



BOEM BUREAU OF OCEAN
ENERGY MANAGEMENT

Gulf of Maine Task Force Meeting

Hotel 1620
Plymouth, Massachusetts

May 31, 2024

Gulf of Maine Engagement Meetings – Spring 2024

Meeting Guidelines

- Share the floor
 - Speak one at a time
- Respect different views
 - Show others the respect you'd want
 - Tolerance of wide-ranging views
 - Civil behavior expected

Also, we're all together in a public meeting. Let's keep basic decorum, just like in a Fisheries Council meeting. No profanity, no threats, etc.



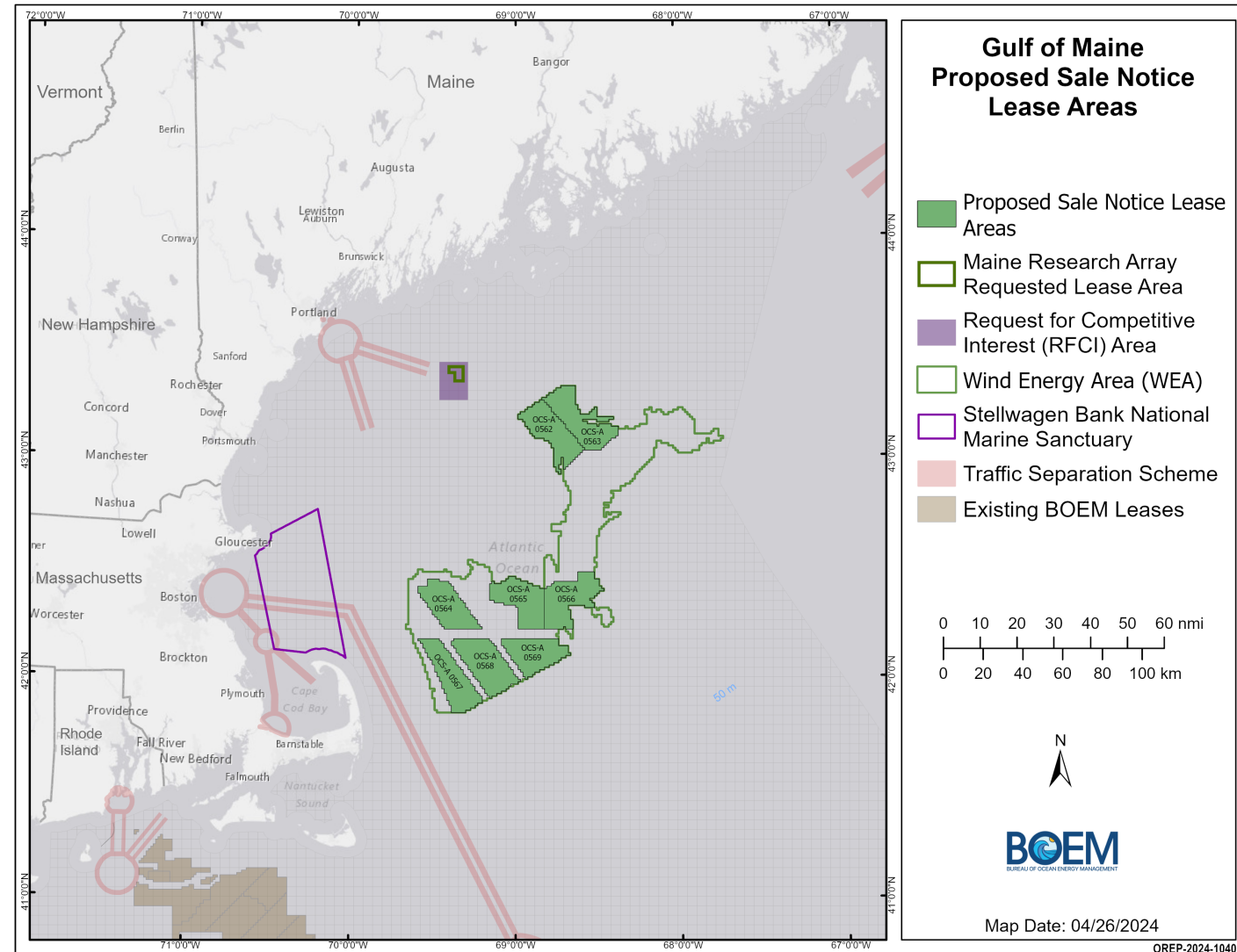
BOEM's Office of Renewable Energy Programs

Agency Mission: facilitate the responsible development of renewable energy resources on the OCS through conscientious planning, stakeholder engagement, comprehensive environmental analysis, and sound technical review.



Proposed Sale Notice (PSN)

- On April 30, 2024, the Interior Department [announced](#) its proposal for a first offshore wind energy auction in the Gulf of Maine.
- The PSN published in the [Federal Register](#) on May 1, 2024, initiating a 60-day public comment, which closes on July 1, 2024.
- Individuals may comment by navigating to [Regulations.gov](#) and searching for **BOEM-2024-0026**, or by attending one of the BOEM public meetings on the PSN.

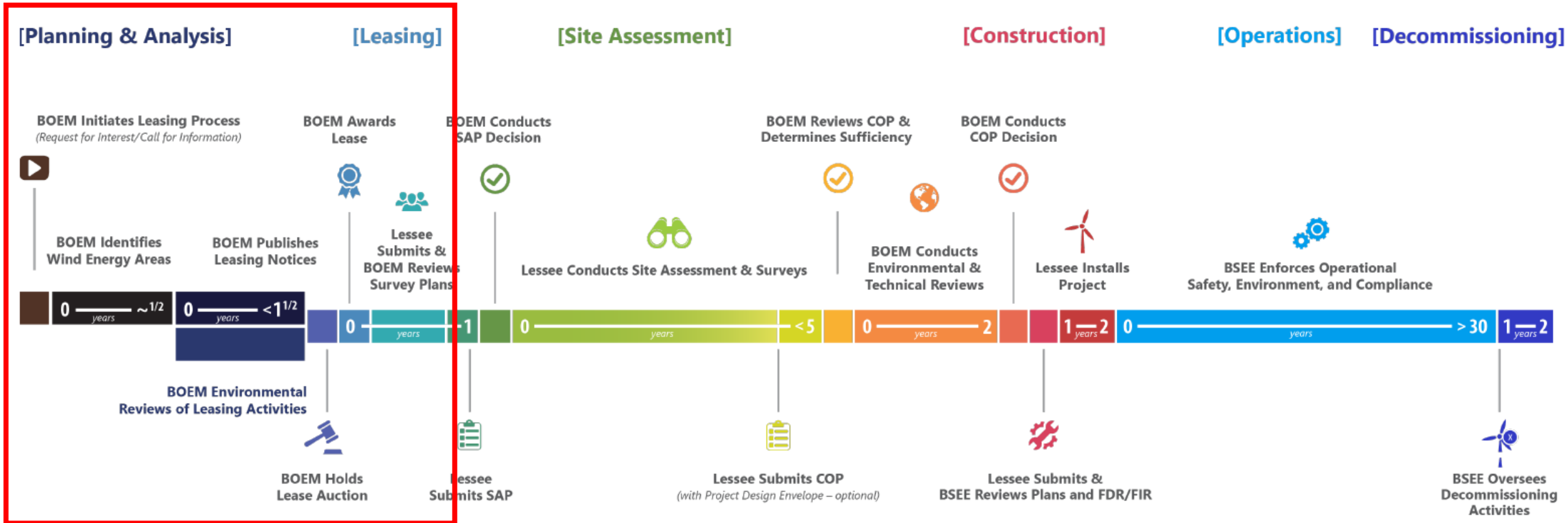


Presentation Table of Contents

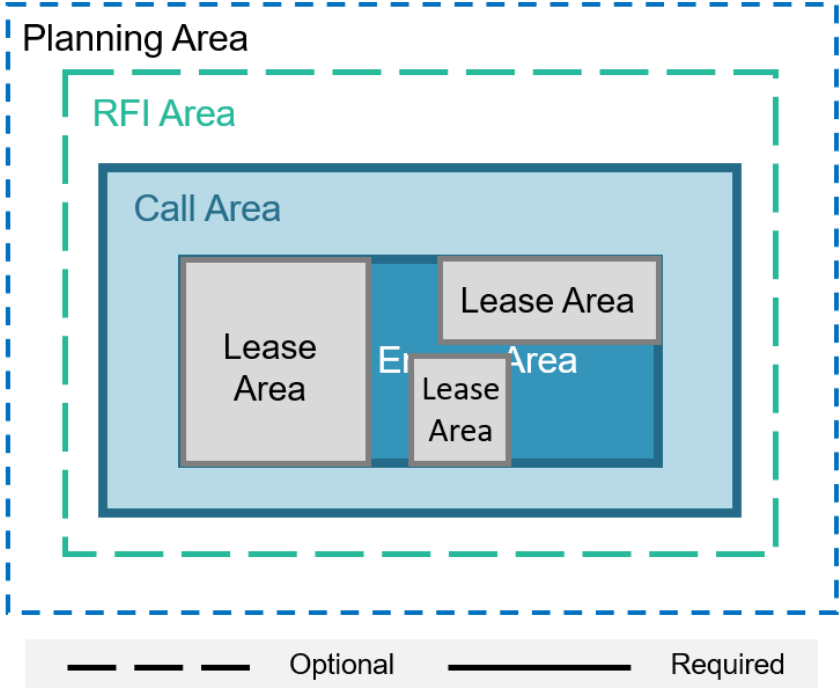
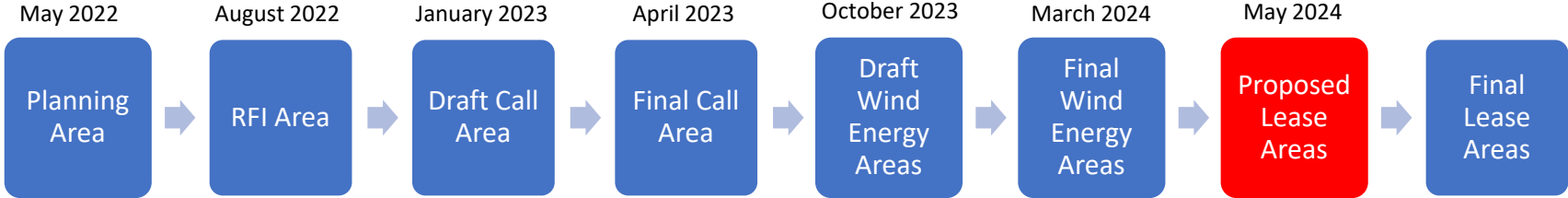
- [Renewable Energy Authorization Process](#)
- [Gulf of Maine Planning Process \(from Planning Area to PSN Lease Areas\)](#)
- [PSN Lease Stipulations](#)
- [PSN Auction Format & Bidding Credits](#)
- [PSN Public Meetings](#)
- [PSN Overlay Maps](#)
 - [Distance from shore, HVAC vs. HVDC, depth characterization](#)
 - [AIS vessel traffic, USCG MNMPARS, National Security](#)
 - [Avian Considerations](#)
 - [Fishing Industry](#)
 - [North Atlantic Right Whale](#)
 - [Habitat](#)
 - [Biomass](#)
 - [NMFS Surveys](#)
- [Energy Density Estimates](#)
- [New 5-Year Renewable Energy Leasing Schedule](#)



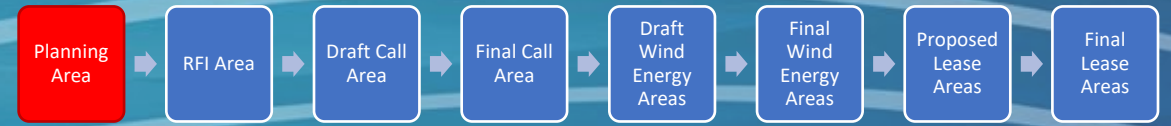
Renewable Energy Authorization Process



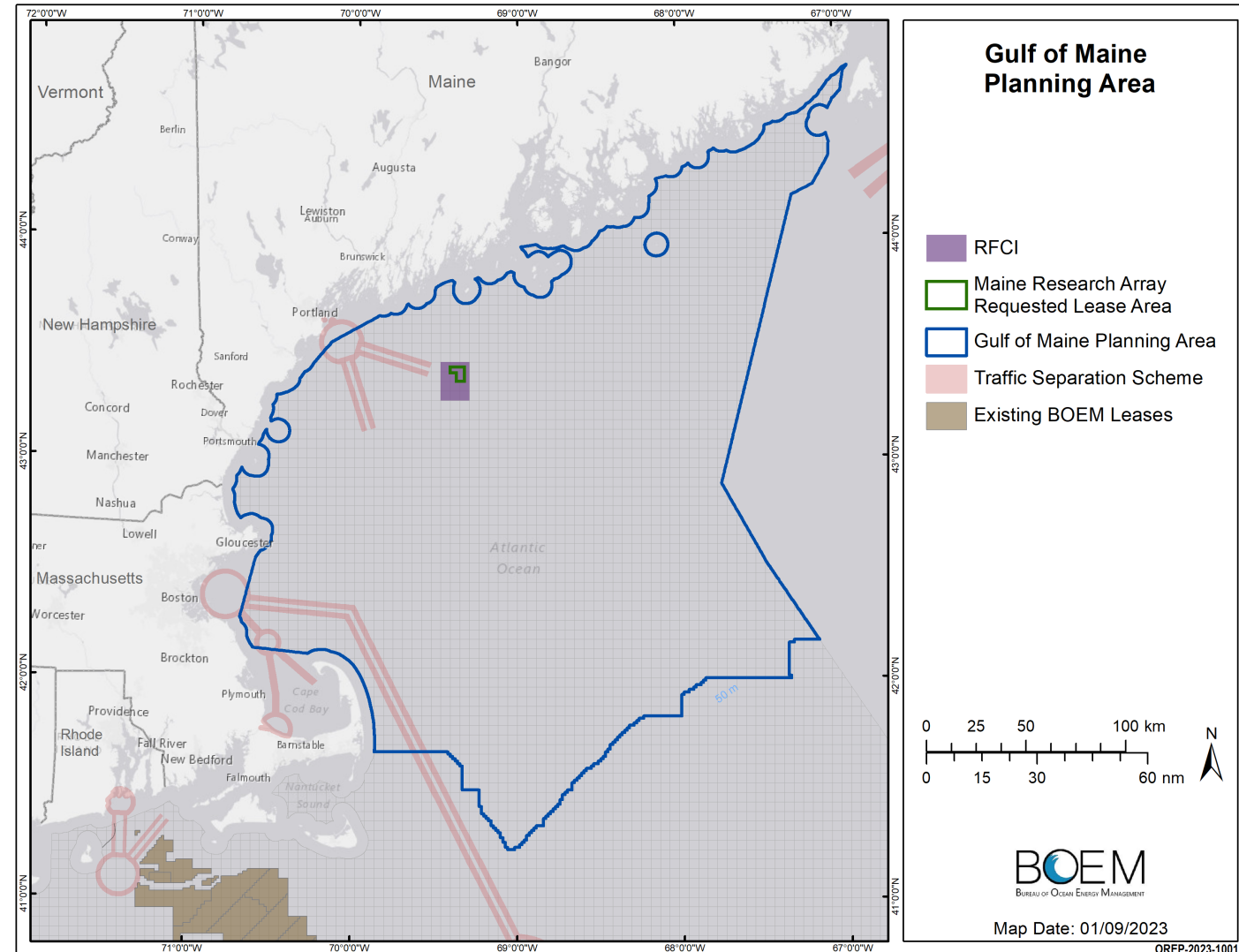
Gulf of Maine Planning & Leasing Process



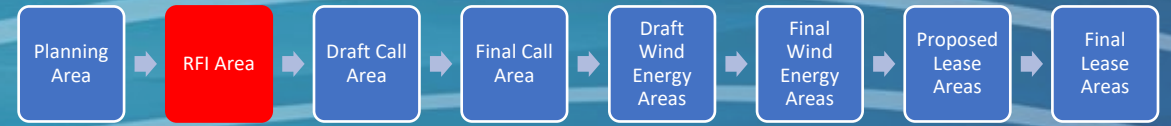
Planning Area



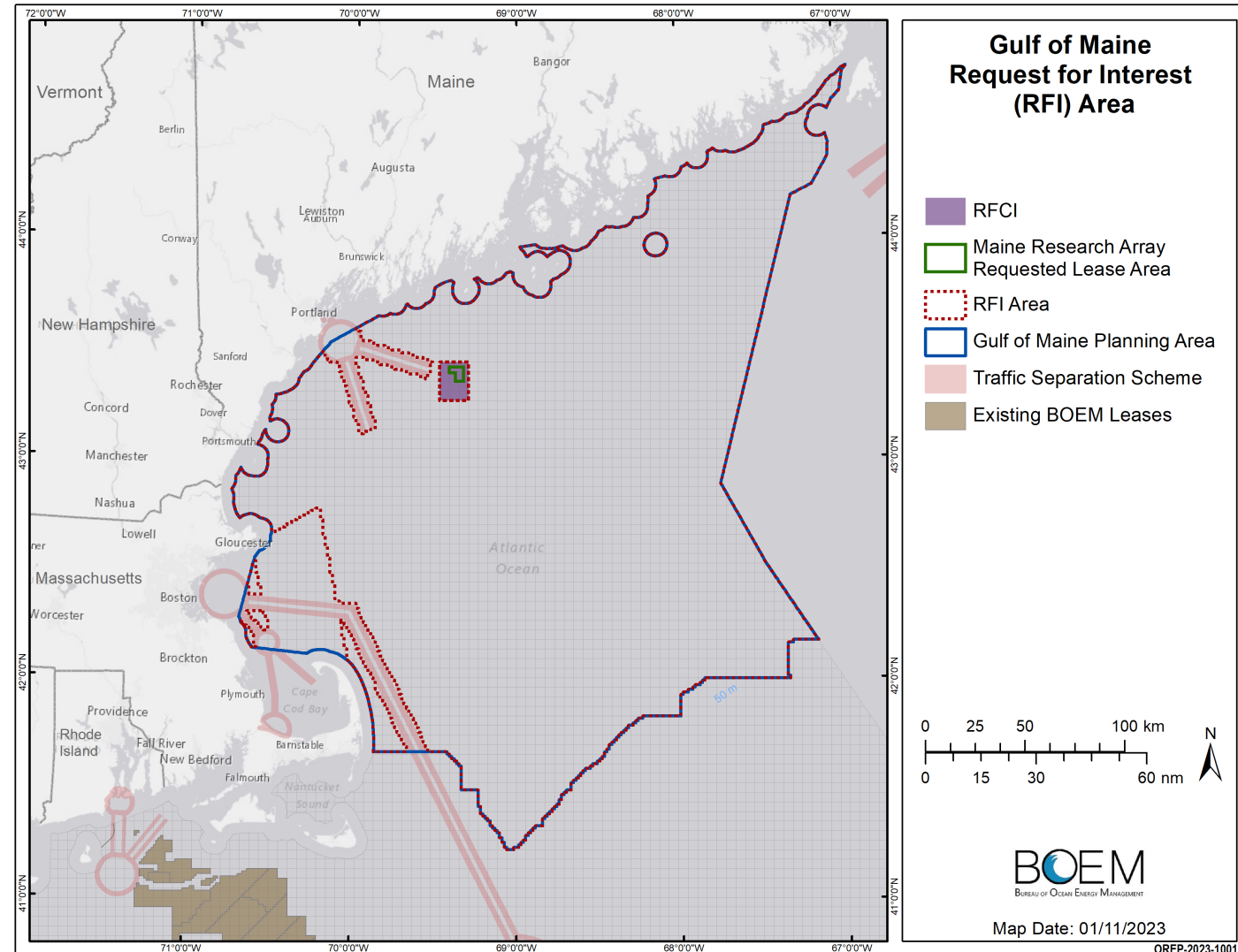
- Preliminary and optional step in the BOEM Planning Process
- Shared Planning Area and Draft RFI Area at the [May 2022 Task Force meeting](#)



