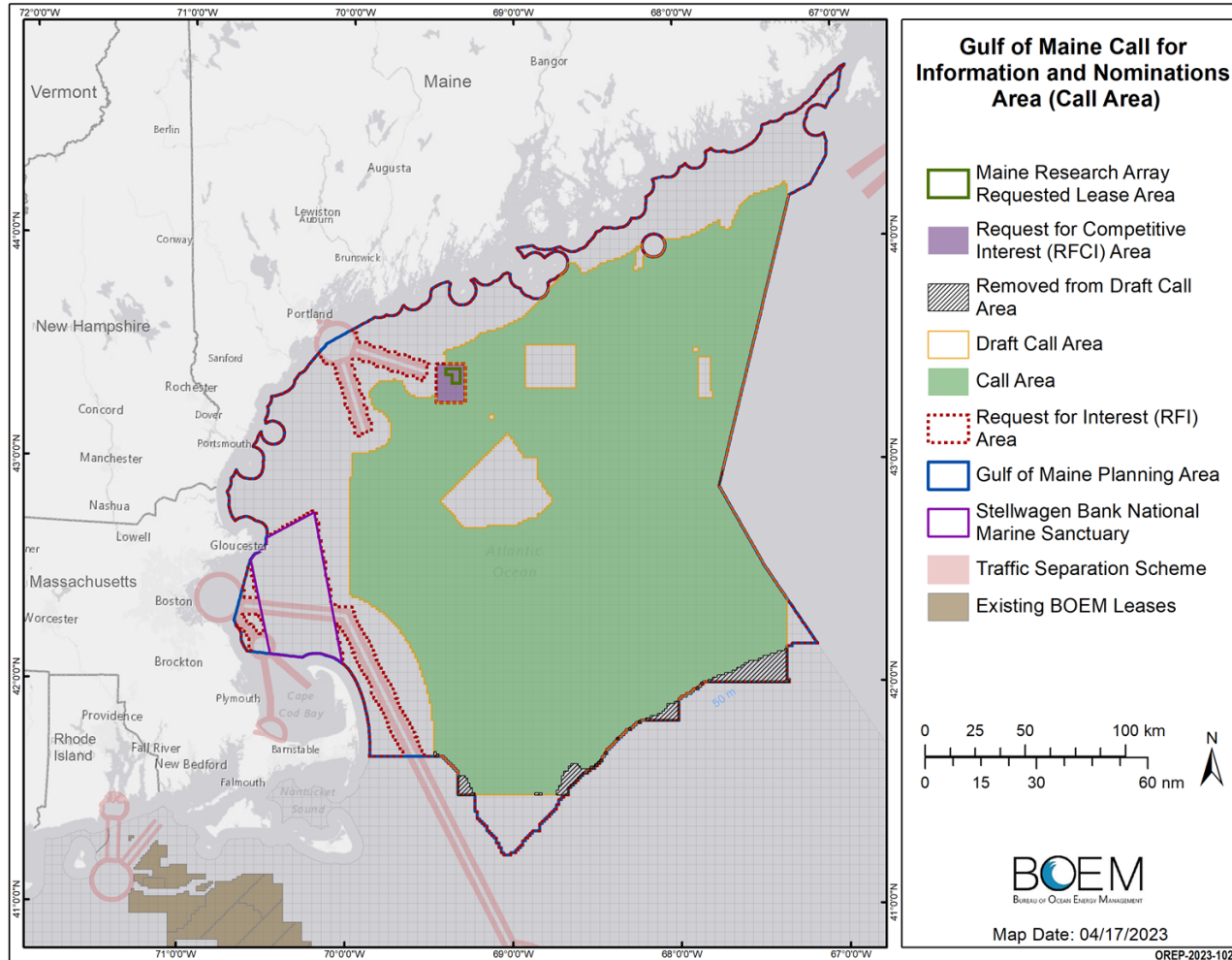
Draft Call Area



- BOEM reviewed responses to RFI and worked with **NOAA NCCOS** to conduct spatial analysis to inform Draft Call Area
 - 27% reduction from RFI Area
- The Draft Call Area was posted on BOEM's website on January 10, 2023



Final Call Area

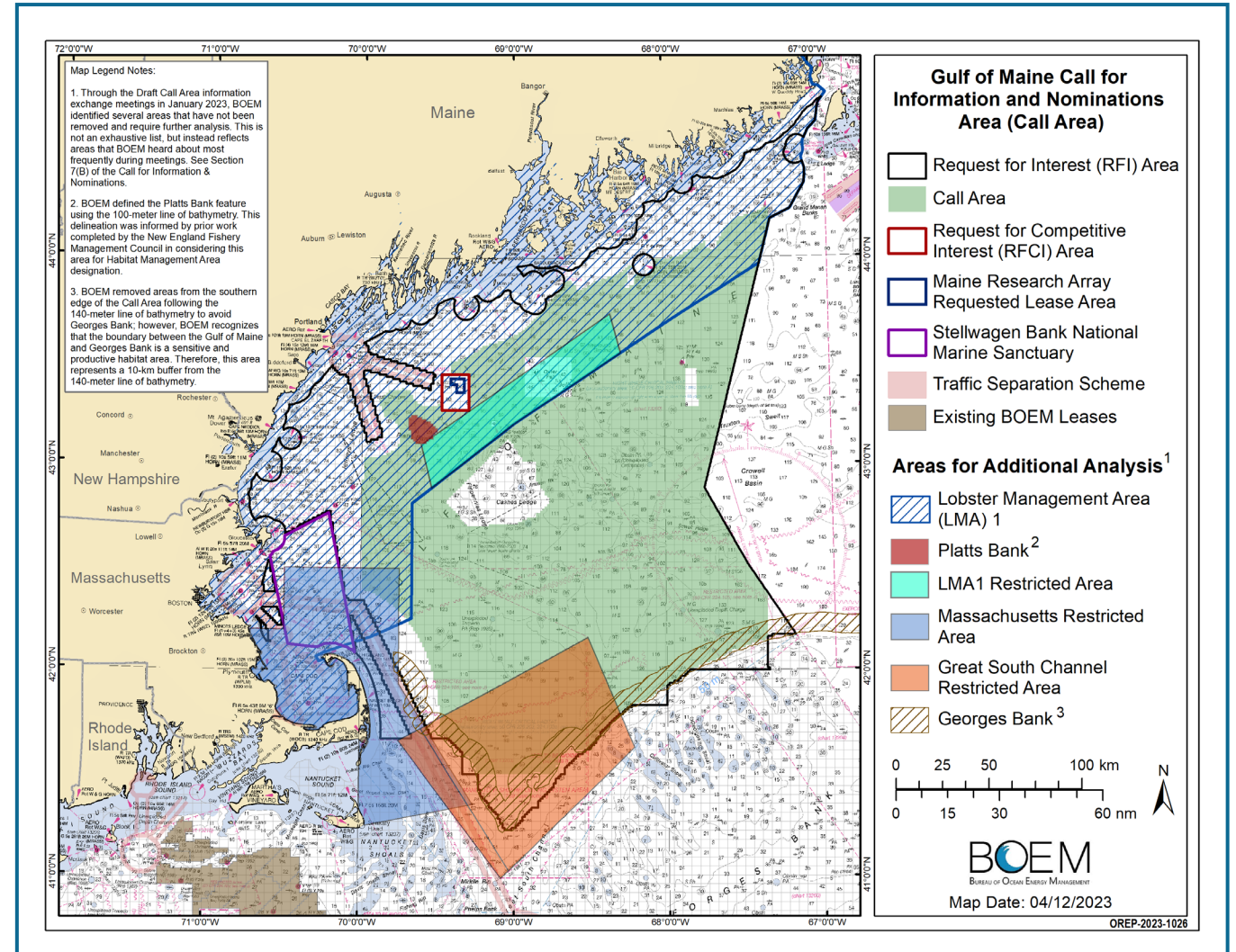


- BOEM removed areas from the southern edge of the Call Area to avoid Georges Bank.
- The Final Call Area was published on April 26, 2023—opening a 45-day public comment period (open thru June 12).
- **125 comments** received
 - Comments represent a wide range of interests and are currently being evaluated to understand their spatial implications
- **7 nominations**



Modeling: Next Steps

- BOEM reviewed Call comments to determine major themes.
- Generated questions of the model to illustrate the different perspectives being shared
 - EX: *What does it look like if...*
- Used draft Wind Energy Area model runs for **Summer Transparency Meetings**



Gulf of Maine: Summer Transparency Meetings

Transparency Meetings

- Federal Agencies, States, Tribes
- What is in the model, how does it work, what questions have we asked, what do the Call comments look like spatially, what questions should we ask to inform Draft WEAs?

