DEPARTMENT OF THE INTERIOR

Bureau of Ocean Energy Management

[Docket No. BOEM-2023-0054]

Draft Wind Energy Areas – Commercial Leasing for Wind Power Development on the Gulf of Maine Outer Continental Shelf (OCS)

AGENCY: Bureau of Ocean Energy Management (BOEM), Interior.

ACTION: Draft Wind Energy Areas; request for comments.

SUMMARY: This Draft Wind Energy Area (WEA) notice (the notice) invites public comment on the Draft WEA on the OCS offshore the States of Maine, New Hampshire, and Massachusetts. BOEM will consider information received in response to this notice to identify the Final WEA(s) as part of the Area Identification (Area ID) process. Those interested in providing comments and information regarding site conditions, resources, and multiple uses in close proximity to or within the Draft WEA should provide the information requested in Section 10, which is entitled, "Requested Information from Interested or Affected Parties." BOEM may or may not offer a lease for a commercial offshore wind energy project within the Draft WEA after further government consultations, public participation, and environmental analyses.

DATES: Submit your comments on the Draft WEA by November 20, 2023. Late submissions may not be considered.

ADDRESSES: Please submit comments and information by either of the following two methods:

1. Federal eRulemaking Portal: http://www.regulations.gov. In the search box at the top of the webpage, enter BOEM-2023-0054 and then click "search." Follow the instructions to submit public comments and to view supporting and related materials.

2. U.S. Postal Service or other mail delivery service. Send your comments and other information to the following address: Zachary Jylkka, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, 45600 Woodland Road, Mailstop: VAM-OREP, Sterling, VA 20166.

Treatment of confidential information is addressed in section 11 of this notice entitled ''Protection of Privileged, Personal, or Confidential Information.'' BOEM will post all comments received on regulations.gov unless labeled as confidential.

FOR FURTHER INFORMATION CONTACT: Zachary Jylkka, Project Coordinator, Bureau of Ocean Energy Management, Office of Renewable Energy Programs, 45600 Woodland Road, Mailstop: VAM-OREP, Sterling, VA 20166, Zachary.Jylkka@boem.gov

SUPPLEMENTARY INFORMATION

1. Authority

This notice of Draft WEA is published under subsection 8(p)(3) of the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. 1337(p)(3), and its implementing regulations outlining BOEM's process for competitive issuance of leases at 30 CFR 585.211.

2. Purpose

This notice invites public comment on the Draft WEA on the OCS offshore the States of Maine, New Hampshire and Massachusetts and presents the results of a spatial suitability model developed by the National Oceanic and Atmospheric Administration (NOAA), National Centers for Coastal Ocean Science (NCCOS) and informed by BOEM, collectively referred to as the Gulf of Maine WEA Spatial Modeling Team (Team). The draft BOEM/NCCOS joint report entitled, "A Wind Energy Siting Analysis for the Gulf of Maine Call Area" (available at www.boem.gov/renewable-energy/state-activities/maine/gulf-maine) summarizes the methods and analysis used to develop the draft WEA and related suitability modeling efforts.

3. Background

BOEM's competitive lease issuance process requires a Call for Information and Nominations (Call), which requests comments from the public about areas of the OCS that should receive consideration and analysis for the potential development of renewable energy (30 C.F.R. § 585.211(a)). At BOEM's discretion, the Call may follow a Request for Interest (RFI) to inform the Call. For the Gulf of Maine, BOEM issued an RFI ahead of the Call. Comments received on the RFI and Call are then used to inform the Area ID process.

The Area ID process is a required step under the renewable energy competitive leasing regulations for the identification of areas for environmental analysis and consideration for leasing (30 C.F.R. § 585.211(b)). The Area ID process takes into consideration multiple competing uses and environmental concerns that may be associated with a proposed area's potential for commercial renewable energy development. The development of Draft WEA(s) and seeking public comment on these areas are not required steps under BOEM's regulations. However, BOEM incorporated such processes in the Gulf of Maine for a more transparent and inclusive Area ID process in response to comments requesting additional engagement steps, siting data concerns, and the use of spatial modeling in the development of lease areas.

BOEM prepares an Environmental Assessment (EA), pursuant to the National Environmental Policy Act (NEPA) before any lease sale. The objective of the environmental analysis is to estimate the nature, severity, and duration of impacts that might occur from site assessment (i.e., deployment and installation of a meteorological buoy(s)) and site characterization activities (i.e., biological, archaeological, geological, and geotechnical surveys) within the WEAs. Potential impacts of a specific proposed renewable energy facility in the identified areas would be addressed during the review of a Construction and Operations Plan (COP) when project-specific data and information are available. Project specific-information includes the data and analysis required in the COP, such as: information related to the general project design, and general

fabrication and installation methodologies; as well as all cables and pipelines, including cables on project easements; a description of deployment activities; a list of solid and liquid wastes generated; a list of chemical products used (if stored volume exceeds Environmental Protection Agency (EPA) reportable quantities); a description of any vessels, vehicles, and aircraft used to support the activities; a general description of the operating procedures and systems; decommissioning and site clearance procedures; geological hazard information; general hazard information; water quality in the project area; biological resources in the project area; sensitive biological resources or habitats in the project area; threatened or endangered species present in the project area; archaeological resources in the project area; and coastal and marine uses.

a. Previous Planning Steps

i. Request for Interest

On August 19, 2022, BOEM published an RFI for the Gulf of Maine in the *Federal Register*, which included a 45-day comment period. Defining the RFI Area involved removing areas BOEM deemed incompatible with offshore wind energy development. These were areas in which offshore wind energy development cannot occur as a result of law, jurisdiction, or technical considerations, and any area undergoing a separate leasing process, including:

a) National Park System, National Wildlife Refuge System, National Marine Sanctuary System, or any National Monument (§585.204);
b) Existing Traffic Separation Schemes (TSS), fairways, or other internationally recognized navigation measures; and
c) Unsolicited lease request areas that are the subject of a separate request for competitive interest (RFCI) (e.g., State of Maine's requested research lease).

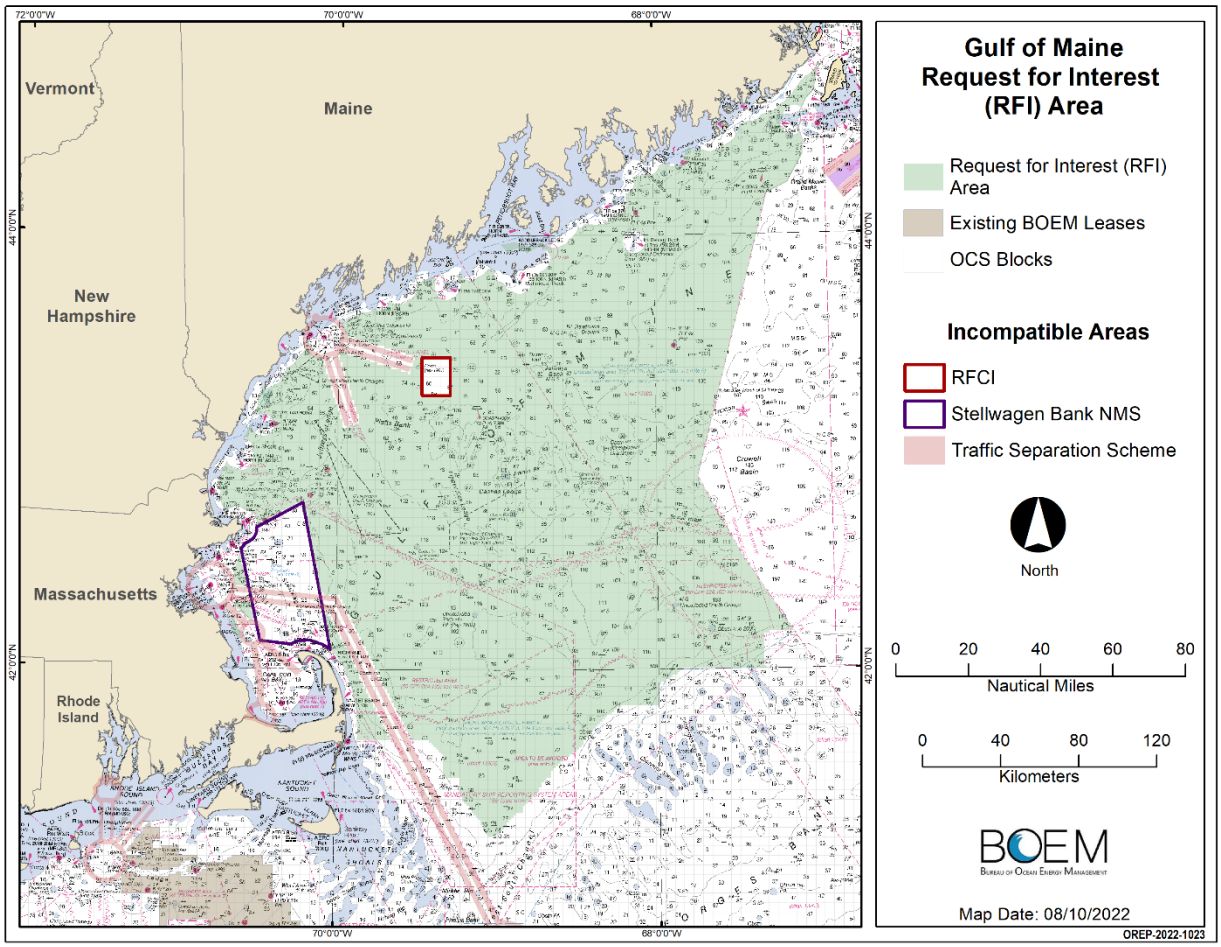

Figure 1: Gulf of Maine Request for Interest (RFI) Area

The RFI Area consisted of 13,713,825 acres (Figure 1). BOEM received wind development nominations from 5 companies, all of which have been legally, technically, and financially qualified. Nominations are available at: https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine#tabs-7676. In addition to gauging interest in the development of commercial wind energy leases within the RFI Area, BOEM also sought feedback from Tribes, stakeholders, industry, and others regarding the location and size of specific areas they wished to be included in (or excluded from) a future offshore wind energy lease sale, along with other planning considerations. Through the RFI, BOEM received 51 unique comments which are available at: https://www.regulations.gov/docket/BOEM-2022-0040. Following the close of the comment period, BOEM visited the Penobscot Nation at Indian Island to provide an update on the Gulf of Maine planning process and to begin to understand their questions and concerns about potential offshore wind energy development.

ii. Call for Information & Nominations

Based on feedback received through the RFI, BOEM worked with NCCOS to conduct spatial analysis to inform the area for a draft Call for Information and Nominations (Draft Call Area). The Draft Call Area represented a 27% reduction from the RFI Area (Figure 2).