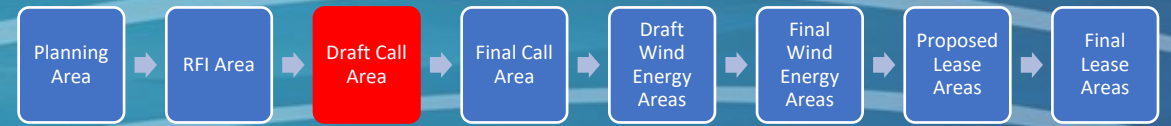
Request for Interest (RFI) Area



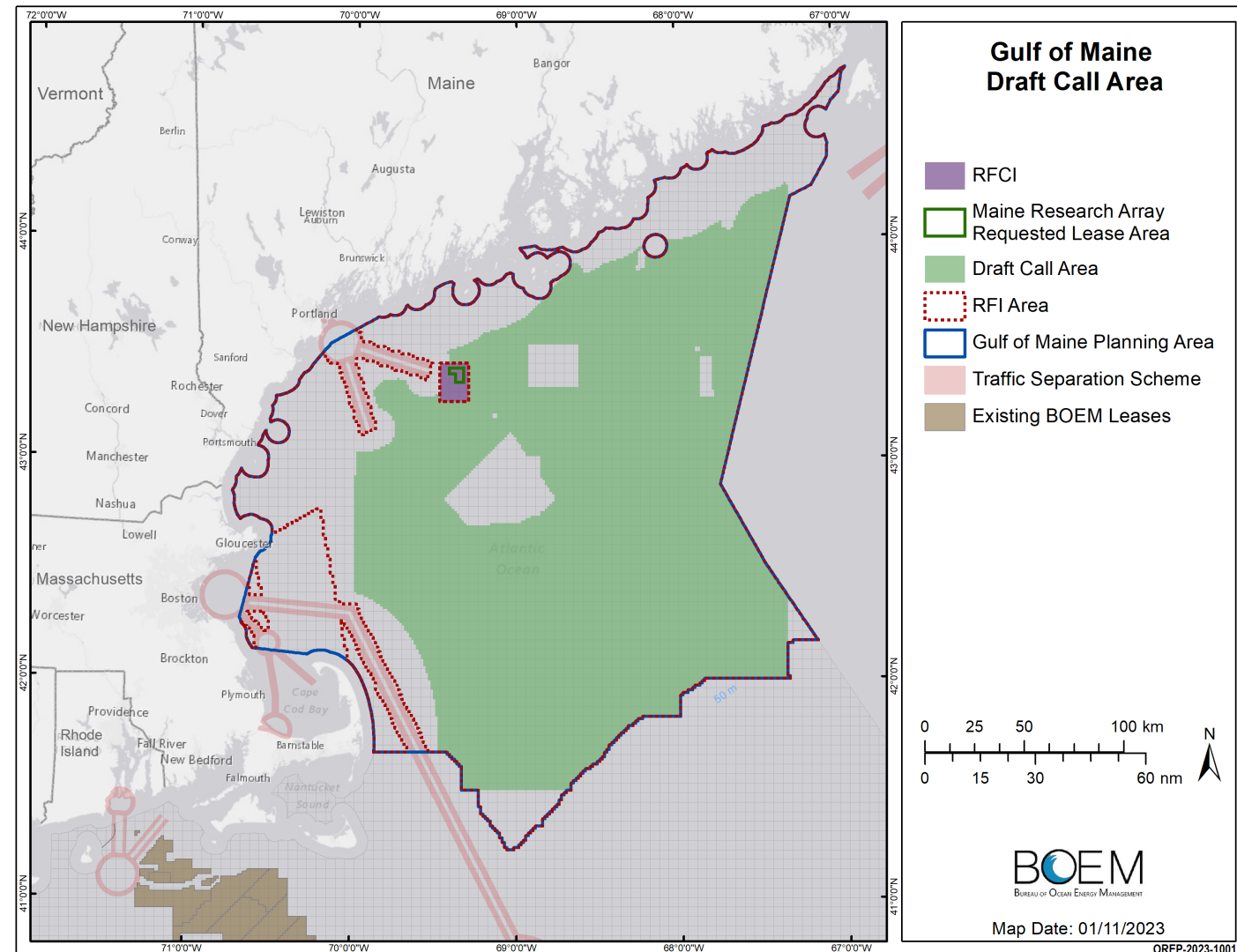
- Published RFI on August 19, 2022
 - 45-day comment period closed October 3, 2022
- RFI Area excluded “incompatible areas”
 - National Park System, National Wildlife Refuge System, National Marine Sanctuary System, or any National Monument (§585.204)
 - Existing Traffic Separation Schemes (TSS), fairways, or other internationally recognized navigation measures
 - Unsolicited lease request areas that are the subject of a separate request for competitive interest



Draft Call Area



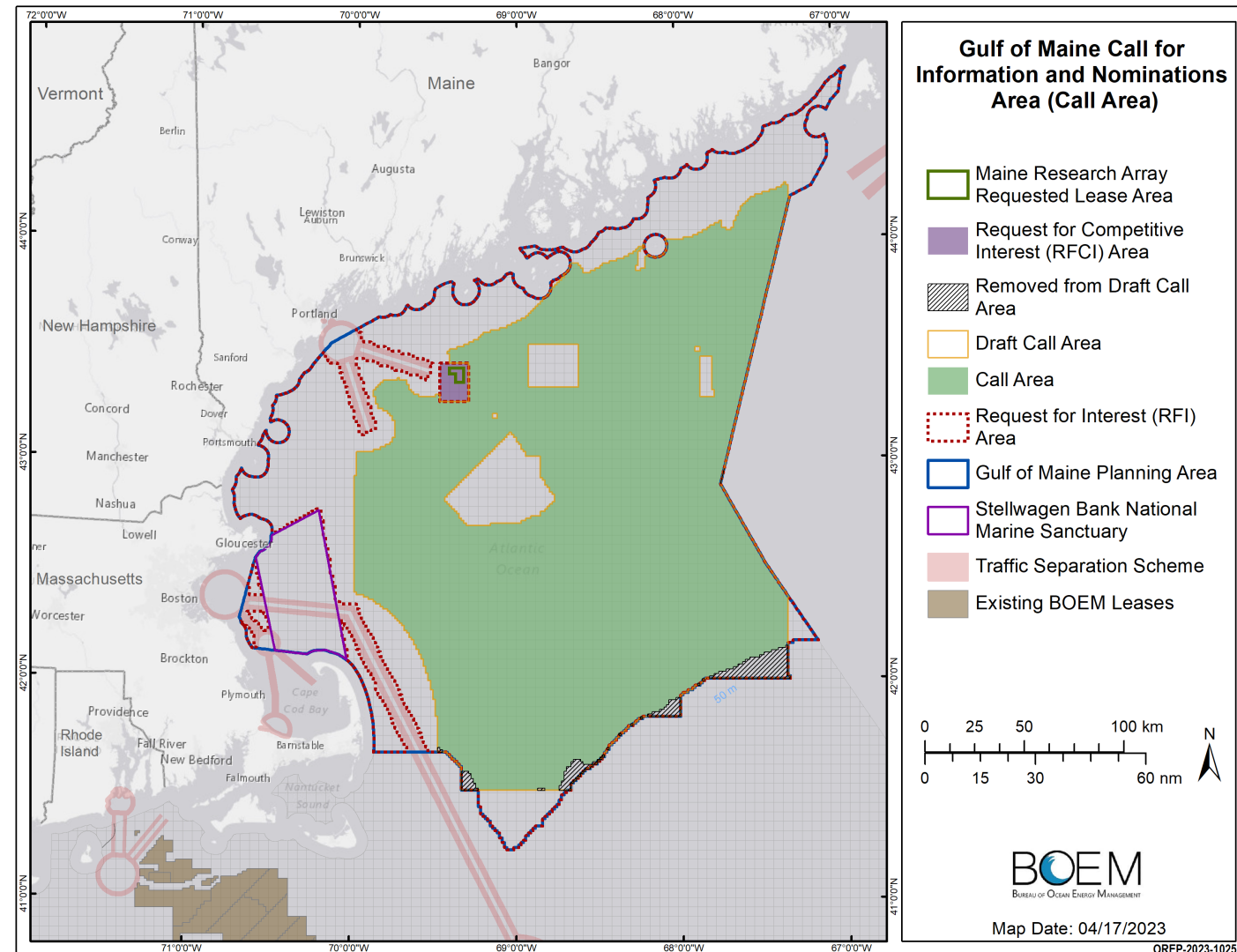
- BOEM reviewed responses to RFI and worked with NOAA NCCOS to conduct spatial analysis to inform Draft Call Area
 - 27% reduction from RFI Area
- BOEM held a series of in-person and virtual meetings.



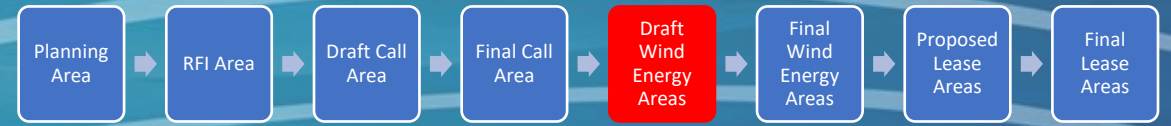
Final Call Area



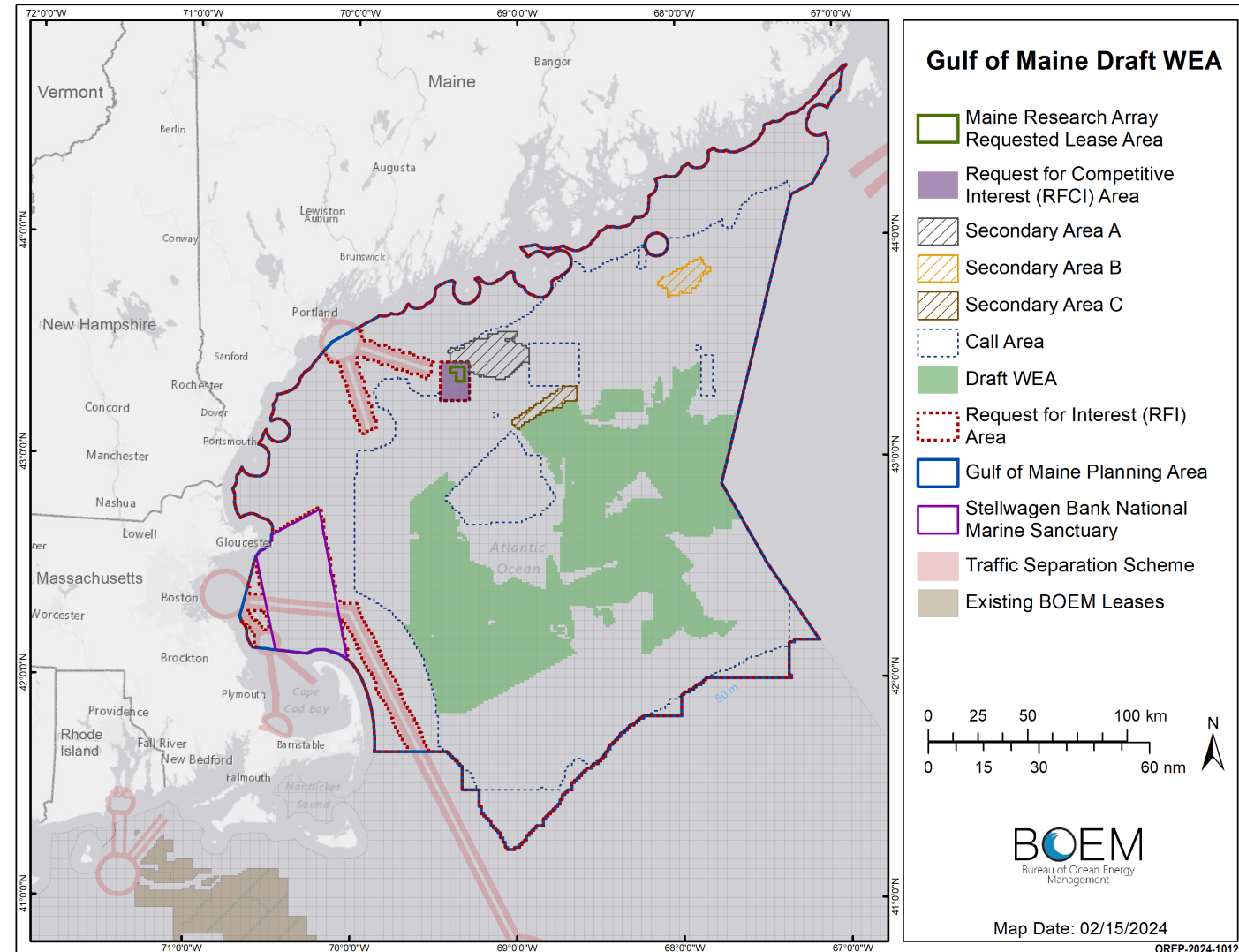
- The Final Call Area was published on April 26, 2023
 - 45-day public comment period (closed June 12, 2023)
- BOEM removed areas from the southern edge of the Call Area to better avoid Georges Bank
- BOEM held a [Task Force meeting \(May 2023\)](#) and invited public comment on, and assessed interest in, possible commercial wind energy development in areas within the Call Area.