Fisheries Engagement

- Engagement and Relationship Building
- Transparency
- Input

Draft WEAs

- Inform approach to Model #5
- Comment period and public meetings in each state to solicit feedback



July 2023 Fisheries Open House Meetings

- Public Fisheries Meetings

- Maine:

- Portland: July 24, 5:30-8pm
- Ellsworth: July 25, 5:30-8pm
- Rockport: July 26, 5:30-8pm

- New Hampshire:

- Portsmouth: July 27, 5:30-8pm

- Massachusetts:

- Plymouth: July 27, 5:30-8pm
- Virtual*: July 31, 5-7pm (focused on MA FWG members)





Data Inventory

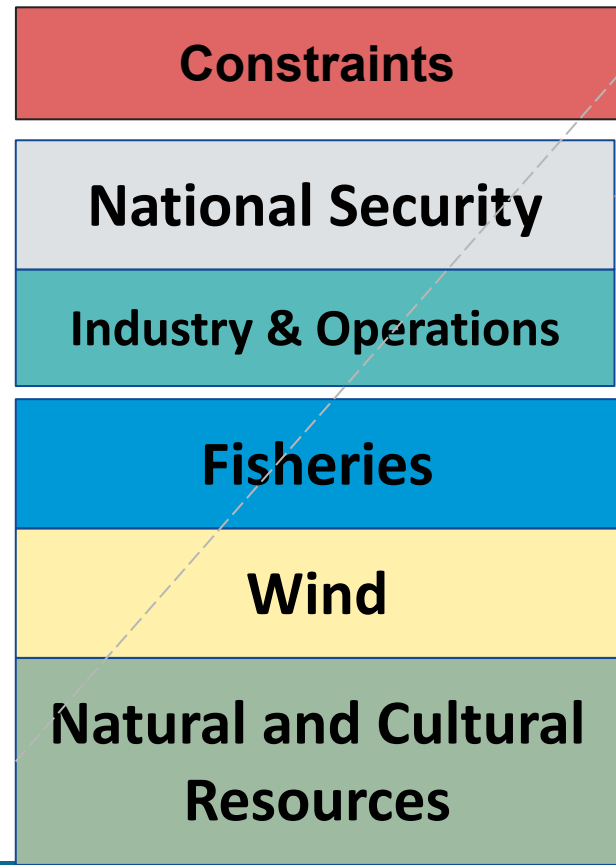


MarineCadastre.gov
 An Ocean of Information
 A joint BOEM and NOAA initiative providing authoritative data to meet the needs of the offshore energy and marine planning communities.



Data Processing

Submodels

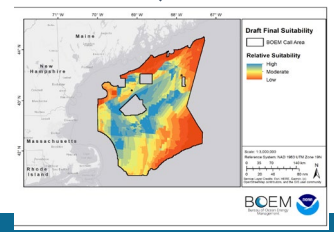
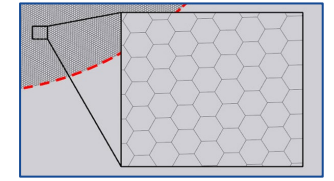


Areas Eliminated

Geometric Mean Calculated

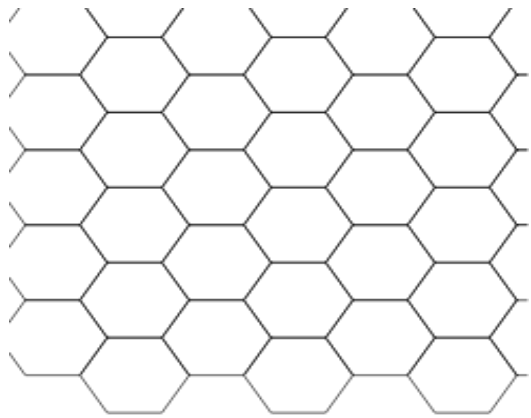
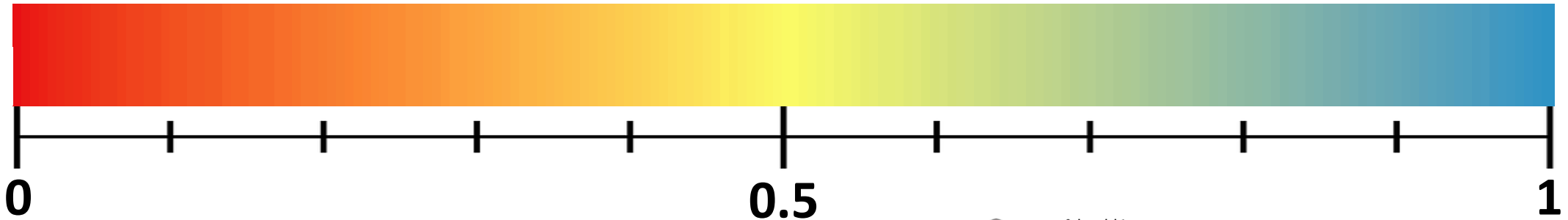
Suitability Analysis

Cumulative Suitability

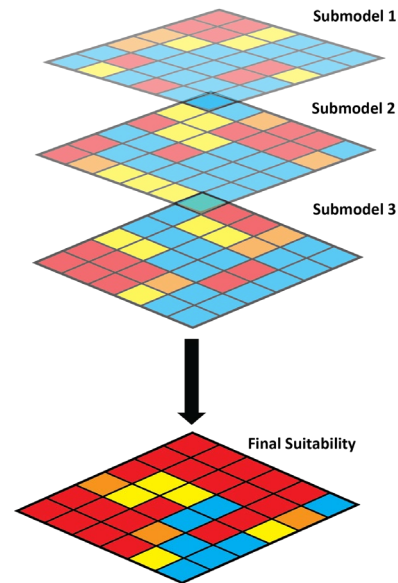


Scoring Data Layers

Constrained Lowest Suitability  Highest Suitability



Scores are assigned for each separate data layer across all grid cells.



Cumulative scores for each submodel are calculated

Final suitability for each grid cell is calculated as the geometric mean of all submodels.