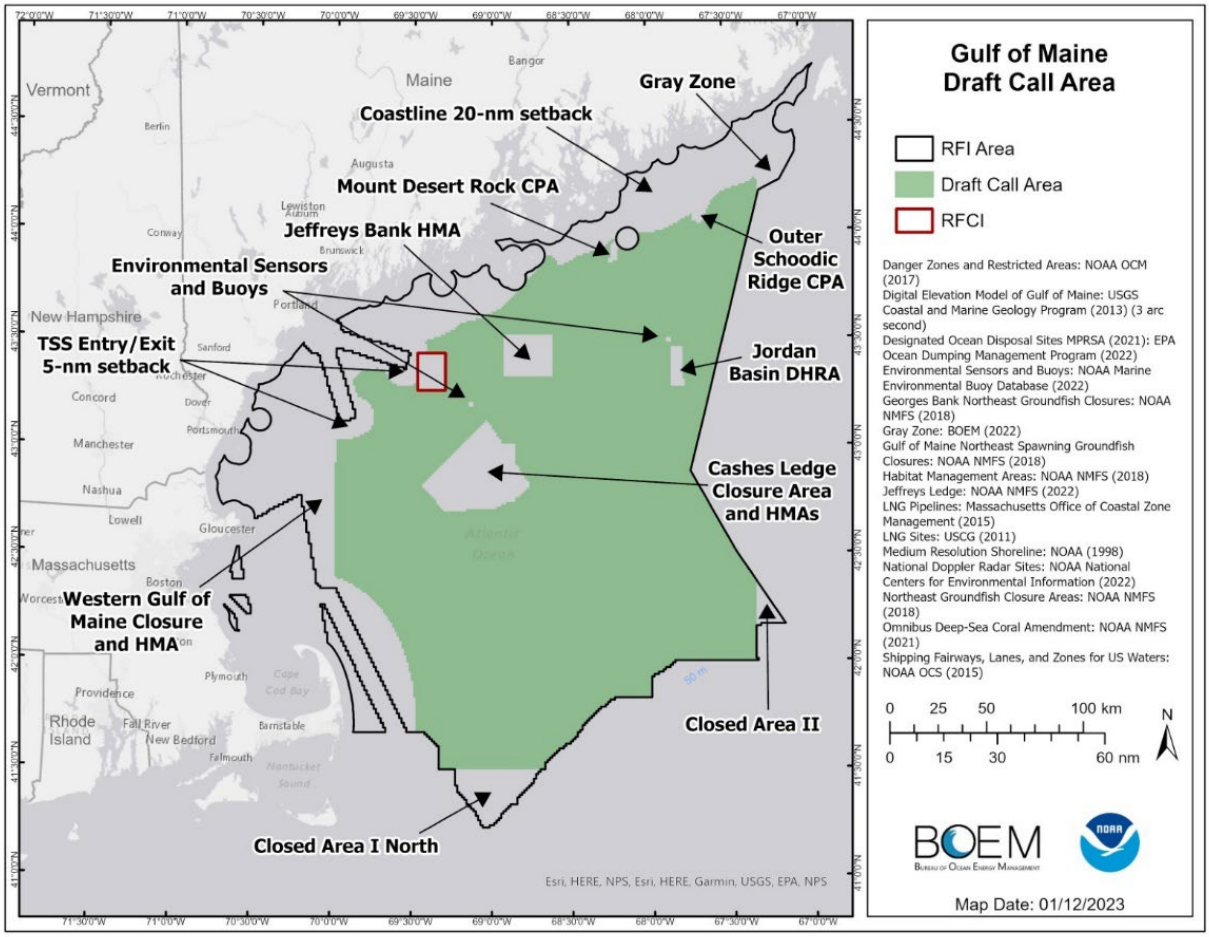

Figure 2: Gulf of Maine Draft Call Area (January 2023)

Following publication of the Draft Call Area on BOEM's website in early January 2023 on BOEM's website, BOEM held a series of in-person and virtual information exchanges to gain perspectives, feedback, and input on the Draft Call Area. In-person information exchanges were held in January 2023 in Salem, MA, Portsmouth, NH, and Portland, ME. Virtual information exchanges were held between January and March 2023, including meetings with Gulf of Maine Tribal Nations, environmental non-governmental organizations (NGOs), fisheries sectors, and the shipping and commercial maritime industry. A summary of these meetings is available at: https://www.boem.gov/renewable-energy/state-activities/gulf-maine-draft-call-area-engagement-meetings

On April 25, 2023, BOEM announced the publication of the Gulf of Maine Call for Information and Nominations (Call), which included a 45-day public comment period. Feedback received through the early 2023 information exchanges resulted in the removal of areas from the southern edge of the final Call Area to avoid Georges Bank. BOEM also identified several areas that the stakeholders commented on most frequently during public meeting feedback opportunities (Figure 2). These areas included the North Atlantic Right Whale (NARW) Take Reduction Plan Restricted Areas, a 10-kilometer buffer from Georges

Bank (defined by the 140-meter contour), Platts Bank, and Lobster Management Area (LMA) 1.

In the Call, BOEM described plans to partner with NCCOS to develop a Wind Energy Area spatial model to inform identification of Wind Energy Areas and requested input on data for consideration. Through the Call, BOEM received 127 unique comments (available at: https://www.regulations.gov/docket/BOEM-2023-0025) and 7 nominations from the wind industry (available at: https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine#tabs-7676). Comments included recommendations of specific areas to avoid for leasing, fishing data to utilize in spatial modeling, and datasets representing protected species, among others. These comments, alongside those communicated during the RFI comment period and through various engagements, were considered in the development of the Wind Energy Area spatial model described in this report.

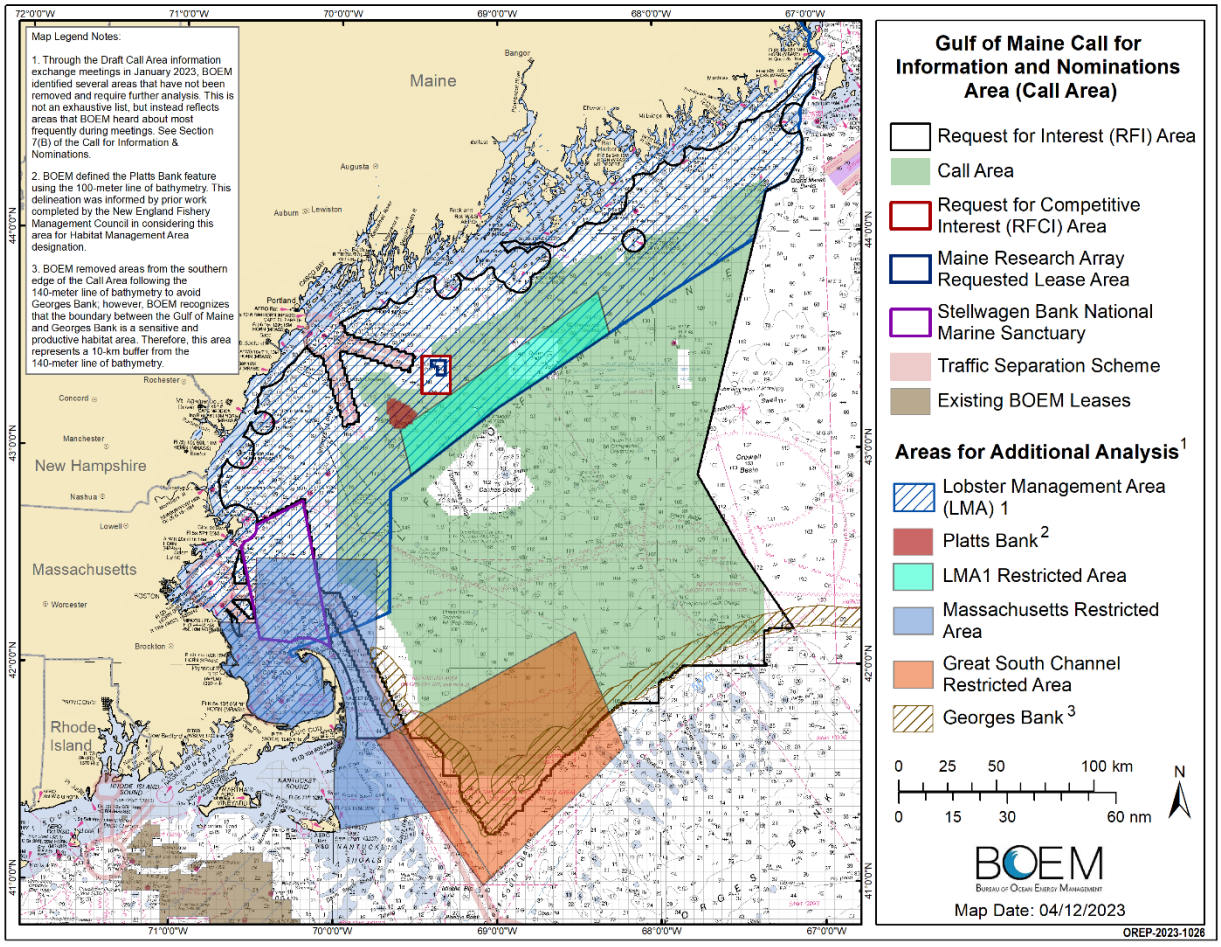

Figure 3: Gulf of Maine Call for Information & Nominations Area, including Areas for Additional Analysis