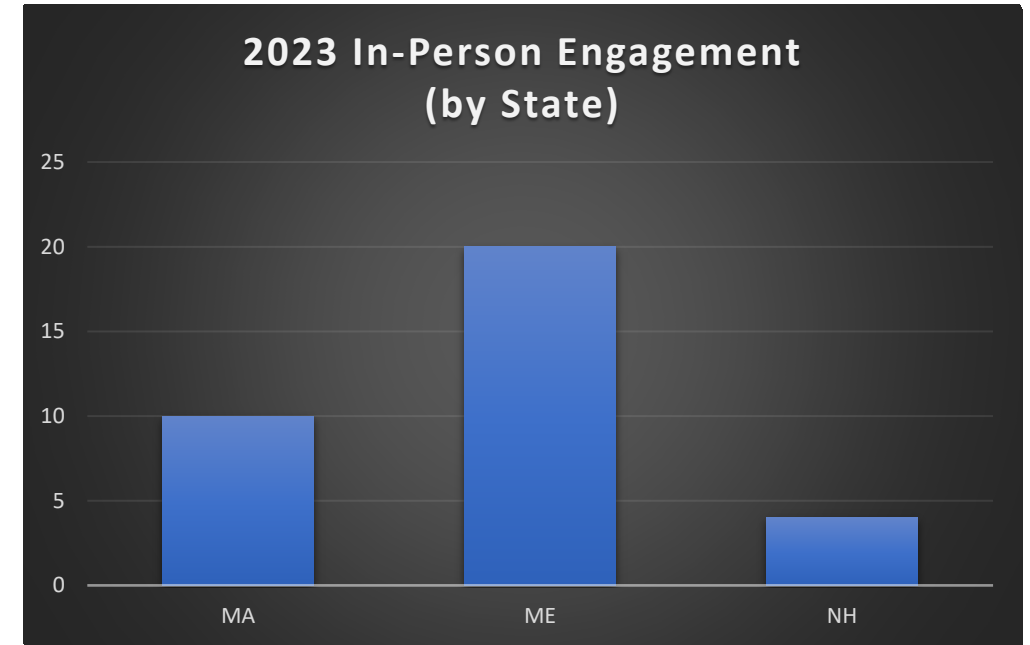
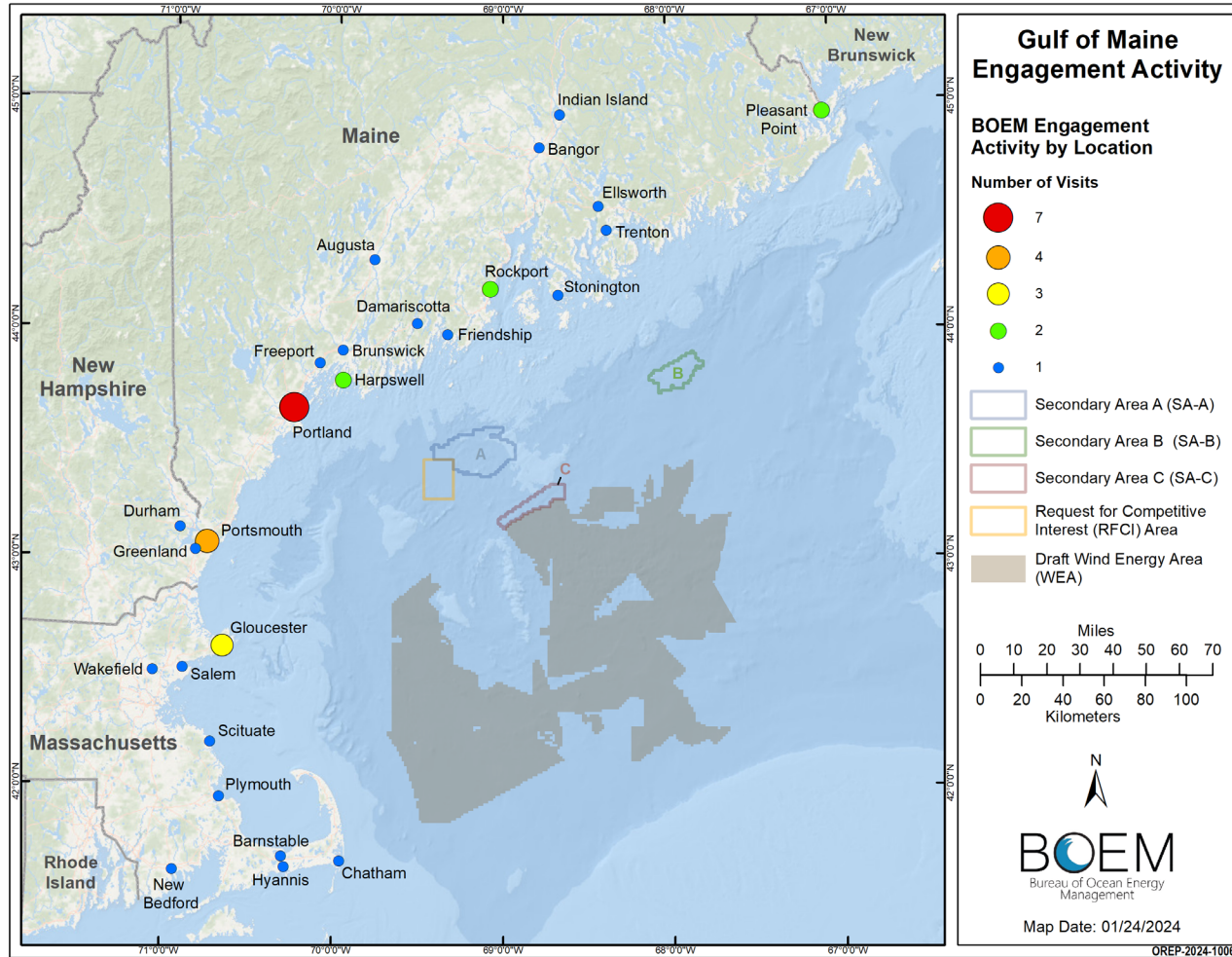
Area ID: Step 1 (Draft WEA)



- Draft WEA was published on October 19, 2023—opening a 30-day public comment period (closed November 20, 2023)
- ~3.5 million acres, representing a 64% reduction from the Call.
- Request for Comment
 - Explained the Draft WEA and Secondary Areas
 - Asked questions about:
 - Relative developability of different areas
 - Phased leasing
 - Fishing gear used, migration patterns of fish, protected species
- Draft NCCOS Report: Wind Energy Siting Analysis
 - Modeling methodology
 - Model performance across different resource groups/stakeholder interests
- Public Meetings
 - BOEM held public meetings in [July 2023](#) on the NCCOS model and underlying data, before holding additional meetings in [October 2023](#) on the Draft WEA



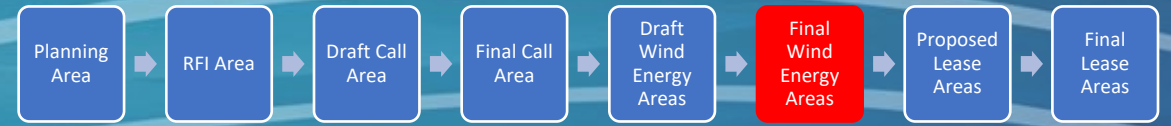
2023 Gulf of Maine Engagement



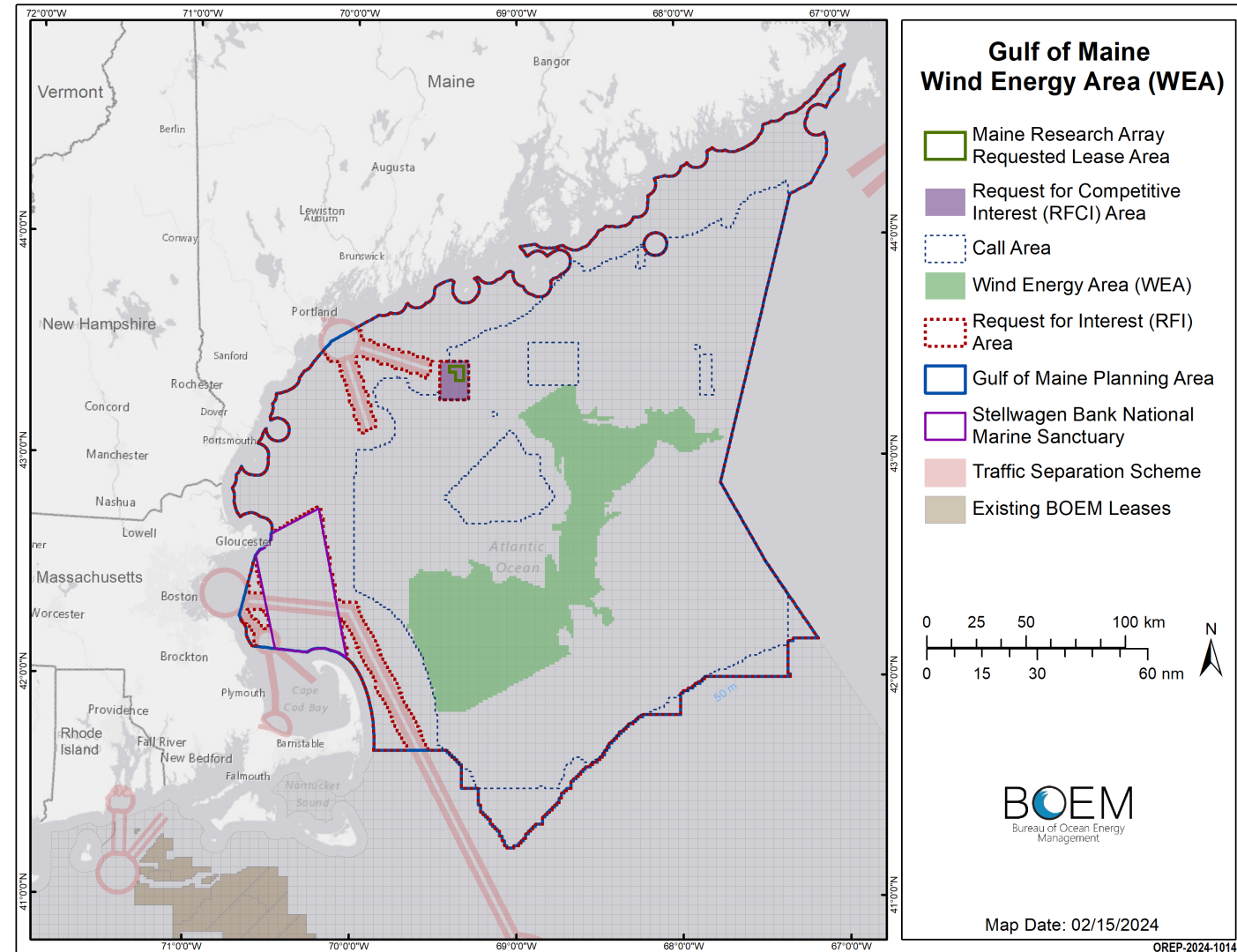
Specific to the Draft WEA, we held 7 meetings in ME, 6 in MA, 2 in NH

Engagement in the map spans 2019-2023; however, all but 5 meetings took place in 2023

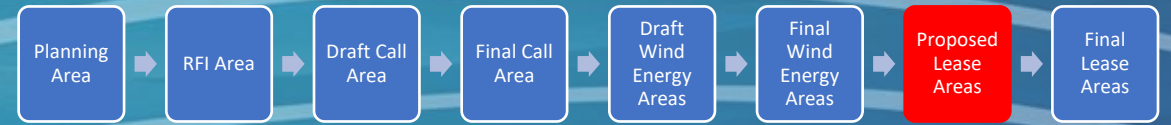
Area ID: Step 2 (Final WEA)



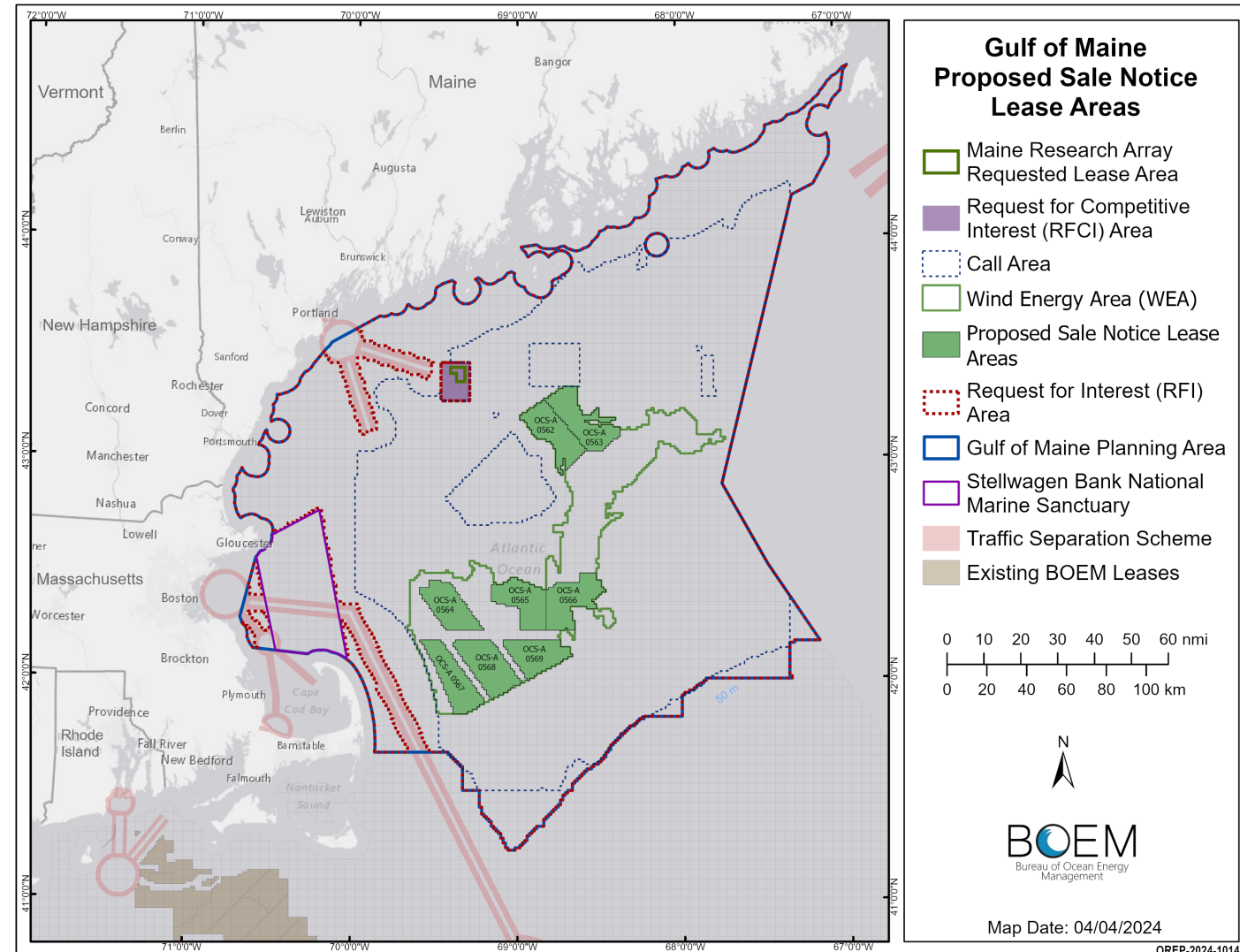
- [Area ID Memo](#): published March 15, 2024
- ~2 million acres (~80% reduction from Call Area; 43% reduction from Draft WEA)
 - Combined capacity of 32 gigawatts (4 MW/km²)
 - Exceeds area/capacity needed for regional offshore wind goals (13-18 gigawatts)
 - Area allows for additional deconfliction
 - Could support multiple GoME Lease Sales
- [BOEM worked with NCCOS](#) to run a revised suitability model on the Draft WEA
 - Removed Secondary Areas A & B, included most of C
 - Constrained
 - Area representing top 10% of revenue for the multispecies groundfish (VTR)
 - 5-mile buffer around Cashes Ledge Groundfish Closure/HMA
- **Geographic diversity**
 - Includes areas that are potentially HVAC compatible (within ~75 mi of a POI) for both MA and ME
 - Avoids several key fishing grounds and important areas of North Atlantic Right Whale Critical Habitat, Tribal fishing grounds

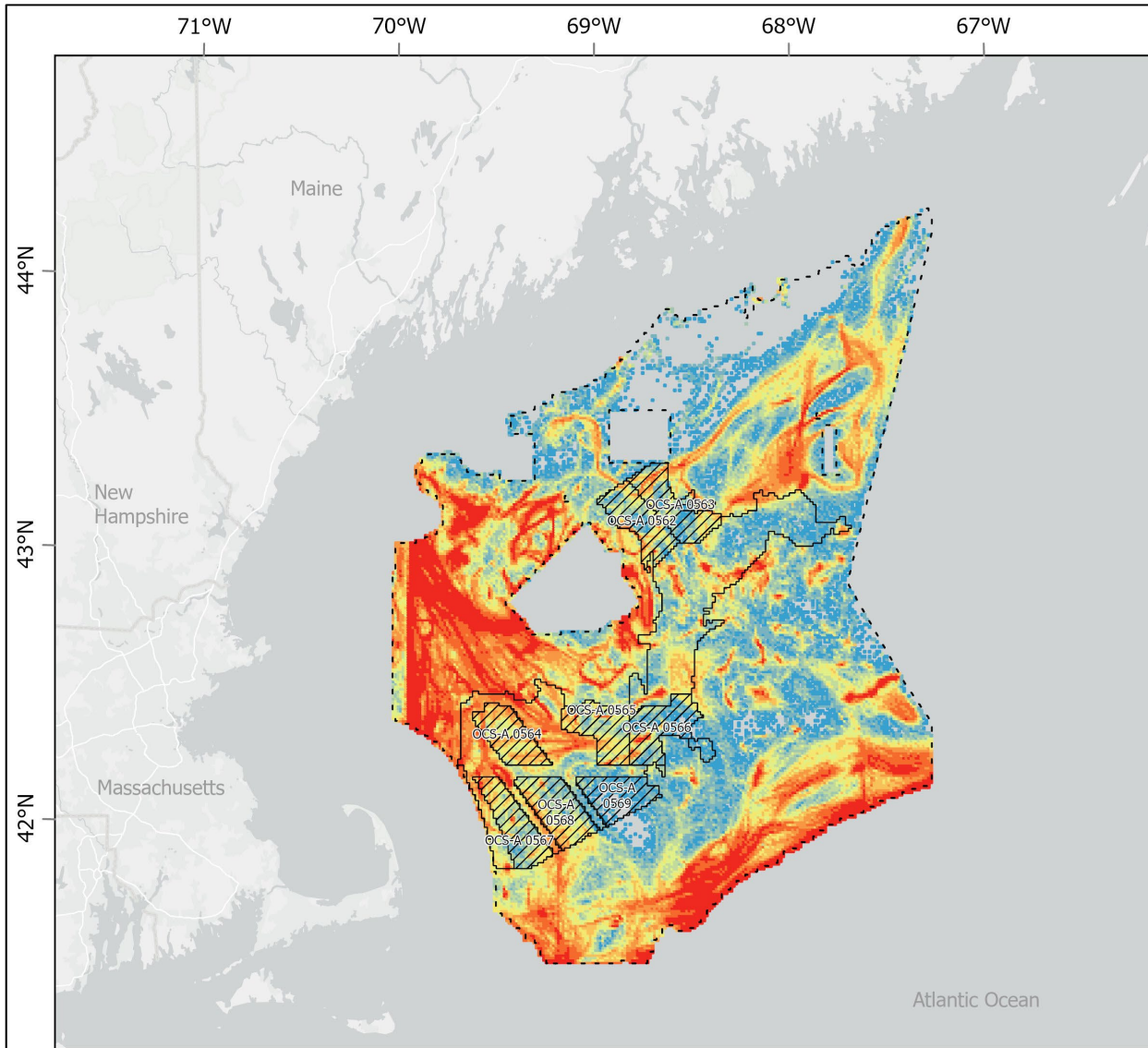


Proposed Sale Notice (PSN)



- Area summary:
 - 8 Leases
 - 969,999 acres (944,422 “developable” acres)
 - ~50% reduction from the Final WEA; ~90% reduction from the Call Area
 - Average lease size: 121,250 acres
 - Combined capacity of **15 gigawatts** (4 MW/km²)
 - Within range of the regional offshore wind goals (13-18 gigawatts)
- Geographic diversity
 - Includes areas that are potentially HVAC compatible (within ~75 mi of a POI) for both MA and ME
- Areas avoided from Final WEA:
 - Several heavily utilized areas for groundfish fishery
 - 3 transit corridors in southern region of WEA
 - Mayo Swell; Rogers Swell (important fishing/habitat areas)
 - Areas furthest offshore and likely most expensive to develop