Fisheries Submodel

Data Layers Included:
Fishing Footprint Raster Data (revenue) 2008 - 2021
Fishing Footprint Raster Data (landings) 2008 - 2021
VMS Data 2012-2021*
Charter/Party VTR 2008 - 2020
Large Pelagic Survey Trip Points (HMS/Recreational) 2011 - 2021 with 10-mi setback
Lobster Management Area (LMA) 1
Platts Bank
Georges Bank Buffer
Cashes Ledge
Western Gulf of Maine Closure and Habitat Management Area (HMA)
Jeffreys Bank Habitat Management Area (HMA)
HMAs considered, but not adopted by NEFMC (e.g., Toothaker Ridge, Large Eastern Maine proposed HMA, Wildcat Knoll)
Closed Area II
Parker Ridge, Three Dory Ridge, Davis Swell
Jordan Basin Dedicated Habitat Research Area
Jordan Basin (areas shallower than 250 m)

Fisheries Areas
Communicated
in Call
Comments

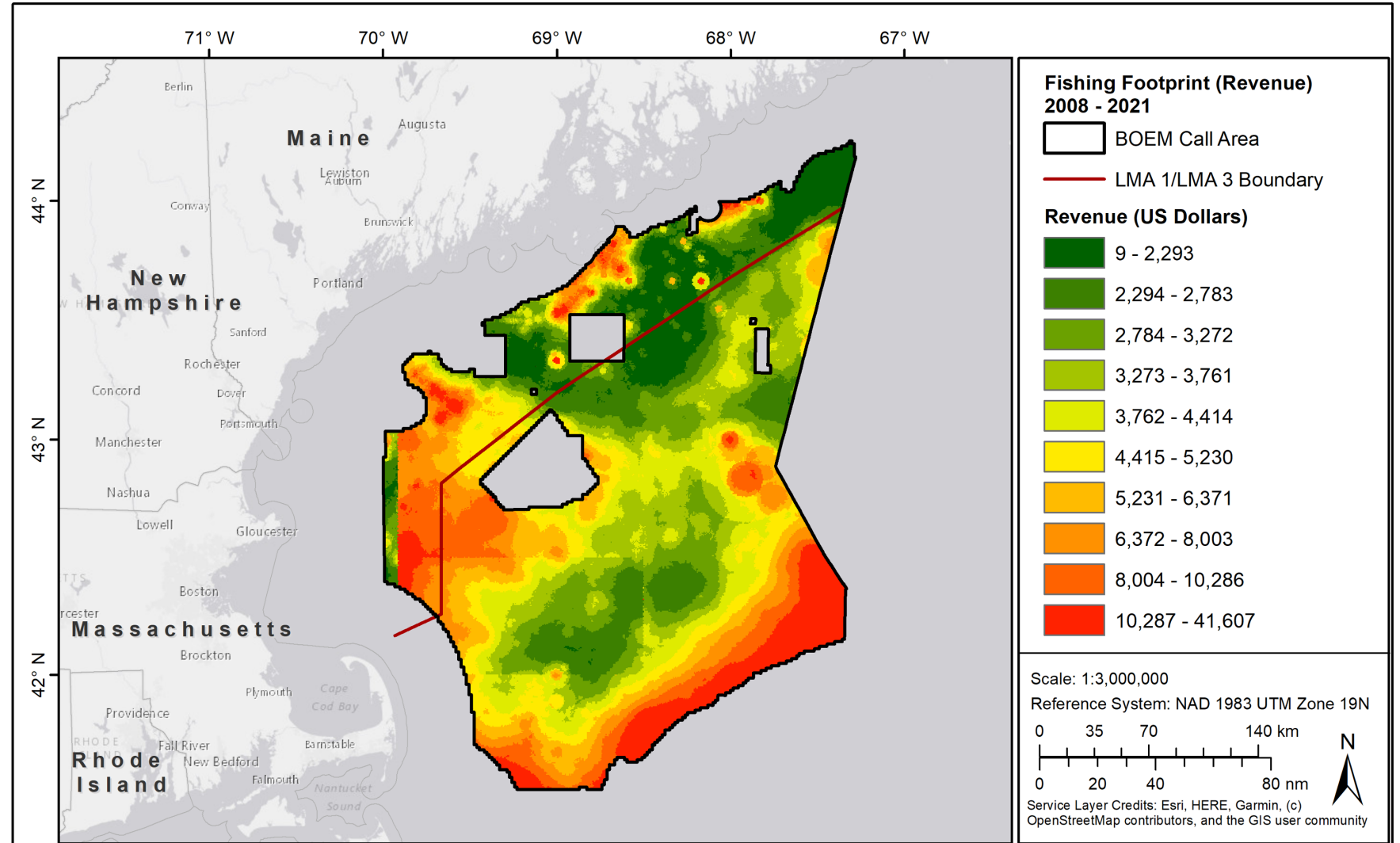


Fishing Footprint Raster (revenue) 2008 - 2021

Source: NOAA NMFS

Gear types include:

- Bottom Trawl
- Dredge
- Gillnet
- Lobster
- Longline
- Pots & Traps
- Seine
- Shrimp



Fishing Footprint Commercial VTR Modeled Logbook Data. NOAA National Marine Fisheries Service. 2008 – 2021. 500 m (0.25km²) resolution. Revenue displayed as total U.S. Dollars/0.25 km². Modeled data includes all gear types; bottom trawl, dredge, gillnet, lobster, longline, pots and traps, seine, and shrimp.



Pre-decisional, deliberative DRAFT

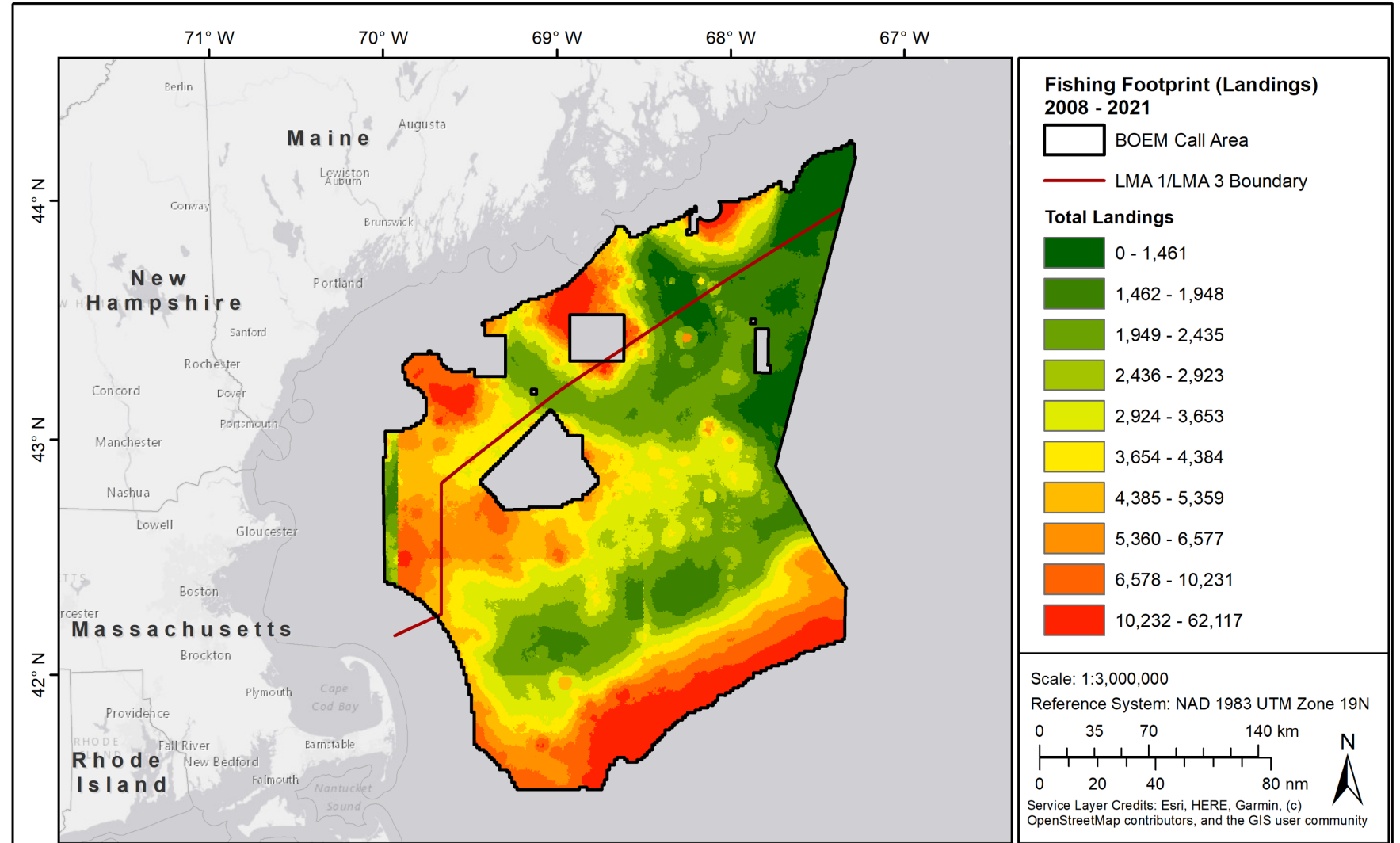


Fishing Footprint Raster (landings) 2008 - 2021

Source: NOAA NMFS

Gear types include:

- Bottom Trawl
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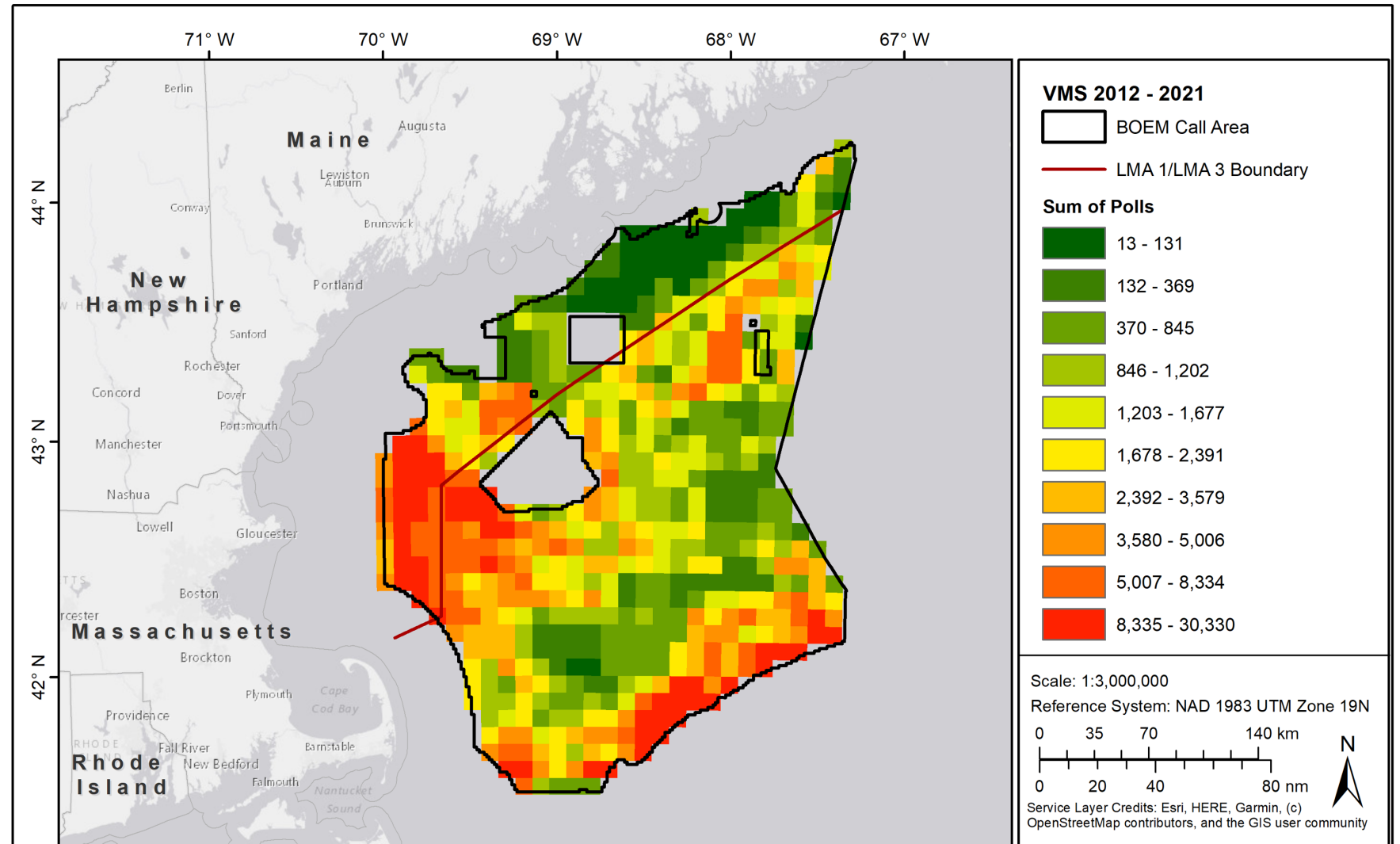


VMS Data 2012 - 2021

Source: NOAA NMFS

Includes all vessels that use VMS:

- Multispecies (groundfish)
- Monkfish
- Herring
- Scallop
- Surfclam
- Ocean Quahog
- Squid/Mackerel/Butterfish



Vessel Monitoring System All Transits Data. NOAA National Marine Fisheries Service. 2012 – 2021. 8,200 m (~67 km²) resolution. Speed filtered to 2 – 5.5 kts to isolate putative fishing from transiting. Fisheries include; Multispecies (groundfish), Monkfish, Herring, Scallop, Surfclam, Ocean Quahog, and Squid/Mackerel/Butterfish.



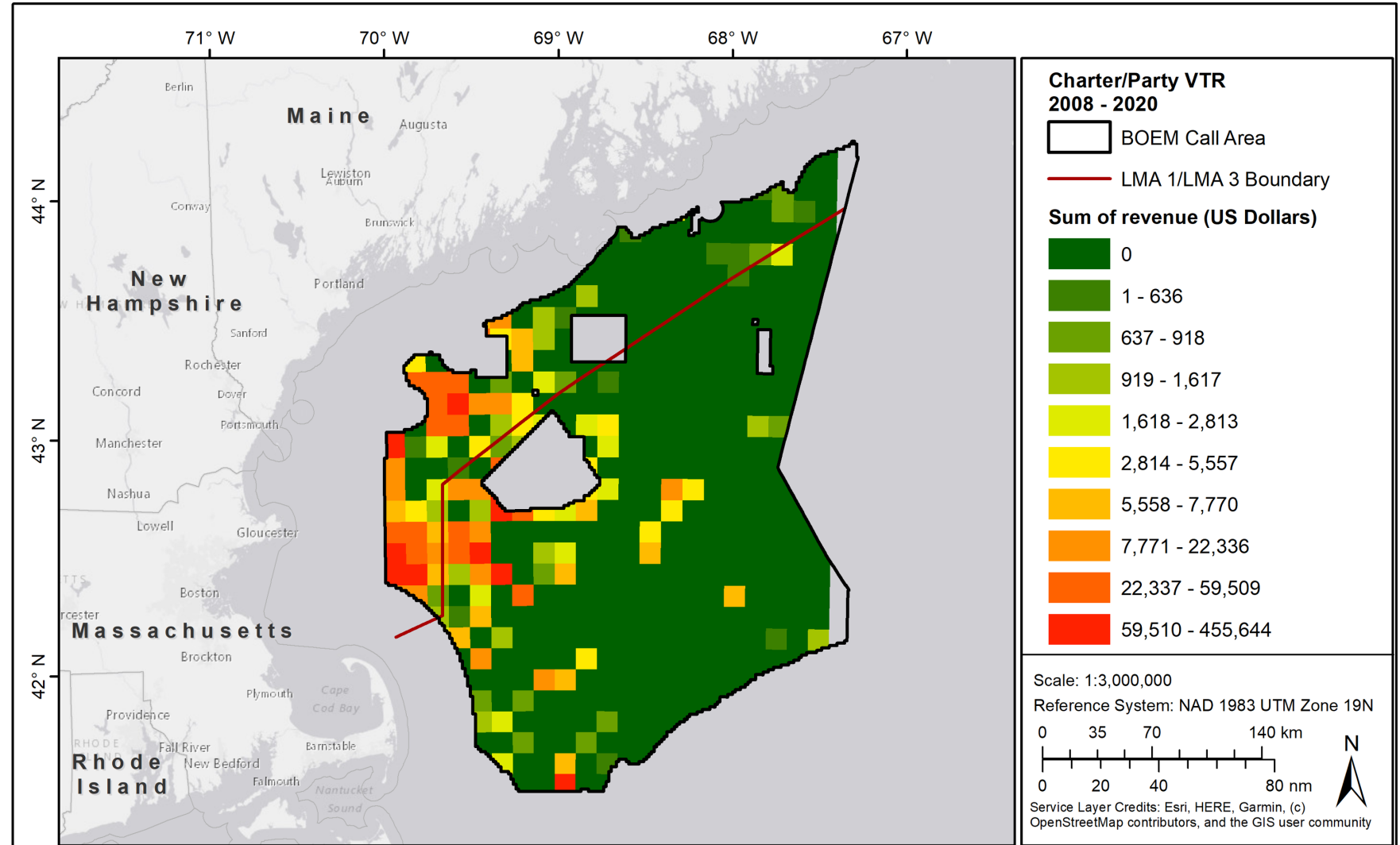
Pre-decisional, deliberative DRAFT



Charter/Party VTR 2008 - 2020

Source: NOAA NMFS

Trip point locations are required to be submitted by any vessel issued GARFO charter party permit. Points represent best approximate position of trip. Points are linked with survey derived price data to calculate revenue.