On May 10 and 11, 2023, BOEM hosted the third Gulf of Maine Intergovernmental Renewable Energy Task Force meeting in Bangor, Maine to facilitate coordination, consultation, and information sharing among federal, Tribal, state, and local governments regarding the renewable energy leasing process on the Outer Continental Shelf in the Gulf of Maine. The first day focused on three topics that are shaping the conversations about offshore wind: floating offshore

wind technology, offshore wind data collection activities and associated analyses for whales and other protected species, and transmission planning. On the second day, the Task Force discussed BOEM's leasing process in the Gulf of Maine, including detailed information on commercial leasing steps as well as Maine's requested research lease. Several Tribes offered comments and concerns, including representatives from the Passamaquoddy Tribe of Indians, Indian Township; Passamaquoddy Tribe of Indians, Pleasant Point; Penobscot Nation, and Houlton Band of Maliseet Indians. Comments focused on the importance of involving Tribes in the process, seeking assurance the submerged paleocultural heritage will be properly identified and avoided, concerns about potential increased use of a road leading to Eastport that impacts Tribal members, concerns about having enough time and resources to engage in the process, and a strong desire to ensure no negative impacts on ecosystems and fishing livelihoods. BOEM leadership and staff visited the Passamaquoddy Tribe of Indians, Pleasant Point, at Sipayik the day following the Task Force meeting.

Both days of the Task Force included significant opportunities for public input. Meeting materials, agendas, presentations, recordings and a summary can be found here: https://www.boem.gov/renewable-energy/state-activities/gulf-maine-task-force-meeting-may-10-11-2023.

The panel of maps in Figure 4 depicts the spatial evolution of the Gulf of Maine planning process for commercial wind power development to date, from RFI to the Draft WEA. Sections 4 and 5 describe the suitability model and decision-making process to determine the boundaries of the Draft WEA.

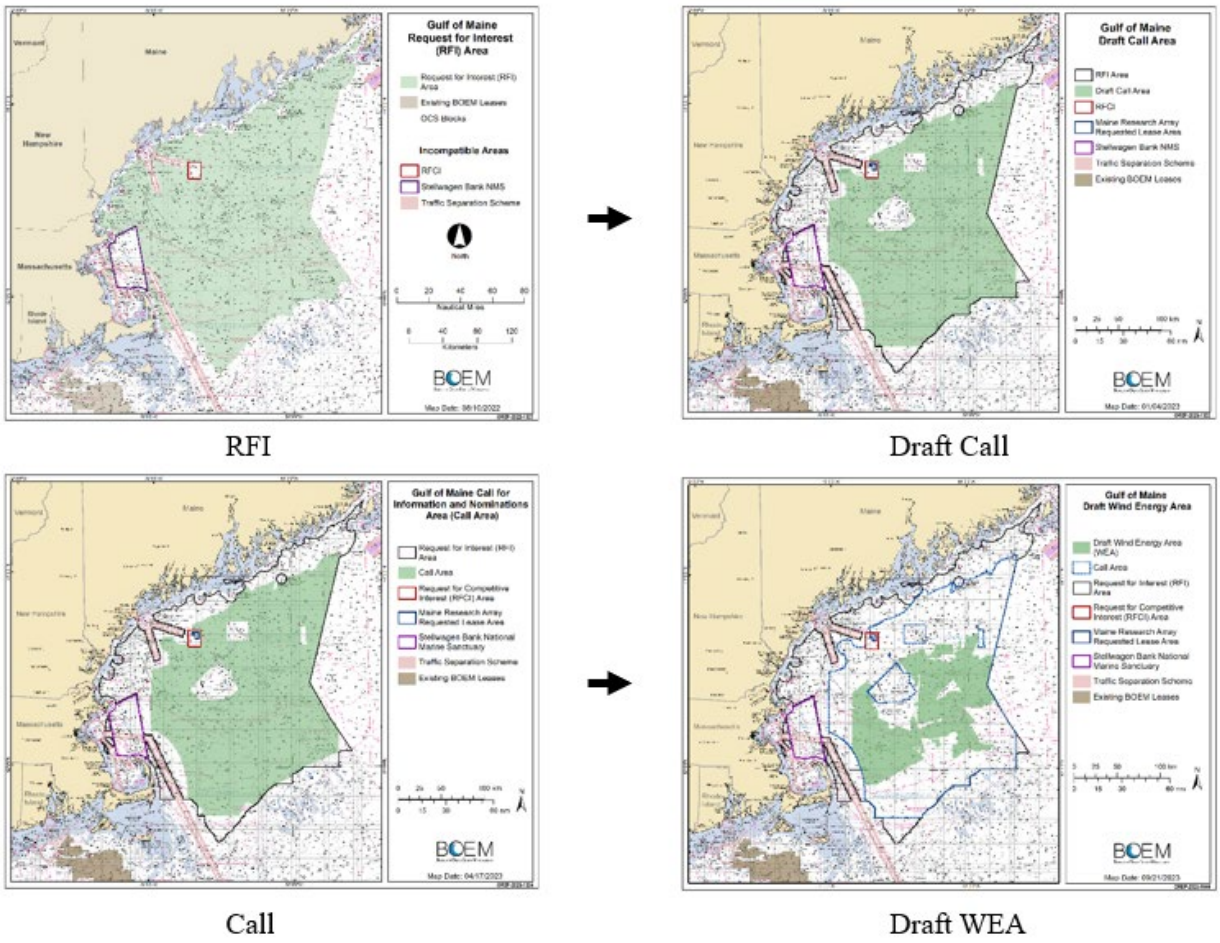

Figure 4: Gulf of Maine Spatial De-Conflicting Process: Progression from RFI, to Draft Call, to Call, to Draft WEA. A larger map of the Draft WEA is shown in Figure 9.

4. Development of the Gulf of Maine Draft WEA

BOEM received feedback from ocean users to increase transparency in BOEM's Area ID process and to further consider leveraging an existing ocean planning model previously used in the Gulf of Mexico and Southern California for NOAA's Aquaculture Opportunity Area Atlases as well as for the Gulf of Mexico, Central Atlantic, and Pacific renewable energy ocean planning. In response, BOEM modified the Area ID process in a Notice to Stakeholders issued on September 16, 2021, which is available at https://www.boem.gov/newsroom/notes-stakeholders/boem-enhances-its-processes-identify-future-offshore-wind-energy-areas. BOEM used this approach to support the identification of Draft WEAs in the Gulf of Mexico, Central Atlantic, and Oregon. As part of this outlined process, BOEM, with support from NOAA NCCOS, has developed a spatial model to inform optimal locations for the Draft WEA in the Gulf of Maine.

a. Engagement

Ahead of publication of the Draft WEA, BOEM held a series of engagement meetings in July 2023 to seek feedback to improve the spatial model developed to inform Draft WEAs. These included a virtual meeting with Federal, Tribal, and State government agencies, as well as a

series of in-person and virtual meetings with fisheries stakeholders throughout the Gulf of Maine region. A summary of these meetings is available here: https://www.boem.gov/renewable-energy/state-activities/gulf-maine-person-meetings-fishing-community. BOEM also met with the Passamaquoddy Tribe of Indians, Pleasant Point, in Sipayik to share progress on the spatial modeling effort and further understand their history and concerns.

b. Information Sources

For purposes of identifying the Draft WEA, BOEM considered the following non-exclusive information sources:

- Comments and nominations received on the Call for Information and Nominations
- Comments received through the July 2023 Fishing Community Meetings
- BOEM Gulf of Maine Intergovernmental Renewable Energy Task Force meetings
- Input from state and Federal agencies
- Comments received via meetings with and written comment from federally recognized Tribes
- Comments from relevant ocean users and stakeholders, including the maritime community, environmental NGOs, offshore wind developers and the commercial fishing industry
- State clean energy goals
- Domestic and global offshore wind market and technological trends

c. Spatial Suitability Model

BOEM identified the Draft WEA in the Gulf of Maine through use of best available science and public engagement to facilitate wind energy development; support environmental, economic, and social sustainability; and minimize resource use conflicts. With NCCOS support, a spatial model was developed to support the Area ID process. This model, known as a relative suitability model (hereinafter model), is used to understand ocean ecosystems and the interactions of human uses and natural resources. The model combines several data layers within a model structure to calculate a unique suitability score for each grid cell within a study area. The model identifies the grid cells with the highest scores and then develops heat maps that identify areas of relative suitability and conflict. This type of modeling provides a valuable tool to avoid and minimize adverse environmental, social, and existing user interactions in the process of siting WEA(s).

The model incorporates data representing natural and cultural resources, industry and operations, various fishing activities, wind logistics, economics, and national security to identify areas that may be suitable for offshore wind energy development. Details regarding the model structure, datasets included within the model, and draft results are included in the draft BOEM/NCCOS Joint Report, "A Wind Energy Area Siting Analysis for the Gulf of Maine Call Area," which can be found at: https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine.

In BOEM's Area ID process, the identification of WEAs requires an understanding of the relationship between different elements of the environment and ocean uses, as well as the practical requirements for offshore wind energy development. Developing the model for the Gulf of Maine required compilation and analysis of best-available data. The Team applied a

step-by-step approach for model development that included: (1) framing the model development questions (i.e., number of acres needed for a wind facility), (2) collecting and inventorying spatial data, (3) conducting spatial suitability modeling, (4) identifying Draft WEA options using a unique precision suitability modeling strategy, (5) further characterizing options, and (6) interpreting model results (Figure 5). Each step of the workflow diagram corresponds to an essential step of model development, with corresponding methods detailed in the "A Wind Energy Area Siting Analysis for the Gulf of Maine Call Area" draft report.