**VMS Vessel Transits
2009 - 2021
All VMS Speed Filtered <
4 Knots**

- BOEM Call Area
- Final WEA

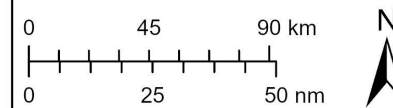
Sum of Polls

- 3 - 7
- 8 - 13
- 14 - 20
- 21 - 31
- 32 - 45
- 46 - 64
- 65 - 92
- 93 - 132
- 133 - 210
- 211 - 1,889

- Proposed Sale Notice Lease Areas
- No Surface or Subsurface Occupancy

Scale: 1:2,300,000

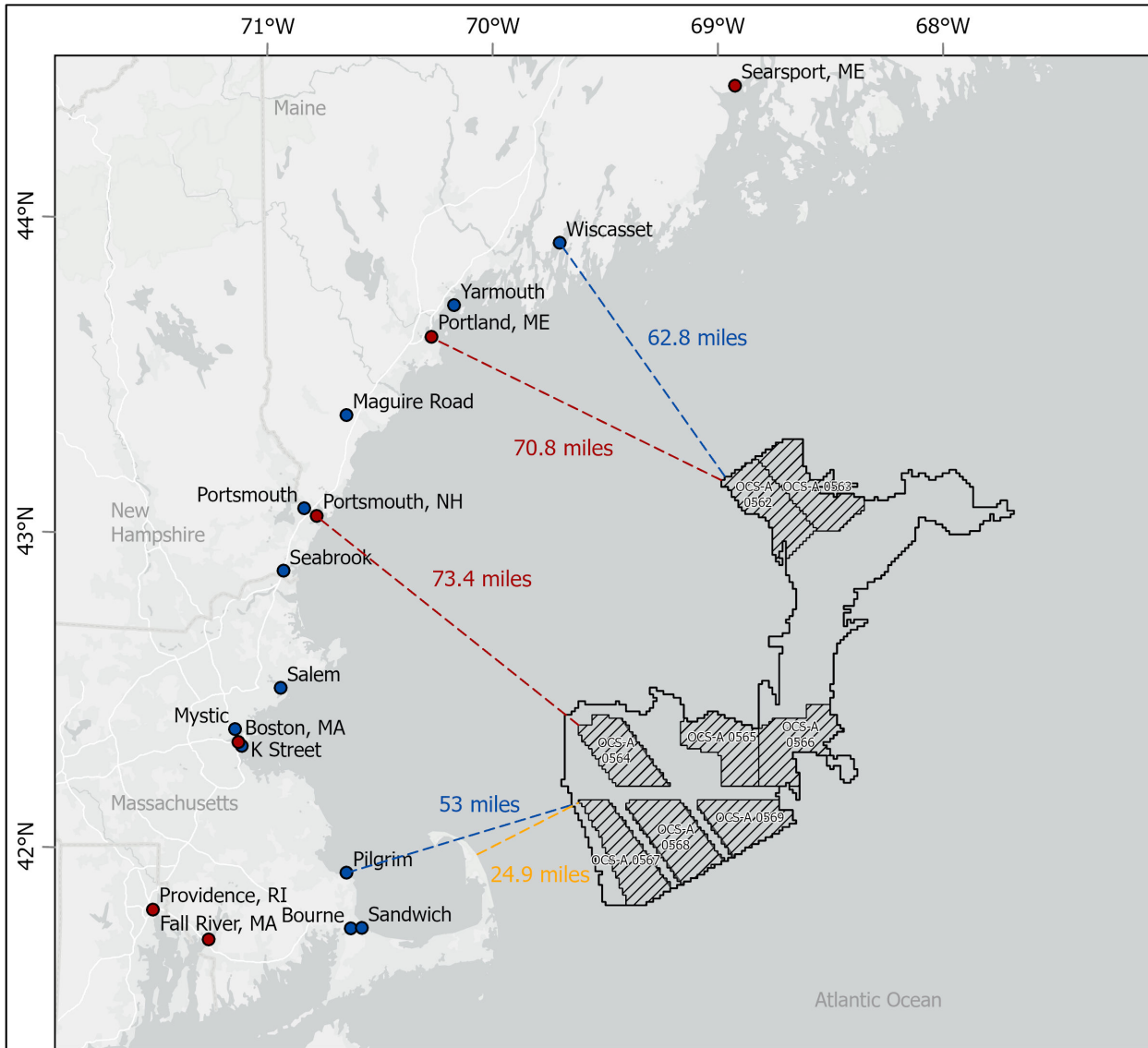
Reference System: NAD 1983 UTM Zone 19N



Service Layer Credits: World Light Gray Canvas Base: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

Vessel Monitoring System (VMS) Vessel Transits. NOAA National Marine Fisheries Service. 2009 - 2021. 1 km x 1 km resolution. Speed filtered to 4 knots to depict trawling speeds associated with fishery species including: herring, monkfish, multispecies (groundfish), declared out of fishery, scallop, ocean quahog/surflclam, squid/mackerel/butterfish. Data reflect the resolution at which data can be displayed to the public to ensure protection of Controlled Unclassified Information (CUI). Cells with < 3 unique vessels not displayed on map.



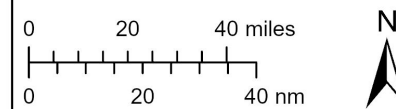


Distance to Shore, Principal Ports and Points of Interconnection

- Final WEA
- Principal Ports
- Points of Interconnection
- Shortest Distance to Principal Port
- Shortest Distance to Point of Interconnection
- Shortest Distance to Mainland
- Proposed Sale Notice Lease Areas
- No Surface or Subsurface Occupancy

Scale: 1:2,000,000

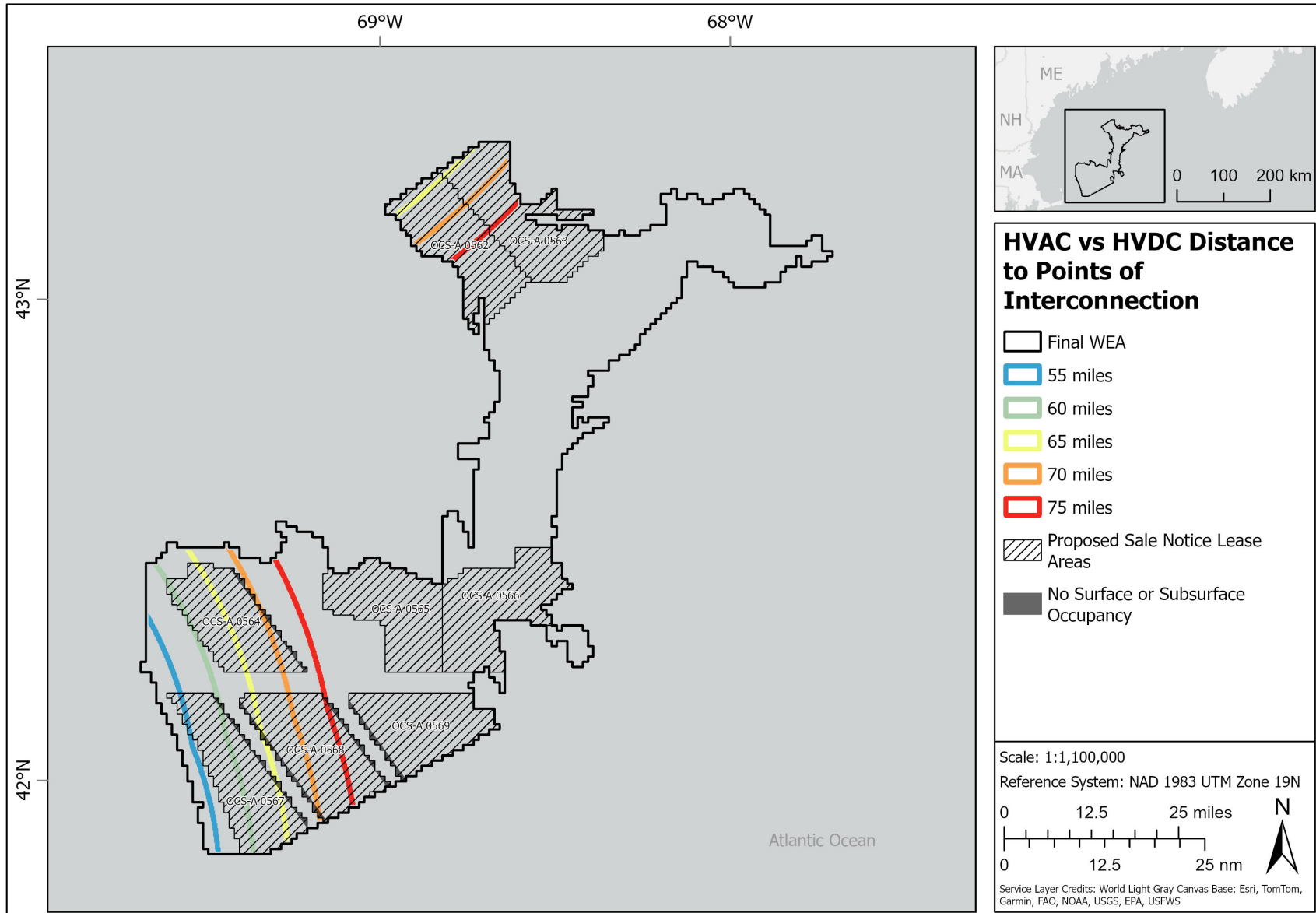
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Service Layer Credits: World Light Gray Canvas Base: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

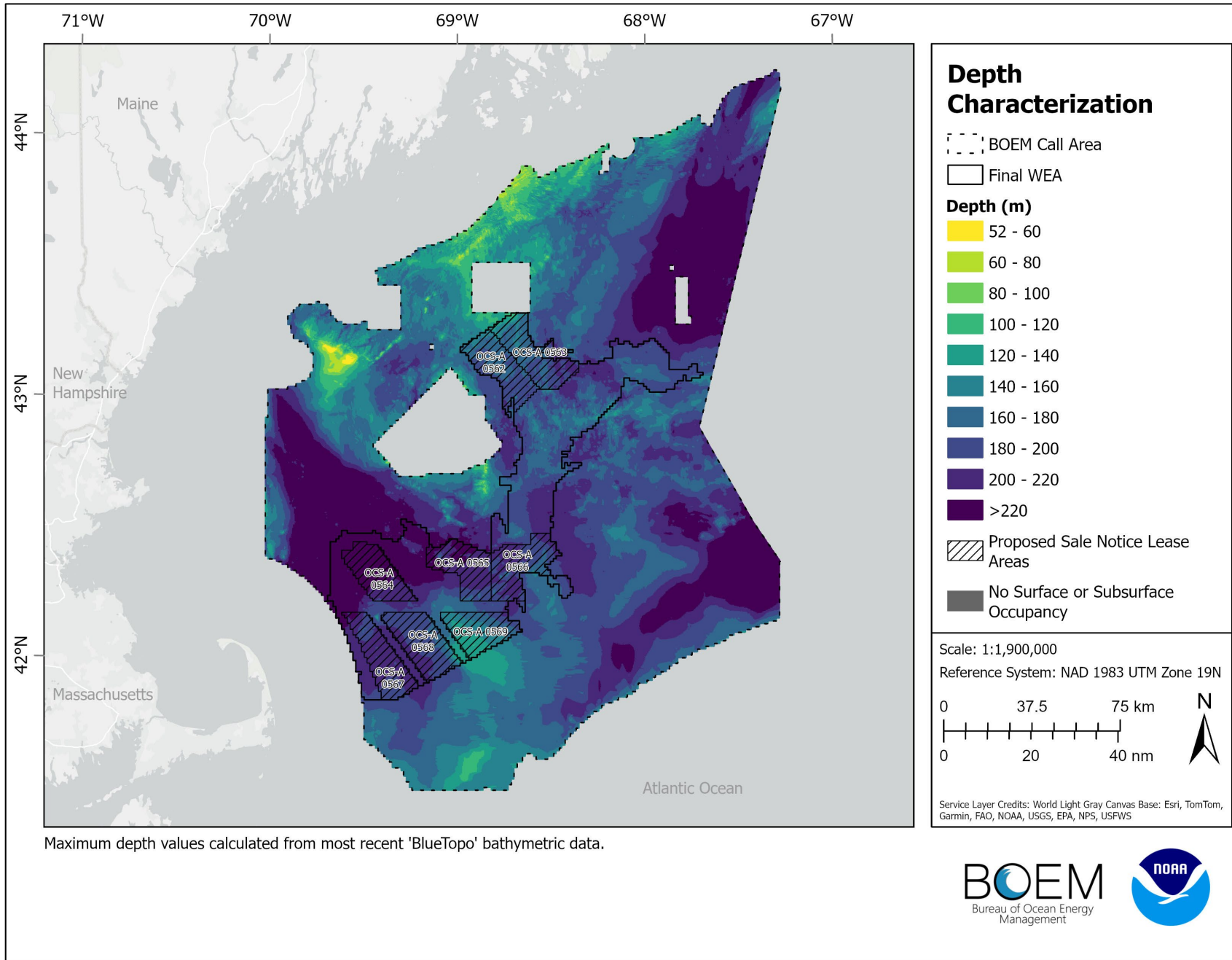
Principal Ports. NOAA Office for Coastal Management. 2019. Principal Ports are the top 150 U.S. ports based upon total annual tonnage. Variation in annual tonnage at a port may result in exclusion or inclusion on the Principal Port list. Points of Interconnection. National Renewable Energy Laboratory and Bureau of Ocean Energy Management. 2023. Points of Interconnection include: Wiscasset, Yarmouth, Maguire Road, Portsmouth, Seabrook, Salem, Mystic, K Street, Pilgrim, Sandwich, and Bourne.





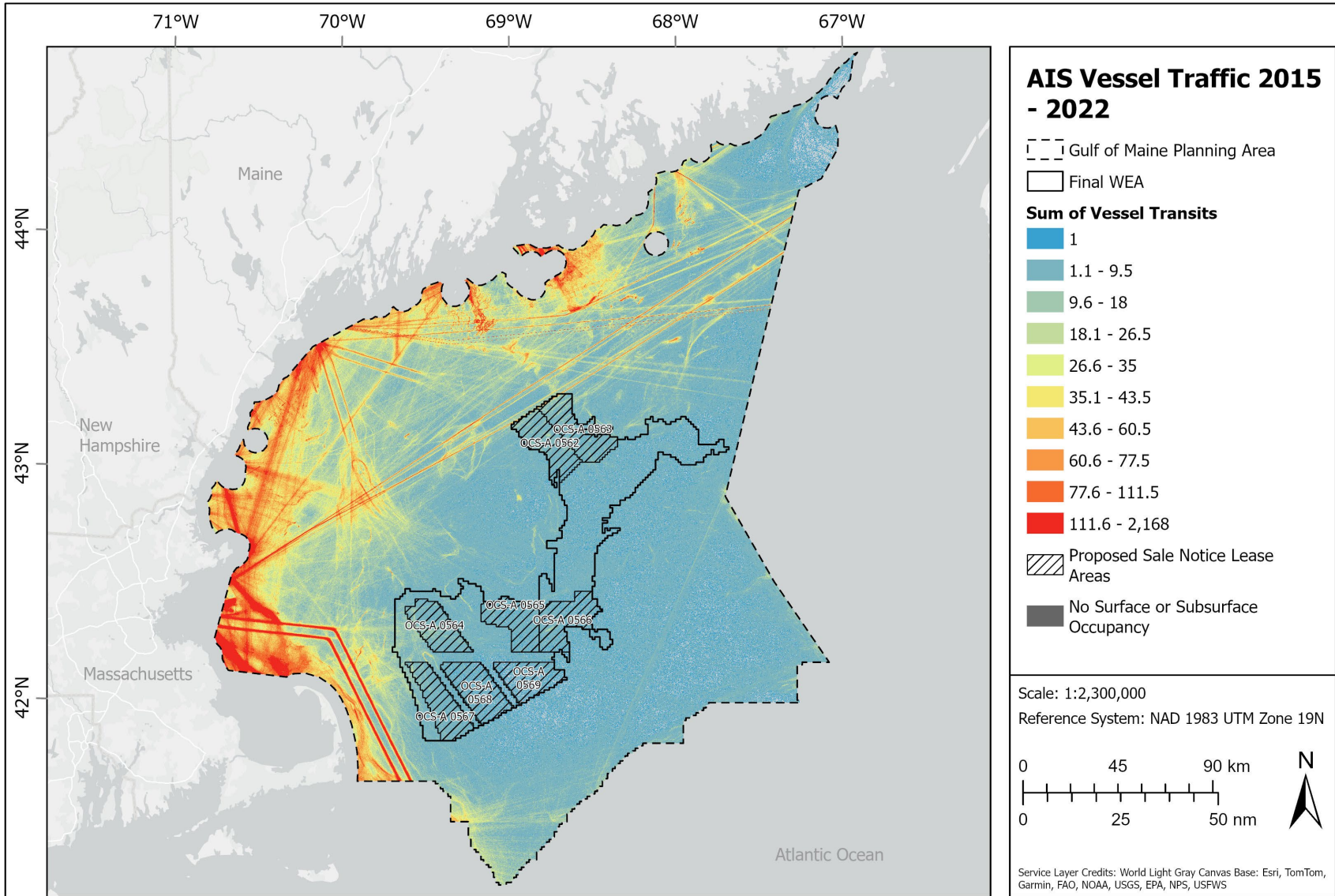
Points of Interconnection. National Renewable Energy Laboratory and Bureau of Ocean Energy Management. 2023. Points of Interconnection include: Wiscasset, Yarmouth, Maguire Road, Portsmouth, Seabrook, Salem, Mystic, K Street, Pilgrim, Sandwich, and Bourne. Distance is calculated using a linear function or "as the crow flies". A 0 - 75 mile linear gradient was applied.