Charter/Party VTR Data. NOAA National Marine Fisheries Service. 2008 – 2020. 193.2 km² resolution. Trip point locations are required to be submitted by any vessel issued GARFO charter party permit. Points represent best approximate position of that trip. Points are linked with survey derived angler price data to calculate revenue.



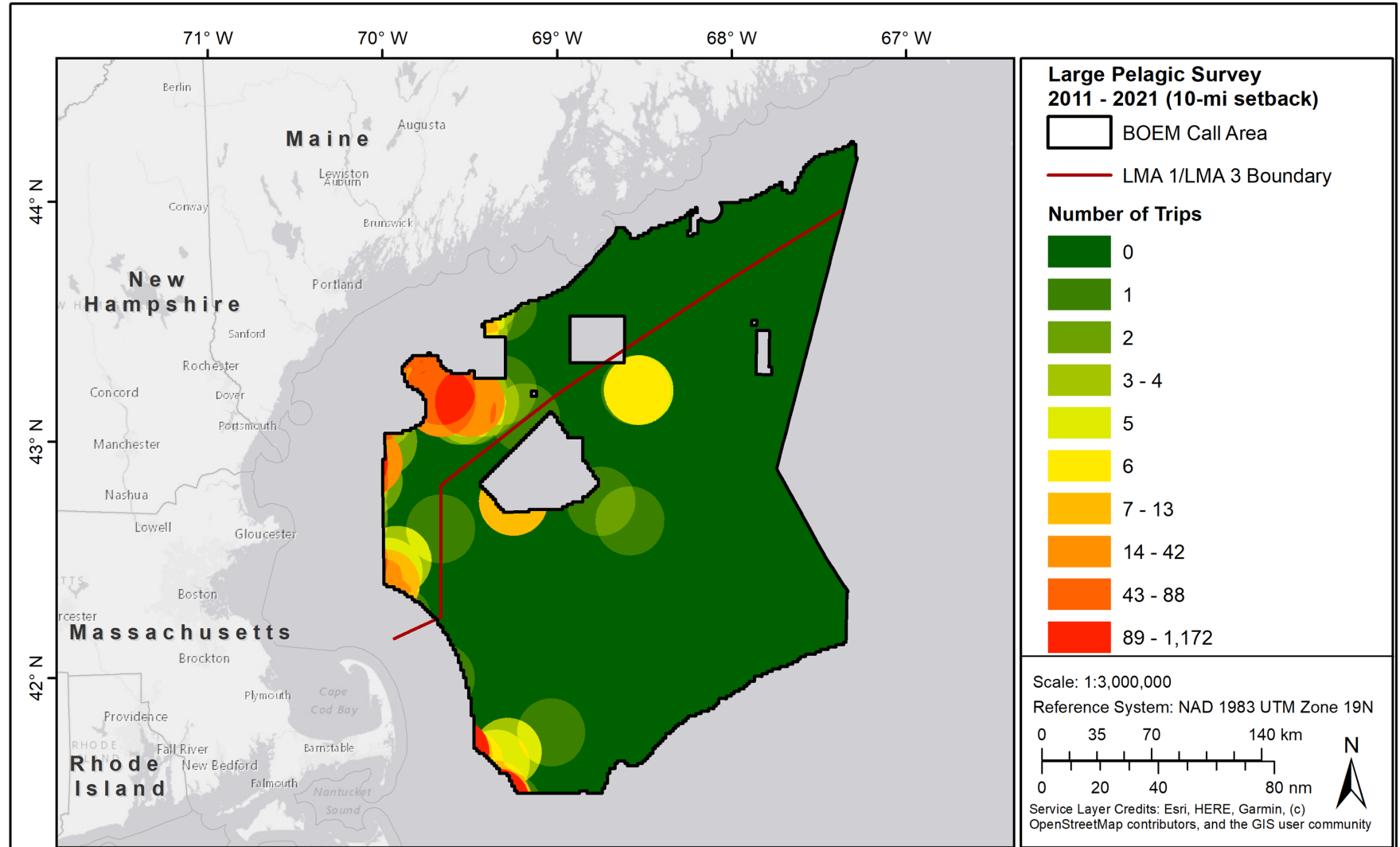
Pre-decisional, deliberative DRAFT



Large Pelagic Survey 2011 - 2021 10-mi setback

Source: NOAA NMFS

Trip point data was received from NOAA NMFS. A 10 mi setback was applied to each trip point to capture fishing potential fishing extent. Trip points and corresponding setbacks were overlaid on the 10 acre grid and a total trip count per grid cell was calculated.



Large Pelagic Survey Data. NOAA National Marine Fisheries Service. 2011 – 2021. 10 acre resolution. Trip point data was received from NMFS. A 10 mi setback from each trip point was applied to capture fishing footprint. Trip points and corresponding setbacks were assigned to the 10 acre grid overlay and a total trip count per grid cell was calculated.