The Team used a categorical framework to ensure relevant data were comprehensively acquired and considered for modeling. The Team developed an authoritative spatial data inventory that included data layers relevant to the following categories: national security, natural resources, industry and operations, fisheries, and wind logistics, e.g., wind speed, distance to port, or water depth. With nearly 100 data layers considered in this model, the effort represents one of the most comprehensive marine spatial modeling efforts performed for the Gulf of Maine to date. Refer to the draft report entitled, "A Wind Energy Area Siting Analysis for the Gulf of Maine Call Area," for a complete description of the suitability modeling methods and results.

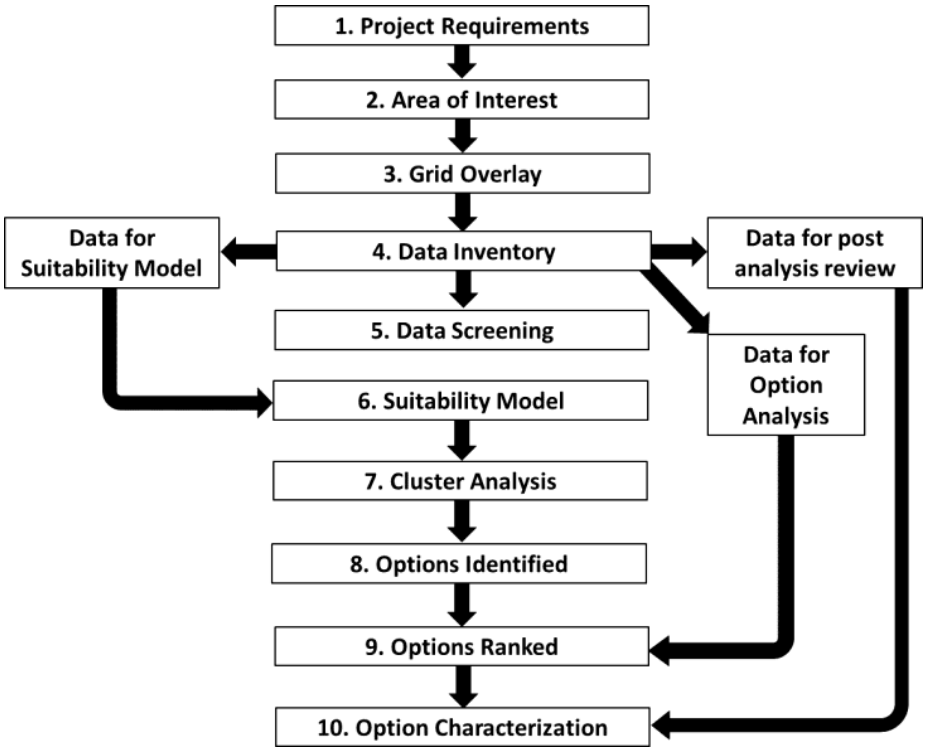

Figure 5: Workflow for Draft Wind Energy Area options spatial analysis

d. Geospatial Data

Collection and processing of spatial data is a key factor underpinning effective models as it forms the basis for subsequent calculations and analysis.[1] An initial review was completed to

[1] Molina JL, Rodríguez-Gonzálvez P, Molina M-C, González-Aguilera D, Balairon L., Espejo Almodóvar F,

determine the broad suite of data and categories needed to properly develop the model to inform WEA siting in the Gulf of Maine. Data holdings were developed through engagement with NGOs and U.S. Federal and state agencies representing a diverse array of stakeholders and Tribal Nations. Many datasets were leveraged through the MarineCadastre[2] and Northeast Ocean Data Portal, including datasets created for the BOEM Environmental Studies Program.

i. Data processing and setbacks

While some datasets were provided in a ready-to-use format, many required processing prior to use in the model. Methods the Team used to process data are described for all data that required processing in "A Wind Energy Area Siting Analysis for the Gulf of Maine Call Area." The Team received much of the data in a ready-to-use format and reviewed the processing metadata provided by the data originator. Setback distances (i.e., buffers) were informed by comments received from Federal and state agencies and public comments.

ii. Suitability analysis

The model utilized a method commonly used in a multi-criteria decision analysis—a gridded relative suitability analysis—to identify the grid cells with the highest suitability for Draft WEA development in the Call Area. Spatial data layers included in the model identify space-use conflicts such as active national security areas, maritime navigation, ocean industries and natural resource management. The model incorporates a submodel structure to capture ocean use and conservation concerns including industry and operations, natural and cultural resources, fisheries, and wind logistics. BOEM considered comments to separate cultural resources into its own submodel, but concluded that many fishery, habitat, and protected resource data layers (among others), also hold significant cultural importance, and are well represented in their respective submodels.

The Team decided to use four equally weighted submodels, shifting Department of Defense (DoD) Clearinghouse concerns (i.e., Warning Area 103) to the Industry & Operations submodel, rather than employing a standalone National Security submodel. This submodel structure ensures that each submodel is given equal weight in the final model, regardless of how many data layers are present in each submodel. After considering several modeling scenarios with constraints, BOEM ultimately selected a model option that did not have any constraints given exclusion of various areas within the Call Area.

Montejo J. 2013. River morphodynamics modelling through suitability analysis of geomatic methods. In: Wang Z, Lee JHW, Gao J, Cao S, editors. Proceedings of the 35th IAHR World Congress, Chengdu, China. Beijing: Tsinghua University Press.

[2] MarineCadastre (MC). 2021. NOAA Office for Coastal Management and BOEM. MarineCadastre.gov Data Registry. Charleston, SC. Available from: https://marinecadastre.gov/data/.

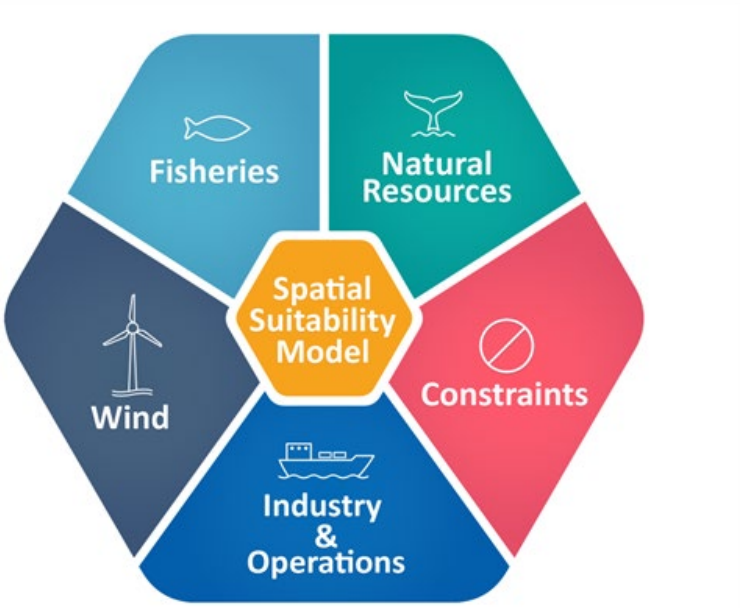

Figure 6: Overview of relative suitability model design and the submodel components. Note that the model BOEM used to inform the Draft WEA did not include any constraints.

iii. Data Scoring and Final Suitability

Each data layer was scored on a 0 to 1 scale, with scores approaching 0 representing low suitability and 1 representing high suitability relative to the other grid cells for wind energy. Next, a final suitability score was calculated for each submodel by taking the geometric mean of all scores within each grid cell. We used the geometric mean of all submodels to calculate a final overall suitability score. We chose the geometric mean, because it grants equal importance to each variable.[3] The final suitability results for all submodels are presented in Figure 7.

[3] Bovee KD. 1986. Development and evaluation of habitat suitability criteria for use in the instream flow incremental methodology. Instream Flow Information Paper 21, Report 86(7), U.S. Fish and Wildlife Service.
Longdill PC, Healy TR, Black KP. 2008. An integrated GIS approach for sustainable aquaculture management area site selection. Ocean Coastal Manage. 51(8–9): 612–624.
Silva C, Ferreira JG, Bricker SB, DelValls TA, Martín-Díaz ML, Yáñez E. 2011. Site selection for shellfish aquaculture by means of GIS and farm-scale models, with an emphasis on data poor environments. Aquaculture. 318(3-4):444–457.
Muñoz-Mas R, Martínez-Capel F, Schneider M, Mouton AM. 2012. Assessment of brown trout habitat suitability in the Jucar River Basin (Spain): Comparison of data-driven approaches with fuzzy-logic models and univariate suitability curves. Sci Total Environ. 440:123–131.