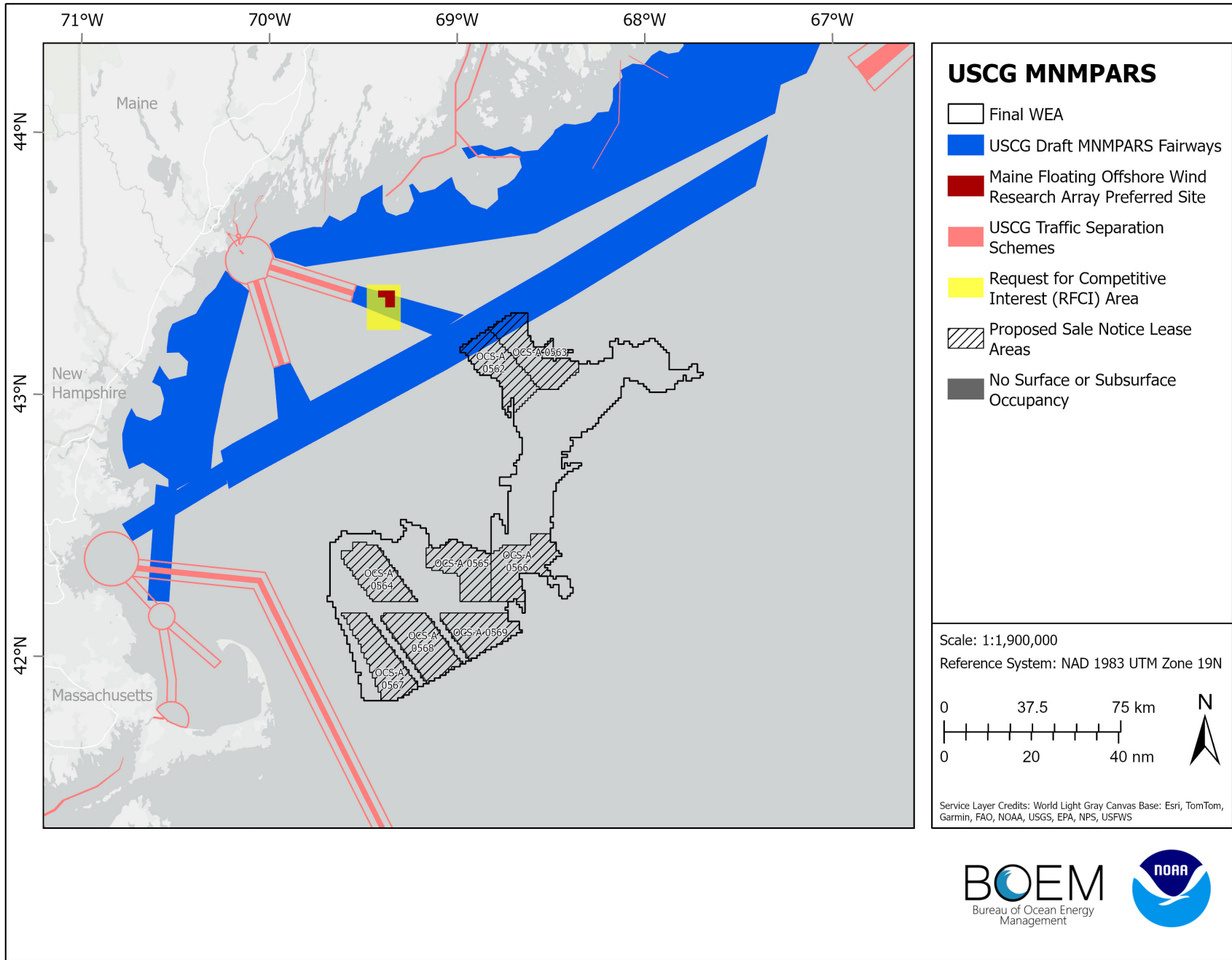
Maximum depth values calculated from most recent 'BlueTopo' bathymetric data.

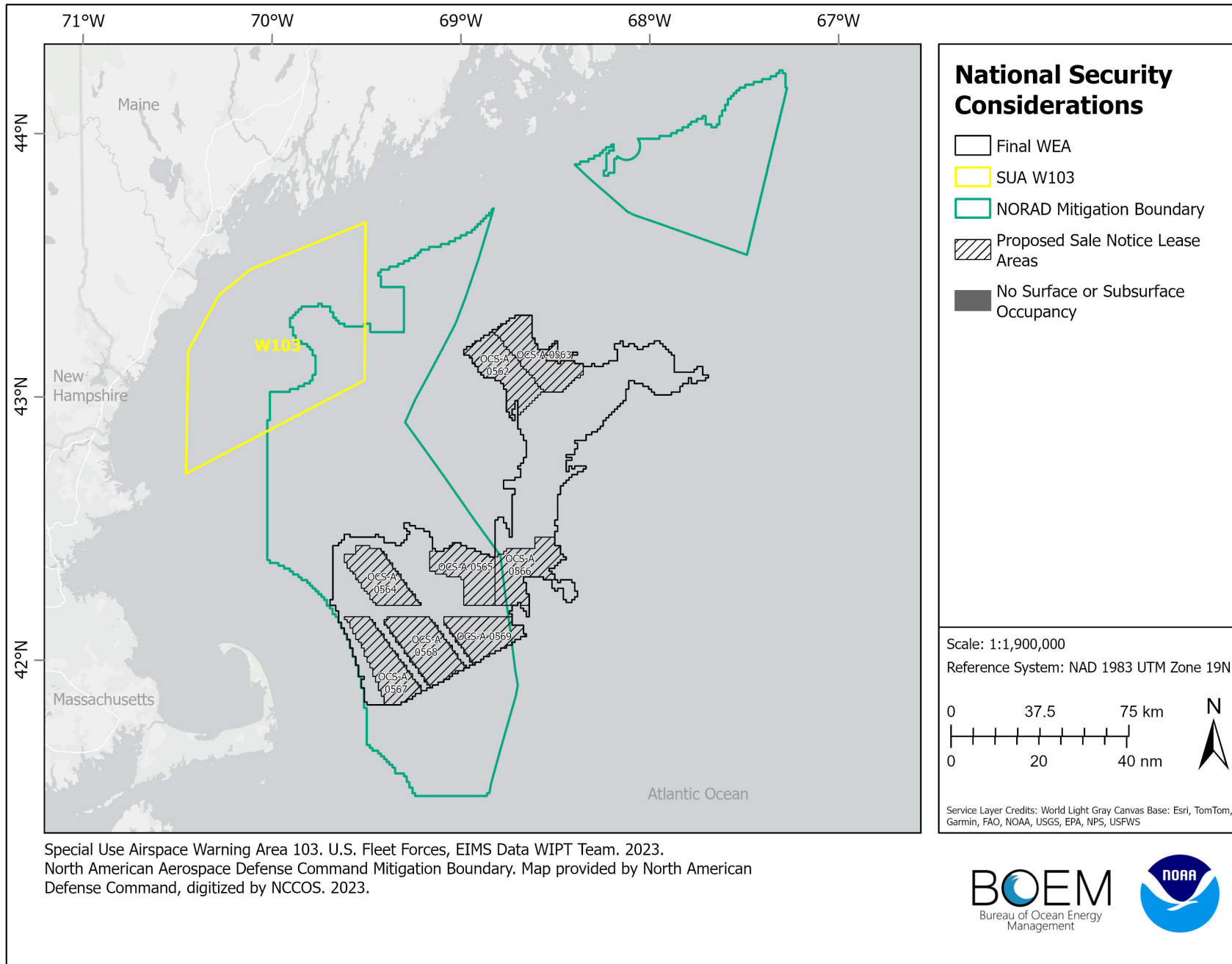


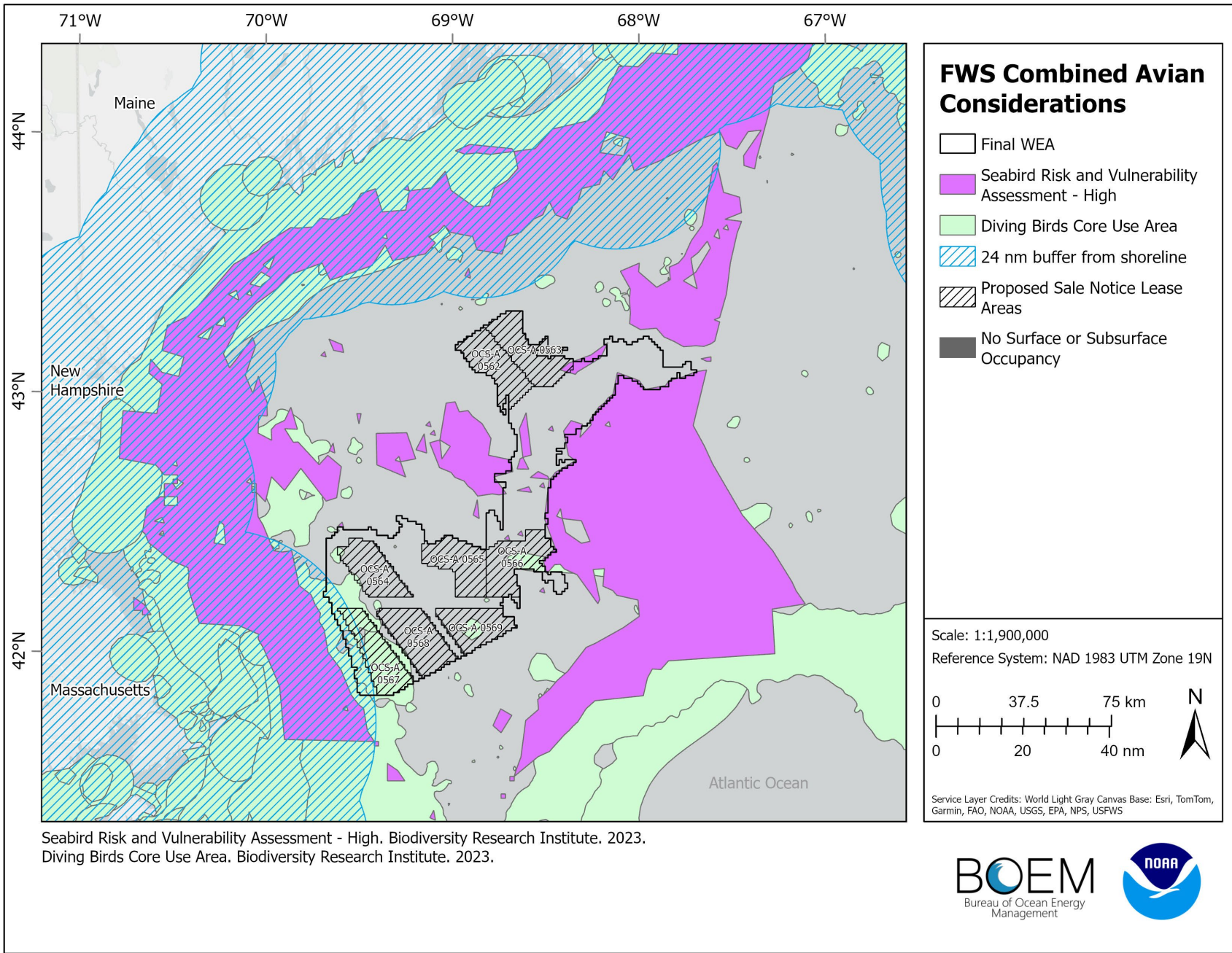


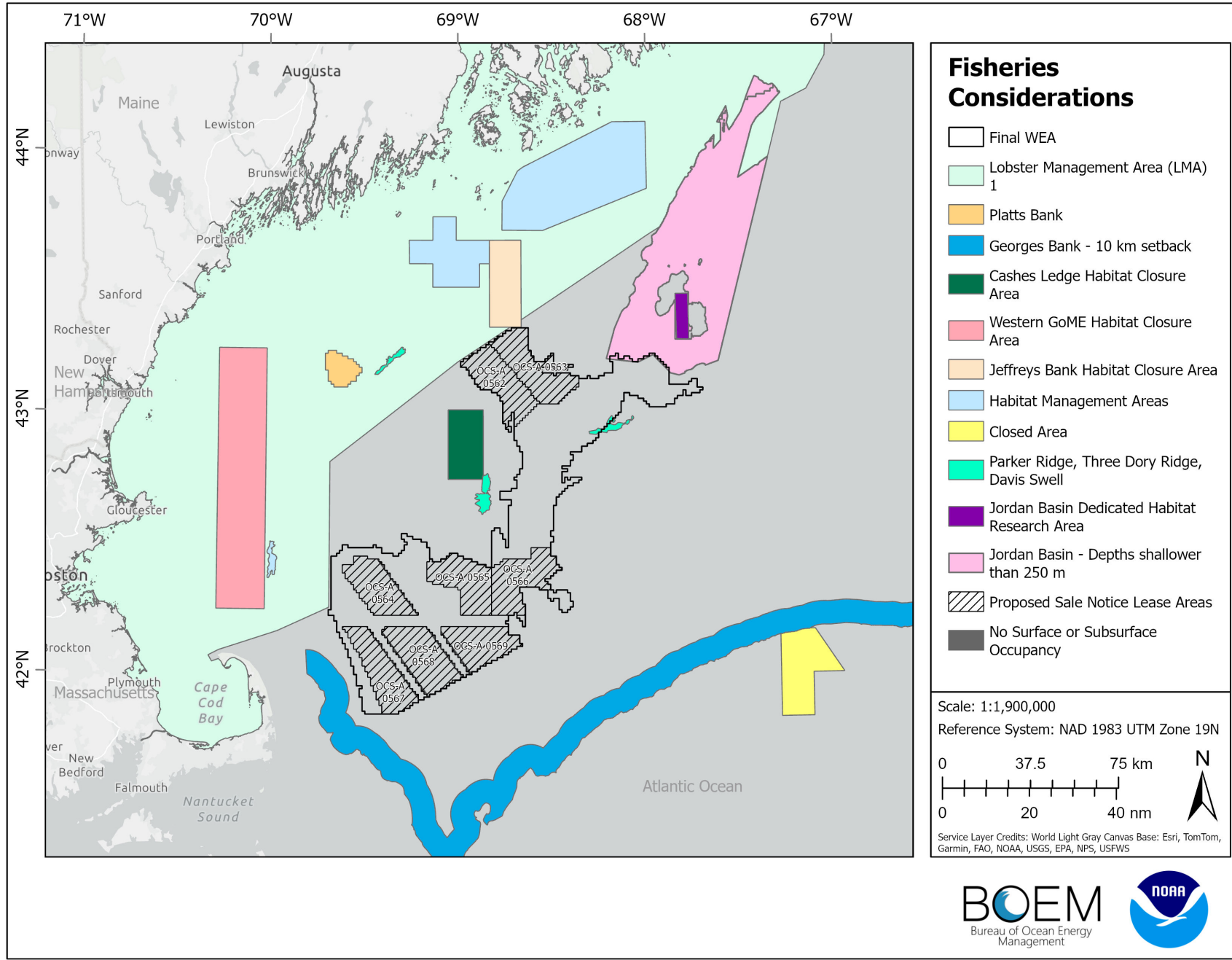
Automatic Identification System (AIS) Vessel Transit Counts. U.S. Coast Guard Navigation Center. 2015 - 2022. Vessel types include: cargo, military, other, passenger, pleasure and sailing, tanker, tug and tow, and fishing.