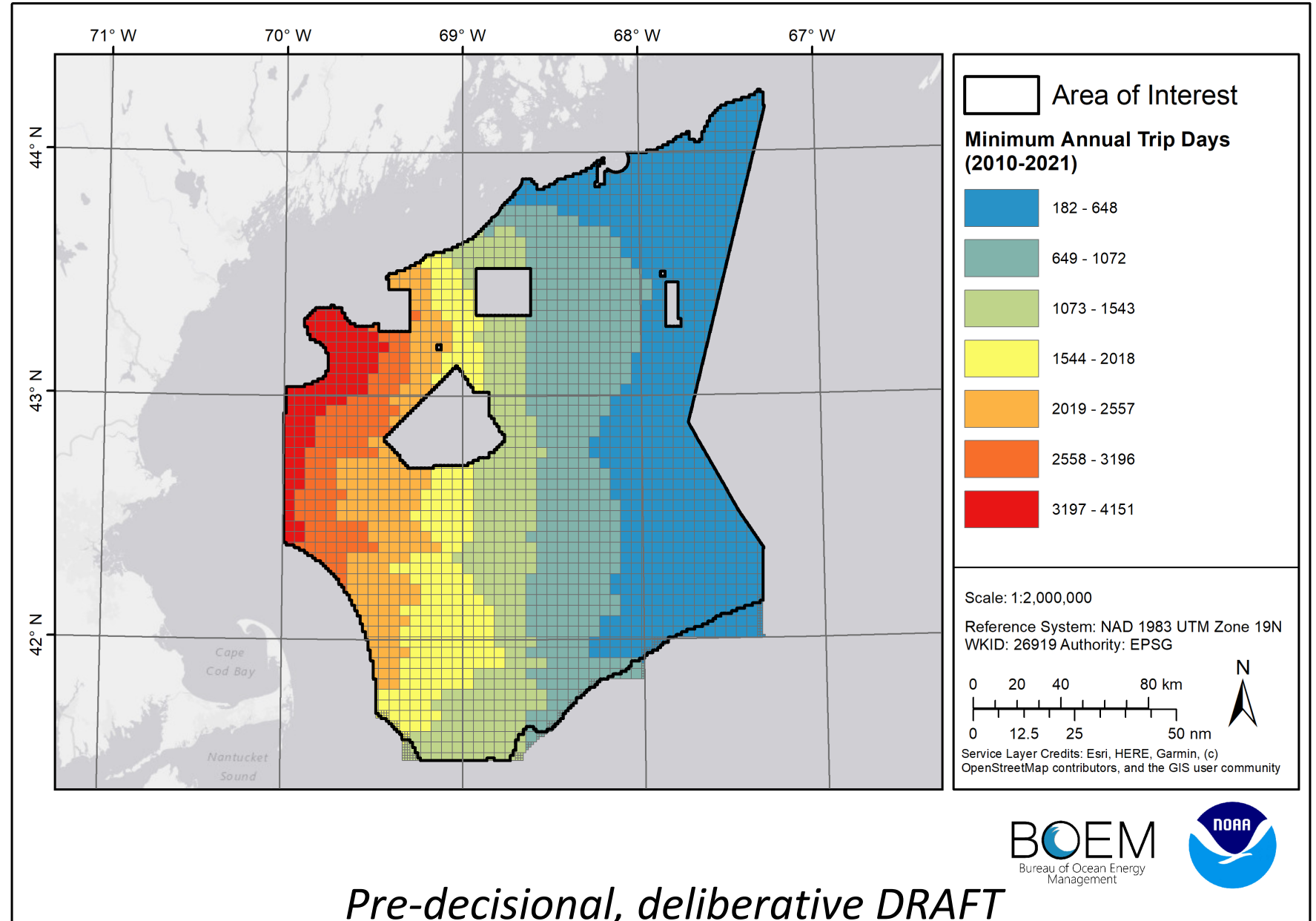


Pre-decisional, deliberative DRAFT



Highly Migratory Species Fishing Trip Data 2010 - 2021

Source:
Davis & Kneebone (2023):
“Characterization of fishing efforts for highly migratory species in the Gulf of Maine and how this relates to areas considered for offshore wind development”



NEFSC Trawl Survey Interpolated Biomass 2010 - 2019

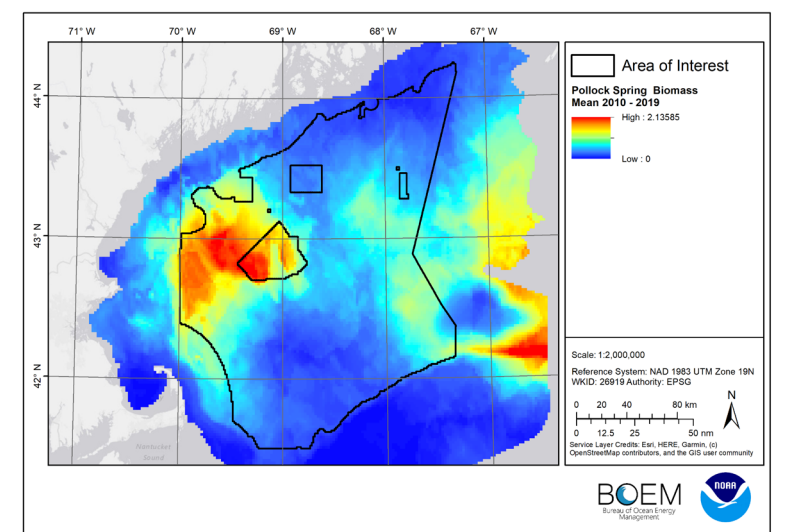
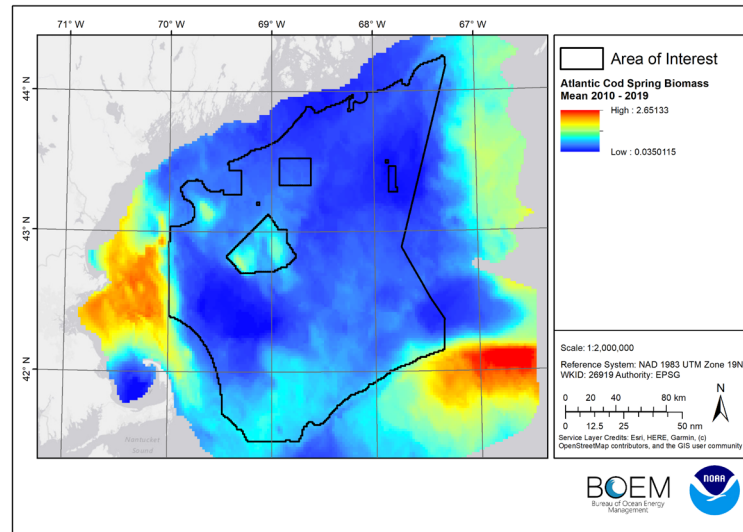
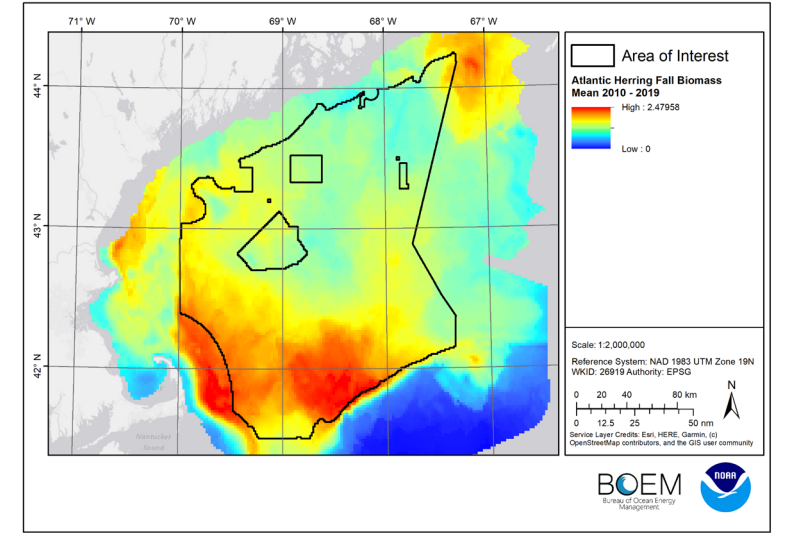
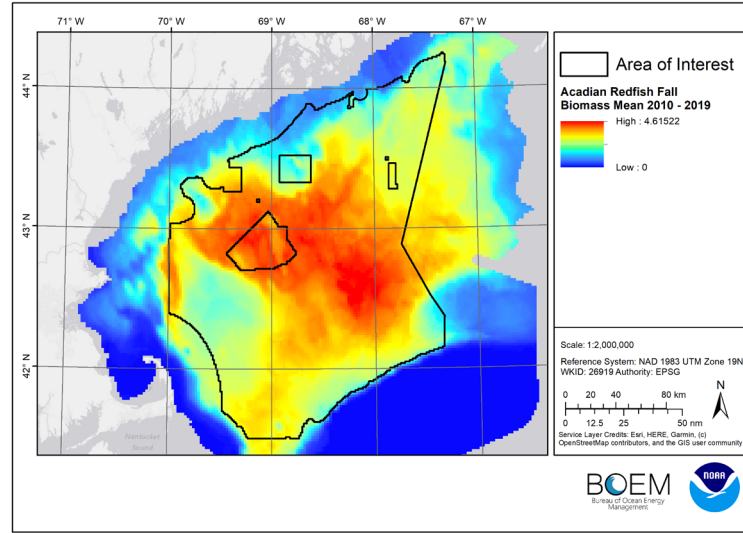
Source: Duke University Marine-life Data and Analysis Team (MDAT)

Spring and Fall Surveys conducted

The following species were included:

- Spring – Atlantic cod, monkfish (goosefish), pollock, and witch flounder
- Fall – Acadian redfish, American plaice, Atlantic herring

Identifies areas where important species biomass concentrations occur that differ from concentrations of fishing effort in the VMS data



July 2023 Fisheries Open House Meetings

○ What did we hear?