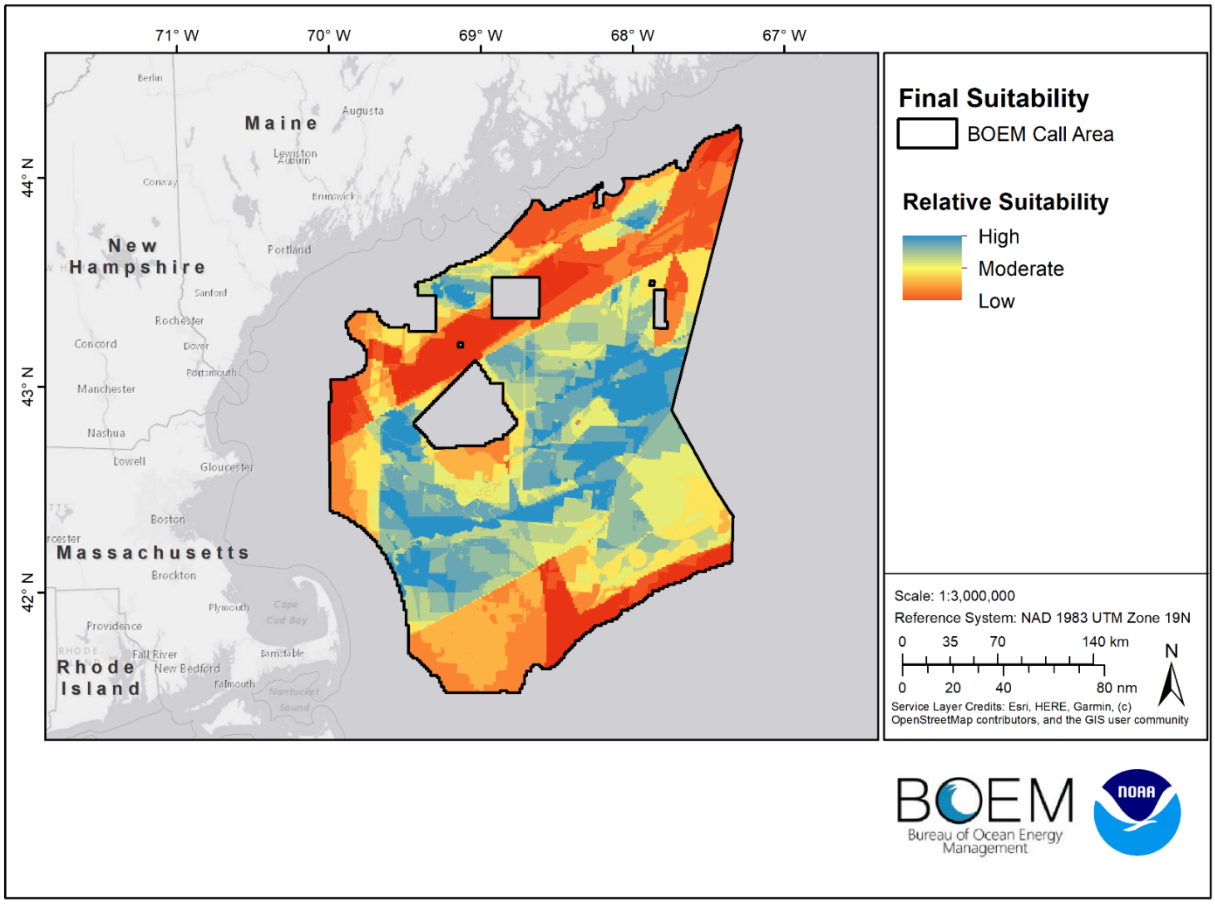

Figure 7: Final suitability modeling results for the Call Area. Orange/red color indicates areas of lowest suitability (highest conflict) for offshore wind energy development. Green/blue color indicates areas of highest suitability for offshore wind energy development

The Team performed a Local Index of Spatial Association (LISA) analysis (hereafter 'cluster analysis'), which identifies statistically significant clusters and outliers of the final relative suitability modeling results. The cluster analysis identified clusters that are statistically significant from other cells at a 95% confidence interval ($p < 0.05$). The cluster analysis identified 3,341,873 acres of High-High clusters, which are groups of cells with high values that are statistically significant from other cells (Figure 8). The Team overlaid the High-High clusters with the lease block aliquots. An aliquot is 1/16th the size of a lease block (1 lease block = 16 aliquots) and is the smallest area that BOEM leases. The Team selected and extracted aliquots that overlapped the High-High clusters, and then removed non-contiguous areas less than 100,000 acres, with the exception of Secondary Area B (see Section 6).[4]

After reviewing public comments received on the Call, as well as the results of recent engagement efforts with fishing communities, BOEM decided to remove from the Draft WEA any aliquots within Lobster Management Area (LMA1) and North Atlantic Right Whale (NARW)

[4] BOEM removed areas less than 100,000 acres from the Draft WEA after considering industry comments received on the RFI and Call that indicated that lease areas of approximately 100,000 – 150,000 acres would be needed to make any project commercially viable in the Gulf of Maine.

Restricted Areas. Removals associated with LMA1 included two isolated areas off the coast of Maine (Secondary Areas A and B, see Section 6), as well as 132 aliquots (46,969 acres) off the coast of Massachusetts. BOEM also removed 35 aliquots (12,454 acres) to avoid the Great South Channel NARW Restricted Area. Overall, BOEM selected 9,907 aliquots, totaling 3,519,067 acres (Figure 9).

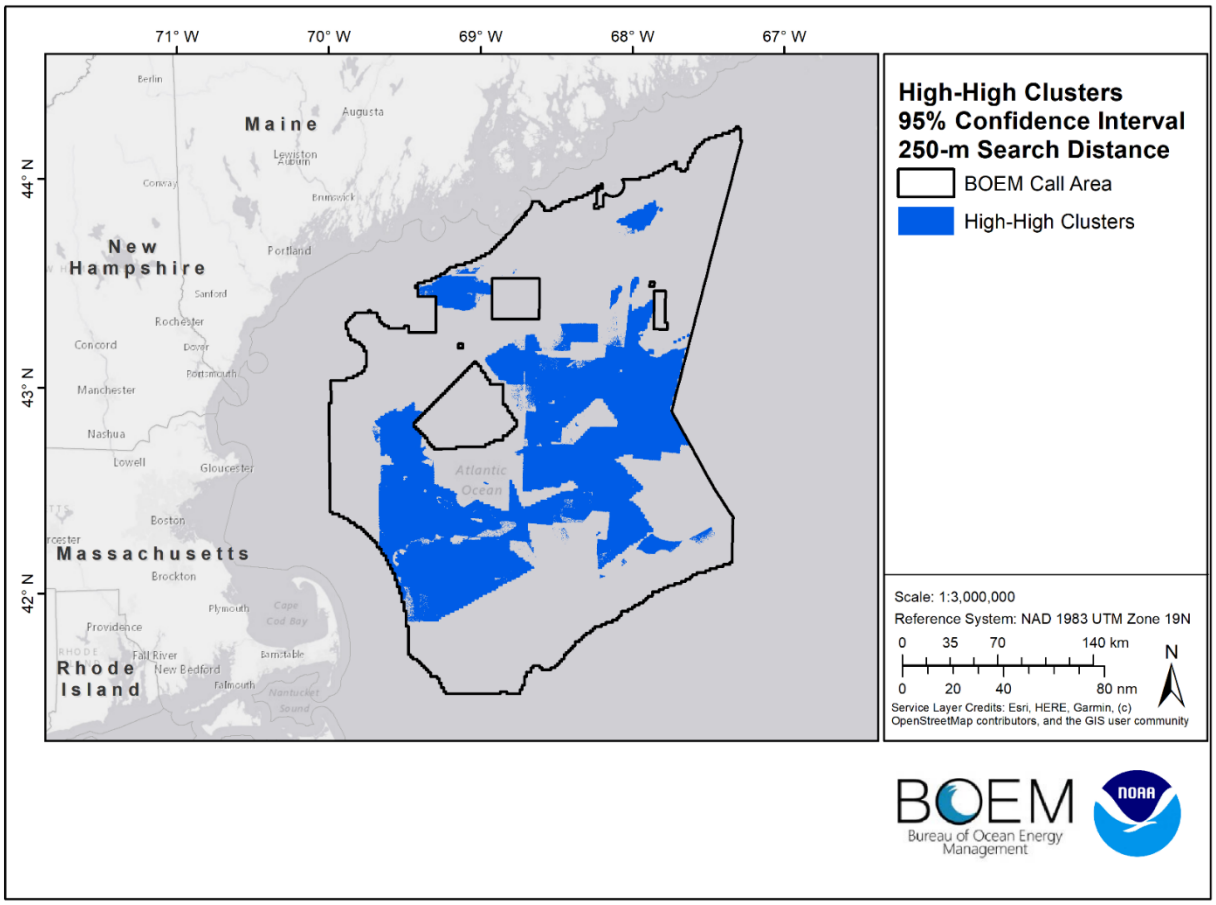

Figure 8: Cluster analysis of the Call Area at the 95% Confidence Interval (p = 0.05). These areas represent clusters of grid cells with the highest suitability (i.e., High-High clusters)