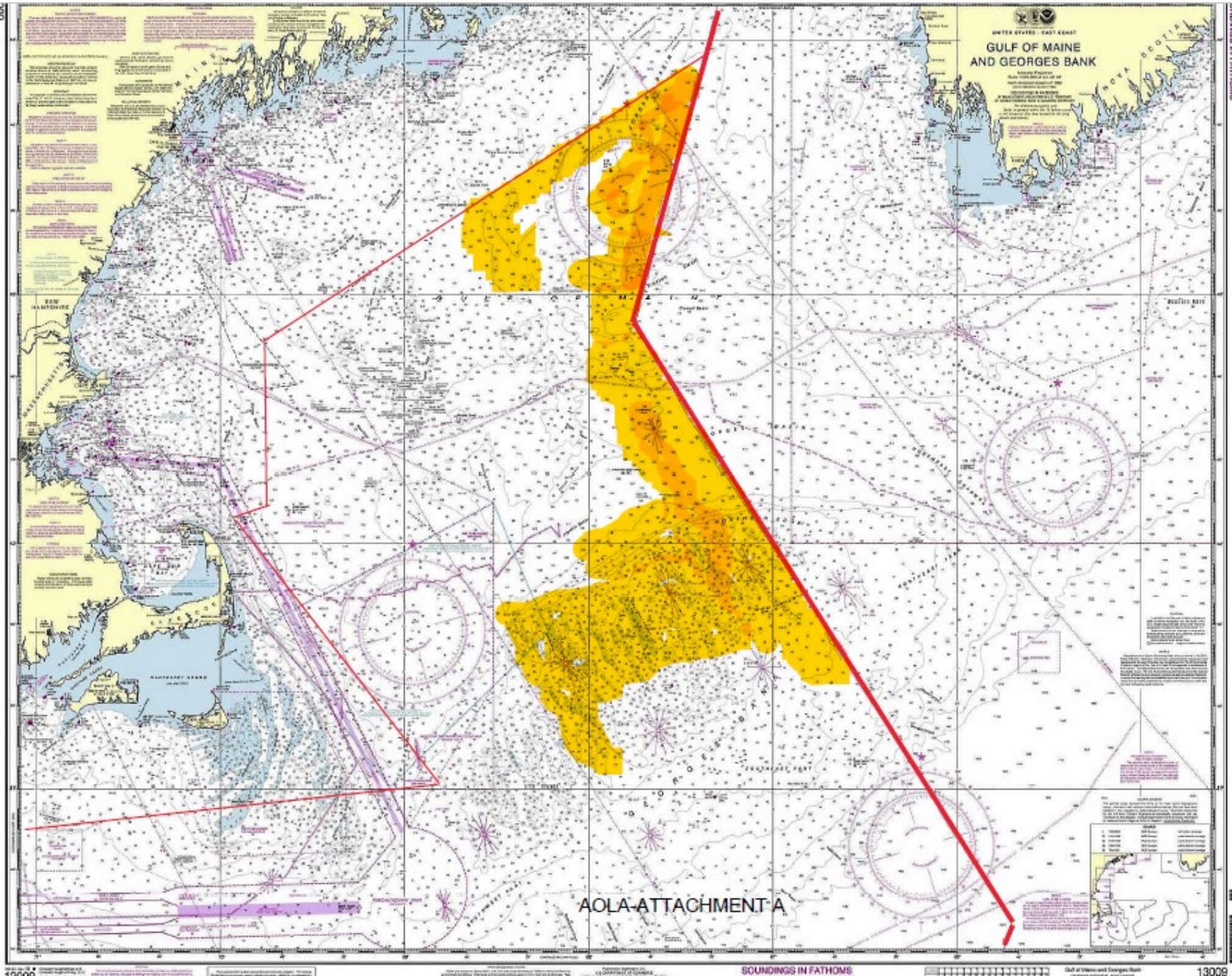






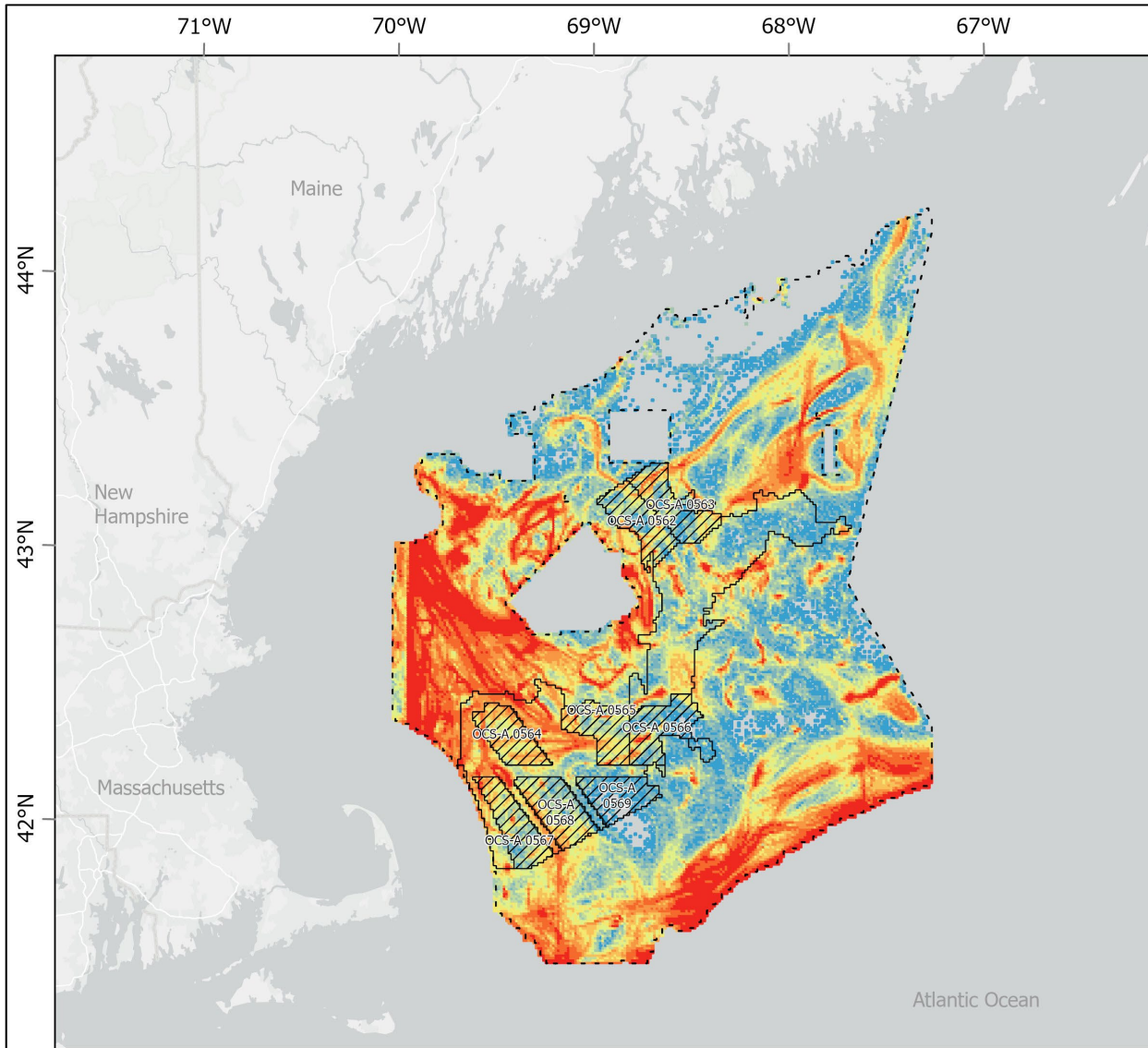






AOLA-ATTACHMENT A





**VMS Vessel Transits
2009 - 2021
All VMS Speed Filtered <
4 Knots**

BOEM Call Area

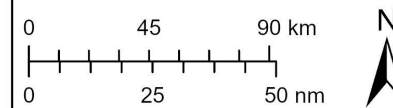
Final WEA

Sum of Polls

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- Proposed Sale Notice Lease Areas
- No Surface or Subsurface Occupancy

Scale: 1:2,300,000

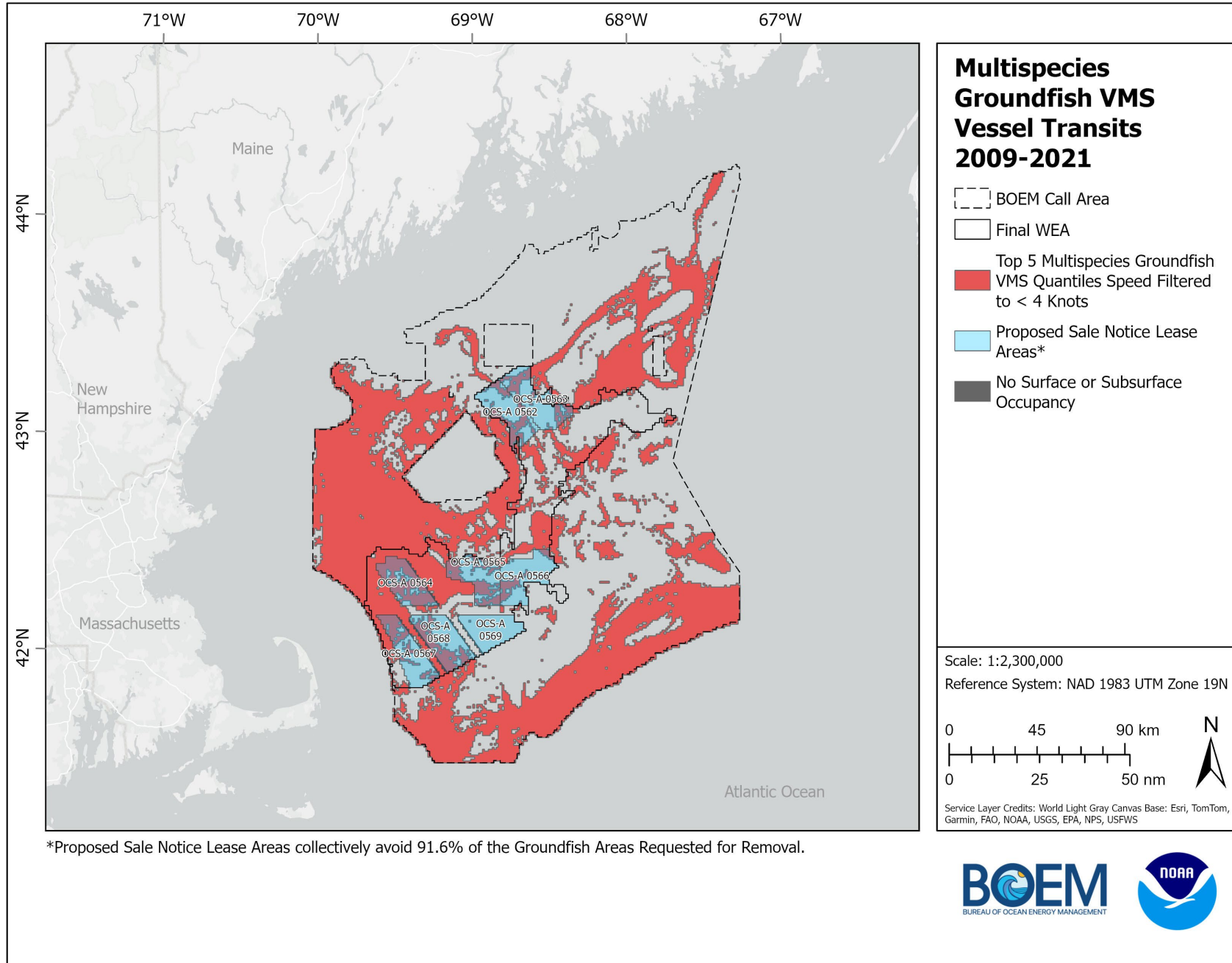
Reference System: NAD 1983 UTM Zone 19N

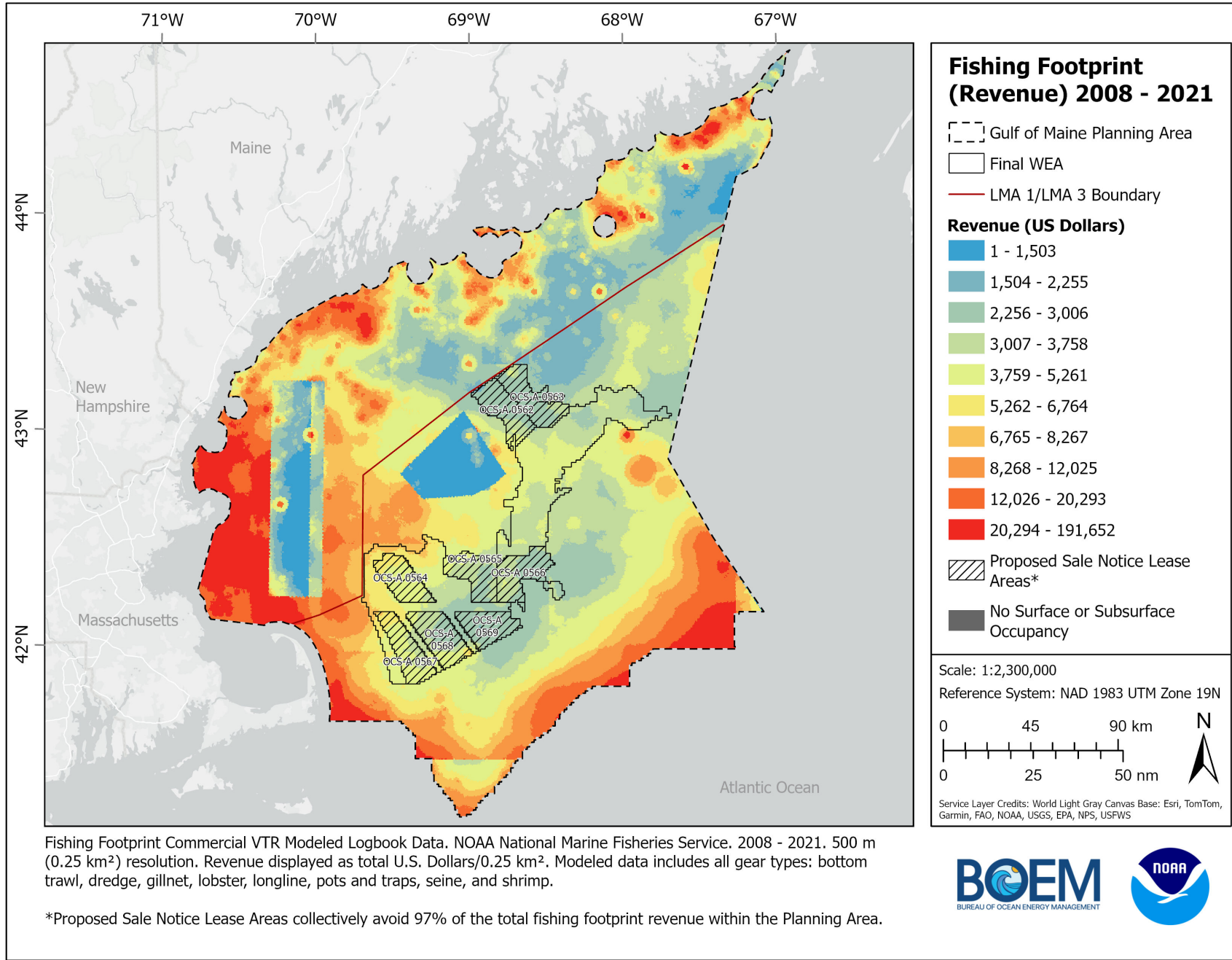


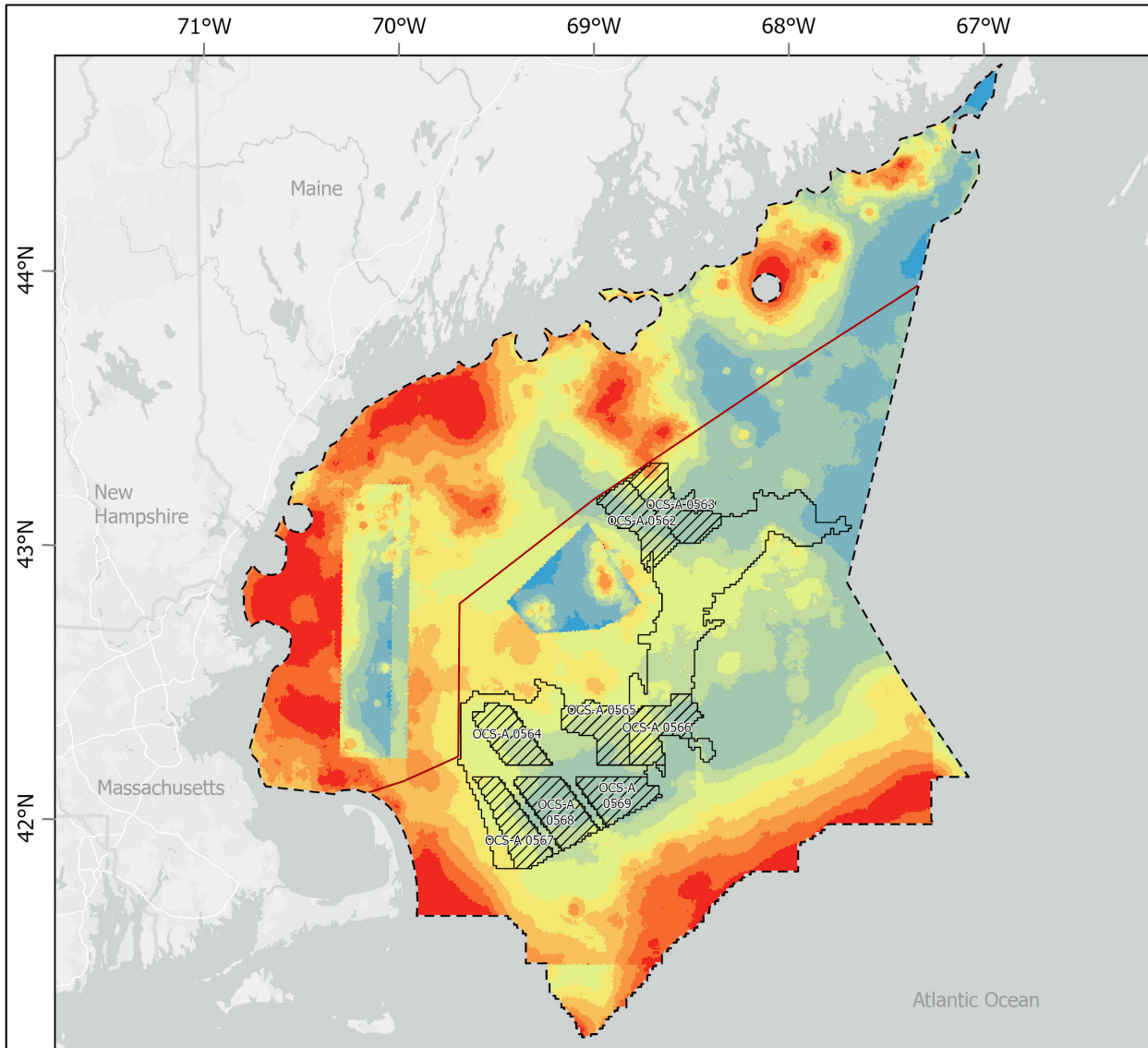
Service Layer Credits: World Light Gray Canvas Base: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

Vessel Monitoring System (VMS) Vessel Transits. NOAA National Marine Fisheries Service. 2009 - 2021. 1 km x 1 km resolution. Speed filtered to 4 knots to depict trawling speeds associated with fishery species including: herring, monkfish, multispecies (groundfish), declared out of fishery, scallop, ocean quahog/surflclam, squid/mackerel/butterfish. Data reflect the resolution at which data can be displayed to the public to ensure protection of Controlled Unclassified Information (CUI). Cells with < 3 unique vessels not displayed on map.