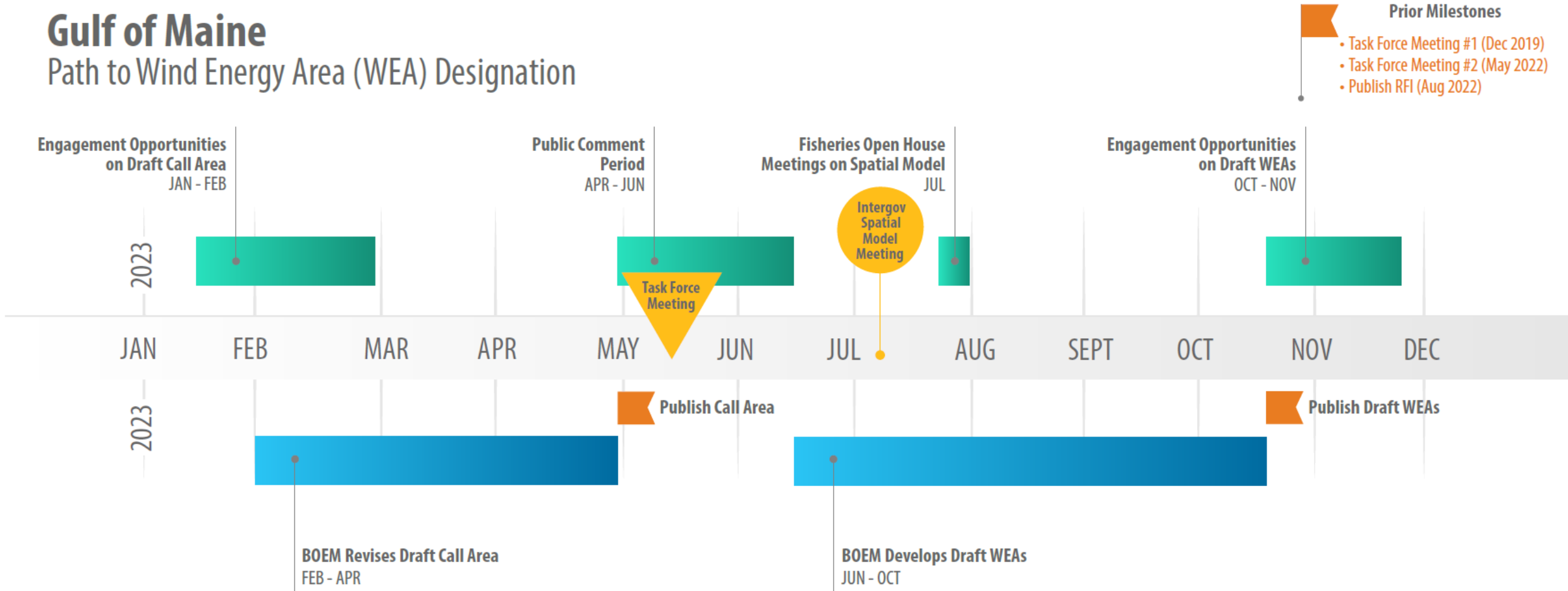
- Spatial Recommendations:
 - Remove LMA 1 from consideration; LMA 3 lobstermen provided footprint of effort.
 - Remove Platts Bank (buffers discussed)
 - NH Commercial Fishermen Association: Use the 69 degrees, 50 minutes line as the western boundary of any potential WEA (ie, stay to the east, offshore).
 - Difficult to draw lines on a map, so if you get recommendations, pay attention (e.g., Maine Fisheries Working Group recommendations).
- Concerns:
 - Lack of confidence in underlying fisheries data (e.g., NMFS survey data)
 - Concern that offshore wind and fishing activity will be completely incompatible – impacts to owner-operated businesses, onshore businesses, tourism, culture
 - Transmission/EMF
 - Potential effects to marine mammals



Next Steps

Gulf of Maine

Path to Wind Energy Area (WEA) Designation




Evaluating the Research Lease Request

Environmental
Assessment

Spatial Analysis

Leasing

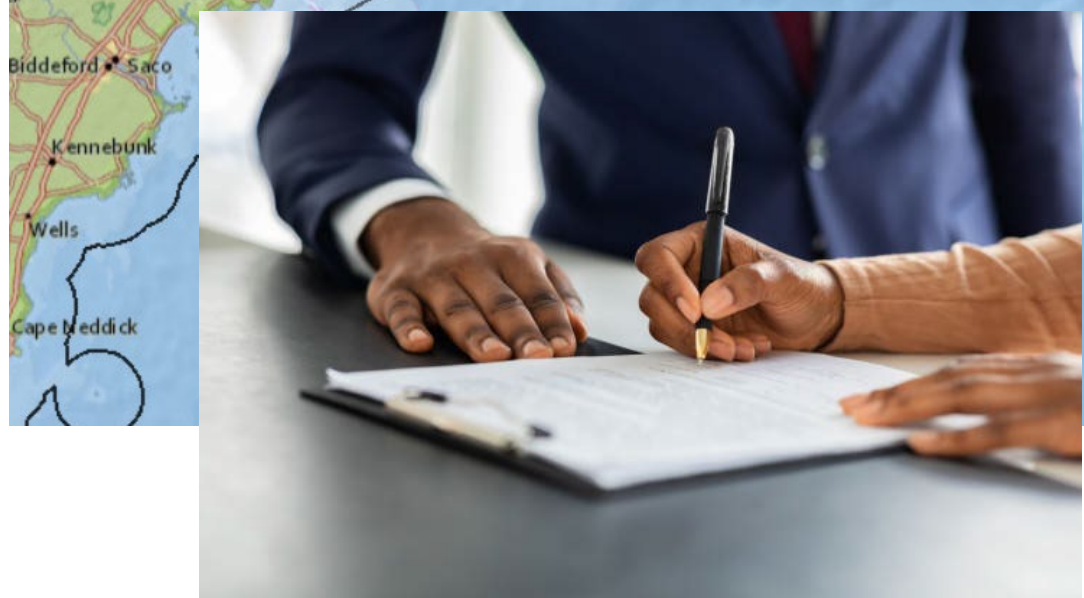


Aerial photographs
A I INAR

navigation
(DGPS)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF OCEAN ENERGY MANAGEMENT	Office	Renewable Energy Lease Number
	Herndon, VA	OCS-A 0497
	Cash Bonus and/or Acquisition Fee N/A	Resource Type Wind
RESEARCH LEASE OF SUBMERGED LANDS FOR RENEWABLE ENERGY ACTIVITIES ON THE OUTER CONTINENTAL SHELF	Effective Date	Block Number(s)
	April 1, 2015	See Addendum A

Paperwork Reduction Act of 1995 statement: This form does not constitute an information collection as defined by 44 U.S.C. § 3501 et seq. and therefore does not require approval by the Office of Management and Budget.



Next Steps & Timeline

Milestone	Action	Target Date
Environmental Assessment	Notice of Intent <i>30-Day Comment Period</i>	May 4, 2023
	Draft EA <i>30-Day Comment Period</i>	Comment Period Closed: August 21, 2023
	Final EA	Fall 2023
Lease Issuance	Spatial Analysis Recommendations	Q4 2023
	Leasing Negotiations Complete	Q4 2023
Research Activities Plan (RAP)	Submission	TBD
Environmental Review (EIS/EA)	Notice of Intent <i>Scoping Comment Period</i> Draft EIS/EA <i>Comment Period</i>	TBD



Photo credit: [UMaine](#)



BOEM

Bureau of Ocean Energy
Management

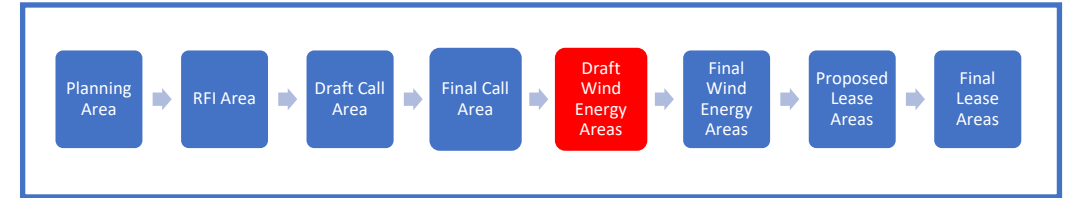
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Zach Jylkka, zachary.jylkka@boem.gov

How Many Acres Are Needed?