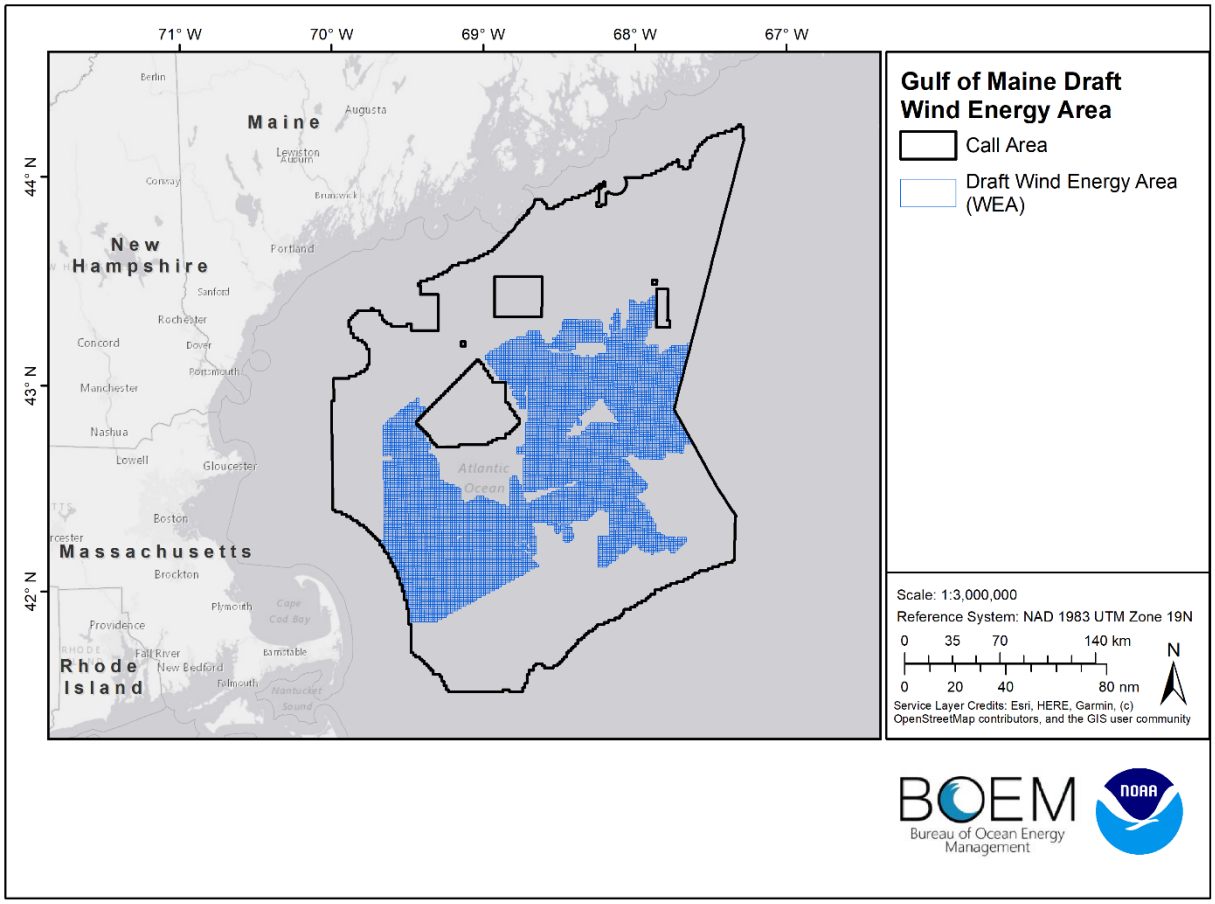

Figure 9: Draft WEA determined by selecting aliquots that overlapped High-High cluster areas. Following removals described in Section 4(iv), BOEM selected 9,907 aliquots, totaling 3,519,067 acres

5. *BOEM Identification of the Draft WEA*

Based on the cluster analysis and using the results provided by the Team's model, BOEM identified one contiguous Draft WEA (Figure 9), which consists of 3,519,067 acres. The total area of the Draft WEA represents an 64.11% reduction of the Call Area. The Draft WEA has a combined capacity of over 40 GW (assuming a power density of 3 megawatts per square kilometer), which exceeds the current combined offshore wind planning goals for the Gulf of Maine states: 10 GW for Massachusetts; 3 GW for Maine. BOEM anticipates future reductions to the Draft WEA, while striving to retain sufficient area to meet the States' planning goals. These reductions will be informed by comments received in response to this notice, as well as through BOEM's public engagement efforts on the Draft WEA detailed here: https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine

The Draft WEA is approximately:

- 23 miles east of Wellfleet, MA;
- 70 miles east of Boston, MA;
- 48 miles east of Rockport, MA;
- 56 miles east of Portsmouth, NH;

- 64 miles southeast of Portland, ME;
- 44 miles southeast of Monhegan Island, ME; and
- 57 miles south of Mount Desert Island, ME

The mean depth across the entire Draft WEA is 198 meters with a maximum depth of 296 meters and a minimum depth of 120 meters.[5] The wind energy industry expressed interest in areas throughout the Draft WEA, particularly areas west and northeast of the Cashes Ledge Groundfish Closure Area, as well as east of Cape Cod (Figure 10). Potential spatial and environmental conflicts identified in the Draft WEA include, but are not limited to, National Marine Fisheries Service (NMFS) fisheries scientific surveys, commercial fishing (e.g., Wilkinson's Basin and LMA3), visual impacts to the National Seashore, and natural resources, including presence of protected species, marine birds, and deep-sea corals.

The Draft WEA avoids LMA1 and all NARW Restricted Areas. The Draft WEA also avoids several other important fishing areas and habitats, including important groundfish areas east of the Western Gulf of Maine Closure and within the 10-kilometer buffer from Georges Bank (defined by the 140-meter line of bathymetry), Platts Bank, Parker Ridge, and Three Dory Ridge. From initial conversations with Tribal Nations located within Maine, the Draft WEA also likely avoids a majority of historic and present fishing grounds of those Tribes. BOEM also investigated the extent of submerged paleocultural landforms in the Gulf of Maine region, and determined they likely did not extend past the 60-meter line of bathymetry[6]; all of these areas are outside of the Draft WEA. BOEM will continue to consult with all Tribal Nations with an interest in the region to understand their concerns with potential offshore wind development, including viewshed and transmission impacts, and strive to minimize potential conflicts.

The DoD Clearinghouse requested avoidance of Warning Area 103, which is located outside of the Draft WEA. The Draft WEA almost entirely avoids the U.S. Coast Guard's Maine, New Hampshire, Massachusetts Port Access Route Study (MNMPARS) recommended safety fairways; however, there are several aliquots that partially overlap the Gulf of Maine fairway in the area directly northeast of the Cashes Ledge Groundfish Closure.

[5] Bathymetry calculations were made using the most recent "BlueTopo" bathymetry data: https://www.nauticalcharts.noaa.gov/data/bluetopo.html

[6] Kelley, Joseph T., Daniel F. Belknap, and Stefan Claesson. "Drowned coastal deposits with associated archaeological remains from a sea-level "slowstand": Northwestern Gulf of Maine, USA." *Geology* 38.8 (2010): 695-698.

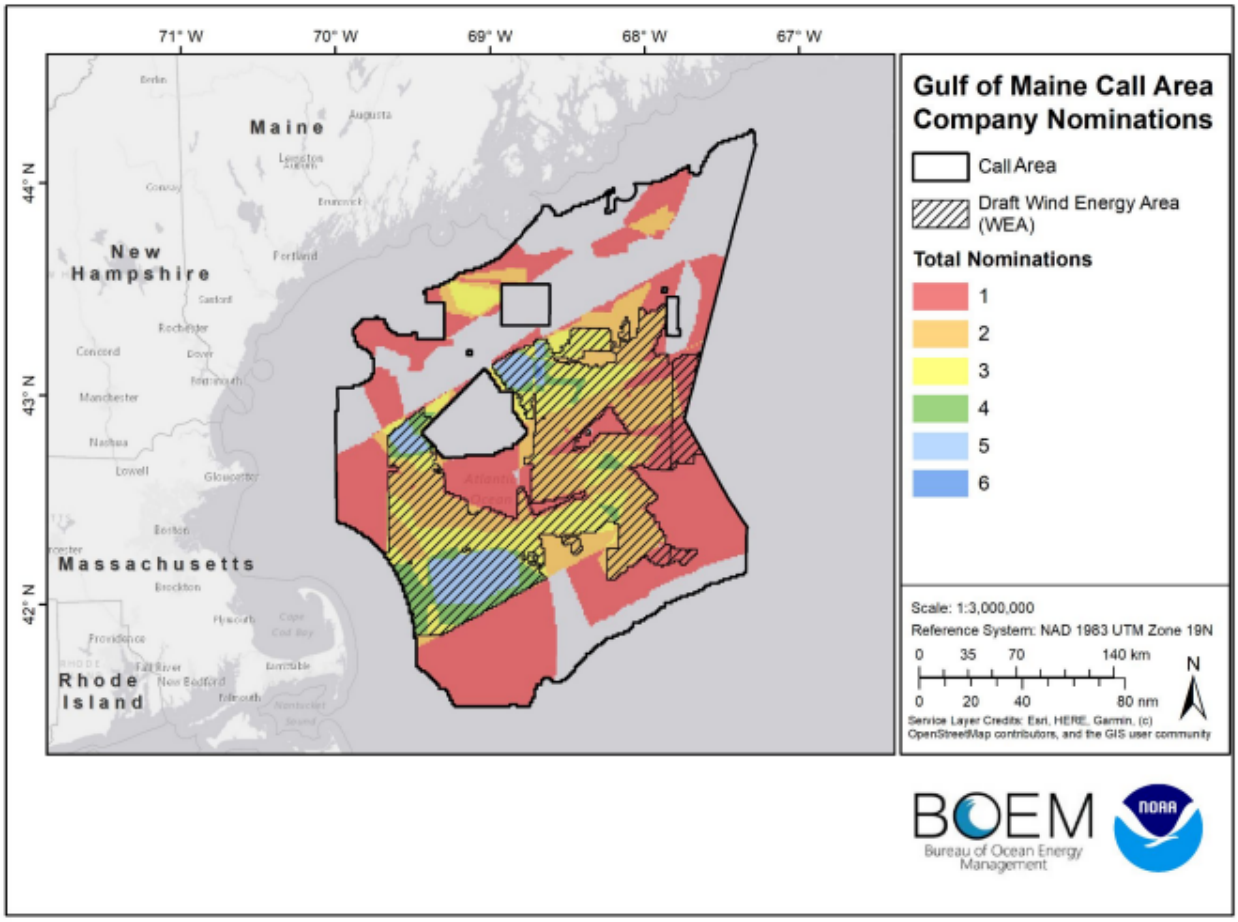

Figure 10: Density of wind industry nominations within the Gulf of Maine Call Area, with an overlay of the Draft Wind Energy Area

6. BOEM identification of Secondary Areas for Further Analysis

BOEM has identified three Secondary Areas for Further Analysis (Secondary Areas). These areas are not part of the Draft WEA; however, BOEM seeks additional comment from the public on whether these areas (or a certain portion of them) should receive consideration as Final WEAs, and if so, under what recommended conditions. See Section 10 (Requested Information Interested or Affected Parties) for a full list of information requested related to these areas. BOEM will review all comments before making a decision on whether or not to incorporate these areas into Final WEAs.