Fishing Footprint (Landings) 2008 - 2021

- Gulf of Maine Planning Area
- Final WEA
- LMA 1/LMA 3 Boundary

Total Landings (Dressed Pounds)

- 1 - 782
- 783 - 1,565
- 1,566 - 2,347
- 2,348 - 3,130
- 3,131 - 4,694
- 4,695 - 6,259
- 6,260 - 8,606
- 8,607 - 13,300
- 13,301 - 22,689
- 22,690 - 199,507

- Proposed Sale Notice Lease Areas*
- No Surface or Subsurface Occupancy

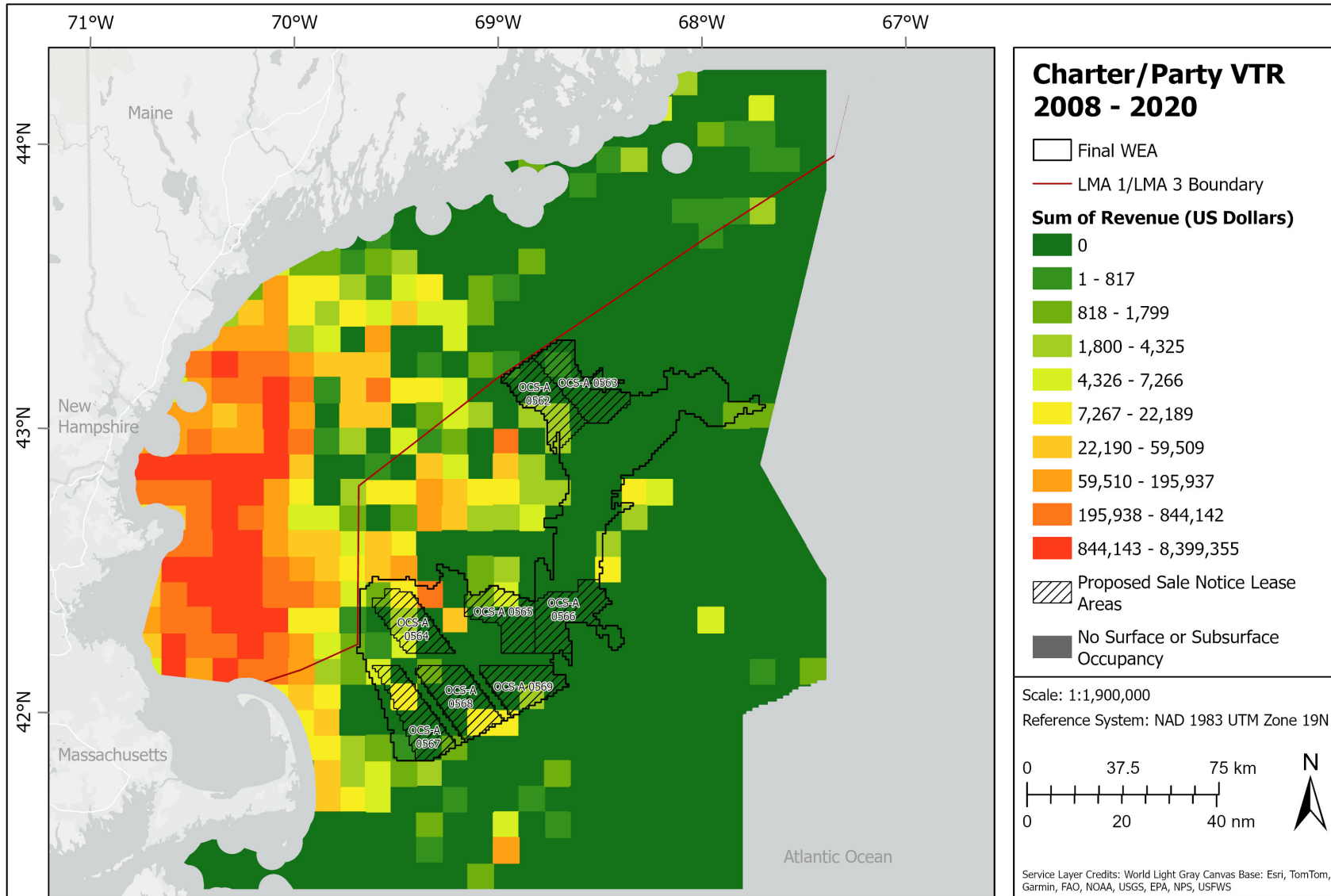
Scale: 1:2,300,000
 Reference System: NAD 1983 UTM Zone 19N

Service Layer Credits: World Light Gray Canvas Base: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

Fishing Footprint Commercial VTR Modeled Logbook Data. NOAA National Marine Fisheries Service. 2008 - 2021. 500 m (0.25 km²) resolution. Modeled data includes all gear types: bottom trawl, dredge, gillnet, lobster, longline, pots and traps, seine, and shrimp.

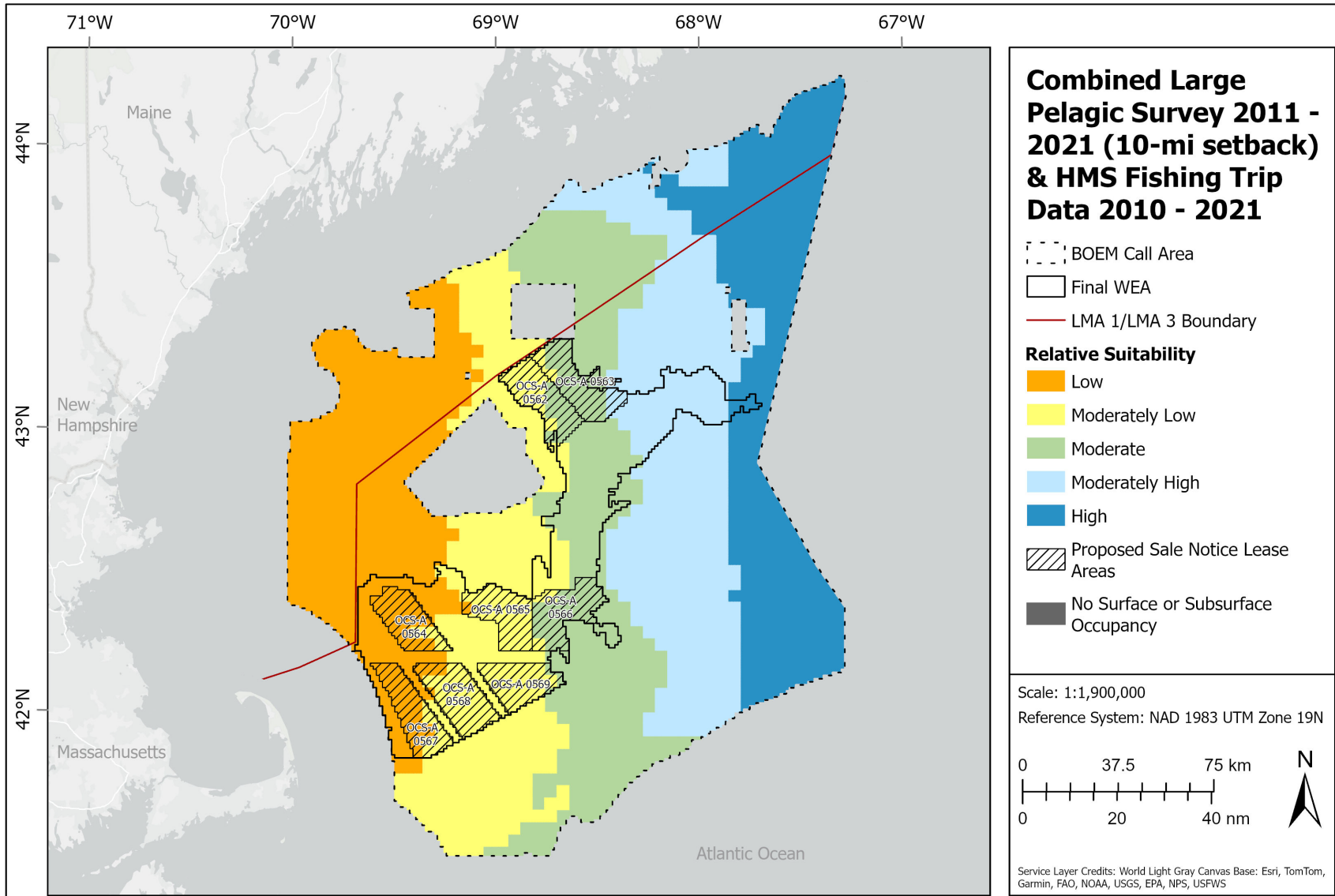
*Proposed Sale Notice Lease Areas collectively avoid 97.6% of the total fishing footprint landings within the Planning Area.





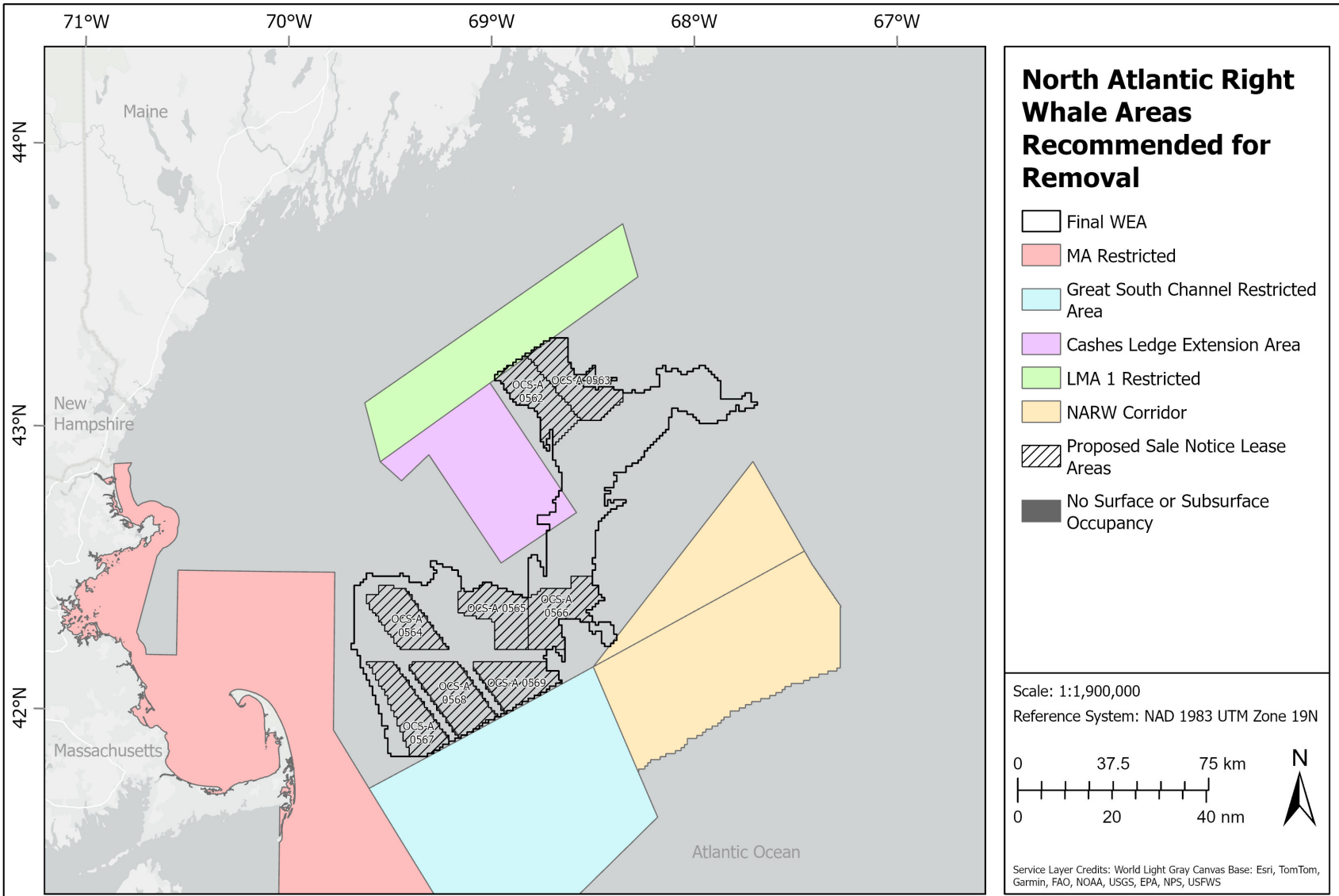
Charter/Party VTR Data. NOAA National Marine Fisheries Service. 2008 - 2020. 193.2 km² resolution. Trip point locations are required to be submitted by any vessel issued GARFO charter party permit. Points represent best approximate position of that trip. Points are linked with survey derived angler price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





Large Pelagic Survey Data. NOAA National Marine Fisheries Service. 2011 - 2021. Trip point data was received from NOAA NMFS. A 10-mi setback was applied to each trip point to capture 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. Highly Migratory Species Fishing Trip Data. Marine Department of Marine Resources. 2010 - 2021. A combined data layer was created using the two data layers.

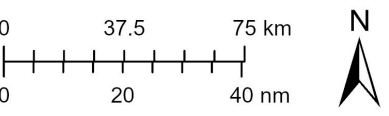




North Atlantic Right Whale Areas Recommended for Removal

- Final WEA
- MA Restricted
- Great South Channel Restricted Area
- Cashes Ledge Extension Area
- LMA 1 Restricted
- NARW Corridor
- Proposed Sale Notice Lease Areas
- No Surface or Subsurface Occupancy

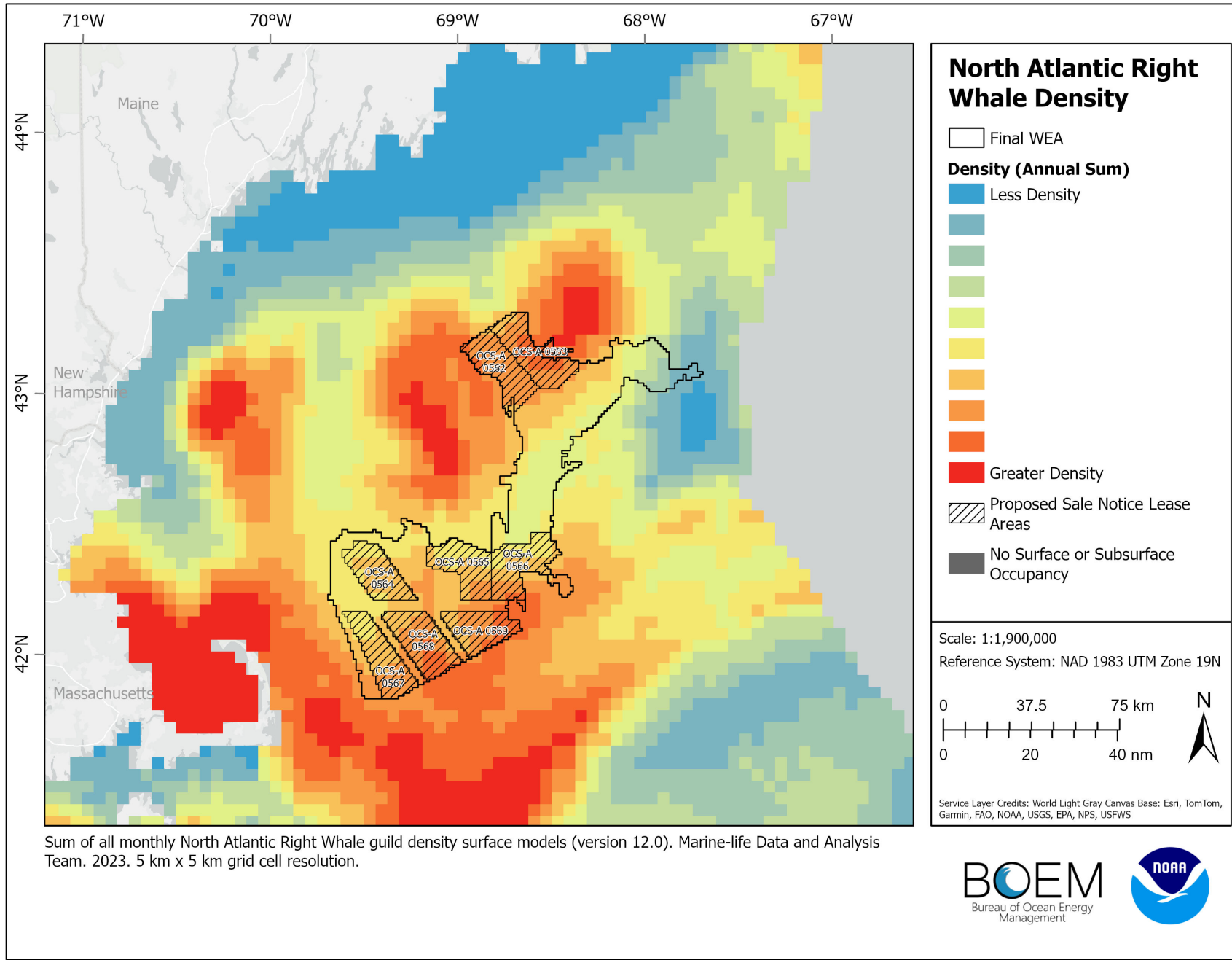
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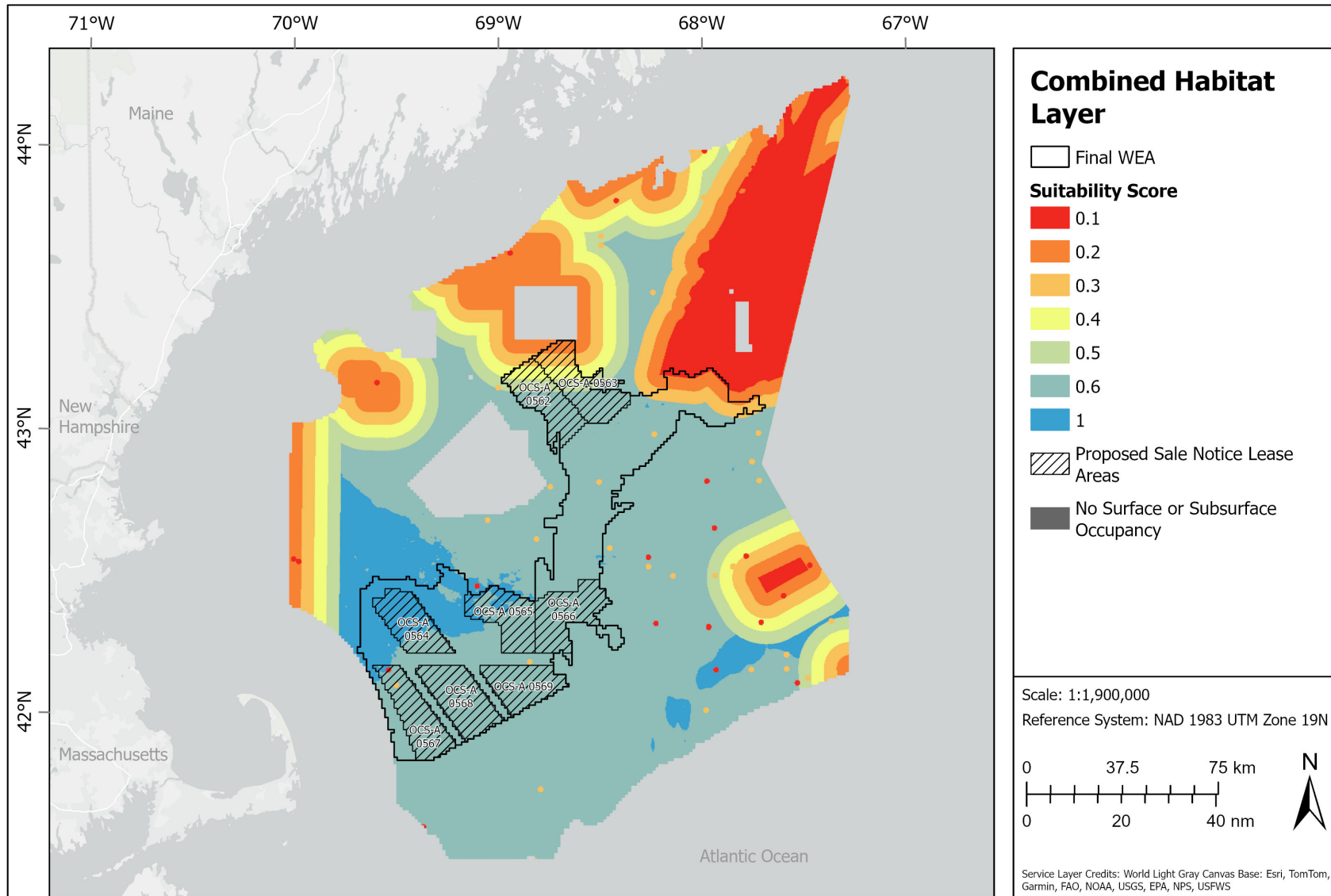