- Planning and Analysis phase is based on **winnowing** – starting large, receiving feedback and deconflicting
- Spatial modeling acreage assumptions
 - Call comments documented several capacity requests
 - MA – 10 GW of capacity by 2050
 - ME – 3 GW of capacity by 2050
 - ISO-NE – 18GW
 - American Clean Power – 20 GW



Capacity (GW) to acreage – Energy Density

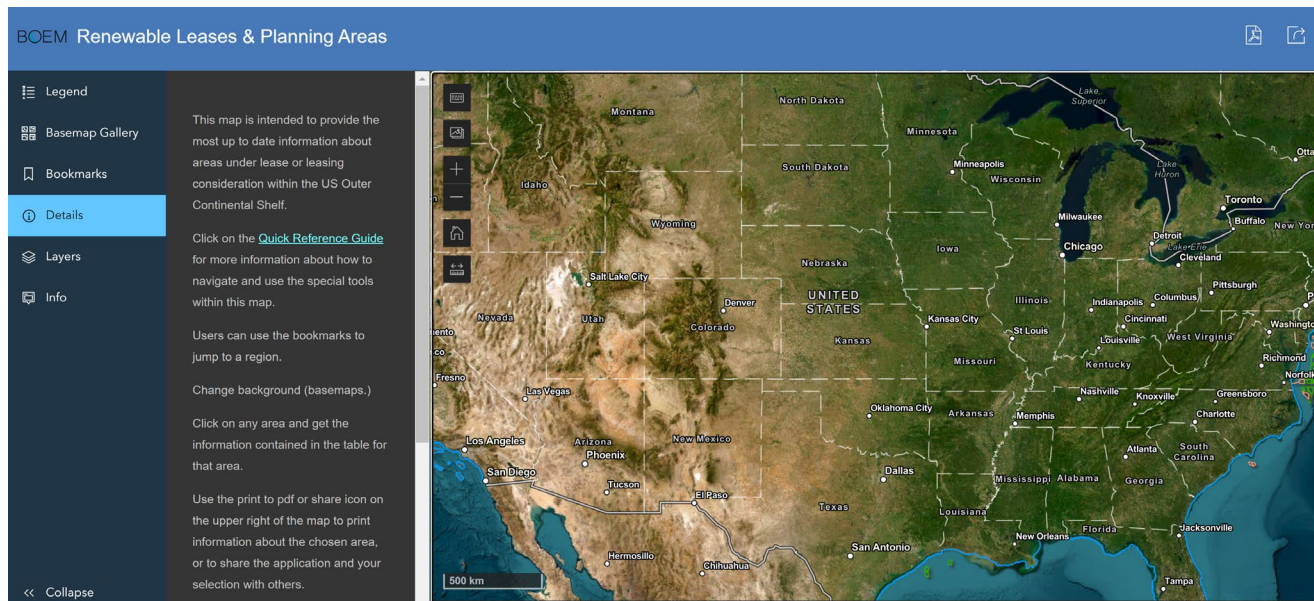
	PLANNING DENSITY	AVERAGE DENSITY OF BOEM PROPOSED PROJECTS
MW	0.01 acres/MW or 2.471 MW/km ²	~ 0.019 acres/MW or 4.7 MW/km ²
13,000	1,300,000	683,482
18,000	1,800,000	946,360
20,000	2,000,000	1,051,511

Based on these estimates, approximate goal for **Draft WEA** acreage is ~2 million acres. This area will be further de-conflicted in the subsequent steps of the planning and leasing process.



Interactive Renewable Leases & Planning Areas

Introducing a **NEW** map application that illustrates current offshore lease areas and areas considered for leasing within the U.S. Outer Continental Shelf



It's interactive!



Has updated active links to the Fast 41, latest lease documents, and state pages that contain more information



Users can now measure maps, print their own, and use underlying maps in the ones they create



Maps will be updated within a few days of new FRN announcements, name changes, or web link changes



[BOEM Interactive Renewable Leases & Planning Areas](#)



Environmental Studies Program

The request for study ideas closed on Dec. 9, 2022

- BOEM solicits study ideas from public every fall/winter.

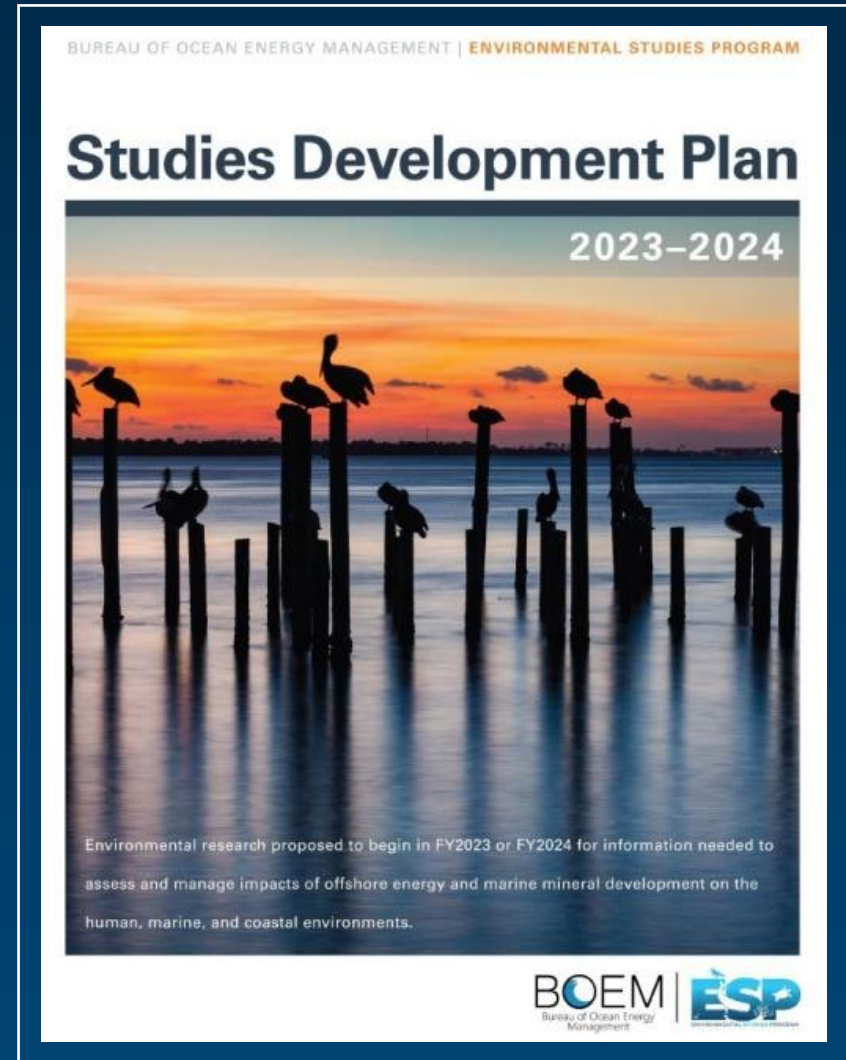


[Environmental Study Ideas FY 2024 & 2025](#)

- Study ideas are reviewed by the Standing Committee on Offshore Science and Assessment (COSA) convened under the National Academy of Sciences.
- Results of studies are incorporated into BOEM environmental assessment and decision-making process.
- The FY 2023 studies list can be found here:



[BOEM FY 2023 Studies List](#)



STUDIES