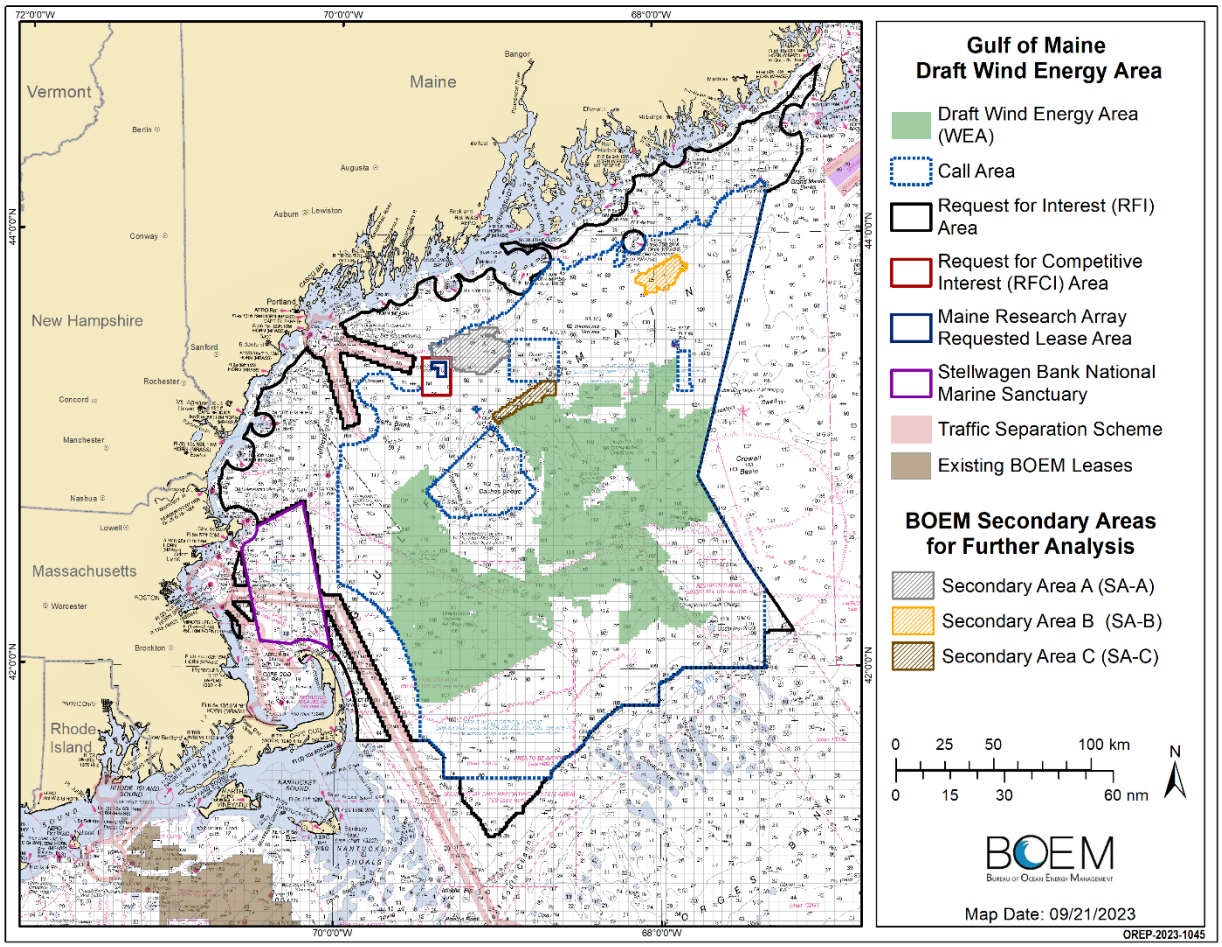

Figure 11: Gulf of Maine Secondary Areas for Further Analysis

BOEM is providing this opportunity for comment on Secondary Areas to be transparent about two areas that the model indicated were highly suitable, as well as to give the State of Maine and its stakeholders additional options for consideration and comment given the State's offshore wind renewable energy goals and the considerable distance of the Draft WEA from potential points of interconnection in Maine.

a. Secondary Area A and Secondary Area B

Both Secondary Area A and B represent High-High clusters within the model used to inform the Draft WEA, suggesting that, based on the underlying data and model parameters, these are two of the most highly suitable areas for offshore wind energy development in the Gulf of Maine. BOEM decided to exclude these areas from the Draft WEA because of their presence within LMA1 and other natural resource and visual impact concerns.

Secondary Area A is approximately:

- 43 miles east of Portland, ME;
- 15 miles south of Monhegan Island, ME; and
- Adjacent to the Request for Competitive Interest (RFCI) Area related to the State of Maine Research Lease Application

Secondary Area A is 151,228 acres. The mean depth is 148 meters, with a maximum depth of 206 meters and a minimum depth of 79 meters. BOEM received as many as three overlapping commercial nominations in this area (Figure 11). Potential spatial and environmental conflicts identified in Secondary Area A include, but are not limited to, National Marine Fisheries Service (NMFS) fisheries scientific surveys, commercial fishing (e.g., lobster), and natural resources, including presence of protected species and marine birds. Secondary Area A mostly avoids but has several aliquots that partially overlap with the USCG recommended Portland Eastern Approach and Coastal Zone Fairways and the LMA1 NARW Restricted Area.

Secondary Area B is approximately:

- 30 miles south of Mount Desert Island, ME; and
- 60 miles southeast of Searsport, ME

Secondary Area B is 63,693 acres. The mean depth is 172 meters, with a maximum depth of 217 meters and a minimum depth of 146 meters. BOEM received as many as two overlapping commercial nominations in this area (Figure 11). Potential spatial and environmental conflicts identified in Secondary Area B include, but are not limited to, NMFS fisheries scientific surveys, Tribal, commercial, and recreational fishing, visual impacts to sites of cultural importance to Tribes and Acadia National Park, and natural resources, including presence of protected species and marine birds. Secondary Area B partially overlaps the USCG recommended Coastal Zone Fairway.

b. Secondary Area C

Unlike Secondary Areas A and B, Secondary Area C was not a product of the spatial suitability model. In looking at the suitability model results, BOEM concluded that this area had a lower suitability score than the Draft WEA area to its south because of its overlap with the MNMPARS recommended Gulf of Maine Fairway. The Team included all of the recommended Fairways in the Industry and Operations submodel (scored a 0.1), and several developers avoided the recommended fairways in their nominations (the nominations were 50% of the Wind submodel).

The Fairway remains a recommendation and is still subject to the USCG's rulemaking process. Therefore, BOEM selected the aliquots within Secondary Area C to allow for public comment and additional consultation with the USCG. This area is of interest, as it would increase the amount of acreage under leasing consideration that is closest to key ports and points of potential interconnection in Maine, while still avoiding LMA1.

Secondary Area C is approximately:

- 69 miles southeast of Portland, ME;
- 41 miles southeast of Monhegan Island, ME; and
- 49 miles south of Vinalhaven, ME

Secondary Area C is 53,374 acres. The mean depth is 160 meters, with a maximum depth of 192 meters and a minimum of 111 meters. Likely for the reasons stated above, BOEM received one commercial nomination in this area (Figure 11). Potential spatial and environmental conflicts identified in Secondary Area C include, but are not limited to, the Gulf of Maine (recommended)

Fairway, NMFS fisheries scientific surveys, commercial fishing, and natural resources, including presence of protected species.

7. Next Steps

BOEM is accepting written public comments on the Draft WEAs for 30 days following the publication of this announcement. Search for docket number BOEM-2023-0054 at https://www.regulations.gov/ to submit a comment. BOEM will also accept comments via mail as directed in the "Addresses" section of this notice. BOEM will consider written public comments, along with those received at all public engagement meetings during the development of the Final WEAs. For more information on the public meetings, visit https://www.boem.gov/renewable-energy/state-activities/maine/gulf-maine. BOEM will consider information received in response to this notice to identify Final WEAs as part of the Area ID process. The analysis and rationale used to develop Final WEAs in the Gulf of Maine will be published.

8. Environmental Review

Before deciding whether leases may be issued, BOEM will prepare an environmental assessment (EA) under NEPA analyzing the Final WEAs (including public comment periods to determine the scope of the EA and to review and comment on the draft EA). The EA will analyze potential impacts from site characterization and site assessment activities expected to take place after leases are issued. Site characterization activities include geophysical, geotechnical, archaeological, and biological surveys; site assessment activities include installation and operation of meteorological buoys. BOEM also will conduct appropriate consultations with Federal agencies and Tribal, state, and local governments during development of the EA. These consultations include, but are not limited to, those required by the Coastal Zone Management Act, the Magnuson-Stevens Fishery Conservation and Management Act, Endangered Species Act, Section 106 of the National Historic Preservation Act (NHPA), and Executive Order 13175, which is entitled, "Consultation and Coordination with Indian Tribal Governments."

Before BOEM allows a lessee to begin construction of a wind energy project, BOEM will consider the potential environmental effects of the construction and operation of any proposed wind energy facility under a separate, project-specific NEPA analysis. This analysis will include additional opportunities for public involvement and consultations with appropriate Federal agencies, Tribes, state, and local governments.

9. Proposed and Final Sale Notices

If BOEM decides to offer an area(s) for lease, BOEM would publish a Proposed Sale Notice (PSN) describing the proposed area(s) for competitive leasing, the associated terms and conditions, and the proposed format of the competitive auction pursuant to 30 C.F.R. § 585.216. The PSN would be followed by a 60-day formal comment period, which helps to inform the Final Sale Notice (FSN). BOEM may use information from the NEPA analysis for any lease sale, as well as information gathered in response to the PSN, to further refine lease areas and develop lease terms and conditions. BOEM would publish an FSN at least 30 days before the date of the sale that would describe the final lease terms and conditions for the area(s) offered for

lease and as well as the format of the competitive auction.