Service Layer Credits: World Light Gray Canvas Base: Esri, TomTom, Garmin, FAO, NOAA, USGS, EPA, NPS, USFWS

Massachusetts Restricted Areas. NOAA National Marine Fisheries Service. 2022.
 Great South Channel Restricted Area. NOAA National Marine Fisheries Service. 2022.
 Cashes Ledge Extension Area. NOAA National Marine Fisheries Service. 2023.
 Lobster Management Area 1 Restricted Area. NOAA National Marine Fisheries Service. 2022.
 North Atlantic Right Whale Corridor. NOAA National Marine Fisheries Service. 2023.

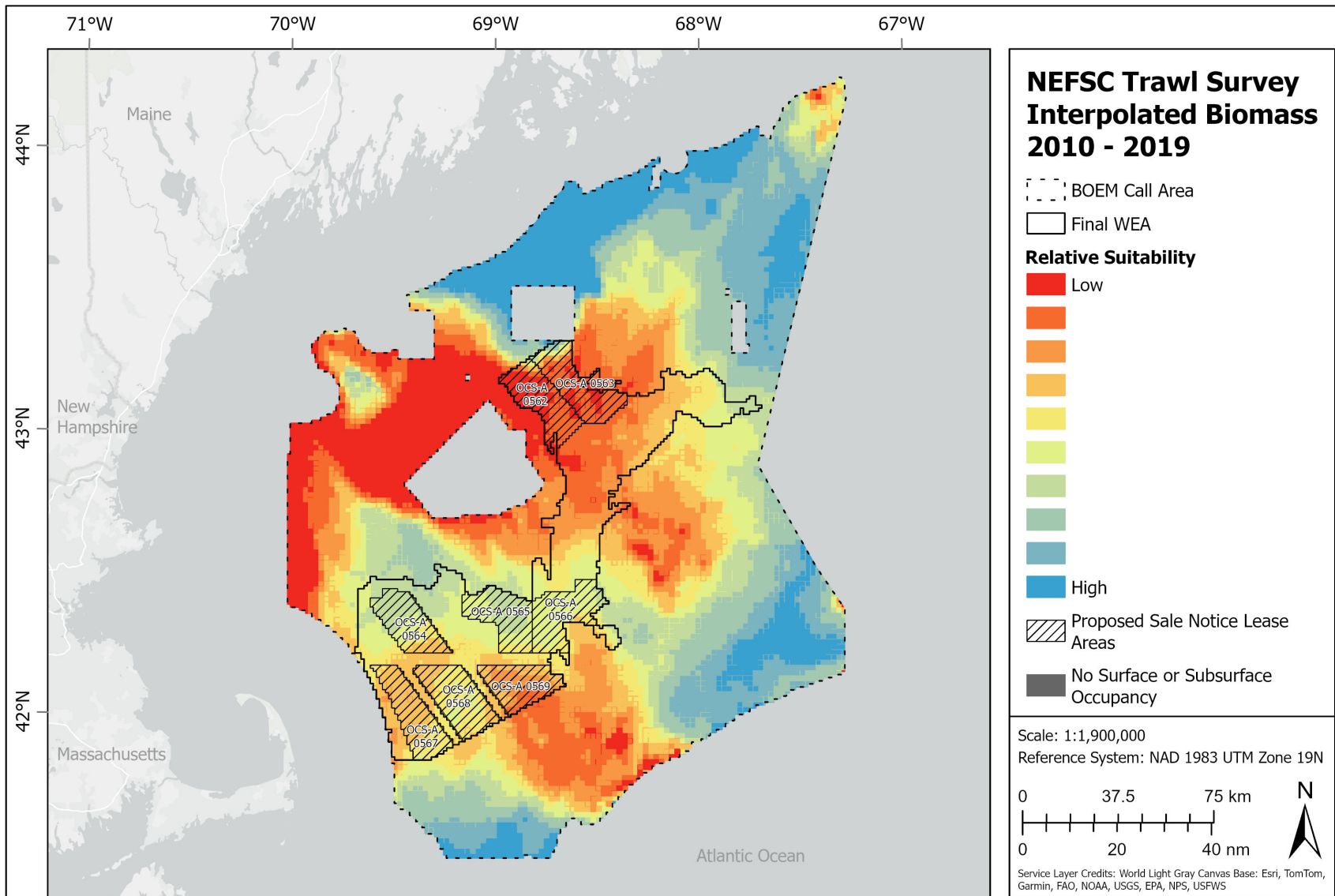




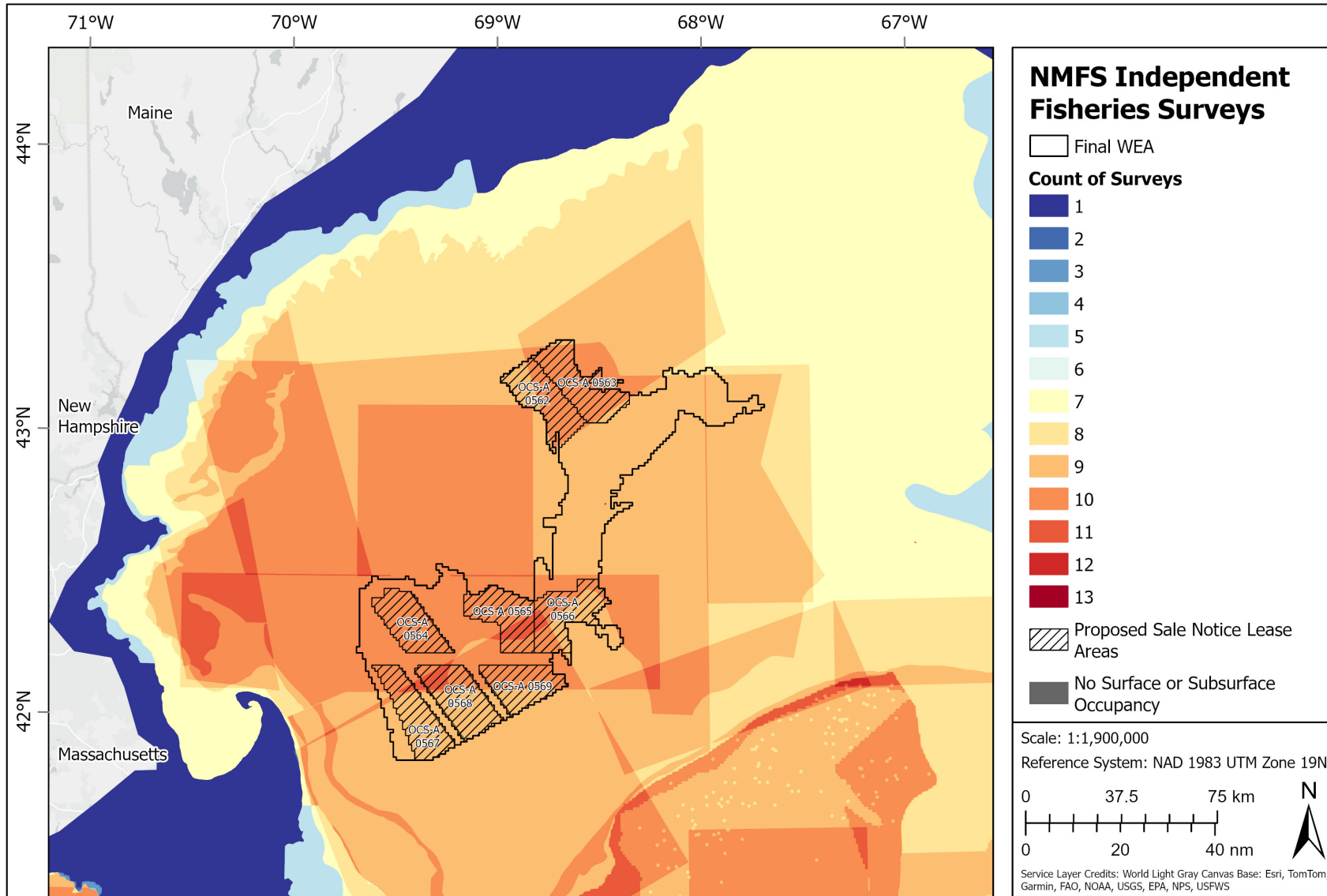


Combined Habitat Layer. Prepared by BOEM, this data layer drew from comments received on the Gulf of Maine Draft WEA received from NOAA National Marine Fisheries Service, the New England Fishery Management Council, and The Nature Conservancy. Habitats include: Jordan Basin based on 200 m contour (10 km setback), coral and sponge point data (1 km setback), Habitat Management Areas not designated by NEFMC (20 km setback), Coral Protection Areas (20 km setback), CPAs considered but not designated by NEFMC (20 km setback), sea pen point data (1 km setback), HAPCs, potential and known coral and hardbottom.





NEFSC Trawl Survey Interpolated Biomass. Duke University Marine-life Data and Analysis Team (MDAT). 2010 - 2019. Retrieved from Northeast Ocean Data Portal. 2 km x 2 km resolution. The following species were included in the Spring surveys: Atlantic cod, monkfish (goosefish), pollock, and witch flounder. The following species were included in the Fall survey: Acadian redfish, American plaice and Atlantic herring. Individual species were combined using a geometric mean.



NMFS Independent Fisheries Surveys. NOAA National Marine Fisheries Service. 2023. Survey footprints include: EcoMon 1-4, Bottom Trawl Spring/Fall, AMAPPS Aerial, CRB Bottom Longline, North Atlantic Right whale, Shrimp, Surfclam, Scallop-Shellfish, and Ocean Quahog.



Renewable Energy Goals: How many acres are needed?

- Planning and Analysis phase is based on winnowing – starting large, receiving feedback and deconflicting
- Spatial modeling acreage assumptions
 - Call and Draft WEA comments documented several capacity requests
 - MA – 10 GW of capacity by 2050
 - ME – 3 GW of capacity by 2040
 - ISO-NE – 18GW
 - American Clean Power – 20 GW
- PSN Lease Areas are ~ 944,000 acres (developable acres).

Capacity (GW) to acreage – Energy Density*

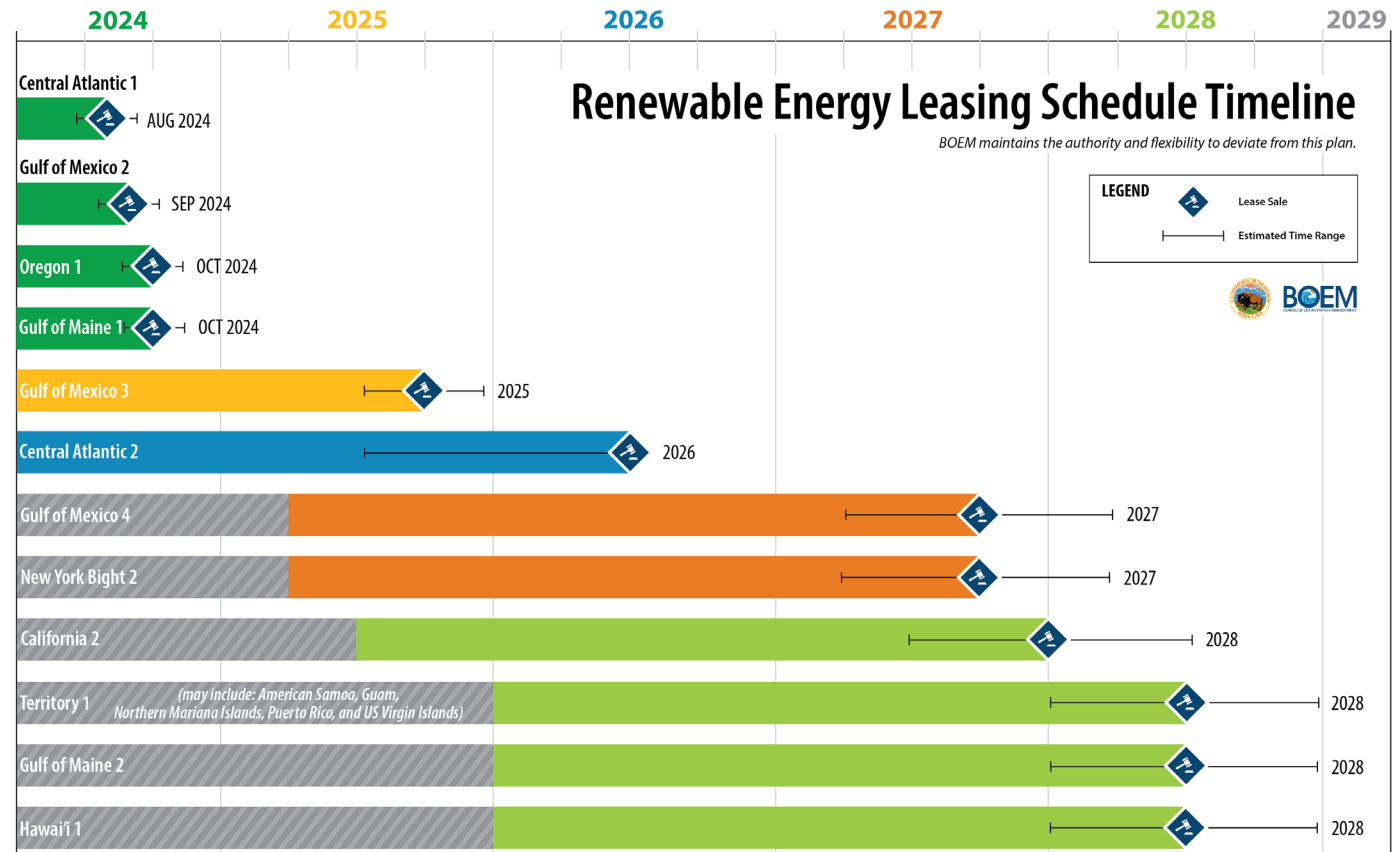
MW	PLANNING DENSITY (Old)	PLANNING DENSITY (New)	AVERAGE DENSITY OF BOEM PROPOSED PROJECTS
	~0.012 MW/acre or 3 MW/km ²	~0.016 MW/acre or 4 MW/km ²	~ 0.019 MW/acre or 4.7 MW/km ²
13,000	1,083,333	812,500	684,211
18,000	1,500,000	1,125,000	947,368
20,000	1,666,667	1,250,000	1,052,632

*Energy density estimates are highly variable, and mostly based on fixed offshore wind experience.



5-Year Renewable Energy Leasing Schedule

- April 2024, Secretary Haaland [announced](#) new 5-year renewable energy leasing schedule
- Required under new [“Modernization Rule”](#)
- Gulf of Maine-2 sale is envisioned for 2028.
 - BOEM asked about “Phased leasing” approach when we [published the Draft WEA](#) in October 2023.
 - [Area Identification memo](#) referenced broad support received for a phased leasing; however, recommendations for scale and timing of phases varied widely across individuals and stakeholder groups.
 - The Secretary’s announcement is a continuation of this conversation on “phased leasing”
 - The timing and scope of a second Gulf of Maine sale would be directly informed by the results of the 2024 sale, as well as the future position of potentially affected Tribes, Gulf of Maine states, stakeholder engagement, relevant market conditions, and regional energy goals.



PSN: Lease Area Details

PSN Areas	Region	Total Acres	Developable Acres
OCS-A 0562	North	121,339	121,339
OCS-A 0563	North	132,369	132,369
OCS-A 0564	South	110,308	105,499
OCS-A 0565	South	115,290	115,290
OCS-A 0566	South	127,388	127,388
OCS-A 0567	South	123,118	117,391
OCS-A 0568	South	134,149	123,389
OCS-A 0569	South	106,038	101,757
Total		969,999	944,422
Average		121,250	118,053