10. Requested Information from Interested or Affected Parties

Commenters should be as specific and detailed as possible to help BOEM understand and address comments, including whether your comment pertains to a particular part of the Draft WEA or Secondary Area. To assist with commenting on the Draft WEA, please see the gridded area in Figure 12. The Secondary Areas are labeled in Figure 11.

Treatment of confidential information is addressed in Section 11 of this notice entitled ''Protection of Privileged, Personal, or Confidential Information.'' BOEM will post all comments received on regulations.gov unless labeled as confidential.

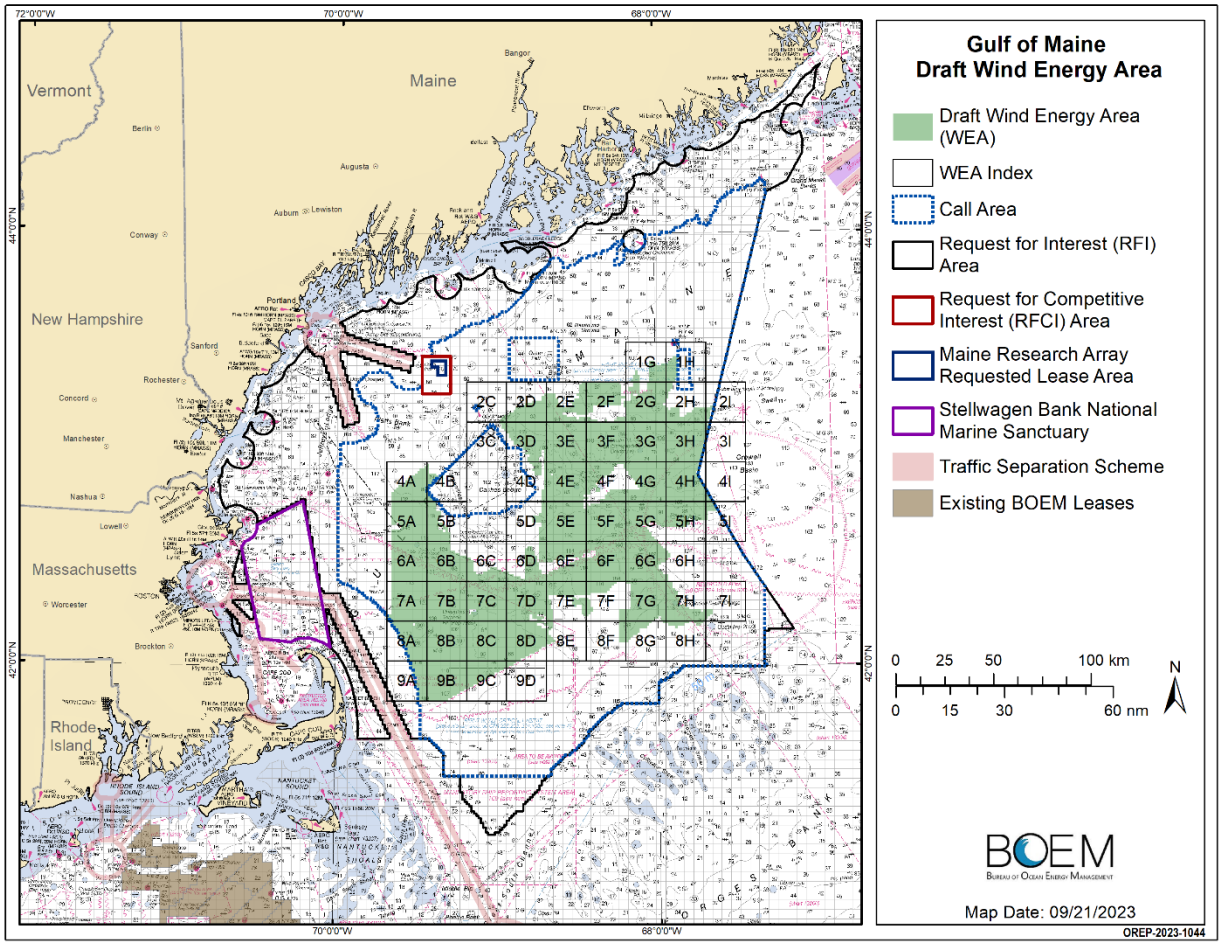

Figure 12: Gulf of Maine Draft WEA with grid overlay

BOEM requests comments regarding the following features, activities, mitigations, or concerns within or around the Draft WEA and Secondary Areas:

a. Should Secondary Areas A, B, and/or C (Figure 11), or any portion of those areas, receive consideration as Final WEAs, and if so, under what recommended conditions (e.g., leasing should be considered only after a certain number of years of electronic vessel tracking data are collected on lobster vessels)?
b. Information related to the relative economic and technical developability of different areas within the Draft WEA and/or Secondary Areas.
    - Is there a general threshold distance from shore and/or water depth where the estimated time horizon for development meaningfully changes? For example, BOEM recognizes that a majority of the Draft WEA is more than 75 miles from shore and would likely be serviced by high voltage direct current transmission solutions. How does this fact contribute to overall developability?
c. Information to support division of the eventual Final WEAs into lease areas.
    - What distance between leases would support wake recovery?
    - What distance between leases would best facilitate vessel traffic or fishing activities?
d. Phased leasing. BOEM is interested in advancing a phased commercial leasing program for the Gulf of Maine, through which multiple lease sales may occur.
    - What are the benefits and drawbacks of such a program?
    - What is the estimated leasing timeline needed by Massachusetts and Maine respectively to achieve their renewable energy goals?
e. In a multiple factor bidding format, BOEM limits the total value of bidding credits to 25 percent of the winning bid. Recent sales have focused bidding credits on developing the domestic offshore wind supply chain, workforce training, and providing compensatory mitigation for offshore wind's potential impacts to the fishing industry. Consistent with BOEM statutory authorities, what bidding credits and percentages would be most beneficial for the development of floating offshore wind in the Gulf of Maine?
f. BOEM's analysis shows that the Draft WEA overlaps with the existing footprints of as many as 10 NMFS scientific surveys. We are seeking more information about the relative compatibility of each of these individual surveys with potential offshore wind energy development.
g. Geological, geophysical, and biological bathymetric conditions (including bottom and shallow hazards).
h. Known archaeological and cultural resource sites on the seabed.
i. Information regarding the identification of historic properties or potential effects to historic properties from leasing, site assessment activities, or commercial wind energy development in the Draft WEA. This includes potential offshore archaeological sites or other historic properties within the areas described in this notice and onshore historic properties, including Traditional Cultural Places that could potentially be affected by renewable energy activities within the Draft WEAs. This information will inform BOEM's review of future undertakings under section 106 of the NHPA and NEPA.
j. Additional information, particularly spatial data, about potentially conflicting uses of the Draft WEA, including navigation (commercial shipping and recreational vessel use), fisheries (commercial and recreational), habitat, and protected species.

- For commercial and recreational fisheries, information on the types of fishing gear used, seasonal use, migration patterns, and recommendations for reducing use conflicts.
- For protected species, information on the seasonality of different life stages and behaviors within the Draft WEA, including known migration routes, and thoughts about their relative compatibility with offshore wind energy development.

k. Additional information relating to visual resources and aesthetics, the potential impacts of wind turbines and associated infrastructure to those resources, and potential strategies to help mitigate or minimize any visual effects.
    - If BOEM were to generate visual simulations, which key observation points should be prioritized?

l. Information on the constraints and advantages of possible electrical cable transmission routes, including onshore landing and interconnection points for cables connecting offshore wind energy facilities to the onshore electrical grid and future demand for electricity in the Gulf of Maine region.

m. Other relevant socioeconomic, cultural, biological, and environmental data and information.

11. *Protection of Privileged, Personal, or Confidential Information*

a. Freedom of Information Act

BOEM will protect privileged or confidential information that you submit when required by the Freedom of Information Act (FOIA). Exemption 4 of FOIA applies to trade secrets and commercial or financial information that is privileged or confidential. If you wish to protect the confidentiality of such information, clearly label it and request that BOEM treat it as confidential. BOEM will not disclose such information if BOEM determines under 30 CFR 585.114(b) that it qualifies for exemption from disclosure under FOIA. Please label privileged or confidential information "Contains Confidential Information" and consider submitting such information as a separate attachment.

BOEM will not treat as confidential any aggregate summaries of such information or comments not containing such privileged or confidential information. Information that is not labeled as privileged or confidential may be regarded by BOEM as suitable for public release.

b. Personally Identifiable Information

BOEM encourages you not to submit anonymous comments. Please include your name and address as part of your comment. You should be aware that your entire comment, including your name, address, and any personally identifiable information (PII) included in your comment, may be made publicly available. All submissions from identified individuals, businesses, and organizations will be available for public viewing on regulations.gov. Note that BOEM will make available for public inspection all comments, in their entirety, submitted by organizations and businesses, or by individuals identifying themselves as representatives of organizations or businesses.

For BOEM to consider withholding your PII from disclosure, you must identify any information contained in your comments that, if released, would constitute a clearly unwarranted invasion of your personal privacy. You must also briefly describe any possible harmful consequences of the disclosure of information, such as embarrassment, injury, or other harm. Even if BOEM withholds your information in the context of this rulemaking, your submission is subject to FOIA and, if your submission is requested under the FOIA, your information will be withheld only if a determination is made that one of the FOIA's exemptions to disclosure applies. Such a determination will be made in accordance with the Department's FOIA regulations and applicable law.

c. Section 304 of the NHPA (54 U.S.C. 307103(a))

After consultation with the Secretary, BOEM is required to withhold the location, character, or ownership of historic resources if it determines that disclosure may, among other things, risk harm to the historic resources or impede the use of a traditional religious site by practitioners. Tribal entities should designate information that falls under section 304 of NHPA as confidential.